81-7

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

CUY-322-8.66

CITIES OF LYNDHURST AND SOUTH EUCLID

CUYAHOGA COUNTY

FHWA REGION	STATE	PROJECT	
5	OHIO	NH-83(29)	

1/426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

NH-83(29)

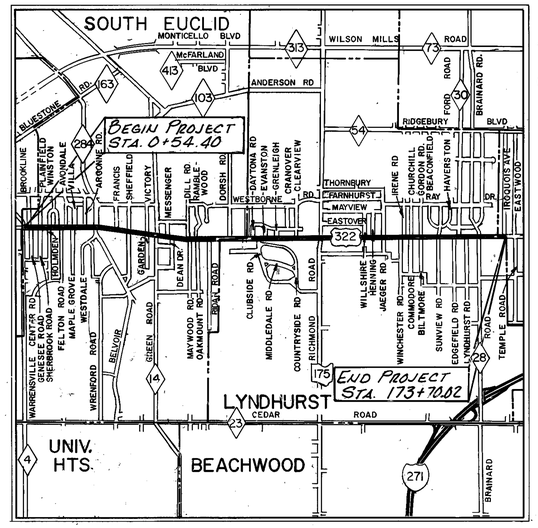
DESIGN DESIGNATION

CURRENT ADT (1993)	27,530	D(DIRECTIONAL DISTRIBUTION)	50%
DESIGN YEAR ADT (2013)	38,500	V(DESIGN SPEED)	40 MPH
DDHV	3,850	(POSTED)	35 MPH
T	3%	FUNCTIONAL CLASSIFICATION	URBAN ARTERIAL
DESIGN EXCEPTION	LANE WIDTH (6-17-91)		

CONVENTIONAL SIGNS

CORPORATION LINE
CENTER LINE
EXIST. RIGHT-OF-WAY
TEMPORARY RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
PROPERTY LINE
WORK LIMITS
WATER LINE
RELOCATED WATER LINE
GAS LINE
TELEPHONE LINE
ELECTRIC LINE
EXIST. STORM OR SANITARY
PROP. STORM SEWER (48 & UNDER)
PROP. STORM SEWER (OVER 48")
EXIST FENCE
EXIST GUARDRAIL
MONUMENT BOX Ex. Prop.
BENCH MARK
MAIL BOX (RESIDENTIAL)
TREE OR BUSHES
TREES OR BUSHES TO BE REMOVED

EXIST. MANHOLE
ADJUSTED MANHOLE OR RECONSTRUCTED TO GRADE
PROPOSED MANHOLE
EXIST. CATCH BASIN
PROPOSED CATCH BASIN
EXIST. LINE VALVE
EXIST. HYDRANT & VALVE
LINE VALVE ADJUSTED TO GRADE
PROPOSED OR RELOCATED HYDRANT
EXIST. WATER APPURTENANCES
WATER APPURTENANCES ADJUSTED TO GRADE
EXIST. GAS VALVE
GAS VALVE ADJUSTED TO GRADE ▲ (BY OTHERS)
EXIST. O.B.T. MANHOLE
O.B.T. MANHOLE ADJUSTED TO GRADE (BY OTHERS)
UTILITY POLE
UTILITY POLE WITH ANCHOR
LIGHT POLE
SIGN
CATCH BASIN ADJUSTED TO GRADE



LOCATION MAP

SCALE IN MILES
0 1/2 1

PORTION TO BE IMPROVED
STATE HIGHWAYS
OTHER STREETS

PLAN
PROFILE-HORIZONTAL
PROFILE-VERTICAL
CROSS SECTIONS
RIGHT-OF-WAY

INDEX OF SHEETS

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SHEETS NOT USED: 245, 316, 423, 424

LINE DATA

	PROJECT	WORK
BEGIN	STA. 0+54.40	STA. -(5+00)
END	STA. 173+70.2	STA. 181+70
NET LENGTH	17,315.80 L.F. or 3.279 Miles	18,670 L.F. or 3.536 Miles

1993 SPECIFICATIONS

THE STANDARD 1993 SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED Bryan T. Groden (gpw)
DATE 5-26-93 DISTRICT DEPUTY DIRECTOR OF TRANSPORTATION

APPROVED _____
DATE _____ ENGINEER, BUREAU OF BRIDGES & STRUCTURAL DESIGN

APPROVED Christopher L. Ramjan
DATE 9-8-93 DEPUTY DIRECTOR, DESIGN

APPROVED Jerry Wray
DATE 9-8-93 DIRECTOR, DEPARTMENT OF TRANSPORTATION

UNDERGROUND UTILITIES
2 WORKING DAYS BEFORE YOU DIG
CALL TOLL FREE 800-362-2764
OHIO UTILITIES PROTECTION SERVICE

SUPPLEMENTAL SPECIFICATIONS	
931	3-18-92
944	3-18-92
820	3-18-92

STANDARD DRAWINGS

HL-30.11	5-1-87	MC-9.2	5-6-91	MT-95.32	8-25-89	MT-101.60	7-1-92	TC-52.20	4-3-79
BP-1.1	2-21-92	BP-7.1	10-30-92	MH-3	12-18-84	TC-17.10	1-20-84	TC-71.10	9-10-91
BP-2.1	2-21-92	TC-12.30	1-20-84	MH-4	2-21-92	TC-35.10	8-29-84	TC-81.10	1-20-84
BP-2.2	2-21-92	CB-3	5-1-79	MH-5	6-12-75	TC-41.20	3-26-79	TC-81.20	1-20-84
TC-21.20	9-1-92	CB-3A	5-1-79	MT-97.10	4-29-88	TC-41.40	6-18-79	TC-82.10	8-29-84
BP-3.1	2-21-92	CB-6	5-1-79	MC-1	6-13-69	TC-41.41	8-02-79	TC-83.10	3-18-92
BP-4.1	2-21-92	I-1	12-18-84	MC-4	7-26-76	TC-41.50	3-26-79	TC-83.20	1-20-84
TC-85.10	1-20-84	MT-95.31	10-10-88	MC-11	8-1-78	TC-42.20	3-26-79	TC-84.20	1-20-84
BP-5.1	2-21-92	MH-1	12-18-84	MT-99.10	11-14-86	TC-52.10	4-3-79	TC-85.20	1-20-84

STEPHEN HOVANCSEK & ASSOC., INC.

Western Reserve Engineering & Surveying Co.
DIVISION OF W.R.E.S. CORPORATION
5533 CANAL ROAD / CLEVELAND, OHIO 44125 / (216) 524-0008

PROJECT: CUYAHOGA COUNTY, CITIES OF LYNDHURST & SOUTH EUCLID, MAYFIELD ROAD, CUY-322-8.66

DATE OF LETTING _____ 19__ CONTRACT NO. _____

7778 1177

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED:

DIVISION ADMINISTRATOR DATE

MAYFIELD ROAD

SCHEMATIC PLAN

ALL ANGLES AND DISTANCES ARE OBSERVED

100 0 50 100 200 400

SCALE

⊡ = ℄ MONUMENT ASSEMBLY

NH–83(29) | OHIO | F.H.W.A. REGION 5 | 2 / 426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

BEGIN WORK STA. –(5+00)

BEGIN PROJECT STA. 0+54.40 SLM 8.66 NH–83(29)

MATCH LINE –(1+00)

CITY OF CLEVELAND HEIGHTS / CITY OF SOUTH EUCLID

WARRENSVILLE CTR. RD. (70')

BROOKLINE RD. (50') STA. 1+98.29

PLAINFIELD RD. (50') STA. 5+87.08

P.I. STA. 7+75.13

180°00'00" REC. 179°57'15" OBS.

WINSTON RD. (50') STA. 9+17.41

GRANTLEIGH RD. (50') STA. 12+02.50

AVONDALE RD. (50') STA. 14+83.99

VILLA RD. (50') STA. 17+41.47

P.I. STA. 19+24.31

180°00'00" REC. 179°57'10" OBS.

ARGONNE RD. (60') STA. 21+15.27

EX. 13'x7' CONC. CULVERT STA. 24+58

BELVOIR BLVD. (100') STA. 25+36.20

O.L. 63 / O.L. 30

P.I. STA. 26+87.82

O.M. 1504

90°30'10"

89°29'50"

171°58'00" OBS. 172°08'00" REC.

MATCH LINE STA. 30+00

0+00 Δ1 Δ2 5+00 Δ3 Δ4 Δ5 Δ6 10+00 Δ7 Δ8 Δ9 15+00 Δ10 Δ11 20+00 Δ12 25+00

℄ MAYFIELD ROAD (80')

O.M. 288

WARRENSVILLE CTR. RD. (86') STA. 0+00.00

P.I. STA. 31+20.09

GENESSEE AVE. (50') STA. 3+15.25

SHERBROOK AVE. (50') STA. 6+25.46

HOLMDEN RD. (50') STA. 9+29.39

FELTON RD. (50') STA. 13+46.47

O.M. X–33

MAPLEGROVE RD. (50') STA. 17+38.35

CURVE DATA
P.I. = STA. 26+87.82
P.C. = STA. 25+87.24
P.T. = STA. 27+88.07 BACK
STA. 27+88.40 AHEAD
Δ = 8°02'00"
Dc = 4°00'00"
R = 1432.39'
L = 200.83'
E = 3.53'
T = 100.58'

MATCH LINE STA. 30+00

180°00'00" REC. 179°49'5" OBS.

FRANCIS CT. (30') STA. 32+36.12

Δ13 35+00 Δ14 Δ15

SHEFFIELD RD. (50') STA. 36+76.07

STA. 36+78.24

P.I. STA. 39+10.87

182°18' REC. 182°14'55" OBS.

40+00 ℄ MAYFIELD ROAD (80') Δ16 Δ17

VICTORY DR. (50') STA. 43+27.27

GARDEN DR. (70') STA. 44+04.70

CURVE DATA
P.I. = STA. 39+10.87
P.C. = STA. 38+60.86
P.T. = STA. 39+60.86 BACK
STA. 39+60.88 AHEAD
Δ = 2°14'55"
Dc = 2°14'55"
R = 2548.05'
L = 100.00'
E = 0.49'
T = 50.01'

177°24'30" REC. 177°37'50" OBS.

80°02'10" OBS.

45+00

99°06'00" OBS.

GREEN RD. (60') STA. 46+88.83

CURVE DATA
P.I. = STA. 46+88.83
P.C. = STA. 46+38.82
P.T. = STA. 47+38.82 BACK
STA. 47+38.84 AHEAD
Δ = 2°22'10"
Dc = 2°22'10"
R = 2418.11'
L = 100.00'
E = 0.52'
T = 50.01'

O.M. BD2CR150

50+00 Δ18

DEAN RD. (66') STA. 52+20.82

O.L. 30 / O.L. 71

P.I. STA. 53+04.49

179°03'0" REC. 178°57'0" OBS.

EX. 6'x3' CONC. BOX CULVERT W/ 42" BRICK STM. SEWER STA. 54+65

55+00

173°31' REC. 173°33'15" OBS.

P.I. STA. 56+67.83

DILL AVE. (50') STA. 57+85.79

Δ19 Δ20

MAYWOOD RD. (50') STA. 58+92.78

MATCH LINE STA. 60+00

CURVE DATA
P.I. = STA. 56+67.83
P.C. = STA. 55+87.17
P.T. = STA. 57+48.32 BACK
STA. 57+48.49 AHEAD
Δ = 6°26'45"
Dc = 4°00'00"
R = 1432.39'
L = 161.15'
E = 2.27'
T = 80.66'

MATCH LINE STA. 60+00

180°00'0" REC. 179°52'0" OBS.

℄ MAYFIELD ROAD (80')

Δ21 65+00 Δ22

OAKMOUNT RD. (56') STA. 62+14.74

SHERIDAN RD. (50') STA. 66+22.71

P.I. STA. 63+79.07

EX. 11'x11' CONC. BOX CULVERT STA. 68+55.71

MATCH LINE 69+00

SEE SHEET 3

MAYFIELD ROAD

SIDE STREET INTERSECTION ANGLES (OBSERVED)	
Δ1 = 90°34'15"	Δ13 = 83°17'00"
Δ2 = 89°26'00"	Δ14 = 83°24'00"
Δ3 = 89°34'45"	Δ15 = 96°56'40"
Δ4 = 89°26'00"	Δ16 = 80°08'00"
Δ5 = 90°34'40"	Δ17 = 94°31'15"
Δ6 = 89°10'00"	Δ18 = 97°26'50"
Δ7 = 90°34'40"	Δ19 = 89°09'00"
Δ8 = 89°10'00"	Δ20 = 89°20'00"
Δ9 = 90°30'05"	Δ21 = 89°03'10"
Δ10 = 90°35'50"	Δ22 = 89°02'30"
Δ11 = 89°10'30"	
Δ12 = 90°49'00"	

GEODETIC MONUMENTS				
ITEM			604	202
MARK NO.	STATION	SIDE	CUYAHOGA COUNTY GEODETIC MONUMENT ASSEMBLY	REGIONAL GEODETIC MONUMENT ABANDONED
O.M. 288	0+45	34'RT.	1	1
O.M. X–33	17+04	34'RT.	1	1
O.M. 1504	25+83	42'LT.	1	1
O.M.BD2CR150	49+04	35'LT.	1	1
O.M. 1115	73+54	34'LT.	1	1
TOTAL			5	5

ITEM 604 – MONUMENTS			
MARK NO.	STATION	SIDE	CUYAHOGA COUNTY ROADWAY MONUMENT ASSEMBLY
			EA
1M	7+75.13	℄	1
2M	19+24.31	℄	1
3M	26+87.82	℄	1
4M	31+20.09	℄	1
5M	39+10.87	℄	1
6M	46+88.83	℄	1
7M	52+20.82	℄	1
8M	53+04.49	℄	1
9M	56+67.83	℄	1
10M	63+79.07	℄	1

STEPHEN HOVANCSEK & ASSOC., INC.

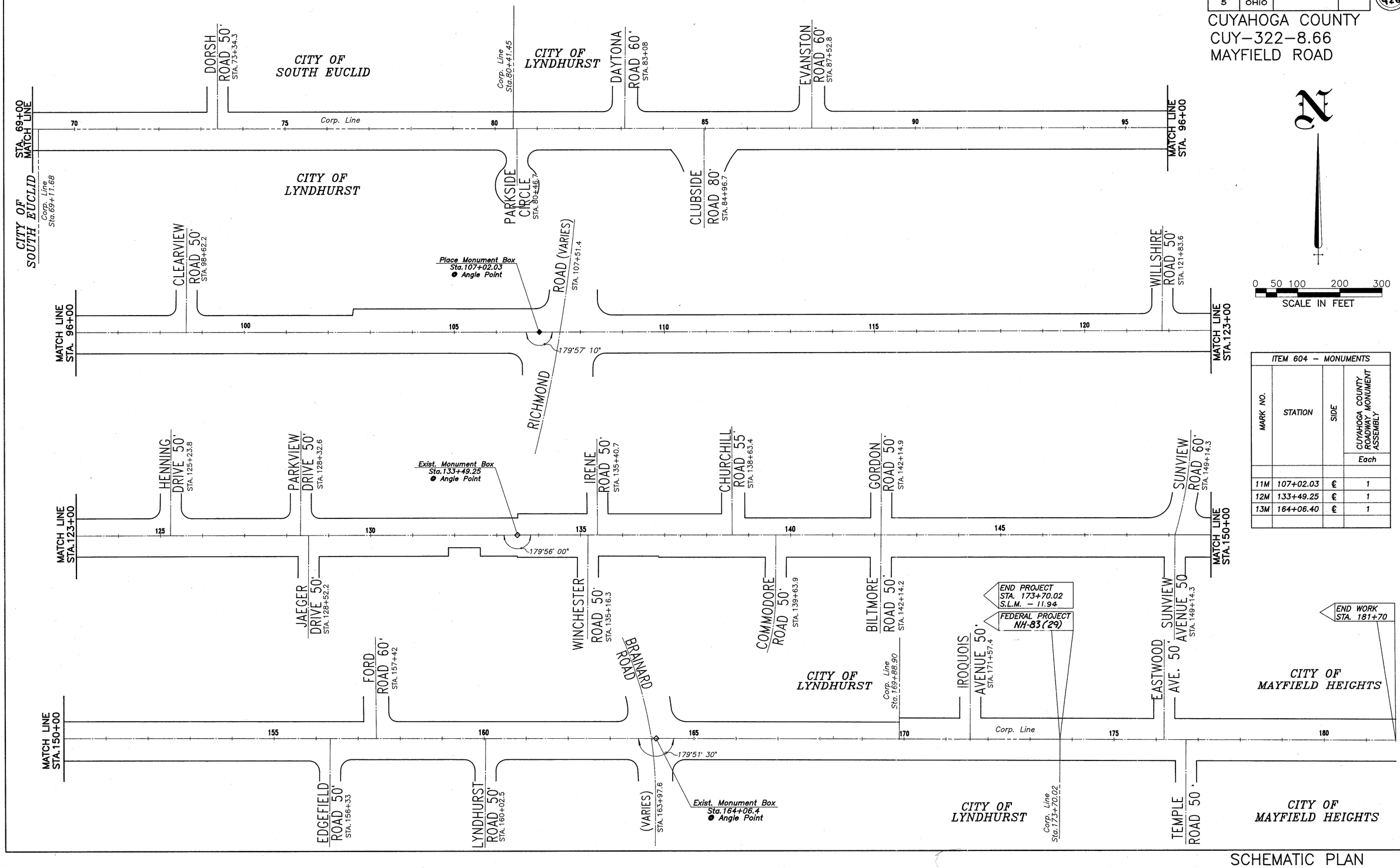
BRUNING 44-132 67199

SCHEMATIC PLAN

FHWA REGION	STATE	PROJECT	
5	OHIO		

3
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



N

0 50 100 200 300
SCALE IN FEET

ITEM 604 - MONUMENTS

MARK NO.	STATION	SIDE	CUYAHOGA COUNTY ROADWAY MONUMENT ASSEMBLY
			Each
11M	107+02.03	℄	1
12M	133+49.25	℄	1
13M	164+06.40	℄	1

MAYFIELD ROAD

SCHEMATIC PLAN

TYPICAL SECTION

TYPE 451

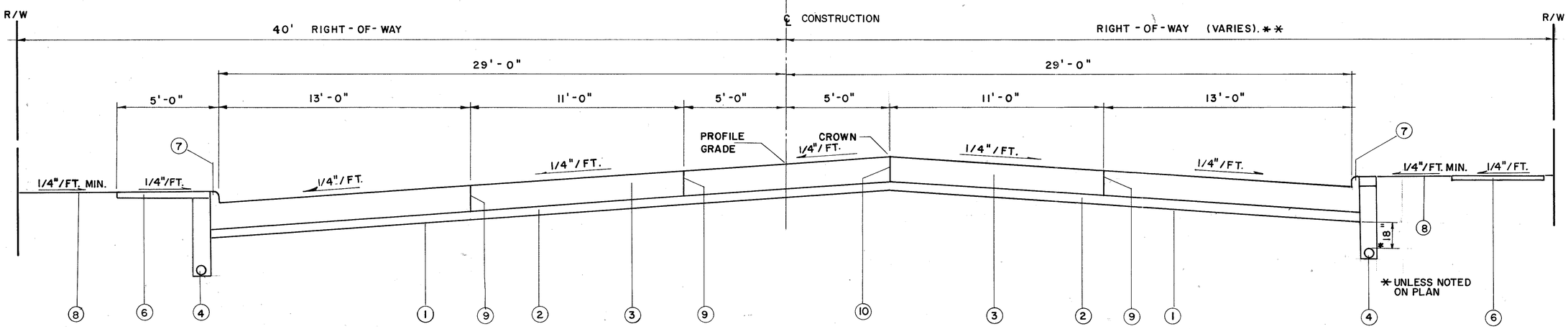
(NOT TO SCALE)

CALC. BY	DATE:
CHK. BY	DATE:

FHWA REGION	STATE	PROJECT	
5	OHIO		

4
426

CUYAHOGA COUNTY
CUY - 322 - 8.66
MAYFIELD ROAD



STA. 0+54.40 TO STA. 73+00.00

(PROPOSED TYPICAL SECTION).

* * RIGHT OF WAY 40' STA. 0+00 TO STA. 66+22.71
* * RIGHT OF WAY 50' STA. 66+22.71 TO STA. 80+41.45

(NOT TO SCALE).

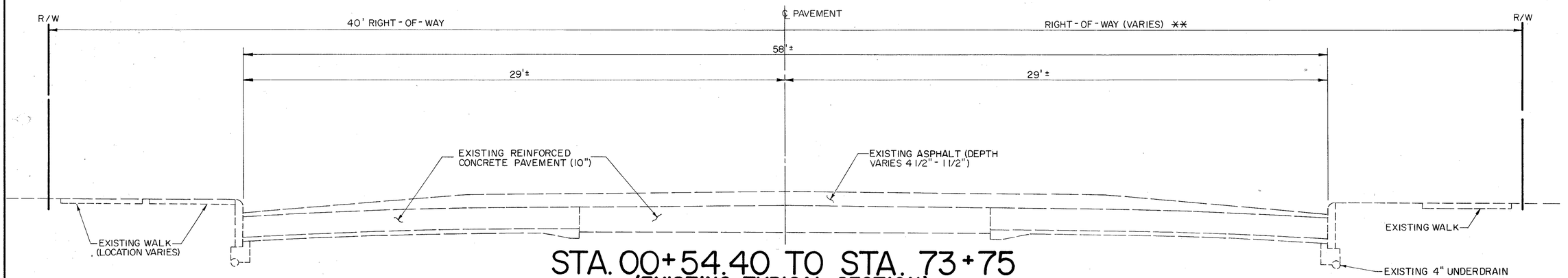
LEGEND

1. ITEM 203 - SUBGRADE COMPACTION
2. ITEM 310 - SUBBASE, TYPE II (6"), AS PER PLAN
3. ITEM 451 - 10" REINFORCED CONCRETE PAVEMENT
4. ITEM 605 - 6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP
6. ITEM 608 - 4" CONCRETE WALK
7. ITEM 609 - CURB, TYPE 2A
8. ITEM 660 - SODDING
9. LONGITUDINAL JOINT
10. LONGITUDINAL JOINT W/OUT TIE BARS

TRANSITION CROWN FROM 5'-0" RIGHT TO 5'-0" LEFT

STA. 73+00 TO STA. 73+75

(FOR PLAN DETAIL SEE SHT. 205)



STA. 00+54.40 TO STA. 73+75

(EXISTING TYPICAL SECTION)

MAYFIELD ROAD

TYPICAL SECTION

TYPICAL SECTION

TYPE 451

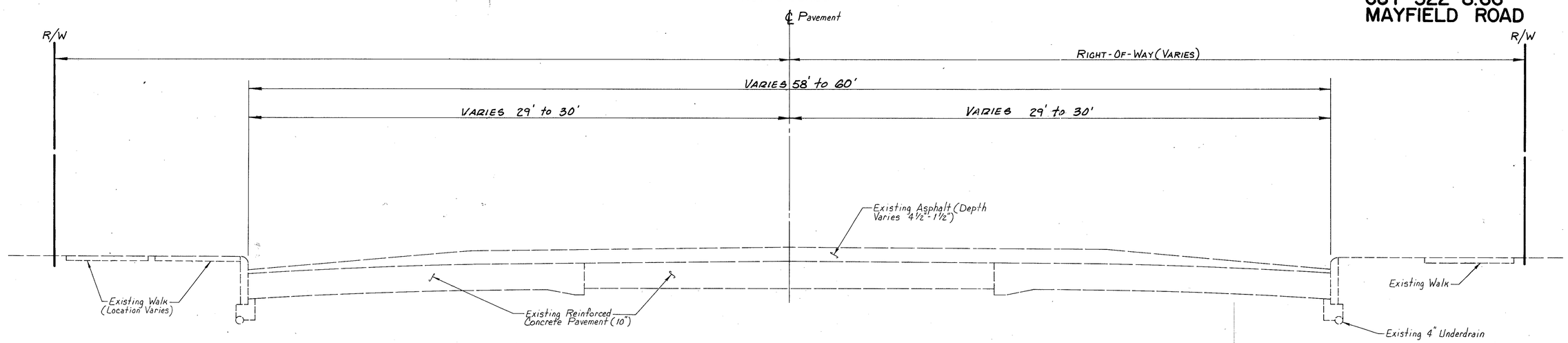
NOT TO SCALE

CALC. BY: _____ DATE: _____
CHK. BY: _____ DATE: _____

FHWA REGION	STATE	PROJECT	
5	OHIO		

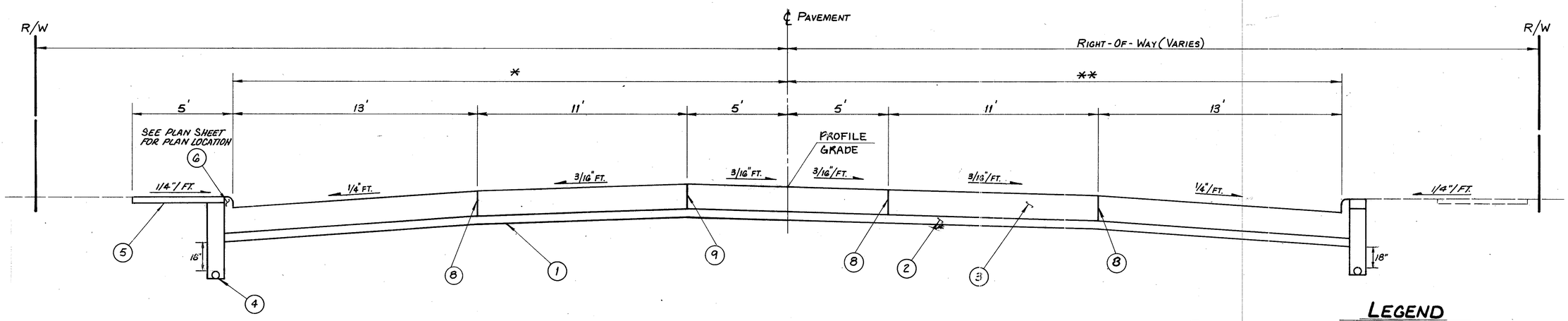
5
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



STA. 73+75 TO STA. 173+70.02

(EXISTING TYPICAL SECTION)



* 29'- STA. 73+09.49 to STA. 165+00
29' to 34'- STA. 165+00 to STA. 171+00
34'- STA. 171+00 to STA. 171+57.4
35.5'- STA. 171+57.4 to STA. 173+70.02

** 29'- STA. 73+09.49 to STA. 165+00
29' to 24'- STA. 165+00 to STA. 171+00
24'- STA. 171+00 to STA. 171+57.4
22.5'- STA. 171+57.4 to STA. 173+70.02

STA. 73+75 TO STA. 173+70.02

(PROPOSED TYPICAL SECTION)

(NOT TO SCALE)

LEGEND

1. ITEM 203 - SUBGRADE COMPACTION
2. ITEM 310 - SUBBASE, TYPE II (6"), AS PER PLAN
3. ITEM 451 - 10" REINFORCED CONCRETE PAVEMENT
4. ITEM 605 - 6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP
5. ITEM 608 - 4" CONCRETE WALK
6. ITEM 609 - CURB, TYPE 2A

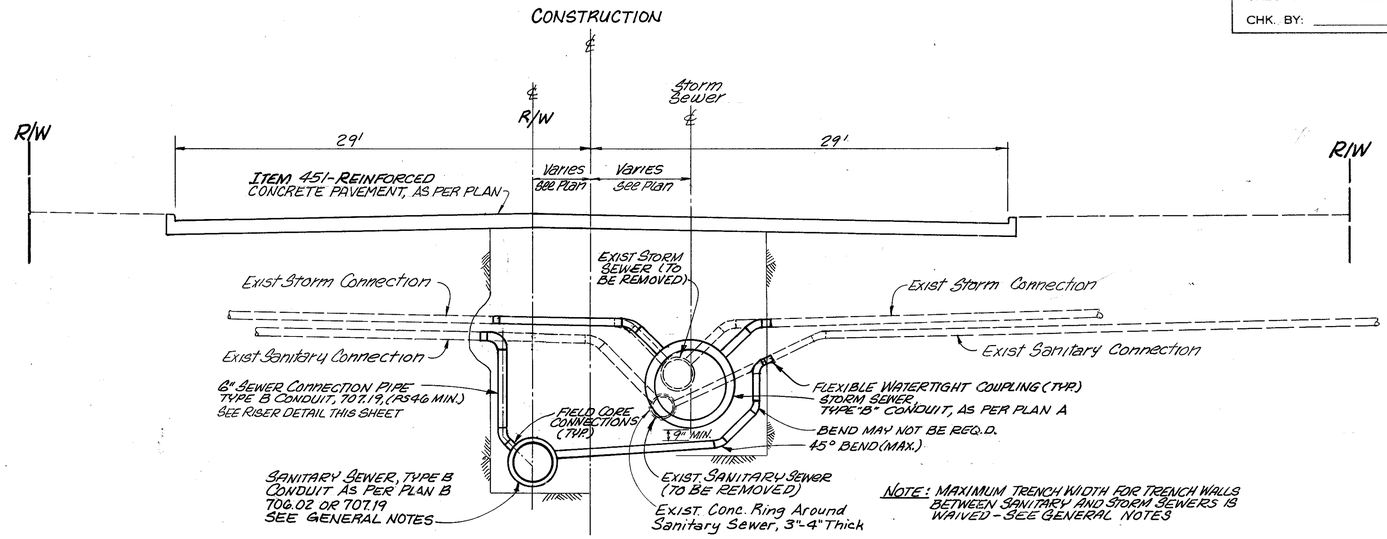
8. LONGITUDINAL JOINTS W/ TIE BARS
9. LONGITUDINAL JOINTS W/O TIE BARS

CALC. BY: _____	DATE: _____
CHK. BY: _____	DATE: _____

FHWA REGION	STATE	PROJECT	
5	OHIO		

G 426

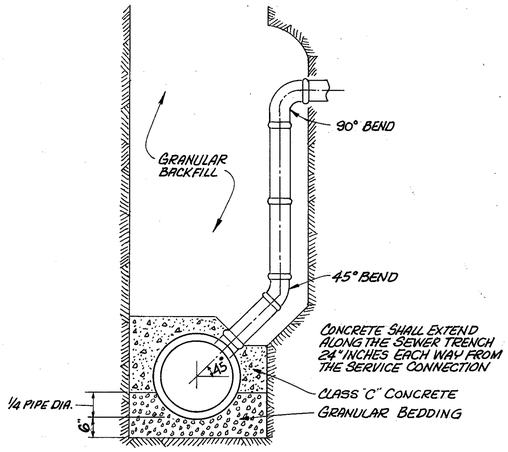
CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



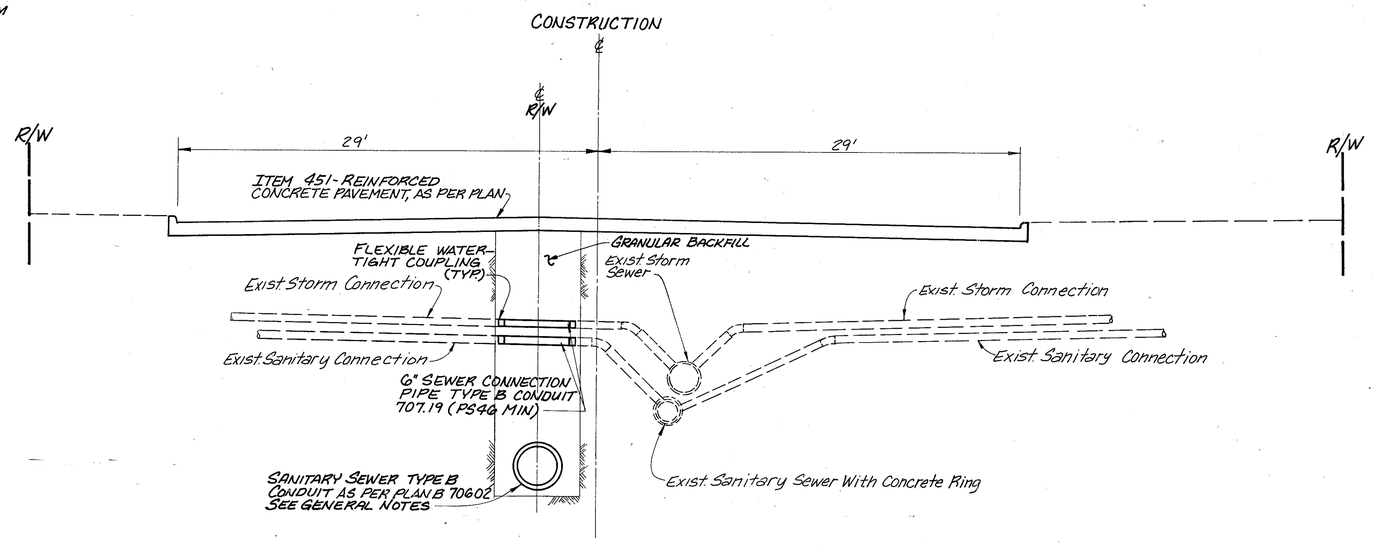
TYPICAL SEWER SECTION

N.T.S.

STA 2+35 TO STA 66+21 (SEWER REVERSED STA 2+35 TO STA 5+74)
STA 137+29 TO STA 174+67



SEWER CONNECTION RISER DETAIL



TYPICAL SEWER SECTION

N.T.S.

STA 108+66 TO STA 137+29

MAYFIELD ROAD

TYPICAL SEWER SECTIONS

FHWA REGION	STATE	PROJECT	
5	OHIO		

7
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

GENERAL NOTES

– GENERAL –

UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 ORC.

UTILITY OWNERSHIP

THE FOLLOWING UTILITIES AND OWNERS ARE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT:

CLEVELAND WATER DEPARTMENT
1201 LAKESIDE AVENUE
CLEVELAND, OHIO 44114
ATTN: MR. DONALD TREBAR
PHONE: 271–4264

OHIO BELL TELEPHONE COMPANY
20820 CHAGRIN BOULEVARD
SHAKER HEIGHTS, OHIO 44122
ATTN: SHELLY ARMSTRONG
PHONE: 921–9329

CLEVELAND ELECTRIC ILLUMINATING CO.
ILLUMINATING BUILDING
55 PUBLIC SQUARE
CLEVELAND, OHIO 44113
ATTN: JAMES JOCKE
PHONE: 622–9800, EXT. 3451

THE EAST OHIO GAS COMPANY
1201 EAST 55TH STREET
CLEVELAND, OHIO 44103
ATTN: MAMIE REED
PHONE: 261–2753

GREATER CLEVELAND REGIONAL
TRANSIT AUTHORITY (GCRTA)
615 WEST SUPERIOR AVENUE
CLEVELAND, OHIO 44113
ATTN: BERT STONE
PHONE: 566–5100

CITY OF CLEVELAND HEIGHTS
40 SEVERANCE CIRCLE
CLEVELAND HEIGHTS, OHIO 44118
PHONE: 291–4444

CITY OF LYNDHURST
5301 MAYFIELD ROAD
LYNDHURST, OHIO 44124
PHONE: 473–5100

CITY OF MAYFIELD HEIGHTS
6154 MAYFIELD ROAD
MAYFIELD HEIGHTS, OHIO 44124
PHONE: 442–2323

CITY OF SOUTH EUCLID
1349 SOUTH GREEN ROAD
SOUTH EUCLID, OHIO 44121
PHONE: 381–0400

VIACOM CABLEVISION OF CLEVELAND
7 SEVERANCE CIRCLE
CLEVELAND HEIGHTS, OHIO 44118
ATTN: KIP EIGER
PHONE: 291–4006

OHIO UTILITIES PROTECTION SERVICE
2 WORKING DAYS
BEFORE YOU DIG
CALL TOLL FREE 800–362–2764
OHIO UTILITIES PROTECTION SERVICE

ROUNDING OF CORNERS SHOWN ON CROSS SECTIONS

THE ROUNDED CORNERS SHOWN ON THE TYPICAL SECTIONS, APPLY TO ALL CROSS SECTIONS EVEN THOUGH OTHERWISE SHOWN ON THESE PLANS.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK LISTED IN THE GENERAL SUMMARY FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED AT THE ENGINEER'S DISCRETION SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

– ROADWAY –

MONUMENTS

MONUMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS SHOWN ON STANDARD CONSTRUCTION DRAWING MC–1. FOR LOCATIONS SEE SHEET NO. 101–103.

~~WATERING AND MOWING PERMANENT SEEDED AREAS~~

THE FOLLOWING ESTIMATED QAUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER TO PROMOTE GROWTH AND TO CARE FOR THE PERMANENT SEEDED AREAS, AS PER 659.09:

659	WATER	100	M GAL.
659	MOWING	100	M SQ. FT.

PAVING BRICK AND TEXTURED WALK REPLACEMENT (100% CITY)

THIS WORK SHALL CONSIST OF REPLACING BRICK SIDEWALKS DAMAGED DUE TO CONSTRUCTION OF THE PROPOSED PAVEMENT AND CURBS BETWEEN STA. 108+00 AND STA. 120+00 . REPLACEMENT SHALL BE AS SHOWN ON THE DETAILS ON SHEET 420 . THE CONTRACTOR SHALL SALVAGE THE EXISTING BRICK FOR RE–USE.

IF THE EXISTING PAVING BRICK REQUIRES RAISING, THE CONTRACTOR SHALL ADD SAND TO THE EXISTING CONCRETE BASE TO ACHIEVE THE PROPER HEIGHT. IF THE EXISTING PAVING BRICK REQUIRES LOWERING, THE CONTRACTOR SHALL REMOVE THE BRICK AND CONCRETE BASE. THE BRICK AND CONCRETE BASE SHALL THEN BE REPLACED AT THE NECESSARY ELEVATION.

THIS WORK SHALL ALSO CONSIST OF REPLACING THE EXISTING TEXTURED PAVING AREAS ADJACENT TO THE CURB ON THE NORTH SIDE OF MAYFIELD ROAD FROM STA. 108+00 TO STA. 112+00 WITH PAVING BRICK AS SHOWN ON THE DETAIL ON SHEET 420 .

THIS WORK SHALL ALSO CONSIST OF INSTALLING BRICK PAVERS ON THE NORTH SIDE MAYFIELD ROAD AS SHOWN ON THE PLANS AND THE DETAIL ON SHEET 420 .

THE COST FOR REMOVAL OF THE EXISTING TEXTURED PAVING, EXCAVATION, BASE AND BRICK PAVERS SHALL BE INCLUDED IN THE UNIT COST BID FOR THIS ITEM.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM SPECIAL – PAVING BRICK WALKS 11,875 SQ. FT.

ITEM 310 – SUBBASE, TYPE II, AS PER PLAN

MATERIALS FURNISHED FOR THIS ITEM SHALL EXCLUDE ALL SLAG EXCEPT GRANULATED SLAG OR CRUSHED AIR–COOLED BLAST FURNACE SLAG AND SHALL EXCLUDE BROKEN SALVAGED PORTLAND CEMENT PAVEMENT.

DOWEL BASKET ASSEMBLIES

WHERE DOWEL BASKET ASSEMBLIES ARE USED BY THE CONTRACTOR, ALL SPACER WIRES (SHIPPING WIRES) SHALL BE REMOVED FROM THE BASKET ASSEMBLIES PRIOR TO PAVING. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSCURE THE DOWEL BASKET ASSEMBLIES ARE STABLE AND HELD FIRMLY IN PLACE.

PROTECTION OF CLEVELAND REGIONAL GEODETIC SURVEY MONUMENTS

THE CONTRACTOR SHALL EXERCISE EXTREME CARE TO AVOID DAMAGING, DESTROYING OR OTHERWISE ALTERING ANY EXISTING CLEVELAND REGIONAL GEODETIC SURVEY MONUMENTS WITHIN THE PROJECT LIMITS.

IF THE CONTRACTOR DAMAGES A GEODETIC MONUMENT, THE CONTRACTOR SHALL INSTALL A COMPLETE ASSEMBLY, INCLUDING THE BOX AS DETAILED ON CUYAHOGA COUNTY CONSTRUCTION DRAWING MB–1C. THE CONTRACTOR SHALL CONTACT THE CUYAHOGA COUNTY ENGINEER'S SURVEY OFFICE AT LEAST TWO (2) WORKING DAYS BEFORE CONSTRUCTING THE MONUMENT FOR A C.R.C.S. MONUMENT CAP AND POSITION.

– PAVEMENT –

CONTRACTION JOINTS

ALTHOUGH SPECIFIC LOCATION OF CERTAIN CONTRACTION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED AND THE MAXIMUM DISTANCE BETWEEN CONTRACTION JOINTS SHALL BE IN ALL CASES IN ACCORDANCE WITH STANDARD DRAWING BP–2.2.

EXPANSION JOINTS

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN EXPANSION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED AND EXPANSION JOINTS SHALL BE PROVIDED AT ALL MAJOR STRUCTURES AS REQUIRED.

ITEM 407 – TACK COAT

THE RATE OF APPLICATION OF THE 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT, AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.075 GALLONS PER SQUARE YARD OF TACK COAT FOR ESTIMATING PURPOSES ONLY.

– EROSION CONTROL –

WATERING AND MOWING PERMANENT SEEDED AREAS

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER TO PROMOTE GROWTH AND TO CARE FOR THE PERMANENT SEEDED AREAS, AS PER 659.09:

659	WATER	100	M. GAL
659	MOWING	100	M. SQ. FT.

FOR FURTHER EROSION CONTROL SEE SHEET 9.

MAYFIELD ROAD

FHWA REGION	STATE	PROJECT	
5	OHIO		

8
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

GENERAL NOTES

– DRAINAGE –

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT, AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF THE EXISTING SEWERS WITHIN THE WORK LIMITS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTIONS SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT SHALL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE–MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE PERTINENT 603 CONDUIT ITEMS OF THE CONTRACT.

HOUSE CONNECTIONS

EXISTING ROOF DRAINS, FOOTER DRAINS OR YARD DRAINS, DISTURBED BY THE PROPOSED WORK, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS BY CONNECTING TO A STORM SEWER, MANHOLE, CATCH BASIN, THROUGH A CURB.
THE LOCATION, TYPE, SIZE AND GRADE OF REQUIRED REPLACEMENTS WILL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION. CONNECTION TO EXISTING PIPE SHALL BE MADE WITH FLEXIBLE WATERTIGHT COUPLINGS SUCH AS "FERNCO" COUPLINGS, "MISSION" COUPLINGS OR APPROVED EQUAL.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 603	4" CONDUIT TYPE E, 707.19 (PS 46 MINIMUM)–AS PER PLAN–A	200	L.F.
ITEM 603	6" CONDUIT TYPE B, 707.19 (PS 46 MINIMUM)–AS PER PLAN–A	200	L.F.
ITEM 603	6" CONDUIT TYPE C, 707.19 (PS 46 MINIMUM)–AS PER PLAN–A	200	L.F.

NONE OF THE ABOVE MATERIALS SHALL BE ORDERED BY THE CONTRACTOR UNTIL AUTHORIZED BY THE ENGINEER.

ITEM 602 – CONCRETE MASONRY, AS PER PLAN

THIS ITEM SHALL INCLUDE THE REMOVAL OF THE EXISTING CULVERT PIPE WALL TO ACCOMODATE THE STORM SEWER, ALONG WITH THE INSTALLATION OF DOWELS AND DOWEL HOLES, ACCORDING TO THE DETAILS SHOWN.

DOWEL HOLES SHALL CONFORM TO 510. DOWELS SHALL CONFORM TO 509.

ITEM 603 – CONDUIT, AS PER PLAN–A

SEWER TRENCH WIDTH BETWEEN ADJACENT SEWERS: THE MAXIMUM DISTANCE BETWEEN THE TRENCH WALL AND THE PIPE WALL FOR THE STORM SEWER TRENCH ON THE SIDE ADJACENT TO A PROPOSED SANITARY SEWER IS WAIVED. THE STORM AND SANITARY SEWER MAY BE INSTALLED IN THE SAME TRENCH. THE COST OF ANY ADDITIONAL GRANULAR BACKFILL REQUIRED FOR INSTALLATION IN A SINGLE TRENCH SHALL BE INCLUDED IN THE UNIT COST BID FOR ITEM 603 CONDUIT AS PER PLAN. SLAG SHALL NOT BE PERMITTED AS BEDDING OR BACKFILL MATERIAL.

ALL CONDUIT SHALL HAVE 706.11 OR 706.12 JOINTS.

ITEM 604 – MANHOLES ADJUSTED TO GRADE, AS PER PLAN

MANHOLES SHALL BE ADJUSTED TO GRADE BY THE METHOD OF ADJUSTING HEIGHT OF SUPPORTING WALLS AND RESETTING A NEW FRAME IN A BED OF MORTAR OR CONCRETE. A NEW COVER SHALL ALSO BE INSTALLED. NO ADJUSTING RINGS ARE PERMITTED. FRAME AND COVER SHALL BE INSTALLED EAST JORDAN NO. 1700B, NEENAH R–1729 OR APPROVED EQUAL.

ITEM 604 – MANHOLES RECONSTRUCTED TO GRADE, AS PER PLAN

THIS ITEM SHALL CONFORM TO ITEM 604, EXCEPT A NEW FRAME AND COVER SHALL BE INSTALLED AND METAL ADJUSTING RINGS ARE NOT PERMITTED. FRAME AND COVER SHALL BE EAST JORDAN 1700B, NEENAH R–1729 OR APPROVED EQUAL.

THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AT LOCATIONS DIRECTED BY THE ENGINEER IN LIEU OF ITEM 604 – MANHOLES ADJUSTED TO GRADE, AS PER PLAN.

ITEM 604 – MANHOLES RECONSTRUCTED TO GRADE, AS PER PLAN	10	EACH

MANHOLES, CATCH BASIN AND INLETS REMOVED OR ABANDONED

THE CASTINGS SHALL BE CAREFULLY REMOVED AND STORED WITHIN THE RIGHT–OF–WAY FOR SALVAGE BY CITY FORCES.
PAYMENT FOR ALL THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT 202 ITEM.

LOCATION OF SEWER CONNECTIONS

THE SEWER CONNECTION LOCATIONS SHOWN ON THE PLANS WERE TAKEN FROM SEWER TELEVISION REPORTS, THEREFORE NO GUARANTEE IS MADE FOR THE DIRECTION THAT THE CONNECTION TAKES AWAY FROM THE SEWER MAINS.

CONNECTIONS TO EXISTING PIPE

WHERE THE PLANS PROVIDE FOR PROPOSED DRAINAGE STRUCTURES OR PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS EITHER OVER OR UNDER AN EXISTING SEWER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING PIPE BOTH TO LINE AND GRADE BEFORE HE STARTS TO LAY THE PROPOSED CONDUIT OR TO CONSTRUCT THE PROPOSED DRAINAGE STRUCTURE. PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT 603 OR 604 ITEMS.

DRAINAGE STRUCTURE ELEVATIONS

THE PLAN GRADE SHOWN FOR ALL CATCH BASINS IS THE NORMAL GUTTER ELEVATION AT THE INTERSECTION OF THE CENTER OF THE STRUCTURE AND THE CURB FACE WITHOUT CONSIDERATION FOR THE NECESSARY LOCAL DEPRESSION.

ITEM 604 – NO. 6 CATCH BASINS, AS PER PLAN–A
ITEM 604 – NO. 3 AND NO. 3A CATCH BASINS, WITH 'V' GRATE, AS PER PLAN–A

THESE ITEMS SHALL CONFORM TO ITEM 604, EXCEPT SLAG SHALL NOT BE USED AS BEDDING OR BACKFILL MATERIAL. STEPS SHALL BE PROVIDED FOR CATCH BASINS WHICH ARE GREATER THAT FIVE (5) FEET DEEP. STEP SPACING SHALL BE FROM 12" TO 16" C/C AND STEPS SHALL CONFORM TO STANDARD DRAWING MH–1.

ITEM 604 – NO. 6 CATCH BASINS, WITH SUMP, AS PER PLAN–B
ITEM 604 – NO. 3 AND NO. 3A CATCH BASINS, WITH 'V' GRATE AND SUMP, AS PER PLAN–B

THESE ITEMS SHALL CONFORM TO ITEM 604, EXCEPT THE BASINS SHALL BE MANUFACTURED WITH A SUMP SECTION, AS SHOWN IN THE DETAIL ON SHEET 416 . SLAG SHALL NOT BE USED AS A BEDDING OR BACKFILL MATERIAL. STEPS SHALL BE PROVIDED FOR CATCH BASINS WHICH ARE GREATER THAT FIVE (5) FEET DEEP. STEP SPACING SHALL BE FROM 12" TO 16" C/C AND STEPS SHALL CONFORM TO STANDARD DRAWING MH–1.

SIDE DITCH INLETS

THE FOLLOWING CONTINGENCY QUANTITIES ARE PROVIDED FOR USE IN AREAS DIRECTED BY THE ENGINEER TO DRAIN AREAS BEHIND THE CURB:

ITEM 603 – 8" CONDUIT, TYPE C, 707.19 PS 46 MINIMUM	200	LIN. FT.
ITEM 604 – INLET, NO. 1	10	EACH

NONE OF THE ABOVE MATERIALS SHALL BE ORDERED BY THE CONTRACTOR UNTIL AUTHORIZED BY THE ENGINEER.

MANHOLE CASTINGS

MANHOLES SHALL BE MANUFACTURED WITH THE ECCENTRIC CONES ORIENTATED IN SUCH A WAY TO MINIMIZE PLACEMENT OF THE CASTINGS IN THE WHEEL PATH OF VEHICLES. THE ENGINEER SHALL APPROVE THE ORIENTATION OF ALL MANHOLES PRIOR TO THEIR PLACEMENT.

ITEM SPECIAL – FILL AND PLUG EXISTING CONDUIT

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN THE EXISTING CONDUIT AND FILLING THE AREA THUS SEALED OFF WITH SAND OR OTHER GRANULAR MATERIAL APPROVED BY THE ENGINEER. NEW RECONNECTIONS SHALL BE INSTALLED BEFORE PLUGGING.

BULKHEADS SHALL BE LOCATED AT THE LIMITS OF THE AREA TO BE FILLED AS INDICATED ON THE PLANS. THE BULKHEADS SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF TWELVE (12) INCHES.

THE FILL MATERIAL SHALL BE PUMPED INTO PLACE OR PLACED BY SOME OTHER MEANS APPROVED BY THE ENGINEER, SO THAT, AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS–SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIER LENGTH, SHALL BE FILLED. THE FOOTAGE OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF LINEAR FEET (MEASURED ALONG THE CENTERLINE OF THE CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

IN LIEU OF FILLING AND PLUGGING THE EXISTING CONDUIT, THE PIPE CAN BE CRUSHED AND BACKFILLED IN ACCORDNACE WITH THE PROVISIONS OF 203, OR IT CAN BE REMOVED.
THE FOOTAGE, MEASURED AS PROVIDED ABOVE, SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER LINEAR FOOT FOR "ITEM SPECIAL – FILL AND PLUG EXISTING CONDUIT", WHICH PRICE AND PAVEMENT SHALL CONSTITUTE FULL COMPENSATION FOR FURNISHING, HAULING, AND PLACING ALL THE NECESSARY MATERIALS, AND FOR ALL LABOR, EQUIPMENT, TOOLS, AND INCEDENTALS NECESSARY TO COMPLETE THIS ITEM.

– SANITARY –

ITEM 603 – CONDUIT AS PER PLAN – B

ALL CONDUIT FOR SANITARY TRUNK SEWERS GREATER THAN OR EQUAL TO 18" DIAMETER SHALL CONFORM TO 706.02 WITH THE FOLLOWING ADDITIONS:

WALL THICKNESS SHALL CONFORM TO "B" OR "C" WALL THICKNESS DESIGNATION PER A.S.T.M. C–76. JOINTS SHALL CONFORM TO A.S.T.M. C361 OR A.S.T.M. C–443.

CONNECTIONS TO THE SEWER SHALL BE ACCOMPLISHED WITH A CORING AND WATERTIGHT CONNECTION SYSTEM SUCH AS N.P.C. SYSTEMS, INC., KOR–N–TEE SYSTEM, FOWLER MANUFACTURING COMPANY, INSERTA TEE SYSTEM, OR APPROVED EQUAL.

JOINTS FOR 707.19 CONDUIT SHALL CONFORM TO A.S.T.M. D–3212.

SLAG SHALL NOT BE PERMITTED FOR BEDDING OR BACKFILL.

LOCATION OF SEWER CONNECTIONS

THE SEWER CONNECTION LOCATIONS SHOWN ON THE PLANS WERE TAKEN FROM SEWER TELEVISION REPORTS, THEREFORE NO GUARANTEE IS MADE FOR THE DIRECTION THAT THE CONNECTION TAKES AWAY FROM THE SEWER MAINS.

AVAILABILITY OF 36" SANITARY SEWER OUTLET

THE 36" SANITARY SEWER OUTLET TO BE CONSTRUCTED BY OTHERS AT STA. 108+66 MAYFIELD ROAD IS SCHEDULED TO BE INSTALLED BY AUGUST, 1993. THE 36" OUTLET WILL BE ABLE TO ACCEPT FLOWS BY APPROXIMATELY MARCH, 1995

THE CONTRACTOR SHALL PROVIDE A BULKHEAD AND MASONRY DIVERSION WALL IN THE STRUCTURE AT STA. 137+41 IN THE PLANS TO PROHIBIT FLOWS INTO THE PROPOSED SANITARY SEWER FROM STA. 137+41 TO STA. 108+66 UNTIL THE OUTLET SEWER IS AVAILABLE OR HE IS ADVISED OTHERWISE BY THE PROJECT ENGINEER. THE BULKHEAD AND WALL IN THE STRUCTURE AT STA. 137+41 SHALL BE REMOVED BY THE CONTRACTOR WHEN ADVISED TO BY THE PROJECT ENGINEER. COST FOR REMOVAL SHALL BE INCLUDED WITH THE COST FOR THE JUNCTION CHAMBER.

MAYFIELD ROAD

GENERAL NOTES

– SANITARY (CONTINUED) –

SANITARY FLOW INTO HIGHWAY DRAINAGE SYSTEMS

THIS PLAN MAKES NO PROVISION FOR CONNECTING NOR SHALL THE ENGINEER OR CONTRACTOR CONNECT ANY EXISTING OR NEW DRAINAGE INTO THE HIGHWAY DRAINAGE SYSTEM WHEN SUCH DRAINS CARRY FLOW FROM ANY PLUMBING FIXTURES INCLUDING FLOOR DRAINS AND SINK DRAINS OR POLLUTED WATER OF ANY KIND. IN ADDITION TO THE SPECIFIED QUANTITIES SHOWN ON THE PLANS, THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED TO OUTLET OR RECONNECT ANY CONDUIT CARRYING SANITARY FLOW TO AN EXISTING SEWER WHICH AS BEEN INTERRUPTED BY THE PROPOSED CONSTRUCTION.

ITEM 603, 6" CONDUIT TYPE B, 707.19 PS 46 MINIMUM, AS PER PLAN–B 200 L.F.
ITEM 603, 10" CONDUIT TYPE B, 707.19 PS 46 MINIMUM, AS PER PLAN–B 200 L.F.
ITEM 603, 12" CONDUIT TYPE B, 707.19 PS 46 MINIMUM, AS PER PLAN–B 200 L.F.
ITEM 603, 4" CONDUIT TYPE B, 707.19 PS 46 MINIMUM, AS PER PLAN–B 200 L.F.

NONE OF THE ABOVE SPECIFIED LISTED MATERIAL SHALL BE ORDERED UNLESS AUTHORIZED BY THE ENGINEER.

ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.

CONNECTION OF SANITARY SEWERS INTO HIGHWAY STORM DRAINAGE SYSTEMS ARE PROHIBITED.

JOINTS FOR 707.19 SHALL CONFORM TO A.S.T.M. D–3212. CONNECTION TO EXISTING PIPE SHALL BE MADE WITH FLEXIBLE COUPLINGS SUCH "FERNCO" COUPLINGS, "MISSION" COUPLINGS OR APPROVED EQUAL.

ITEM SPECIAL – SANITARY SEWER TELEVISING

THE SANITARY SEWER SIZES 27" TO 36" FROM STA. 108+66 TO STA. 173+67 SHALL BE TELEVISED. IN ADDITION, THE 15" AND 18" SANITARY SEWER CONNECTING AT STATIONS 114+18, 134+84 AND 137+17 AND THE 15" SANITARY SEWER FROM MANHOLE STA. 108+01 TO MANHOLE STA. 108+66 ON CENTERLINE SHALL BE TELEVISED. THE TELEVISING OF THE SEWER SHALL BE DONE BY AN EXPERIENCED FIRM WHICH IS QUALIFIED IN THIS TYPE OF WORK.

THE CONTRACTOR SHALL SUBMIT THREE COPIES OF THE VIDEOTAPE TO THE CITY ENGINEER. THE TELEVISING SHALL BE DONE WITH A COLOR CAMERA AND EQUIPMENT. TAPE FORMAT SHALL BE VHS WITH STANDARD PLAY SPEED USED FOR THE TAPING. AN ON SCREEN FOOTAGE INDICATOR SHALL BE SHOWN ON THE TAPE. THREE COPIES OF A TYPED VIDEOTAPE LOG SHALL BE SUBMITTED WITH THE TAPES.

THE VIDEOTAPE SHALL BE REVIEWED AND ANY DEFECTS IN THE SEWER SHALL BE REPAIRED BY THE CONTRACTOR PRIOR TO THE ACCEPTANCE OF THE SEWER.

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR SANITARY SEWER TELEVISING:

ITEM SPECIAL – SANITARY SEWER TELEVISING – 6,640 LIN.FT.

ITEM SPECIAL – SANITARY SEWER TESTING

THE SANITARY SEWER BETWEEN STATION 108+66 AND STATION 137+41 SHALL BE TESTED BY AN INFILTRATION TEST.

THE INFILTRATION TEST WILL BE USED TO MEASURE THE FLOW OF INFILTRATED WATER OVER A MEASURING WEIR SET UP IN THE DOWNSTREAM MANHOLE OF THE SECTION BEING TESTED.

THE AMOUNT OF INFILTRATION SHALL NOT EXCEED A RATE OF 200 GALLONS PER INCH OF PIPE DIAMETER PER 24 HOURS, PER MILE OF SEWER IN EACH AND EVERY SECTION TESTED IN ACCORDANCE WITH THE ABOVE.

THE ABOVE REQUIRED TESTS SHALL BE PERFORMED CONTINUOUSLY THROUGHOUT THE CONSTRUCTION AND AT NO TIME SHALL THERE BE MORE THAN FOUR SECTIONS OF SEWER BETWEEN MANHOLES NOT TESTED.

PERSONNEL FOR READING THE MEASURING DEVICES WILL BE FURNISHED BY THE CITY ENGINEER, BUT ALL OTHER LABOR, EQUIPMENT, MATERIAL, INCLUDING GAUGES AND METERS, WILL BE FURNISHED BY THE CONTRACTOR.

IF THE INSTALLATION FAILS TO MEET THE REQUIREMENTS OF THESE TESTS, THE CONTRACTOR SHALL DETERMINE AT HIS OWN EXPENSE THE SOURCE OF LEAKAGE. THE CONTRACTOR SHALL REPAIR OR REPLACE ALL DEFECTIVE MATERIALS AND/OR WORKMANSHIP AND THEN RE–TEST THE INSTALLATION FOR COMPLIANCE WITH THESE SPECIFICATIONS.

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR SANITARY SEWER TESTING:

ITEM SPECIAL – SANITARY SEWER TESTING – 2,875 L.F.

– EROSION CONTROL –

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER, FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES:

207 FILTER FABRIC FENCE 4000 LIN. FT.
207 STRAW OR HAY BALES 1500 EACH

ITEM 207 – FILTER FABRIC FENCE

FILTER FABRIC SHALL MEET THE REQUIREMENTS OF ITEM 207.02. THE BOTTOM OF THE FENCE SHALL BE BURIED 6" BELOW THE GROUND. THE FENCE SHALL BE HIGH ENOUGH TO RETAIN SEDIMENT LADEN WATER AND ADEQUATELY SUPPORTED TO PREVENT COLLAPSE OR BURSTING. THE GROUND ELEVATION OF THE FENCE SHALL BE HELD CONSTANT WITH THE EXCEPTION OF THE END ELEVATIONS WHICH SHALL BE RAISED TO PREVENT FLOW AROUND THE END OF THE FENCE.

THE FILTER FABRIC FENCE SHALL BE MAINTAINED TO BE FUNCTIONAL. THIS SHALL INCLUDE REMOVAL OF TRAPPED SEDIMENT AND REQUIRED CLEANING, REPAIR, AND/OR REPLACEMENT OF THE FILTER FABRIC.

THE COST FOR ALL MATERIALS, CONSTRUCTION, MAINTENANCE AND REMOVAL REQUIRED SHALL BE PAID FOR UNDER ITEM 207 – LIN. FT. FILTER FABRIC FENCE.

TREE PRESERVATION

ALL TREES WITHIN THE PROJECT CONSTRUCTION LIMITS SHALL BE INDIVIDUALLY INSPECTED BY THE CONTRACTOR, THE ENGINEER AND A CITY REPRESENTATIVE PRIOR TO CONSTRUCTION. THE ENGINEER SHALL CONSEQUENTLY DETERMINE WHICH TREES ARE TO BE PRESERVED.

THE FOLLOWING QUANTITIES ARE PROVIDED IN THE GENERAL SUMMARY FOR TREE PRESERVATION PURPOSES AND ARE TO BE USED AT THE DIRECTION OF THE ENGINEER.

ITEM 657 – RIPRAP FOR TREE PROTECTION 100 SQ. YDS.
ITEM 658 – TREE ROOT AERATION 25 CU. YDS.

– WATERWORK –

WATER CONNECTIONS

WHERE A SERVICE CONNECTION IS DISTURBED FOR LOWERING, RAISING OR RELOCATING BETWEEN THE WATER MAIN AT THE "CORPORATION SHUTOFF VALVE" AND THE CURB SHUTOFF VALVE, IT SHALL BE TOTALLY REPLACED WITH NEW AND UNUSED MATERIALS, FROM THE "CORPORATION SHUTOFF VALVE" TO CURB SHUTOFF VALVE.

WHERE A SERVICE CONNECTION IS DISTURBED FOR LOWERING, RAISING OR EXTENDING ON THE "PROPERTY SIDE" OF THE CURB SHUTOFF VALVE, THE PIPING MATERIALS AND FITTINGS SHALL BE TOTALLY REPLACED WITH NEW AND UNUSED MATERIALS FROM THE EXISTING CURB SHUTOFF VALVE TO THE NEW CURB SHUTOFF VALVE REQUIRED AS A RESULT OF THE EXTENSION. HOWEVER, IF THE EXISTING SERVICE CONNECTION ENCOUNTERED IN THE WORK IS FOUND TO BE LEAD OR GALVANIZED PIPE, IT IS TO BE TOTALLY REPLACED FROM "CORPORATION SHUTOFF VALVE" TO THE "CURB SHUTOFF VALVE" WITH COPPER. THE ADDITIONAL COPPER PIPING WILL BE PAID FOR SEPERATELY UNDER "ITEM SPECIAL--COPPER WATER TUBING" WITH THE CONTRACTOR BEING RESPONSIBLE TO FURNISH THE PROPER PIPE SIZE.

WHERE A SERVICE CONNECTION IS DISTURBED FOR LOWERING, RAISING OR EXTENDING, IT SHALL BE EXTENDED IN A STRAIGHT PROLONGATION OF THE EXISTING CONNECTION AND WHERE THE "PROPERTY SIDE" SERVICE CONNECTION PIPING IS NOT IMMEDIATELY CONTIGUOUS TO THE EXTENDED SERVICE CONECTION CURB SHUTOFF. ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO RECONNECT SHALL BE PROVIDED BY THE CONTRACTOR. THE CONTRACTOR WILL ALSO INSTALL THE MATERIAL AND COMPLETE THE RECONNECTION TO RESTORE SERVICE, HOWEVER, ANY RECONNECTION ON THE "PROPERTY SIDE" OF THE CURB SHUTOFF MUST BE PARALLEL TO THE STREET CENTERLINE OR RIGHT–OF–WAY FROM THE CURB SHUTOFF. IF UPON INSPECTION OF THE "PROPERTY SIDE" PIPING, IT IS FOUND UNSUITABLE FOR SUCH RECONNECTION, THE CONNECTION SHALL NOT BE DISTURBED UNTIL SUCH TIME AS THE MUNICIPALITY HAS ARRANGED FOR REPLACEMENT.

WHERE A CONNECTION HAS BEEN INADVERTENTLY DAMAGED OR BROKEN WHICH WAS NOT TO BE DISTURBED, ONLY THE DAMAGED PORTION NEEDS TO BE REPLACED. IF THE EXTENT OF DAMAGE CANNOT BE FULLY ASSESSED, THE CONNECTION SHALL BE REPLACED, AS NOTED ABOVE, AT THE CONTRACTORS EXPENSE.

ANY TAPPING REQUIRED SHALL BE PERFORMED BY THE CONTRACTOR. THE CONTRACTOR MUST BE QUALIFIED TO TAP MAINS IN ACCORDANCE WITH THE "PREQUALIFICATIONS OF CONTRACTOR FOR TAPPING" GENERAL NOTE

IN ADDITION TO THE WORK DESCRIBED ABOVE, THE CONTRACTOR SHALL INSTALL NEW AND/OR RECONSTRUCT WATER SERVICE CONNECTIONS AS DETAILED IN THE PLANS.

THE FOLLOWING PIPE MATERIAL SHALL BE USED FOR THE SERVICE CONNECTIONS ON THIS PROJECT:
COPPER WATER TUBING, TYPE K, ASTM B88–74, 5/8" TO 3" DIAMETER

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

SPECIAL – 3/4" WATER SERVICE CONNECTION, LONG SIDE COMPLETE 10 EACH
SPECIAL – 1" WATER SERVICE CONNECTION, LONG SIDE COMPLETE 10 EACH
SPECIAL – 1–1/2" WATER SERVICE CONNECTION, LONG SIDE COMPLETE 10 EACH
SPECIAL – 2" WATER SERVICE CONNECTION, LONG SIDE COMPLETE 10 EACH
SPECIAL – 3/4" WATER SERVICE CONNECTION, SHORT SIDE COMPLETE 10 EACH
SPECIAL – 1" WATER SERVICE CONNECTION, SHORT SIDE COMPLETE 10 EACH
SPECIAL – 1–1/2" WATER SERVICE CONNECTION, SHORT SIDE COMPLETE 10 EACH
SPECIAL – 2" WATER SERVICE CONNECTION, SHORT SIDE COMPLETE 10 EACH

SPECIAL – COPPER WATER TUBING 500 LIN. FT.

THE CONTRACT UNIT PRICE BID FOR EACH ITEM SPECIAL, CLASSIFIED BY SIZE, SHALL INCLUDE THE EXCAVATION, BACKFILLING, TAPPING AND FURNISHING OF ALL LABOR, TOOLS, NEW MATERIAL, AND EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK INPLACE AS SHOWN. SEEDING, SODDING AND REPAVING SHALL ALSO BE INCLUDED IF NOT PAID FOR SEPARATELY IN THE PLANS.

IF NEW CURB BOXES ARE REQUIRED, AS DETERMINED BY THE ENGINEER, THEY SHALL BE FURNISHED AND PAID FOR UNDER ITEM SPECIAL--"MISCELLANEOUS METAL WORK"

THE FOLLOWING QUANTITY HAS BEEN INCLUDE IN THE GENERAL SUMMARY

ITEM SPECIAL - MISCELLANEOUS METAL WORK ..... 1000 POUNDS

REGION	STATE	PROJECT	
5	OHIO		

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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

GENERAL NOTES

– MAINTENANCE OF TRAFFIC –

THE CONSTRUCTION OF THIS PROJECT WILL REQUIRE THE CLOSING OF THROUGH LANES OF MAYFIELD ROAD AS DESCRIBED IN CONSTRUCTION PHASING BELOW. TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT AND TRAFFIC COMPACTED SURFACE (WITH 410 AGGREGATE AND STABILIZED WITH ITEM 616 – CALCIUM CHLORIDE). THE LIMITS AND DURATION OF USE OF TRAFFIC COMPACTED SURFACE SHALL BE HELD TO AN ABSOLUTE MINIMUM AND IN ALL CASES BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

THE SERVICE, POLICE AND FIRE DEPARTMENTS AND SCHOOL BOARDS OF THE CITIES INVOLVED AND THE GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY SHALL BE NOTIFIED IN WRITING OF THE IMPENDING ROAD CONSTRUCTION AT LEAST ONE WEEK PRIOR TO THE START OF ACTUAL CONSTRUCTION AND AT LEAST 72 HOURS BEFORE ANY CHANGE IN THE TRAFFIC PATTERN.

SECTION 1 ONLY:

CITY OF CLEVELAND HEIGHTS SERVICE DEPARTMENT	371-6577
CITY OF CLEVELAND HEIGHTS POLICE DEPARTMENT	291-4987
CITY OF CLEVELAND HEIGHTS FIRE DEPARTMENT	381-8333
CITY OF CLEVELAND HEIGHTS SCHOOL BOARD	371-7171

SECTION 4 ONLY:

CITY OF MAYFIELD HEIGHTS SERVICE DEPARTMENT	442-2626
CITY OF MAYFIELD HEIGHTS POLICE DEPARTMENT	442-2626
CITY OF MAYFIELD HEIGHTS FIRE DEPARTMENT	442-2626
CITY OF MAYFIELD HEIGHTS SCHOOL BOARD	442-2200

SECTIONS 1 & 2:

CITY OF SOUTH EUCLID SERVICE DEPARTMENT	381-0400
CITY OF SOUTH EUCLID POLICE DEPARTMENT	381-0400
CITY OF SOUTH EUCLID FIRE DEPARTMENT	381-0400
CITY OF SOUTH EUCLID SCHOOL BOARD	691-2000

SECTIONS 3 & 4:

CITY OF LYNDHURST SERVICE DEPARTMENT	473-5100
CITY OF LYNDHURST POLICE DEPARTMENT	662-5884
CITY OF LYNDHURST FIRE DEPARTMENT	449-1212
CITY OF LYNDHURST SCHOOL BOARD	691-2000

ALL SECTIONS:

GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY	566-5100
ODOT PUBLIC INFORMATION OFFICER	581-2100 EXT. 244

IT IS NOT INTENDED THAT TEMPORARY ROADWAYS BE USED EXCLUSIVELY FOR MAINTAINING TRAFFIC ON THIS PROJECT BUT THAT MAXIMUM USAGE BE MADE OF EXISTING AND PROPOSED PAVEMENTS. THE LIMITS AND DURATION OF USE OF TEMPORARY ROADWAYS SHALL BE HELD TO AN ABSOLUTE MINIMUM. ALL CASES SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

ALL REQUIRED CONSTRUCTION TRAFFIC CONTROL DEVICES WITHIN THE WORK LIMITS SHALL BE IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS AND SHALL BE PROVIDED, ERECTED AND MAINTAINED BY THE CONTRACTOR AS PER THE MANUAL.

THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY SAFEGUARDS SUCH AS BARRICADES, SATISFACTORY BARRIERS, LIGHTING, FLAGGERS, AND OTHER TRAFFIC CONTROL DEVICES AS PROVIDED IN ITEM 614 – MAINTAINING TRAFFIC SO AS TO AVOID DAMAGE AND/OR INJURY TO VEHICLES AND PERSONS USING THE ROADWAY DURING CONSTRUCTION.

THE PAYMENT FOR THE LABOR, MATERIAL, EXCAVATION AND SUBSEQUENT REMOVAL WHEREVER OF APPROACHES, DRIVEWAYS, BARRICADES, LIGHTS, SIGNS AND SIGN SUPPORTS SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 – MAINTAINING TRAFFIC EXCEPT FOR ESTIMATED QUANTITIES TO BE PAID FOR SEPARATELY AS LISTED BELOW.

DURING ANY CONSTRUCTION PHASE, WHEN FLASHING ARROW PANELS ARE SHOWN ON THE PLANS, ELECTRIC POWERED EQUIPMENT SHALL BE EXCLUSIVELY UTILIZIED. DIESEL OR GASOLINE POWERED GENERATORS SHALL NOT BE PERMITTED.

THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS AS TO THE PROPOSED WORK WITH A MINIMUM OF HAZARD, DELAY AND INCONVENIENCE TO THE MOTORISTS USING THE STREETS AFFECTED BY THE WORK UNDER THIS CONTRACT. IN ADDITION TO THE REQUIREMENTS OF 614 THE FOLLOWING SPECIFIC PROVISIONS SHALL BE FOLLOWED: ALL AREAS OF PAVEMENT REMOVAL SHALL BE PROTECTED WITH DRUMS DURING DAYLIGHT AND NIGHT HOURS.

THE CONSTRUCTION FOR THIS PROJECT SHALL BE PERFORMED IN FOUR SECTIONS, THE WORK LIMITS AND THE LIMITATIONS ARE AS LISTED BELOW. THE CONSECUTIVE CALENDAR DAYS, LISTED BELOW FOR EACH PHASE, SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE (SECTION 108). FOR EACH CALENDAR DAY BEYOND THE ALLOTTED DAYS THAT THE ROADWAY REMAINS CLOSED TO THROUGH TRAFFIC, THE CONTRACTOR WILL BE ASSESSED LIQUATED DAMAGES AS PER SECTION 108.07 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

THE WORK SHALL BE SEPARATED INTO FOUR SECTIONS:

1) WARRENSVILLE CENTER RD. (STA. 0+00) TO STA. 39+75
2) STA. 39+75 TO STA. 74+50
3) STA. 74+50 TO STA. 137+04
4) STA. 137+04 TO LYNDHURST EAST CORP. LINE (STA. 173+70)

THE COMPLETION TIMES AS LISTED REPRESENT AN ACCELERATED SCHEDULE AND IT MAY BE NECESSARY FOR THE CONTRACTOR TO INCREASE HIS WORK FORCE, WORK TEN-HOUR DAYS, SATURDAYS, ETC. IN ORDER TO COMPLETE THE WORK. THE USE OF HIGH EARLY CONCRETE MAY ALSO BE NECESSARY.

WORK SHALL BE PERFORMED AND COMPLETED IN SECTIONS 2 AND 4 PRIOR TO ANY WORK BEING PERFORMED IN SECTIONS 1 AND 3. PRIORITY SHALL BE GIVEN TO THE COMPLETION OF SECTION 4. AT NO TIME SHALL WORK BE PERFORMED CONCURRENTLY IN ADJACENT SECTIONS. THE CONTRACTOR SHALL HAVE WORK COMPLETED IN SECTIONS 2 AND 4 IN NO MORE THAN 200 CONSECUTIVE CALENDAR DAYS. THE CONTRACTOR SHALL HAVE WORK COMPLETED IN SECTIONS 1 AND 3 IN NO MORE THAN 200 CONSECUTIVE CALENDAR DAYS. WORK THAT DOES NOT REQUIRE MAINTAINING TRAFFIC ON MAYFIELD ROAD MAY BE PERFORMED IN ADJACENT SECTIONS AS NECESSARY.

THE PHASE ONE PORTIONS OF THE WORK IN SECTIONS 1, 2 AND 4 SHALL CONSIST OF THE CLOSING OF THE INSIDE LANES OF MAYFIELD ROAD. ONE 11' WIDE LANE OF TRAFFIC SHALL BE MAINTAINED IN EACH DIRECTION AS SHOWN ON SHEETS 358 TO 409.

THE PHASE TWO PORTIONS OF THE WORK IN SECTIONS 1, 2 AND 4 SHALL CONSIST OF THE CLOSING OF THE OUTSIDE LANES OF MAYFIELD ROAD. ONE 12' WIDE LANE OF TRAFFIC SHALL BE MAINTAINED IN EACH DIRECTION AS SHOWN ON SHEETS 358 TO 409.

THE PHASE ONE PORTION OF THE WORK IN SECTION 3 SHALL CONSIST OF THE CLOSING OF THE NORTH HALF OF MAYFIELD ROAD. ONE 11' WIDE LANE OF TRAFFIC SHALL BE MAINTAINED IN EACH DIRECTION AS SHOWN ON SHEETS 358 TO 409.

THE PHASE TWO PORTION OF THE WORK IN SECTION 3 SHALL CONSIST OF THE CLOSING OF THE SOUTH HALF OF MAYFIELD ROAD. ONE 12' WIDE LANE OF TRAFFIC SHALL BE MAINTAINED IN EACH DIRECTION AS SHOWN ON SHEETS 358 TO 409.

LAYOUT OF PAVEMENT MARKING

THE CONTRACTOR SHALL BE RESPONSIBLE, WITH THE ASSISTANCE OF THE ENGINEER, FOR ALL LAYOUT AND LOCATION OF VARIOUS PAVEMENT MARKINGS.

THE CONTRACTOR SHALL MAINTAIN TEMPORARY PAVEMENT MARKINGS ON THE VARIOUS COMPLETE SECTIONS OF ROADWAY. ONCE THE ENTIRE PROJECT IS COMPLETE THE CONTRACTOR MAY COMPLETE THE PERMANENT PAVEMENT MARKING OPERATIONS ALONG THE ENTIRE LENGTH OF THE PROJECT. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 – MAINTAINING TRAFFIC.

MAINTAINING LOCAL TRAFFIC

ACCESS TO ABUTTING HOMES AND BUSINESSES SHALL BE MAINTAINED AT ALL TIMES. INCONVENIENCE TO THE HOME OWNERS SHALL BE KEPT TO AN ABSOLUTE MINIMUM. RAMPING OVER NEW CURBS FOR DRIVE ACCESS SHALL BE PROHIBITED. GAPS SHALL BE LEFT IN THE NEW PAVEMENT IF NECESSARY TO PROVIDE ACCESS. IF TWO ACCESS POINTS ARE AVAILABLE TO A PROPERTY ONE MAY BE CLOSED. ITEM 404 SHALL BE USED FOR RAMPING BETWEEN THE NEW AND EXISTING PAVEMENT.
THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR MAINTAINING LOCAL TRAFFIC AS DIRECTED BY THE ENGINEER:

ITEM 404	BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC	2000 CU. YD.
ITEM 410	TRAFFIC COMPACTED SURFACE, TYPE B OR C	8000 CU. YD.
ITEM 608	TEMPORARY BITUMINOUS WALKS	10000 SQ. FT..
ITEM 616	WATER	100 M. GAL.
ITEM 452	8" PLAIN CONCRETE PAVEMENT, CLASS FS*	500 SQ. YD.

* – FOR USE AT COMMERCIAL DRIVE LOCATIONS WITH ONLY ONE INGRESS/ EGRESS POINT AND INSUFFICIENT WIDTH FOR HALF-WIDTH CONSTRUCTION, AS DIRECTED BY THE ENGINEER.

ITEM 615 – TEMPORARY ROADS AND PAVEMENTS

ON THIS PROJECT THE TEMPORARY CLASS B PAVEMENT SHALL BE AS SHOWN ON SHEET 406. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED IN CONSTRUCTING THE TEMPORARY CLASS B PAVEMENT:

ITEM 615	TEMPORARY PAVEMENT, CLASS B	111 SQ. YDS.

ITEM 616 – DUST CONTROL

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN PROVIDED AND ARE TO BE USED FOR THE PREVENTION OR ALLEVIATION OF DUST WHERE DIRECTED IN THE AMOUNTS SPECIFIED BY THE ENGINEER.

ITEM 616	WATER	500 M. GAL.
ITEM 616	CALCIUM CHLORIDE	50 TONS

ITEM SPECIAL – LAW ENFORCEMENT OFFICER WITH PATROL CAR

THE CONTRACTOR SHALL PROVIDE AND PAY ALL COST FOR THE SERVICES OF LAW ENFORCEMENT OFFICERS AND PATROL CARS FOR THE EXCLUSIVE PURPOSE OF CONTROLLING TRAFFIC WHENEVER CHANGE IN THE TRAFFIC PATTERN TAKES PLACE. THE ENGINEER SHALL DETERMINE THE NUMBER OF OFFICERS AND CARS REQUIRED FOR THIS PURPOSE. THE OFFICERS SHALL MOVE THEIR PATROL CARS AS NECESSARY TO MAXIMIZE THEIR EFFECT ON TRAFFIC. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS REGARDING SCHEDULING OF AND PAYMENT FOR THE LAW ENFORCEMENT OFFICERS AND PATROL CARS. PAYMENT FOR THE ABOVE SHALL BE INCLUDED IN THE THE PRICE BID FOR ITEM SPECIAL – LAW ENFORCEMENT OFFICER WITH PATROL CAR. THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM SPECIAL	LAW ENFORCEMENT OFFICER WITH PATROL CAR	40 HOURS

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GENERAL NOTES

- MAINTENANCE OF TRAFFIC (CONT.) -

SAFE PEDESTRIAN TRAFFIC

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE NEED FOR PROVIDING ADEQUATE PROTECTION FOR PEDESTRIAN TRAFFIC IN THE VICINITY OF THIS PROJECT. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN SUCH TEMPORARY PROTECTION FACILITIES AS THE ENGINEER DEEMS NECESSARY TO ACCOMODATE, IN A REASONABLE AND SAFE MANNER, ALL PEDESTRIAN TRAFFIC.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER:

ITEM 607 - FENCE, TYPE SNOW	1000 LIN. FT.
ITEM 608 - 2" BITUMINOUS WALK, AS PER PLAN	1000 SQ. FT.

TRAFFIC SIGNALS DURING CONSTRUCTION

THE CONTRACTOR SHALL RELOCATE SIGNAL HEADS AND INSTALL "NO LEFT TURN" SIGNS AS NECESSARY TO PROVIDE FOR PROPER ALIGNMENT OVER TEMPORARY LANES. THE COST OF THE WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR MAINTAINING TRAFFIC. THE CONTRACTOR SHALL ALSO COVER EXISTING SIGNAL HEADS WHICH CONFLICT WITH THE PHASE'S ALLOWABLE TRAFFIC MOVEMENTS.

MAINTENANCE OF TRAFFIC SIGNALS (SECTION 1,2 & 4)

DURING CONSTRUCTION THE TRAFFIC SIGNALS AT NON-MAJOR INTERSECTIONS SHALL BE OPERATED IN THE FOLLOWING MANNER:

PHASE I - SIGNALS SHALL BE IN OPERATION FROM 7:00 AM TO 7:00 PM ON A 75-SECOND CYCLE. THE INTERSECTING STREETS SHALL BE ALLOTED A 15-SECOND GREEN. PEDESTRIAN CROSSINGS SHALL BE PROVIDED AS NECESSARY. THE CONTRACTOR SHALL ADJUST THE SIGNAL TIMING WHEN NECESSARY AS DIRECTED BY THE ENGINEER. THE CLEARANCE INTERVAL SHALL BE 3 SECONDS AND THE ALL RED, 2 SECONDS.
PHASE II - SIGNALS SHALL BE SET ON FLASH

THE EXISTING SIGNALS SHALL BE RELOCATED AS NECESSARY TO PROVIDE PROPER ORIENTATION IN RESPECT TO THE LANES IN USE.

LANE CLOSURES AT THE INTERSECTIONS SHALL BE KEPT TO AN ABSOLUTE MINIMUM. MAINTENANCE OF TRAFFIC AT THE MAJOR INTERSECTIONS (SEE LIST BELOW) SHALL BE AS SHOWN ON SHEETS 366 TO 411. INCLUDES SIGNAL OPERATIONS.

AFFECTED INTERSECTIONS (* - DENOTES MAJOR INTERSECTION)

BROOKLINE ROAD
GENESSEE AVENUE
PLAINFIELD ROAD
SHERBROOK AVENUE
WINSTON ROAD
HOLMDEN AVENUE
GRANTLEIGH ROAD
FELTON ROAD
AVONDALE ROAD
MAPLEGROVE ROAD
VILLA ROAD
ARGONNE ROAD
BELVOIR ROAD (*)
FRANCIS COURT
SHEFFIELD ROAD
VICTORY DRIVE
GARDEN DRIVE
GREEN ROAD (*)
DEAN ROAD
DILL AVENUE
MAYWOOD ROAD
DORSCH ROAD
PARKSIDE CIRCLE
DAYTONA ROAD
CLUBSIDE ROAD
EVANSTON ROAD
GRENLEIGH ROAD
CLEARVIEW ROAD
RICHMOND ROAD (*)
WILSHIRE ROAD
HENNING DRIVE
PARKVIEW DRIVE
JAEGER DRIVE
WINCHESTER ROAD
IRENE ROAD
CHURCHILL ROAD
COMMODORE ROAD
BILTMORE ROAD
GORDON ROAD
SUNVIEW AVENUE
EDGEFIELD ROAD
FORD ROAD
LYNDHURST ROAD
BRAINARD ROAD (*)
IROQUOIS ROAD
EASTWOOD AVENUE
TEMPLE ROAD

MAINTENCE OF TRAFFIC SIGNALS (SECTION 3)

DURING CONSTRUCTION THE SIGNALS AT NON-MAJOR INTERSECTIONS SHALL BE OPERATED IN THE FOLLOWING MANNER:

	PHASE I	PHASE 2
DAYTONA ROAD	OPERATES	OPERATES
EVANSTON ROAD	FLASH	OPERATES
CLEARVIEW ROAD	FLASH	OPERATES
WILLSHIRE ROAD	FLASH	OPERATES
PARKVIEW/JAEGER	OPERATES	OPERATES
IRENE/WINCHESTER	OPERATES	OPERATES
GORDON/BILTMORE	OPERATES	OPERATES

OPERATES - SIGNALS SHALL BE IN OPERATION FROM 7:00 AM TO 7:00 PM ON A 75-SECOND CYCLE. THE INTERSECTING STREETS SHALL BE ALLOTED A 15-SECOND GREEN. PEDESTRIAN CROSSINGS SHALL BE PROVIDED AS NECESSARY. THE CONTRACTOR SHALL ADJUST THE SIGNAL TIMING WHEN NECESSARY AS DIRECTED BY THE ENGINEER. THE CLEARENCE INTERVAL SHALL BE 3 SECONDS AND THE ALL RED, 2 SECONDS.

CONSTRUCTION OF CULVERT AT STATION 54+65

THE CONTRACTOR SHALL HAVE TWO OPTIONS TO CONSTRUCT THE PROPOSED CULVERT AT THE STATION 54+65. FOR BOTH OPTIONS, PORTABLE CONCRETE BARRIERS SHALL BE USED TO PROTECT THE TRAVELING PUBLIC.

OPTION I - CONTRUCT THE CULVERT DURING SECTION 2, PHASE I AND PHASE 2.

OPTION 2 - CONSTRUCT THE CULVERT AS A SEPERATE THREE PHASE OPERATION IMMEDIATELY PRIOR TO THE BEGINNING OF SECTION 2. SEE DETAILS ON PAGE 422 .

PHASE I - INSTALL THE JUNCTION CHAMBER AT STATION 54+59.50 AND THE 48" x 76" PIPE UNDER THE OUTSIDE LANE.

PHASE 2 - INSTALL THE JUNCTION CHAMBER AT STATION 54+65 AND THE REMAINING SECTION OF 48" x 76" PIPE. THE CONTRACTOR SHALL INSTALL THE SECTION OF 48" x 68" PIPE UNDER THE EASTBOUND LANE AND THE SANITARY SEWER FROM STATION 54+30 TO STATION 55+35 . THE EXISTING STORM MANHOLE AT STATION 54+54 SHALL REMAIN AND BE TIED INTO THE JUNCTION CHAMBER AT THE APPROXIMATE LOCATION OF THE FUTURE 43" x68" PIPE.

PHASE 3 - INSTALL THE JUNCTION CHAMBERS AT STATION 54+69 AND STATION 55+36 ALONG WITH THE REMAINING SECTIONS OF 43" x68" PIPE.

BOTH OPTIONS MUST BE COMPLETED BY THE INTERIM COMPLETION DATES SET FORTH IN THESE PLANS. IF OPTION I IS SELECTED, THE QUANTITIES OF TEMPORARY PAVEMENT MARKINGS AS SHOWN ON SHEET ARE SUBJECT TO NON-PERFORMANCE.

DOWEL BASKET ASSEMBLIES

WHERE DOWEL BASKET ASSEMBLIES ARE USED BY THE CONTRACTOR, ALL SPACER WIRES (SHIPPING WIRES) SHALL BE REMOVED FROM THE BASKET ASSEMBLIES PRIOR TO PAVING. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THE DOWEL BASKET ASSEMBLIES ARE STABLE AND HELD FIRMLY IN PLACE.

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WATERWORK NOTES

SCOPE OF WORK

THE WORK CONTEMPLATED UNDER THIS CONTRACT COMPRISES OF THE EXTENSION AND ADJUSTMENT COMPLETE TO GRADE AND OTHER APPURTENANCES FOR VALVE BOXES, CURB COCK BOXES, WATER METER MANHOLES AND VAULTS AND PERFORMING OTHER INCIDENTAL WORK NECESSARY TO IMPROVE THE EXISTING WATER FACILITIES.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID FOR EACH.

ITEM SPECIAL EXTEND AND ADJUST TO GRADE WATER METER MANHOLES SHALL CONSTITUTE FULL COMPENSATION FOR EXCAVATION, BACKFILL AND FURNISHING OF ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM. THESE QUANTITIES ARE CARRIED DIRECTLY TO THE GENERAL SUMMARY, SHEET NO.

THE CONTRACTOR SHALL DO ALL THE WORK AND FURNISH ALL THE LABOR AND MATERIAL NECESSARY FOR THE FINAL COMPLETION OF THIS CONTRACT IN THE MANNER AND UNDER THE CONDITIONS HEREIN SPECIFIED AND PROVIDED AND IN ACCORDANCE WITH THE CONTRACT DRAWINGS.

GENERAL NOTES

THE EXACT LOCATION OF EXISTING WATER LINES AND UNDERGROUND STRUCTURES IS NOT KNOWN. INFORMATION SHOWN ON THE PLANS WAS OBTAINED FROM CLEVELAND WATER DEPARTMENT DRAWINGS.

. THE FIELD TESTING HEAD SHALL BE 75 PSI PLUS THAT DUE TO THE STATIC HEAD, BUT IN NO CASE LESS THAN 150 PSI.

THE CONTRACTOR SHALL NOTIFY THE CLEVELAND WATER DEPARTMENT INSPECTION AND ENFORCEMENT THREE (3) WEEKS PRIOR TO STARTING ANY WATER WORKS CONSTRUCTION. CALL 271 - 4264.

AFTER AWARD OF CONTRACT, THE CONTRACTOR THROUGH THE PROJECT ENGINEER SHALL SUBMIT TO THE CITY OF CLEVELAND WATER DEPARTMENT, INSPECTION AND ENFORCEMENT SECTION, A CONSTRUCTION SCHEDULE RELATING TO WATERWORK.

DEFINITIONS

WHEREVER IN THESE SPECIFICATIONS OR IN OTHER CONTRACT DOCUMENTS THE FOLLOWING TERMS OR PRONOUNS IN PLACE OF THEM ARE USED, THE INTENT AND MEANING SHALL BE INTERPRETED AS FOLLOWS:

THE STATE

THE STATE IS THE STATE OF OHIO ACTING THROUGH ITS AUTHORIZED REPRESENTATIVE.

ENGINEER

THE ENGINEER IS DISTRICT DEPUTY DIRECTOR OR DISTRICT ENGINEER, THE DISTRICT CONSTRUCTION ENGINEER OR THE DISTRICT MAINTENANCE ENGINEER OR THE PROJECT ENGINEER ASSIGNED TO ADMINISTER THE CONTRACT, OR THEIR DULY DESIGNATED DEPUTIES, AGENTS, OR REPRESENTATIVES.

CITY

THE CITY IS THE DIRECTOR, DEPARTMENT OF PUBLIC UTILITIES OF THE CITY OF CLEVELAND OR THEIR DULY DESIGNATED DEPUTIES, AGENTS, OR REPRESENTATIVES.

STATUS OF CITY INSPECTORS

INSPECTORS AS DESIGNATED BY THE DIRECTOR OF PUBLIC UTILITIES ARE AUTHORIZED TO INSPECT ALL WORK DONE AND MATERIALS FURNISHED, SUCH INSPECTION MAY EXTEND TO ALL OR ANY PART OF THE WATERWORK, AND TO THE PREPARATION OR MANUFACTURE OF THE MATERIALS TO BE USED IN THE WATERWORK. THE CITY INSPECTOR AS DESIGNATED BY THE DIRECTOR OF PUBLIC UTILITIES WILL MAKE WORK INSTRUCTIONS THROUGH THE PROJECT ENGINEER. ARRANGEMENTS FOR CITY INSPECTORS ARE TO BE MADE BY NOTIFYING INSPECTION AND ENFORCEMENT DIVISION OF WATER AND HEAT ,664-2444 WITHIN THE TIME SPECIFIED. NO WORK SHALL BE ACCEPTED UNLESS INSPECTED.

ACCESS TO WORK AND PLACE OF MANUFACTURE

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE DIRECTOR OF PUBLIC UTILITIES, AT LEAST SEVEN (7) DAYS PREVIOUS TO THE COMMENCEMENT OF THE MANUFACTURE OF ANY MATERIALS, OF THE TIME AND PLACE WHERE THE MANUFACTURE IS TO COMMENCE, IN ORDER THAT A REPRESENTATIVE OF THE ENGINEER AND DIRECTOR MAY BE PRESENT TO INSPECT THE MANUFACTURE. THE CONTRACTOR SHALL PROVIDE, WITHOUT ANY CHARGE OR EXPENSE TO THE STATE AND CITY, ALL NECESSARY ASSISTANCE TO THE ENGINEER AND DIRECTOR WHEN REQUIRED FOR INSPECTION OR VERIFICATION OF WORK DONE.

DIMENSIONS, DETAILED DRAWINGS, AND ELEVATIONS

FIGURED DIMENSIONS ON DRAWINGS SHALL TAKE PRECEDENT OVER MEASUREMENTS BY SCALE, AND DETAILED DRAWINGS ARE TO TAKE PRECEDENCE OVER GENERAL DRAWINGS AND SHALL BE CONSIDERED AS EXPLANATORY OF THEM AND NOT AS INDICATING EXTRA WORK. IF, HOWEVER, ANY OF THE DETAILED DRAWINGS SHOW MORE ELABORATE OR EXPENSIVE WORK THAN IS NORMALLY SPECIFIED AND INDICATED BY THE CONTRACT DRAWINGS, NOTICE THEREOF MUST BE GIVEN TO THE ENGINEER BY THE CONTRACTOR WITHIN TEN (10) DAYS AFTER RECEIPT OF SUCH DETAILED DRAWINGS IN ORDER THAT THE DRAWINGS MAY BE AMENDED OR THE ADDITIONAL EXPENSE ON ACCOUNT OF SUCH WORK MAY BE ADJUSTED AND AUTHORIZED. IF THE ENGINEER DOES NOT RECEIVE SUCH NOTICE FROM THE CONTRACTOR WITHIN TEN (10) DAYS AFTER THE DETAILED DRAWINGS HAVE BEEN RECEIVED BY HIM, IT IS HEREBY AGREED THAT THE CONTRACTOR ACCEPTS THE DRAWINGS AND WILL EXECUTE THEM WITHOUT CLAIM FOR EXTRA COMPENSATION.

ERRORS AND DISCREPANCIES

IF THE CONTRACTOR, IN THE COURSE OF HIS WORK, FINDS ANY DISCREPANCY BETWEEN THE PLANS, DESCRIPTION AND LOCATION OF WORK AND ESTIMATE OF QUANTITIES, THE PHYSICAL CONDITION OF THE LOCALITY, OR ANY ERRORS IN PLANS OR IN THE LAYOUT AS GIVEN BY THE DRAWINGS AND INSTRUCTIONS WHICH MAKE IT IMPOSSIBLE FOR HIM TO COMPLETE THE WORK REQUIRED UNDER THE PLANS AND SPECIFICATIONS , IT SHALL BE HIS DUTY TO IMMEDIATELY INFORM THE ENGINEER IN WRITING AND THE ENGINEER SHALL VERIFY THE SAME. ANY WORK DONE AFTER SUCH DISCOVERY, UNTIL AUTHORIZED, SHALL BE DONE AT THE CONTRACTOR'S RISK.

FLOODS AND FREEZING WEATHER

PROPER FACILITIES SHALL BE PROVIDED FOR PROTECTING THE WORK FROM DAMAGE BY FLOOD, RAIN, OR FROST, AND WORK DONE IN FREEZING WEATHER SHALL BE DONE IN SUCH MANNER AS THE ENGINEER MAY APPROVE. VALVES SHALL BE PROTECTED FROM FREEZING UNTIL BACKFILLED IN THE COMPLETED WORK.

ADDITIONAL WORK

(A) ATTENTION IS CALLED TO THE FACT THAT THE WORK OF THIS CONTRACT INCLUDED CERTAIN PERFORMANCE AS INCIDENTAL TO THE ITEMIZED REQUIREMENTS HEREOF, THOUGH NOT EXCLUSIVE AS FOLLOWS: TO PERFORM ALL EXCAVATION, BACKFILLING, SHEETING, SHORING, AND TO TEST AND CHLORINATE THE INSTALLATION. THE STATE WILL MAKE NO SPECIFIC OR SEPARATE PAYMENT OR ALLOWANCE, BUT THE COST THERE SHALL BE INCLUDED IN THE PRICES STIPULATED TO BE PAID FOR UNDER THE VARIOUS WATERWORK ITEMS OF WORK TO BE DONE UNDER THIS CONTRACT.

(B) PRELIMINARY FLUSHING: BEFORE BEING PLACED IN SERVICE, ALL DIRT AND FOREIGN MATTER SHALL BE REMOVED FROM THE NEW WATER MAIN OR EXTENSIONS TO EXISTING MAINS BY A THOROUGH FLUSHING THROUGH THE HYDRANTS OR BY OTHER APPROVED MEANS. EACH VALVED SECTION OF NEWLY LAID PIPE SHALL BE FLUSHED INDEPENDENTLY. THIS SHALL BE DONE AFTER THE PRESSURE TEST AND MAY BE DONE BEFORE OR AFTER THE TRENCH SHALL HAVE BEEN BACKFILLED.

TESTING MAINS

(A) ALL PIPES, VALVES, FITTINGS, ETC., SHALL BE LAID IN SUCH A MANNER AS TO LEAVE ALL JOINTS WATERTIGHT. AFTER THE PIPE IS LAID, SUCH LENGTHS OF THE WATER MAIN AS THE DIRECTOR OR HIS DESIGNATE MAY DETERMINE, SHALL BE TESTED UNDER HYDROSTATIC PRESSURE INDICATED IN GENERAL NOTES.

(B) THE HYDROSTATIC TEST SHALL BE UNDER THE DIRECTION OF THE DIRECTOR OF PUBLIC UTILITIES OR HIS DESIGNATE. THE CONTRACTOR MAY OBTAIN WATER FOR TESTING BY OBSERVING THE RULES AND REGULATIONS ENFORCED IN THE MUNICIPALITIES OR TOWNSHIPS IN WHICH THE WORK IS BEING DONE. THE CITY WILL FURNISH A PRESSURE GAUGE FOR MEASURING THE PRESSURE ON THE WATER MAIN, BUT THE CONTRACTOR SHALL FURNISH A SUITABLE PUMP, PIPES, TEST HEADS AND ALL APPLIANCES, LABOR, FUEL, AND OTHER APPURTENANCES NECESSARY TO MAKE THESE TESTS.

(C) THE HYDROSTATIC TEST PRESSURE SHALL BE FOR A DURATION OF A MINIMUM OF TWO (2) HOURS WITH ALL VALVES CLOSED DURING WHICH TIME THE INTERNAL PRESSURE SHALL REMAIN WITHIN 5 PSI OF THE SPECIFIED TEST PRESSURE. SHOULD THE TEST PRESSURE DROP MORE THAN 5 PSI, THE CONTRACTOR SHALL RECHARGE THE WATERMAIN TO THE SPECIFIED TEST PRESSURE AND LOCATE AND REPAIR THE LEAK TO THE SATISFACTION OF THE CITY. ANY DAMAGED OR DEFECTIVE PIPE, PIPE JOINTS, FITTINGS, VALVES, HYDRANTS, OR APPURTENANCES SHALL BE REPAIRED OR REPLACED WITH SOUND MATERIAL AND THE HYDROSTATIC PRESSURE TEST REPEATED.

(D) AFTER A SECTION OF THE WATER MAIN HAS BEEN TESTED, THE CONTRACTOR SHALL FLUSH THE SAME. IN THE CASE OF SUPPLY MAINS WHERE DRAINS ARE CONNECTED TO VALVE OR DRAIN VALVES, THE CONTRACTOR SHALL, WITHIN A REASONABLE TIME AFTER THE TEST HAS BEEN COMPLETED, PUMP ALL WATER OUT OF THE VAULTS. FLUSHING SHALL BE DONE IN ACCORDANCE WITH THESE SPECIFICATIONS.

(E) IN COLD WEATHER IMMEDIATELY AFTER TESTING A SECTION OF THE WATER MAIN, THE CONTRACTOR SHALL OPEN ALL VALVES, AND IN THE CASE OF SUPPLY MAINS ALL AIR RELIEF VALVES, BYPASSES AND DRAINS AND PROPERLY DRAIN BONNETS OF ALL VALVES IN THE SECTION OF THE WATER MAIN, AND TAKE ALL OTHER PRECAUTIONS NECESSARY TO PREVENT INJURY TO WATER MAIN AND APPURTENANCES DUE TO FREEZING.

(F) IN ORDER TO BE ABLE TO MAKE PROPER ALLOWANCE FOR LEAKAGE AT VALVES, AIR RELIEF VALVES, BYPASSES, AND DRAINS, ONLY SECTIONS OF WATER MAIN TO BE TESTED SHALL HAVE SUCH VALVES, TEST PLUGS AND CAPS ACCESSIBLE.

(G) IN TESTING NEW MAINS, THE CONTRACTOR SHALL NOT BE PERMITTED TO USE ANY PART OF THE EXISTING MAINS IN HIS TEST UNLESS OTHERWISE SHOWN ON THE CONTRACT DRAWINGS. THE LIMITS OF THE HYDROSTATIC SHALL BE SHOWN AS ON THE PLANS. THE CONTRACTOR SHALL PROVIDE BLIND FLANGES, PLUGS OR CAPS, DEPENDING ON DESIGN, TO THE TESTED LENGTH OF THE PROPOSED MAIN SO THAT IT WILL BE COMPLETELY INDEPENDENT OF THE SAID EXISTING MAINS. PROPER RESTRAINT OF ALL BLIND FLANGES, PLUGS OR CAPS TO PREVENT BLOWOFF SHALL BE PROVIDED AND IN THE CASE OF DEAD END MAINS CONCRETE PIERS WILL BE REQUIRED. NO EXTRA PAYMENT WILL BE MADE AND THE ENTIRE COST SHALL BE DEEMED TO BE INCLUDED IN THE BID PRICE.

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WATERWORK NOTES

WATER MAIN DISINFECTION

(A) WATER MAIN DISINFECTION SHALL CONSIST OF: FLUSHING WATER MAINS AFTER THE HYDROSTATIC TEST AND PRIOR TO THE CHLORINATION PROCEDURE; THE CHLORINATION PROCEDURE, THE FINAL FLUSHING AND SAMPLING.

1. TAPS, TAPPING SADDLES, SERVICE PIPES, COMBINATION BLOWOFFS, AND EXISTING WATER MAINS WITH READILY ACCESSIBLE CONTROL VALVES, AND ALL PIPES, APPLIANCES, LABOR, AND OTHER APPURTENANCES SHALL BE FURNISHED OR PROVIDED BY THE CONTRACTOR. THEY SHALL BE USED FOR INTRODUCING DISINFECTING AGENT AND WATER FOR FLUSHING INTO THE NEW OR EXTENDED WATER MAINS. TAPS OR SERVICE PIPES SHALL BE A MINIMUM ONE INCH (1") SIZE OF COPPER TO IRON PIPE THREAD CONFIGURATION. ADDITIONAL TAPS SHALL BE PROVIDED IF NECESSARY. ALL ONE INCH (1") TAPS ON DUCTILE IRON WATER MAINS WITH THICKNESS LESS THAN CLASS 56 WILL REQUIRE BRONZE DOUBLE STRAP TAPPING SADDLES, OR APPROVED EQUAL, FURNISHED BY THE CONTRACTOR. COMBINATION BLOWOFFS AND SAMPLING TAPS SHALL BE: EITHER TAPPED OUTLET OR REGULAR BRANCH OUTLET TEES; AND/OR TAPPED PLUGS OR PIPE ENDS WHICH SHALL BE PLUGGED; OR HAVE ENDS CONNECTED TO WATER SYSTEM AFTER SATISFACTORY DISINFECTION AND FLUSHING. TAPPING OF WATER MAINS FOR CHLORINATION SHALL BE IN ACCORDANCE WITH THAT SPECIFIED IN PARAGRAPH "WORK TO BE DONE BY CITY".

2. ON EXISTING WATER MAINS AND ON NEW, RELOCATED OR EXTENDED WATER MAINS PLACED IN SERVICE ONLY THE CITY WILL OPERATE THE VALVES. THE CONTRACTOR WILL COOPERATE WITH CITY'S CHLORINATION CREW IN COORDINATING THE CHLORINATION AND FLUSHING IN DETERMINING THE AMOUNTS AND EXTENT OF CHLORINATION AND FLUSHING.

3. SUCH LENGTHS OF THE WATER MAIN AS THE CITY MAY DETERMINE, SHALL BE CHLORINATED; HOWEVER, IN NO CASE SHALL THE LENGTH EXCEED THAT WHICH CAN BE CHLORINATED SATISFACTORILY IN ONE (1) WORK DAY. SUCH MAXIMUM LENGTH IS GENERALLY UP TO THREE (3) MILES TOTAL, INCLUDING BRANCHES AND CONNECTING WATER MAIN(S), FOR SIXTEEN INCH (16") AND SMALLER; AND THREE (3) VALVE SECTIONS, OR TWO (2) MILES, FOR TWENTY INCH (20") OR LARGER WATER MAINS.

4. THE CONTRACTOR SHALL PREPARE AND PRESENT TO THE CITY FOR APPROVAL A PLAN FOR ALL DISINFECTION FROM THE HYDROSTATIC TESTING TO THE FINAL FLUSHING FOR THE NEW OR EXTENDED WATER MAIN, INCLUDING ANY BRANCHES. THE DISINFECTION PLAN SHALL SHOW COMPLETE LAYOUT, INCLUDING SIZES AND LOCATION OF: (A) FLUSHING WATER SOURCE ; (B) WATER SOURCE FOR CHLORINATION UTILIZING CALCIUM HYPOCHLORITE SOLUTION FURNISHED IN MIXING DRUM; (C) BLENDING WATER SOURCE TO ASSURE PROPER AND UNIFORM CONCENTRATION OF CHLORINATION SOLUTION THROUGHOUT THE WATER MAIN TO BE DISINFECTED; (D) OUTLETS TO BE UTILIZED OR PROVIDED FOR THE DRAWING AND FINAL FLUSHING OF CHLORINE SOLUTION THROUGH AND FROM THE WATER MAIN BEING DISINFECTED; AND (E) TYPE, NUMBER, SEQUENCE, AND SIZES OF OUTLETS INCLUDING FIRE HYDRANTS AND VALVES TO BE OPERATED.

5. BEFORE HYDROSTATIC TESTING WILL BE PERMITTED, THE CONTRACTOR SHALL OBTAIN FROM THE CITY, DIVISION OF WATER & HEAT, PERMITS AND SALES, MISCELLANEOUS SERVICE RECEIPT (MR CARD). APPROVED WATER MAIN PLANS OF THE NEW WATER MAIN OR EXTENSION SHALL BE USED IN PREPARATION OF THE PLAN FOR DISINFECTION. UPON RECEIPT OF APPROVAL BY THE COMMISSIONER OF WATER AND HEAT OF THE PLAN FOR DISINFECTION, THE CONTRACTOR SHALL SUBMIT THE PLANS TO THE INSPECTION AND ENFORCEMENT RESIDENT INSPECTOR ALONG WITH THE MISCELLANEOUS SERVICE RECEIPT (MR CARD). ONLY UPON RECEIPT OF THE PLANS AND MR CARD WILL THE CHLORINATION PROCEDURE BE PERFORMED. THE CITY'S CHLORINATION CREW WILL INSPECT THE ENTIRE JOB AS TO BEING IN ACCORDANCE WITH APPROVED PLANS AND FOOTAGE LENGTH ON MAINS TO BE CHLORINATED.

6. CHLORINATION PROCEDURE FOR DISINFECTING NEW OR EXTENDED WATER MAINS SHALL BE BY THE CONTINUOUS FEED METHOD USING A SOLUTION FORMED BY MIXING WATER AND CALCIUM HYPOCHLORATE. NO OTHER FORM OF CHLORINE WILL BE USED. AMERICAN WATER WORKS ASSOCIATION AWWA STANDARD FOR DISINFECTING WATER MAINS - ANSI/AWWA C-651-86 SHALL BE FOLLOWED AS TO NEED, PROCEDURES, METHODS, HOLDING TIME, FREE CHLORINE RESIDUAL, APPLICATION AND CONFINEMENT TO WATER MAIN BEING DISINFECTED. WATER USED FOR CHLORINATION, BLENDING OF CHLORINATION SOLUTION TO DETERMINED CONCENTRATION, AND TO FEED DOSAGE INTO FULL LENGTH OF MAINS TO BE DISINFECTED SHALL BE OBTAINED AS FOR TESTING.

7. THE CITY WILL SUPPLY THE PUMP, SOLUTION MIXING PADDLE, 35 GALLON DRUM, GASOLINE POWERED ELECTRIC GENERATOR, AND SUPPLY OF POWDERED CALCIUM HYPOCHLORITE. THE CONTRACTOR SHALL SUPPLY ALL PIPES, HOSES, VALVES, FITTINGS, ETC., FOR THE USE EITHER TO CONVEY WATER, CHLORINE SOLUTION OR COMBINATION THEREOF AND TO DISPOSE OF HIGHLY CHLORINATED WATER FLUSHED TO WASTE.

8. THE CONTRACTOR SHALL COOPERATE WITH THE CITY'S CHLORINATION CREW OR RESIDENT INSPECTOR BY OPERATING ANY REQUIRED WATER MAIN APPURTENANCES TO ASSURE THE DISINFECTION OF SUCH APPURTENANCES AND OF ANY PIPE BRANCHES TO ASSURE CHLORINATION SOLUTION IS CONFINED TO WATER MAIN BEING DISINFECTED.

9. THE WATER DEPARTMENT CHLORINATION CREW WILL DETERMINE THE LENGTH OF TIME THE CHLORINE SOLUTION IS TO BE HELD IN THE WATER MAIN BEING DISINFECTED.

(B.) FLUSHING

1. BEFORE DISINFECTION ALL DIRT AND FOREIGN MATTER SHALL BE REMOVED FROM THE NEW WATER MAIN OR EXTENSIONS TO EXISTING MAINS BY A THOROUGH FLUSHING THROUGH THE HYDRANTS OR BY OTHER APPROVED MEANS. EACH VALVE SECTION OF THE NEWLY LAID PIPE SHALL BE FLUSHED INDEPENDENTLY. THIS SHALL BE DONE AFTER THE PRESSURE TEST. FLUSHING SHALL BE IN ACCORDANCE WITH ANSI/AWWA C 651 STANDARD FOR DISINFECTING WATER MAINS. WHERE THE FLUSHING VELOCITY SPECIFIED THEREIN CANNOT BE ATTAINED, FLUSHING RATES AS DETERMINED BY THE DIRECTOR TO BE SUFFICIENT SHALL BE PERMITTED. IF IN THE OPINION OF THE DIRECTOR THE FLUSHING PRIOR TO THE CHLORINATION PROCEDURE DOES NOT REMOVE DIRT OR OTHER ACCUMULATIONS IN THE PIPE, THE PIPE SHALL BE CLEANED BY MECHANICAL MEANS BY THE CONTRACTOR AND THE FLUSHING SHALL BE REPEATED.

2. THE FLUSHING OF THE CHLORINATION SOLUTION SHALL BE DONE BY THE CONTRACTOR UNTIL THE CHLORINE SOLUTION IS TOTALLY FLUSHED OUT OF THE SYSTEM BEING DISINFECTED. ALL FLUSHING SHALL BE UNDER THE CONTROL OF THE DIRECTOR OF PUBLIC UTILITIES, OR HIS DESIGNATE. THE CONTRACTOR SHALL OBTAIN WATER FOR FLUSHING IN THE SAME MANNER AS FOR TESTING.

3. IN FLUSHING, THE CONTRACTOR SHALL PROPERLY DISPOSE OF THE CHLORINATION SOLUTION. ONLY POINTS OF DISCHARGE APPROVED BY THE CITY'S CHLORINATION CREW SHALL BE UTILIZED WITHOUT ANY TREATMENT TO CHEMICALLY NEUTRALIZE THE SOLUTION. IN CASES WHERE DIRECT DISPOSAL IS NOT APPROVED, THE CONTRACTOR SHALL NEUTRALIZE THE CHLORINE SOLUTION AS PROVIDED IN APPENDIX B OF AWWA C-651. CONTRACTOR SHALL OBTAIN APPROVAL, IN WRITING, OF THE LOCAL SEWER AUTHORITY BEFORE DISPOSING TO A SANITARY SEWER. A COPY OF SUCH WRITTEN APPROVAL SHALL BE PROVIDED TO THE RESIDENT INSPECTOR AND CHLORINATION CREW BEFORE ANY FLUSHING IS BEGUN.

4. THE CITY'S CHLORINATION CREW WILL DETERMINE WHEN THE DISINFECTION SOLUTION HAS BEEN SATISFACTORILY FLUSHED FROM THE MAIN AND BRANCHES.

(C) SAMPLING

1. A TIME PERIOD AS DETERMINED BY THE CITY SHALL ELAPSE BEFORE WATER SAMPLES ARE TAKEN FROM THE WATER MAIN(S) AND BRANCH(ES) TO DETERMINE THE BACTERIOLOGICAL QUALITY OF THE WATER THEREIN. IN NO CASE, SHALL THE TIME PERIOD BE LESS THAN TWENTY-FOUR (24) HOURS. NO SAMPLES SHALL BE TAKEN FROM FIRE HYDRANTS. THE CONTRACTOR SHALL ASSIST THE CITY'S CHLORINATION CREW IN OBTAINING SAMPLES. THE CITY WILL FURNISH ALL CONTAINERS AND CONTROL PROCEDURES FOR OBTAINING SAMPLES. THE CITY WILL DETERMINE THE NUMBER AND LOCATIONS OF SAMPLES TO BE TAKEN FROM THE DISINFECTED SECTIONS. THE CITY WILL DETERMINE THE BACTERIOLOGICAL QUALITY OF WATER SAMPLES. IF SAMPLING RESULTS IN TWO (2) CONSECUTIVE POSITIVE SAMPLES, THE PROCEDURE OF CHLORINATION, FLUSHING AND SAMPLING SHALL BE REPEATED. FIGURE 1, SUGGESTED CAMBINATION AND SAMPLING TAP, TAKEN FROM AWWA C-651, IS HEREIN MADE A PART OF THESE SPECIFICATIONS.

2. IN CASES WHERE THE LENGTH OF THE WATER MAIN IS LESS THAN 350 FEET, AFTER HYDROSTATIC TESTING ONLY, PRELIMINARY FLUSHING AND SAMPLING WILL BE DONE; HOWEVER, IF THERE ARE TWO (2) POSITIVE SAMPLES, AFTER FLUSHING, THE ENTIRE PROCEDURE OF PRELIMINARY FLUSHING, CHLORINATION, FLUSHING AND SAMPLING SHALL BE REQUIRED. THE CITY'S CHLORINATION CREW WILL COMPLETE AND DISTRIBUTE THE CHLORINATION APPROVAL FORM.

CONTRACTOR'S LABOR

THE CONTRACTOR SHALL FURNISH AT LEAST TWO (2) TRAINED WORKMEN TO PERFORM ALL LABOR UNDER THE SUPERVISION AND DIRECTION OF THE CITY'S CHLORINATION CREW. THE CONTRACTOR'S LABORERS SHALL PERFORM ALL DUTIES SPECIFIED IN WATER MAIN DISINFECTION, GENERAL NOTE. THE CONTRACTOR SHALL PROVIDE PROPER EQUIPMENT AND PROTECTIVE CLOTHING AS MAY BE REQUIRED BY THE LABORERS IN PERFORMING THE NEEDED TASK. THE CITY WILL MIX THE CHLORINATION SOLUTION TO BE USED BY THE CONTRACTOR FOR DISINFECTING.

ACCESS PITS

(A) THE CONTRACTOR SHALL PROVIDE TIGHTLY WOOD SHEETED ACCESS PITS, CONFORMING TO THE REQUIREMENTS OF THE SPECIFIC SAFETY REQUIREMENTS OF THE INDUSTRIAL COMMISSION OF OHIO RULE IC-3-11, FOR ACCESS TO ALL WATER MAIN APPURTENANCES TO BE UTILIZED IN DISINFECTING WATER MAINS.

(B) THE CONTRACTOR SHALL HAVE ON HAND READY FOR USE, PUMPING EQUIPMENT TO DEWATER THE ACCESS PITS WHEN ORDERED BY THE DIRECTOR.

CONNECTION OF NEW MAINS

WHEN THE NEW MAINS HAVE BEEN TESTED AND CHLORINATED AND ARE READY TO BE CONNECTED TO THE OLD MAIN, THE CONTRACTOR SHALL MAKE SUCH CONNECTIONS AT A TIME DESIGNATED BY THE CITY. PRIOR TO SHUTTING DOWN THE EXISTING MAINS, THE CONTRACTOR SHALL TAKE SUITABLE PRECAUTIONS TO ASSURE A MINIMUM INTERRUPTION TO SERVICE, INCLUDING THE FOLLOWING:

(A) PERFORM ALL NECESSARY EXCAVATION, INCLUDING BELL HOLES, EXPOSING THE EXISTING MAIN SUFFICIENTLY FOR THE OPERATION OF THE PIPE SAW BY THE CITY OR PIPE CUTTING BY THE CONTRACTOR.

(B) REMOVE THE CAP OR PLUG FROM THE END OF THE NEW MAIN.

(C) SWAB THE INSIDE OF ALL PIPES, BENDS, AND SLEEVES TO BE USED IN CONNECTION THOROUGHLY WITH A CHLORINE SOLUTION OF AT LEAST 100 P.P.M.

(D) MAKE UP AS MUCH OF THE CONNECTION AS POSSIBLE OUTSIDE THE DITCH TO ELIMINATE THE NEED FOR MAKING MOST OF THE NECESSARY JOINTS DURING THE SHUTDOWN. BY CAREFUL MEASUREMENT ALL PIPE CUTS CAN BE MADE BY THE CONTRACTOR PRIOR TO SHUTTING DOWN.

(E) HAVE SUFFICIENT MANPOWER AND EQUIPMENT ON THE SITE TO PERFORM THE OPERATION IN A MINIMUM OF TIME.

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WATERWORK NOTES

PAINTING

(A) IT IS THE INTENTION OF THESE SPECIFICATIONS TO PROVIDE THAT ALL METAL WORK SUBJECT TO CORROSION SHALL BE SATISFACTORILY PROTECTED BY A DURABLE COATING OF PAINT OR OTHER APPROVED MATERIAL AND THAT ALL METAL SURFACES NOT BURIED IN EARTH, OR IN CONCRETE SHALL BE LEFT CLEAN AND WELL PAINTED AT THE COMPLETION OF THE CONTRACT. UNLESS OTHERWISE SPECIFIED, THE PROTECTION SHALL BE AT LEAST THAT GIVEN BY THREE (3) COATS OF APPROVED PAINT. THE FIRST COAT IS TO BE APPLIED AT THE SHOP BEFORE THE METAL HAS RUSTED AND AFTER ALL GREASE, DIRT, AND SCALE HAS BEEN REMOVED. BOLTS AND NUTS SHALL NOT BE SHOP COATED, BUT SHALL RECEIVE THREE (3) COATS OF APPROVED PAINT AFTER INSTALLATION.

(B) ALL METAL WORK WHICH HAS NOT BEEN COATED BEFORE THE ARRIVAL ON THE JOB SHALL BE GIVEN A TEMPORARY PROTECTIVE COATING OF SUCH A NATURE AS TO PERMIT THE READY ADHERENCE OF FUTURE COATINGS. THE TEMPORARY COATING SHALL BE A GOOD GRADE ASPHALTIC PAINT OR OTHER APPROVED MATERIAL. THE TEMPORARY PROTECTION SHALL APPLY PARTICULARLY TO THE VALVE BOXES AND COVERS, MANHOLE RINGS AND COVERS, LADDERS AND LADDER RUNGS, DRESSER TYPE COUPLINGS AND ELSEWHERE WHEN IN THE OPTION OF THE CITY, SUCH PROTECTION IS NECESSARY.

(C) ALL SURFACES OF METAL WHICH WILL BE IN CONTACT AFTER ASSEMBLING SHALL BE PAINTED, AT LEAST ONE COAT, BEFORE ASSEMBLING. THE FINAL COAT OF PAINT ON ALL EXPOSED WORK SHALL BE GIVEN SHORTLY BEFORE THE COMPLETION OF THE CONTRACT.

(D) WHERE PAINTING CLAUSES APPEAR HEREINAFTER, THEY SHALL TAKE PRECEDENCE OVER THIS SECTION, EXCEPT THAT TEMPORARY PROTECTION HEREIN DESCRIBED MAY BE REQUIRED.

(E) ALL OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE PARTICULAR ITEM REQUIRING THE PAINTING.

TESTS, INSPECTION AND REPORTS

NOT WITHSTANDING THE REQUIREMENTS OF ANY OTHER PROVISIONS OF THESE SPECIFICATIONS, THE CONTRACTOR SHALL ARRANGE FOR AND PAY ALL COSTS INVOLVED FOR SHOP INSPECTION OF ALL MATERIALS FURNISHED, MANUFACTURE OF ALL PIPE, VALVES, FITTINGS, ETC., FIELD AND SHOP WELDS AND WELDING, AND FURNISH TO THE STATE AND THE CITY OF CLEVELAND COPIES OF ALL SHOP, FABRICATION, MANUFACTURE AND OTHER RELATED INSPECTION REPORTS OF MATERIALS FURNISHED. THIS INSPECTION SHALL BE DONE BY A RECOGNIZED INSPECTION LABORATORY APPROVED BY THE CITY OF CLEVELAND. IN THE CASE OF ANY ITEM NOT SPECIFICALLY MENTIONED IN THE "WATERWORK NOTES," OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS - JANUARY 1, 1987 SHALL GOVERN.

HANDLING PIPE AND ACCESSORIES

(A) UNLOADING PIPE, FITTINGS, VALVES, HYDRANTS, AND OTHER ACCESSORIES SHALL, UNLESS OTHERWISE DIRECTED, BE UNLOADED AT THE POINT OF DELIVERY, HAULED TO AND DISTRIBUTED AT THE SITE OF THE PROJECT BY THE CONTRACTOR. THEY SHALL AT ALL TIMES BE HANDLED WITH CARE TO AVOID DAMAGE. IN LOADING AND UNLOADING, THEY SHALL BE LIFTED BY HOISTS OR SLID, OR ROLLED ON SKIDWAYS IN SUCH MANNER AS TO AVOID SHOCK. UNDER NO CIRCUMSTANCES SHALL THEY BE DROPPED. PIPE HANDLED ON SKIDWAYS MUST NOT BE SKIDDED OR ROLLED AGAINST PIPE ALREADY ON THE GROUND.

(B) AT SITE OF WORK: IN DISTRIBUTING MATERIAL AT THE SITE OF THE WORK, EACH PIECE SHALL BE UNLOADED OPPOSITE OR NEAR THE PLACE WHERE IT IS TO BE LAID IN THE TRENCH.

(C) PROTECTION OF PIPE COATING: PIPE SHALL BE HANDLED IN SUCH MANNER THAT A MINIMUM AMOUNT OF DAMAGE TO THE COATING WILL RESULT. ANY PIPE OR FITTING, THE COATING OF WHICH HAS BEEN DAMAGED IN SHIPPING OR HANDLING, SHALL HAVE THE DAMAGED PORTION WELL CLEANED AND COVERED WITH AN ASPHALT PAINT, APPROVED BY THE CITY BEFORE BEING PLACED IN THE WORK. THE CONTRACTOR SHALL THOROUGHLY COAT ALL EXPOSED PART OF BOLTS AND NUTS WITH AN APPROVED ASPHALT PAINT, AFTER ALL PIPE HAS BEEN LAID AND BEFORE BACKFILLING HAS BEEN PLACED. ALL FIELD COATINGS SHALL BE FURNISHED BY THE CONTRACTOR.

(D) PROTECTION OF CONCRETE PIPE: IF, IN THE PROCESS OF MANUFACTURE, TRANSPORTATION, OR HANDLING, ANY CONCRETE PIPE OR SPECIAL RECEIVES ANY INDENTATION OR DEFORMATION TO THE CONCRETE, STEEL ENDS OR CONNECTIONS, THE REMOVAL OF WHICH IN ANY DEGREE INJURE IT, SUCH PIPE OR SPECIAL SHALL BE REJECTED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

(E) PIPE KEPT CLEAN: THE INTERIOR OF THE PIPE, FITTINGS, AND OTHER ACCESSORIES SHALL BE KEPT FREE FROM DIRT AND FOREIGN MATTER AT ALL TIMES.

(F) FROST PROTECTION: VALVES AND HYDRANTS BEFORE INSTALLATION SHALL BE DRAINED AND STORED IN A MANNER THAT WILL PROTECT THEM FROM DAMAGE BY FREEZING.

CHANGES IN WATER MAINS

(A) WHEREVER IT BECOMES NECESSARY, IN THE OPTION OF THE ENGINEER OR CITY TO CHANGE THE LOCATION OR ELEVATION OF WATER MAINS AND HYDRANTS AND WHERE CONNECTIONS ARE TO BE MADE BETWEEN EXISTING DISTRIBUTION MAINS AND WATER MAINS UNDER THIS CONTRACT, THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING WATER LINE MATERIALS REQUIRED TO MAKE THE CONNECTION, AND SHALL FURNISH AND INSTALL COMPLETE ALL THE DUCTILE IRON PIPE, PRESTRESSED CONCRETE CYLINDER PIPE, FITTINGS, AND VALVES TO MAKE THE CONNECTIONS INDICATED, EXCEPT TAPPING SLEEVES AND VALVES WHICH SHALL BE FURNISHED BY THE CONTRACTOR AND INSTALLED BY THE CITY. PRESSURE TAPS FOR DISTRIBUTION MAINS SHALL BE MADE BY THE CITY OF CLEVELAND DIVISION OF WATER AND HEAT. THE CONTRACTOR SHALL ALSO FURNISH ALL NECESSARY LABOR, MATERIALS, TOOLS, AND EQUIPMENT AND MAKE THE EXCAVATION, BACKFILL, AND REPAVNG FOR SUCH CONNECTIONS. PAYMENT FOR THIS WILL BE INCLUDED IN PRICE BID UNDER APPROPRIATE ITEM FOR SIZE OF WATER MAIN OR CONNECTION TO BE INSTALLED. ALL PIPES, VALVES, AND APPURTENANCES REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR. (SEE WORK TO BE DONE BY THE CITY).

WORK TO BE DONE BY THE CITY OF CLEVELAND

(A) THE CITY WILL INSTALL ALL BRANCH SLEEVES AND VALVES FURNISHED BY THE CONTRACTOR. THE CONTRACTOR SHALL SUPPLY THE BRANCH SLEEVES AND VALVES AND DO ALL THE NECESSARY EXCAVATION, BACKFILLING AND REPAVING REQUIRED THEREFORE. THE CONTRACTOR SHALL FURNISH ALL AIR COMPRESSORS REQUIRED FOR THE WORK.

(B) IN LOCATIONS WHERE BRANCH SLEEVES AND VALVES CANNOT BE INSTALLED, THE CONTRACTOR WILL BE REQUIRED TO CUT IN TEES AND SLEEVE-IN THE REMAINDER OF THE CUT SECTION OF THE EXISTING MAIN. TO SPEED UP THIS OPERATION, IT IS CALLED TO THE CONTRACTOR'S ATTENTION THAT THE WATER DEPARTMENT HAS ON HAND AT HARVARD YARDS MOTOR OPERATED PIPE CUTTERS WHICH ARE AVAILABLE FOR CUTTING PIPE BY CITY FORCES. COST INCLUDES THAT FOR LABOR, USE OF PIPE CUTTING MACHINE, AND TRUCK. THE CITY WILL CHARGE FOR CUTTING PIPE BY CITY FORCES. THE COSTS CHARGED MUST BE OBTAINED FROM THE PERMITS-SALES SECTION OF THE DIVISION OF WATER AND HEAT, PUBLIC UTILITIES BUILDING, 1201 LAKESIDE AVENUE, CLEVELAND, OHIO 44114. THE CONTRACTOR SHALL DO ALL NECESSARY EXCAVATION, BACKFILLING AND REPAVING AND ALL AIR COMPRESSOR AND CRANE SERVICE SHALL BE FURNISHED BY THE CONTRACTOR.

EXCAVATION

(A) THE CONTRACTOR SHALL REMOVE ALL EXISTING STRUCTURES, ROADWAYS, DRIVEWAYS, AND OTHER SIMILAR MATERIALS AND MAKE ALL EXCAVATION NECESSARY FOR THE PROPER CONSTRUCTION OF THE WATER MAIN, PIPE CONNECTIONS AND APPURTENANT STRUCTURES, INCLUDING TUNNEL AND SHAFT EXCAVATION. THE EXCAVATION SHALL INCLUDE THE REMOVAL, HANDLING, REHANDLING AND DISPOSAL OF MATERIALS ENCOUNTERED IN THE WORK AND SHALL INCLUDE ALL PUMPING, BAILING, DRAINAGE, SHEETING, AND BRACING. MOREOVER, THE CONTRACTOR MUST ASSUME ALL RESPONSIBILITY FOR ANY ADDED EXPENSE OR OTHER LIABILITY WHICH MAY ARISE BY MEANS OF QUICKSAND, OBSTACLES OR CONDITIONS FORESEEN AND UNFORESEEN OR ENCOUNTERED IN THE WORK OF THIS CONTRACT.

(B) TRENCHES SHALL IN EVERY CASE BE OF SUFFICIENT WIDTH TO PERMIT SOLID PACKING OF BACKFILL UNDER AND AROUND PIPES, AND SATISFACTORY CONSTRUCTION OF ALL APPURTENANCES AND FOR SUCH SHEETING AND SHORTING, PUMPING AND DRAINING AS MAY BE NECESSARY.

(C) THE TRENCH SHALL BE DUG TO THE ALIGNMENT AND DEPTH REQUIRED AND ONLY SO FAR IN ADVANCE OF PIPE LAYING AS THE ENGINEER SHALL PERMIT. THE TRENCH SHALL BE SO BRACED AND DRAINED THAT WORKMEN MAY WORK THEREIN SAFELY AND EFFICIENTLY. IT IS ESSENTIAL THAT THE DISCHARGE FROM PUMPS BE LED TO NATURAL DRAINAGE CHANNELS, TO DRAINS, OR TO SEWERS.

(D) THE TRENCH WIDTH MAY VARY WITH AND DEPEND UPON THE DEPTH OF TRENCH AND THE NATURE OF THE EXCAVATED MATERIAL ENCOUNTERED, BUT IN ANY CASE SHALL BE OF AMPLE WIDTH TO PERMIT THE PIPE TO BE LAID AND JOINTED PROPERLY AND OF THE BACKFILL TO BE PLACED AND COMPACTED PROPERLY. THE MINIMUM WIDTH OF UNSHEETED, TRENCH SHALL BE EIGHTEEN (18) INCHES AND FOR PIPE TEN (10) INCHES OR LARGER; AT LEAST TWELVE (12) INCHES LARGER THAN THE OUTSIDE DIAMETER OF THE PIPE FOR CONCRETE PIPE AND EIGHTEEN (18) INCHES LARGER THAN THE OUTSIDE DIAMETER OF THE PIPE FOR IRON AND STEEL PIPE, EXCEPT BY CONSENT OF THE ENGINEER. THE MAXIMUM CLEAR WIDTH OF TRENCH SHALL BE NOT MORE THAN TWO (2) FEET GREATER THAN THE OUTSIDE PIPE DIAMETER. WHEN SHEETING AND BRACING IS USED, THE TRENCH WIDTH SHALL BE INCREASED ACCORDINGLY.

(E) THE TRENCH, UNLESS OTHERWISE SPECIFIED, SHALL HAVE A FLAT BOTTOM CONFORMING TO THE GRADE TO WHICH THE PIPE IS TO BE LAID. THE PIPE SHALL BE LAID UPON SOUND SOIL CUT TRUE AND EVEN, SO THAT THE BARREL OF THE PIPE WILL HAVE A BEARING FOR ITS FULL LENGTH.

(F) ANY PART OF THE TRENCH EXCAVATED BELOW GRADE SHALL BE CORRECTED WITH APPROVED MATERIAL, THOROUGHLY COMPACTED.

(G) WHEN THE UNCOVERED TRENCH BOTTOM AT SUBGRADE IS SOFT AND IN THE OPINION OF THE ENGINEER CANNOT SUPPORT THE PIPE, A FURTHER DEPTH AND OR WIDTH SHALL BE EXCAVATED AND BACKFILLED TO PIPE FOUNDATION GRADE AS REQUIRED UNDER (F), OR OTHER APPROVED MEANS SHALL BE ADOPTED TO ASSURE A FIRM FOUNDATION FOR THE PIPE.

(H) LEDGE ROCK, BOULDERS, LARGE STONES, AND SHALE SHALL BE REMOVED TO PROVIDE A CLEARANCE OF AT LEAST SIX (6) INCHES BELOW ALL PARTS OF THE PIPE, VALVES, OR FITTINGS AND A CLEAR WIDTH OF SIX (6) INCHES ON EACH SIDE OF ALL CONCRETE PIPE AND NINE (9) INCHES ON EACH SIDE OF ALL CAST IRON AND STEEL PIPE SHALL BE PROVIDED.

(I) EXCAVATION BELOW SUBGRADE IN ROCK, SHALE OR IN BOULDERS SHALL BE BACKFILLED TO SUBGRADE WITH APPROVED MATERIAL, THOROUGHLY COMPACTED.

(J) BELL HOLES OR AMPLE DIMENSIONS SHALL BE DUG IN EARTH TRENCHES AT EACH JOINT TO PERMIT THE JOINTING TO BE MADE PROPERLY. ADEQUATE CLEARANCE FOR PROPER JOINTING PIPE LAID IN ROCK SHALL BE PROVIDED AT BELL HOLES.

(K) THE USE OF EXCAVATING MACHINERY WILL BE PERMITTED EXCEPT IN PLACES WHERE ITS OPERATION WILL CAUSE DAMAGE TO TREES, BUILDINGS, OR EXISTING STRUCTURES ABOVE OR BELOW GROUND, IN WHICH CASE HAND METHODS SHALL BE EMPLOYED.

(L) TREES, FENCES, POLES AND ALL OTHER PROPERTY SHALL BE PROTECTED UNLESS THEIR REMOVAL IS AUTHORIZED. ANY PROPERTY DAMAGED SHALL BE SATISFACTORILY RESTORED BY THE CONTRACTOR.

(M) HYDRANTS UNDER PRESSURE, VALVE PIT COVERS, VALVE BOXES, CURB STOP BOXES, OR OTHER UTILITY CONTROLS SHALL BE LEFT UNOBSTRUCTED AND ACCESSIBLE DURING THE CONSTRUCTION PERIOD.

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WATERWORK NOTES

(N) THE CONTRACTOR SHALL MAINTAIN ALL EXCAVATING IN GOOD ORDER DURING THE CONSTRUCTION, SO AS NOT TO HINDER OR INJURE THE PIPE LAYING, MASONRY OR OTHER WORK. HE SHALL TAKE ALL REASONABLE PRECAUTIONS TO PREVENT MOVEMENT OF THE SIDES OF SUCH EXCAVATION, AND SHALL REMOVE AT HIS OWN EXPENSE ANY MATERIAL SLIDING INTO THE EXCAVATION.

SHEETING AND BRACING

(A) THE CONTRACTOR SHALL FURNISH AND PUT IN PLACE SUCH SHEETING AND BRACING AS MAY BE REQUIRED TO SUPPORT THE SIDES OF TRENCHES OR OTHER EXCAVATION AND SHALL REMOVE SUCH SHEETING AND BRACING, AS THE TRENCH OR EXCAVATION IS FILLED UP, UNLESS THE ENGINEER SHALL ORDER IT LEFT IN PLACE, IN WHICH CASE THE CONTRACTOR SHALL CUT THE PLANK OFF AT A HEIGHT AS ORDERED BY THE ENGINEER, OR AS CALLED FOR ON THE CONTRACT DRAWINGS. THAT PORTION OF THE TIMBER ORDERED TO BE LEFT IN PLACE WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER THOUSAND FEET BOARD MEASURE. NO PAYMENT WILL BE MADE FOR WASTED ENDS.

(B) FOR ALL EXCAVATIONS FOR THE WORK DESCRIBED HEREIN, THE CONTRACTOR SHALL FURNISH AND PLACE SHEETING AND BRACING SO AS TO REDUCE TO A MINIMUM THE POSSIBILITY OF INJURY OR DAMAGE TO THE SAME.

(C) IF THE ENGINEER IS OF THE OPINION THAT AT ANY POINT SUFFICIENT OR PROPER SUPPORTS, SHEETING, OR BRACINGS HAVE NOT BEEN PROVIDED, HE MAY ORDER ADDITIONAL SUPPORTS, SHEETING OR BRACING, AT THE EXPENSE OF THE CONTRACTOR, AND THE COMPLIANCE WITH SUCH ORDERS BY THE CONTRACTOR SHALL NOT RELIEVE OR RELEASE HIM FROM HIS RESPONSIBILITY FOR SUFFICIENCY OF SUCH SUPPORTS.

(D) SHEETING AND BRACING SHALL BE PROVIDED IN ACCORDANCE WITH RULE 1C-3-11 OF THE SAFETY REQUIREMENTS OF THE INDUSTRIAL COMMISSION OF OHIO.

PREQUALIFICATIONS OF CONTRACTOR FOR TAPPING

THAT THE COMMISSIONER OF WATER IS AUTHORIZED TO DEEM PERSONS OR FIRMS QUALIFIED TO TAP MAINS FOR SERVICE CONNECTION REINSTALLATION AFTER QUALIFICATIONS OF TAPPER, INSPECTION OF EQUIPMENT, AND PROVEN ABILITY AND WORKMANSHIP HAVE BEEN ESTABLISHED AS TO TAP SIZES TO HIS SATISFACTION. TO DETERMINE THE QUALIFICATIONS OF ANY PERSON OR FIRM TO TAP MAINS, THE COMMISSIONER OR HIS DESIGNEE SHALL WITNESS THE INSTALLATION OF A SERVICE CONNECTION IN A WATER MAIN UNDER PRESSURE AND INSPECT TAPPING EQUIPMENT TO BE USED BY TAPPER. UPON SUCCESSFUL COMPLETION OF A TAP SIZE, THE TAPPER SHALL BE CERTIFIED BY LETTER FROM THE COMMISSIONER TO THE DIRECTOR OF TRANSPORTATION OF TAPPER'S COMPETENCE AND QUALIFICATIONS. THIS QUALIFICATION MAY BE REVOKED BY THE COMMISSIONER OF WATER AND HEAT IF IT IS DETERMINED THAT THE TAPPER'S COMPETENCY IS NOT MAINTAINED OR EQUIPMENT IS CHANGED.

NO TAPPING SHALL BE DONE WITHOUT THE KNOWLEDGE AND APPROVAL OF THE DIVISION OF WATER AND HEAT INSPECTOR. FOR EACH TAP TO BE MADE TO REINSTALL A WATER SERVICE CONNECTION, THE TAPPER SHALL OBTAIN AND COMPLETE A CITY OF CLEVELAND "CITY METER REPAIRS HY" FORM C OF C 101-130A FROM THE INSPECTOR. FAILURE TO PRESENT FORM AT TIME OF COMPLETION OF REINSTALLATION SHALL BE CAUSE FOR IMMEDIATE DISQUALIFICATION.

ON CLASS 52 DUCTILE IRON WATER MAIN ALL SERVICE CONNECTIONS WILL REQUIRE A BRONZE DOUBLE STRAP TAPPING SADDLE.

REMOVAL OF EXCAVATED MATERIAL

(A) ALL SURPLUS MATERIAL AND SUCH OTHER MATERIAL AS THE ENGINEER MAY DEEM UNFIT FOR USE AS BACKFILL SHALL BE DISPOSED OF BY THE CONTRACTOR SO AS TO GIVE A MINIMUM OF INCONVENIENCE TO THE PUBLIC. IN CASE OF SETTLEMENT AFTER BACKFILL, THE CONTRACTOR SHALL SUPPLY SUFFICIENT MATERIAL SATISFACTORY TO THE ENGINEER TO MAKE UP FOR THE DEFICIENCY.

(B) IN THE STORING OF EXCAVATED MATERIAL, WHICH IS TO BE USED AS A BACKFILL, THE CONTRACTOR SHALL EXERCISE CARE SO AS TO AVOID INCONVENIENCING THE PUBLIC. IF IN THE OPINION OF THE ENGINEER IT IS NECESSARY TO REMOVE THIS EXCAVATED MATERIAL FROM THE STREET OR LOTS, THE CONTRACTOR SHALL BE REQUIRED TO DO SO.

(C) ANY MATERIAL WHICH MAY SPILL OR DRIP FROM VEHICLES BY HAULING IN THE STREETS SHALL BE REMOVED AND THE STREETS CLEANED BY THE CONTRACTOR, TO THE SATISFACTION OF THE ENGINEER.

(D) WHEN SO DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL IMMEDIATELY REMOVE ALL EXCAVATED MATERIALS FROM THE SITE.

LAYING PIPE

(A) PROPER IMPLEMENTS, TOOLS, AND FACILITIES, SATISFACTORY TO THE ENGINEER, SHALL BE PROVIDED AND USED BY THE CONTRACTOR FOR THE SAFE AND CONVENIENT PROSECUTION OF THE WORK. ALL PIPE, FITTINGS, AND VALVES SHALL BE CAREFULLY LOWERED INTO THE TRENCH, PIECE BY PIECE, BY MEANS OF DERRICK, PROPER SLINGS, AND OTHER SUITABLE TOOLS OR EQUIPMENT, IN SUCH MANNER AS TO PREVENT DAMAGE TO PIPE OR COATING. UNDER NO CIRCUMSTANCES SHALL PIPE OR ACCESSORIES BE DROPPED OR DUMPED INTO THE TRENCH. IF ANY DEFECTIVE PIECE IS DISCOVERED WHILE PIPE IS SUSPENDED OR AFTER BEING LAID, A NEW PIECE SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

(B) ALL FOREIGN MATTER OR DIRT SHALL BE REMOVED FROM THE INSIDE OF THE PIPE BEFORE IT IS LOWERED INTO ITS POSITION IN THE TRENCH, AND IT SHALL BE KEPT CLEAN BY APPROVED MEANS DURING AND AFTER LAYING.

(C) AT TIMES WHEN PIPE LAYING IS NOT IN PROGRESS, THE OPEN ENDS OF PIPE SHALL BE CLOSED BY APPROVED MEANS, AND NO TRENCH WATER SHALL BE PERMITTED TO ENTER THE PIPE. NO PIPE SHALL BE LAID IN WATER, OR WHEN THE TRENCH CONDITIONS OR THE WEATHER IS UNSUITABLE FOR SUCH WORK, EXCEPT BY PERMISSION OF THE ENGINEER.

(D) WHEREVER NECESSARY TO DEFLECT PIPE FROM A STRAIGHT LINE, EITHER IN THE VERTICAL OR HORIZONTAL PLANE TO AVOID OBSTRUCTIONS, TO PLUMB STEMS, OR FOR OTHER REASONS, THE DEGREE OF DEFLECTION SHALL BE APPROVED BY THE ENGINEER.

(E) BEFORE LAYING DUCTILE IRON PIPE, ALL LUMPS, BLISTERS, AND EXCESS COAL TAR COATING SHALL BE REMOVED FROM THE BELL AND SPIGOT ENDS OF EACH PIPE. THE PIPE ENDS SHALL THEN BE KEPT CLEAN UNTIL JOINTS ARE MADE.

(F) BEFORE LAYING CONCRETE PIPE, THE PIPE ENDS SHALL BE MADE SMOOTH WITH EMERY CLOTH, FILE, OR OTHER APPROVED MEANS, WIRE BRUSHED AND WIPED UNTIL CLEAN AND DRY. PIPE ENDS SHALL BE KEPT CLEAN UNTIL JOINTS ARE MADE. AFTER CLEANING AND DRYING, ALL CONTACT SURFACES OF THE GASKETS AND STEEL JOINT RINGS SHALL BE COATED WITH AN APPROVED FLAX SOAP BEFORE ENTERING THE SPIGOT ENDS INTO THE SOCKET. IMMEDIATELY AFTER THE JOINT IS PULLED TOGETHER, THE PIPE SHALL BE BLOCKED WITH WOOD BLOCKING. A SURCINGLE SHALL BE INSTALLED AROUND THE JOINT AND THE PIPE SHALL BE SECURED WITH EARTH OR SAND AS REQUIRED, CAREFULLY TAMPED UNDER AND ON EACH SIDE UP TO THE SPRING-LINE OF THE PIPE, INCLUDING THE BELL HOLES. ALL BLOCKING SHALL BE REMOVED WHEN BACKFILL HAS REACHED THE SPRING LINE FOR THE PIPE.

FLOATING

THE CONTRACTOR SHALL TAKE EVERY PRECAUTION AGAINST THE FLOATING OF THE PIPE DUE TO WATER COMING INTO THE TRENCH, OR THROUGH CAVING IN, FLUSHING OR PUDDLING. IN CASE OF SUCH FLOATING THE CONTRACTOR SHALL REPLACE THE PIPE AT HIS OWN EXPENSE AND MAKE WHOLLY GOOD ANY INJURY OR DAMAGE WHICH MAY HAVE RESULTED.

PLUGGING DEAD ENDS

STANDARD RESTRAINED PLUGS WITH CLAMPS SHALL BE INSERTED INTO THE BELL OF ALL DEAD ENDS OF PIPES, TEES, OR CROSSES, AND SPIGOT ENDS SHALL HAVE RESTRAINED CAPS AND CLAMPS INSTALLED BY THE CONTRACTOR, ON ALL MAINS CONSTRUCTED BY HIM AND ON EXISTING WATER MAINS WHERE INDICATED IN THE CONTRACT DRAWINGS. CONCRETE PIERS SHALL BE PLACED WHEN CALLED FOR ON THE CONTRACT DRAWINGS, OR ORDERED BY THE CITY. THE COST OF FURNISHING AND INSTALLING THE PLUGS IN NEW WATER MAINS SHALL BE INCLUDED IN THE PER LINEAR FOOT PRICE FOR THE VARIOUS SIZES OF NEW WATER MAINS. THE COST OF FURNISHING AND INSTALLING THE PLUG IN EXISTING WATER MAIN SHALL BE INCLUDED IN THE UNIT PRICE BID FOR EACH "ITEM SPECIAL-PLUGGING EXISTING WATER MAINS AND BRANCHES," CLASSIFIED AS TO SIZE AS SHOWN ELSEWHERE IN THESE PLANS. PAYMENT FOR TEMPORARY PLUGS OR CAPS FOR TESTING AND CHLORINATION SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAL FOOT OF WATER MAIN TO BE TESTED AND CHLORINATED.

BACKFILLING

(A) BACKFILL, UNLESS OTHERWISE SPECIFIED, MAY BE MADE WITH MATERIAL EXCAVATED FROM TRENCHES, PROVIDING IT IS SATISFACTORY TO THE CITY. IF, IN THE OPINION OF THE CITY, THE MATERIAL EXCAVATED IS UNSATISFACTORY, THEN THE CONTRACTOR SHALL FURNISH AT HIS OWN EXPENSE OTHER MATERIAL SUITABLE FOR BACKFILL. ALL BACKFILL SHALL BE FREE FROM SLAG, CINDERS, RUBBISH AND OTHER OBJECTIONABLE MATERIAL.

(B) BEFORE LAYING THE PIPE, THE BOTTOM OF THE TRENCH SHALL BE BROUGHT TO THE GRADE OF THE BOTTOM OF THE PIPE, EXCEPT AT FIELD JOINTS. WHEREVER THE BOTTOM OF THE TRENCH HAS BEEN EXCAVATED BELOW THE BOTTOM OF THE PIPE, THE CONTRACTOR SHALL PLACE SAND, OR OTHER MATERIAL SATISFACTORY TO THE ENGINEER TO BRING THE BOTTOM OF THE TRENCH TO THE GRADE OF THE BOTTOM OF THE PIPE. THIS BED SHALL BE THOROUGHLY TAMPED BEFORE THE PIPE IS LAID.

(C) UNLESS OTHERWISE SPECIFIED, THE BACKFILL UNDER, AROUND AND TO A DEPTH OF ONE (1) FOOT ABOVE THE TOP OF ALL PIPE SHALL BE MADE WITH SAND IN ACCORDANCE WITH 703.02, WHICH MATERIAL SHALL BE FREE FROM OBJECTIONABLE MATERIAL NOTED ABOVE. THE CONTRACTOR MUST USE SPECIAL CARE IN PLACING THIS PORTION OF THE BACKFILL, SO AS TO AVOID INJURING, DISTORTING OR MOVING THE PIPE DURING COMPACTION. ABOVE THIS LEVEL THE BACKFILL SHALL BE MADE WITH MATERIAL SATISFACTORY TO THE CITY.

(D) BACKFILLING AS NOTED IN PARAGRAPH (D) SHALL BE TAMPED IN THIN LAYERS, SIMULTANEOUSLY ON EACH SIDE OF THE PIPE, AND THOROUGHLY COMPACTED, SO AS TO PROVIDE A SOLID BACKING AGAINST THE EXTERNAL SURFACE OF THE PIPE.

(E) ONLY AFTER THE BACKFILL PREVIOUSLY MENTIONED HAS BEEN SATISFACTORILY COMPACTED, MAY WORK PROCEED IN PLACING THE REMAINING BACKFILL WHICH MUST BE CAREFULLY PLACED AND COMPACTED IN FOUR INCH LAYERS BY TAMPING, WITH MECHANICAL TAMPERS OR ROLLING. ALL PRECAUTIONS MUST BE TAKEN TO ELIMINATE FUTURE SETTLEMENT. THE NUMBER OF MEN TAMPING SHALL BE NOT LESS THAN THE NUMBER BACKFILLING, AND ADDITIONAL MEN SHALL BE KEPT IN THE TRENCH TO SPREAD THE MATERIAL.

(F) BACKFILLING SHALL NOT BE DONE IN FREEZING WEATHER EXCEPT BY PERMISSION OF THE ENGINEER, AND IT SHALL NOT BE MADE WITH FROZEN MATERIAL, NOR SHALL ANY FILL BE MADE WHERE THE MATERIAL ALREADY IN THE DITCH IS FROZEN.

(G) ALL BACKFILL SHALL BE MADE WITH SAND, ITEM 703.02 OF O.D.O.T. SPECIFICATIONS WHERE PERMANENT PAVEMENTS, CURBS, DRIVEWAYS, OR SIDEWALKS HAVE BEEN OPENED FOR OR UNDERCUT BY THE EXCAVATION, WHERE ORDERED BY THE ENGINEER.

WATERWORK NOTES

(H) SPECIAL TREATMENT OF THE TRENCH WILL BE REQUIRED WHERE CINDER OR ACTIVE SULPHUR BEARING SHALL OR CLAYS EXCAVATION EXCEEDING ONE FOOT MEASURED FROM THE TOP SURFACE IS ENCOUNTERED. BEFORE LAYING THE PIPE, THE BOTTOM OF THE TRENCH SHALL BE DUG BELOW GRADE AND THEN BROUGHT TO THE GRADE OF THE PIPE IN THE FOLLOWING MANNER: A FOUR (4) INCH LAYER OF CRUSHED LIMESTONE SHALL BE PLACED ON THE ENTIRE WIDTH OF THE BOTTOM OF THE TRENCH FOLLOWED BY A FILLER OF HYDRATED LIME AND A LAYER OF THREE (3) INCHES OF SAND. THE CRUSHED LIMESTONE SHALL BE WELL GRADED FROM THE FINE TO COARSE AND FREE FROM SLAG, CINDERS, ASHES, RUBBISH, OR OTHER OBJECTIONABLE MATERIAL. ALL LIMESTONE MUST BE CAPABLE OF BEING PASSED THROUGH A 3/4 INCH SIEVE. ON TOP OF THIS LAYER OF CRUSHED STONE, HYDRATED LIME SHALL BE SUPPLIED IN THE AMOUNT OF 3/8 OF A POUND PER SQUARE FOOT OF TRENCH. THIS BED OF CRUSHED LIMESTONE SHALL BE THOROUGHLY TAMPED BEFORE THE 3" LAYER OF SAND IS PLACED. THE BACKFILL AROUND AND TO THE DEPTH OF 3" ABOVE THE TOP OF PIPE SHALL BE MADE WITH SAND. THE CONTRACTOR MUST USE SPECIAL CARE IN PLACING THIS PORTION OF THE BACKFILL SO AS TO AVOID INJURING OR MOVING THE PIPE WHEN COMPACTING SAME. ON TOP OF THE SAND THE CONTRACTOR SHALL PLACE ANOTHER LAYER OF CRUSHED LIMESTONE FIVE (5) INCHES THICK ON THE ENTIRE WIDTH OF THE TRENCH. ON TOP OF THE COMPACTED LAYER OF LIMESTONE HYDRATED LIME SHALL THEN BE APPLIED IN THE AMOUNT OF 3/4 OF A POUND PER SQUARE FOOT OF TRENCH. THE REMAINING BACKFILL SHALL BE MADE WITH SAND CAREFULLY PLACED AND COMPACTING BY TAMPING, OR ROLLING. ALL PRECAUTIONS SHALL BE TAKEN TO ELIMINATE FUTURE SETTLEMENT. THE TREATMENT OF THE TRENCH BOTTOM, PREVIOUSLY DESCRIBED, MAY BE OMITTED WHERE THE CINDER DEPTH MEASURED FROM THE TOP SURFACE DOES NOT EXCEED 2'-6".

PROVISIONS FOR PROTECTING THE WORK

THE CONTRACTOR SHALL FURNISH ALL THE NECESSARY EQUIPMENT, SHALL TAKE ALL NECESSARY PRECAUTIONS AND SHALL ASSUME THE ENTIRE COST OF HANDLING ANY SEWAGE, SEEPAGE, STORM SURFACE AND FLOOD FLOWS OR ICE, WHICH MAY BE ENCOUNTERED AT ANY TIME DURING THE CONSTRUCTION OF THE WORK. THE MANNER OF PROVIDING FOR THESE OCCURANCES SHALL MEET WITH THE APPROVAL OF THE ENGINEER. AFTER INSTALLATION, THE CONTRACTOR SHALL FURNISH AND MAINTAIN SATISFACTORY PROTECTION TO ALL EQUIPMENT WHETHER OF THIS OR OTHER CONTRACT AGAINST INJURY BY WEATHER, FLOODING OR BY DIRECT OR INCIDENTAL DAMAGE FROM HIS OWN OPERATIONS, LEAVING ALL WORK IN A PERFECT CONDITION AT THE COMPLETION OF THE CONTRACT. NO EXTRA PAYMENT WILL BE MADE FOR THIS WORK BUT THE ENTIRE COST OF THE SAME SHALL BE INCLUDED IN THE WORK TO BE DONE IN THIS CONTRACT.

DRAWINGS

(A) THE CONTRACTOR SHALL SUBMIT TO THE DIRECTOR FOR APPROVAL, DUPLICATE PRINTS OF ALL SHOP DRAWINGS AS DEVELOPED BY THE FABRICATOR, FOR CONCRETE PIPE, FITTINGS AND SPECIALS, AND MISCELLANEOUS DETAILS, SUCH AS VALVES, DRAIN FORGOINGS, PRECAST VALVES, CASTINGS, ETC. DRAWINGS SHALL INCLUDE DETAILS, LAYOUTS AND LAYING SCHEDULE FOR ALL PIECES FURNISHED REQUIRING DRAWING SUBMITTAL.

(B) ONE PRINT OF EACH OF THE DRAWINGS SUBMITTED WILL BE RETURNED WITH THE CRITICISMS OR APPROVAL OF THE DIRECTOR. IN CASE THE DRAWINGS ARE NOT APPROVED, THE CONTRACTOR SHALL AGAIN SEND FOR APPROVAL DUPLICATE REVISED PRINTS OF THE DRAWINGS TO TAKE CARE OF THE CRITICISMS NOTED, AND AFTER THE DRAWINGS HAVE BEEN FINALLY APPROVED, THE CONTRACTOR SHALL FURNISH TO THE DIRECTOR THREE (3) REPRODUCABLE TRACINGS ON CLOTH OR MYLAR, OF EACH DRAWING. NO WORK SHALL BE DONE IN THE SHOP UNTIL AFTER THE DRAWINGS HAVE BEEN FINALLY APPROVED. DRAWINGS SHALL BE ON COMPOSITE SHEETS 24" X 36". NO SMALLER SHEETS WILL BE ACCEPTED. MYLAR FILM THICKNESS SHALL BE 5 MILS.

(C) THE APPROVAL OF THE DRAWINGS BY THE DIRECTOR SHALL NOT RELIEVE THE CONTRACTOR OF ANY OF HIS OBLIGATIONS IN CONNECTION WITH THIS CONTRACT.

ITEM SPECIAL - MISCELLANEOUS METAL WORK

WORK INCLUDED

(A) THE CONTRACTOR SHALL FURNISH AND INSTALL THE MISCELLANEOUS METAL WORK WHICH IS REQUIRED FOR THE PROPER COMPLETION OF THE WORK INCLUDED UNDER THIS CONTRACT AND IS NOT SPECIFICALLY INCLUDED UNDER THE OTHER ITEMS OR THESE SPECIFICATIONS.

(B) IN GENERAL, THE WORK SHALL INCLUDE THE REPLACEMENT OF ANY VALVE BOXES, COVERS, MANHOLE RINGS AND COVERS, WATER SERVICE STOP BOXES, BRONZE BOLTS, MANHOLE STEPS, EXTENSION STEMS AND BRACE STRUCTURAL MEMBERS AND OTHER SIMILAR ITEMS DETERMINED BY THE ENGINEER AS BEING UNSUITABLE

MATERIALS

ALL CASTINGS SHALL CONFORM TO THE REQUIREMENTS OF ITEM 604 OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL MEET THE REQUIREMENTS OF THE ASTM SPECIFICATIONS A 36. ALL BRONZE BOLTS AND NUTS SHALL CONFORM TO THE U.S. STANDARD SIZES, AND SHALL BE CLEAN CUT AND HAVE WELL FITTED THREADS. ALL BRONZE BOLTS AND NUTS SHALL BE TOBIN OR MANGANESE BRONZE, OR OF SIMILAR APPROVED MATERIAL.

ALUMINUM, EXCEPT AS OTHERWISE REQUIRED, SHALL BE ALUMINUM ALLOY EQUIVALENT TO SPECIFICATION 6063; RIVETS AND SCREWS SHALL BE 2017 ALLOY; ALUMINUM PLATE AND STRUCTURAL SHAPES SHALL BE 2017 ALLOY; ALUMINUM PLATE AND STRUCTURAL SHAPES SHALL BE 6061-T6 AND EXTRUDED SHAPES SHALL BE 6063-T5; ALL AS MANUFACTURED BY THE ALUMINUM COMPANY OF AMERICA, OR EQUAL.

BRASS SHALL BE OF COMMERCIAL GRADE CONFORMING TO THE "STANDARD SPECIFICATIONS FOR BRASS PLATE, SHEET, STRIP AND ROLLED BAR", ASTM DESIGNATION B 36-71, ALLOY NO. 3.

COPPER-SILICON ALLOY OR "EVERDUR" SHALL CONFORM TO THE "STANDARD SPECIFICATIONS FOR COPPER-SILICON ALLOY PLANT, SHEET, STRIP AND ROLLED BAR FOR GENERAL PURPOSES"; ASTM DESIGNATION B97-70, TYPE B.

STAINLESS STEEL RODS AND FASTENERS SHALL CONFORM TO THE REQUIREMENTS OF "SPECIFICATIONS FOR HOT ROLLED AND COLD-FINISHED STAINLESS AND HEAT-RESISTANT BARS". ASTM DESIGNATION A 276-72, TYPE 304. ALL WROUGHT IRON SHALL MEET THE REQUIREMENTS OF THE "SPECIFICATIONS FOR ROLLED WROUGHT IRON SHAPES AND BARS", ASTM DESIGNATION A 207-68, OR THE "SPECIFICATIONS FOR WROUGHT IRON PLATES", ASTM DESIGNATION A42-66.

CAST IRON VALVE BOXES AND COVERS SHALL BE GRAY IRON CASTINGS, IN WHICH APPEARANCE AND DIMENSION TOLERANCES ARE PRIMARY CONSIDERATIONS AND STRENGTH IS NOT A PRIMARY OR MAJOR CONSIDERATION. VALVE BOXES AND COVERS SHALL BE ASTM DESIGNATION A-48 WITH NO SPECIFIC REQUIREMENT AS TO CLASS. CHEMICAL COMPOSITION SHALL NOT BE CONSIDERED, BUT THE MATERIAL SHALL BE OF GOOD QUALITY AND OF SUCH CHARACTER AS SHALL MAKE THE METAL OF CASTINGS STRONG, TOUGH AND OF EVEN GRAIN. THE METAL SHALL BE MADE WITHOUT ANY ADMIXTURE OF CINDER IRON OR OTHER INFERIOR METAL.

WORKMANSHIP AND FINISH SHALL CONFORM SUBSTANTIALLY TO THE DIMENSIONS ON THE CONTRACT DRAWINGS OR FURNISHED DRAWINGS. THE CASTINGS SHALL BE FREE FROM INJURIOUS DEFECTS, CRACKS, GAS HOLES, FLAWS, AND EXCESSIVE SHRINKAGE. ADDITIONAL INSPECTION MAY BE MADE AT THE PROJECT OR WORK SITE. INSPECTION SHALL BE VISUAL INSPECTION FOR APPEARANCE AND SURFACE SMOOTHNESS IN COMPARISON WITH SAMPLES ACCEPTED AS STANDARD.

SAMPLE CASTINGS FROM EACH PATTERN, WHEN REQUIRED BY THE ENGINEER, SHALL BE SUBMITTED BY THE MANUFACTURER FOR THE PURPOSE OF ESTABLISHING STANDARDS OF APPEARANCE AND DIMENSIONAL TOLERANCES. THE MANUFACTURER SHALL CERTIFY THAT HIS PRODUCT CONFORMS TO THESE SPECIFICATIONS. EACH CERTIFICATION SO FURNISHED SHALL BE SIGNED BY AN AUTHORIZED AGENT OF THE MANUFACTURER.

CLEANING AND TESTING

ALL CASTINGS SHALL BE THOROUGHLY CLEANED AND SUBJECTED TO A CAREFUL HAMMER TEST. NO CASTINGS SHALL BE COATED UNLESS CLEAN AND FREE FROM RUST, AND APPROVED IN THESE RESPECTS BY THE ENGINEER OR HIS AUTHORIZED INSPECTOR IMMEDIATELY BEFORE BEING DIPPED.

COATING

EACH COATING SHALL BE SPRAYED OR BRUSHED INSIDE AND OUT WITH ONE COAT OF ASPHALTIC COMPOUND VARNISH. THE VARNISH SHALL BE MADE OF HIGH GRADE ASPHALT FLUXED AND BLENDED WITH PROPERLY TREATED DRYING OILS AND THINNED TO A PROPER CONSISTANCY WITH A VOLATILE SOLVENT. THE VARNISH SHALL BE MADE TO COMPLY WITH FEDERAL SPECIFICATION 77-V-51A OR JOINT ARMY-NAVY SPECIFICATION JAN-P-450. OTHER METHODS OF COATING AND TYPES OF COATING MATERIAL SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER. IN ADDITION TO THE SHOP COAT, THE CASTINGS SHALL RECEIVE TWO (2) COATS OF APPROVED PAINT.

INSPECTION

THE ENGINEER OR HIS AUTHORIZED REPRESENTATIVE SHALL HAVE THE RIGHT TO INSPECT THE MATERIAL AND WORK DONE, AS THE INTERESTS OF THE CITY OR STATE MAY REQUIRE. SUCH INSPECTION SHALL NOT RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM SAID WORK STRICTLY IN ACCORDANCE WITH THE SPECIFICATIONS, AND ANY MODIFICATION THEREOF, AS HEREIN PROVIDED, AND WORK NOT SO CONSTRUCTED SHALL BE REMOVED AND MADE GOOD BY THE CONTRACTOR AT HIS OWN EXPENSE. ALL MANHOLE RINGS AND COVERS MUST BE SOUND AND SHALL CONFORM TO THESE SPECIFICATIONS, AND ANY DEFECTIVE CASTINGS WHICH HAVE PASSED THE INSPECTOR AT THE WORKS, OR ELSEWHERE, SHALL BE AT ALL TIMES LIABLE TO REJECTION WHEN DISCOVERED, UNTIL THE DATE OF FINAL PAYMENT UNDER THIS CONTRACT.

STEPS AND LADDERS

DUCTILE IRON STEPS AND LADDERS OF THE SIZE AND SHAPE SHOWN ON THE CONTRACT DRAWINGS SHALL BE BUILT INTO THE BRICK AND CONCRETE MASONRY OF THE MANHOLES AS INDICATED ON THE DRAWINGS.

RIMS AND COVERS

(A) ALL CAST IRON MANHOLE RIMS AND COVERS OF THE FORMS, DIMENSIONS, AND DETAIL SHOWN ON THE CONTRACT DRAWINGS SHALL BE FURNISHED AND INSTALLED AS DIRECTED.

(B) THE RIMS SHALL BE PROPERLY SET IN PLACE IN A FULL BED OF MORTAR OF POURED MONOLITHIC IN THE MASONRY, AT SUCH ELEVATION AS TO MAKE THE TOP OF THE RIM CONFORM TO THE FINISHED SURFACES OF THE STRUCTURES OR THE FINISHED GRADE AS ESTABLISHED BY THE ENGINEER.

DETAILED DRAWINGS

COMPLETE DETAILED DRAWINGS OF MISCELLANEOUS METAL WORK SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL, PRIOR TO MANUFACTURE OF ANY WORK FURNISHED UNDER THIS ITEM IN ACCORDANCE WITH THESE SPECIFICATIONS.

PAINTING

ALL MISCELLANEOUS METAL WORK NOT GALVANIZED SHALL BE THOROUGHLY CLEANED AND GIVEN THREE (3) COATS OF COAL TAR PITCH, USING INTERTOL 50 OR BITUMASTIC 50, OR APPROVED EQUAL.

FHWA REGION	STATE	PROJECT	
5	OHIO		

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426

CUYAHOGA COUNTY
CUY.-322-866
MAYFIELD ROAD

WATERWORK NOTES

MEASUREMENT

THE MISCELLANEOUS METAL WORK SHALL BE THE METAL WORK ACTUALLY FURNISHED AND PLACED IN ACCORDANCE WITH THESE SPECIFICATIONS AND THE DETAILED DRAWINGS APPROVED BY THE DIRECTOR. IN THE COMPUTING OF WEIGHTS, IF NOT DETERMINED BY WEIGHING, ONE (1) CUBIC FOOT OF CAST IRON SHALL BE ASSUMED TO WEIGH FOUR HUNDRED AND FIFTY (450) POUNDS, AND ONE (1) CUBIC FOOT OF STEEL SHALL BE ASSUMED TO WEIGH FOUR HUNDRED AND NINETY (490) POUNDS. THE WEIGHT OF CAST IRON SHALL BE USED FOR CAST IRON VALVE BOXES AND COVERS AND ANY CAST IRON SECTIONS OF VALVE BOXES AND COVERS. WHERE PLASTIC PIPE IS USED AS THE EXTENSION, THE PIPE SHALL BE INCLUDED IN THE CAST IRON WEIGHT WITH NO SEPARATE ALLOWANCE FOR LENGTH OR WEIGHT.

PAYMENT

THE UNIT PRICE STIPULATED PER POUND FOR MISCELLANEOUS METAL WORK SHALL INCLUDE THE FURNISHING, ERECTING, MACHINING, FITTING, ADJUSTING, BOLTING, CLEANING AND PAINTING OF ALL MISCELLANEOUS METAL WORK, AND THE FURNISHING OF ALL LABOR, MATERIALS, TOOLS AND APPLIANCES NECESSARY TO COMPLETE THE WORK AS SPECIFIED OR AS SHOWN.

ITEM SPECIAL - FURNISHING AND SETTING 6" HYDRANT COMPLETE

WORK INCLUDED

THE CONTRACTOR SHALL FURNISH ALL HYDRANTS, HYDRANT BRANCH AND FITTINGS, VALVES, VALVE BOXES AND COVERS, CAULKING MATERIAL, LABOR, TOOLS, AND EQUIPMENT FOR AND SHALL PROPERLY CONNECT AT THE LOCATION SHOWN ON THE CONTRACT DRAWINGS, 6" HYDRANTS, COMPLETE, AS REQUIRED FOR THE PROPER COMPLETION OF THE WORK INCLUDED UNDER THIS CONTRACT.

HYDRANTS

THE 6" HYDRANT DETAILS SHOWN IN THE PLANS IS A CITY OF CLEVELAND STANDARD. IN ADDITION TO THE 6" HYDRANT DETAILS IN THE PLANS, THE CITY OF CLEVELAND HAS APPROVED THREE (3) ADDITIONAL 6" HYDRANT DETAILS ON FILE AT 1201 LAKESIDE AVENUE, CLEVELAND, OHIO 44114. THE DRAWING NOS. ARE D525, D526, AND D530.

SETTING

(A) GENERAL LOCATION : THE HYDRANT SHALL BE LOCATED IN A MANNER TO PROVIDE COMPLETE ACCESSIBILITY, AND IN SUCH MANNER THAT THE POSSIBILITY OF DAMAGE FROM VEHICLES OR INJURY TO PEDESTRIANS WILL BE MINIMIZED.

(B) LOCATION REGARDING CURB LINES : WHEN PLACED BEHIND CURB THE HYDRANT BARREL SHALL BE SET SO THAT NO PORTION OF THE HYDRANT WILL BE LESS THAN 2 FEET FROM THE FACE OF THE CURB EXCEPT BY CONSENT OF THE ENGINEER.

(C) LOCATION REGARDING SIDEWALK : WHEN SET IN THE LAWN SPACE BETWEEN THE CURB AND THE SIDEWALK, OR BETWEEN THE SIDEWALK AND THE PROPERTY LINE, NO PORTION OF THE HYDRANT OR NOZZLE CAP SHALL BE WITHIN 6 INCHES OF THE SIDEWALK.

(D) POSITION OF NOZZLE : THE HYDRANT SHALL STAND PLUMB WITH THE NOZZLES POINTING TOWARD THE ROAD AND AT AN ANGLE OF FORTY - FIVE DEGREES THEREFROM. WHERE HYDRANT BRANCH PIPING IS PARALLEL WITH OR NOT AT RIGHT ANGLES TO THE CURB, THE CONTRACTOR SHALL RELEASE SWIVEL HEAD BOLTS AND ADJUST THE HYDRANT NOZZLES TO FACE THE ROAD AT THE PROPER ANGLE. A HYDRANT WITHOUT SWIVEL HEADS WILL BE ADJUSTED BY THE CITY WHERE NECESSARY TO CORRECT THE ANGLE OF THE NOZZLES. THE ELEVATION SHALL CONFORM TO THE ESTABLISHED GRADE WITH TOPS OF FROST CASING AT LEAST FOUR (4) INCHES ABOVE GRADE.

(E) CONNECTION TO MAIN : THE HYDRANT SHALL BE CONNECTED TO THE MAIN PIPE WITH A BRANCH CONTROLLED BY THE INDEPENDENT GATE VALVES OF THE SAME SIZE AS THE HYDRANT, EXCEPT AS OTHERWISE DIRECTED.

(F) DRAINAGE AT HYDRANT : DRAINAGE SHALL BE PROVIDED AT THE BASE OF THE HYDRANT BY FILLING AROUND THE ELBOW WITH COARSE GRAVEL OR CRUSHED STONE TO AT LEAST SIX (6) INCHES ABOVE THE WASTE OPENING.
WHEREVER A HYDRANT IS SET IN ROCK, CLAY OR OTHER IMPERVIOUS SOIL, THE TRENCH SHALL BE WIDENED AND DEEPENED ON EACH SIDE OF THE HYDRANT BASE AND THE SPACE SHALL BE FILLED COMPACTLY WITH COARSE GRAVEL OR BROKEN STONE MIXED WITH COARSE SAND OF SUFFICIENT QUANTITY TO ABSORB ALL WATER TO BE DRAINED FROM THE HYDRANT WHEN THE VALVE IS CLOSED.

(G) ANCHORAGE FOR HYDRANT : THE HYDRANT SHALL BE SET ON A STONE SLAB OR A SIMILAR FOUNDATION AND THE BASE OF THE HYDRANT AND THE HYDRANT TEE SHALL BE WELL BRACED AGAINST UNEXCAVATED EARTH AT THE END OF THE TRENCH WITH CONCRETE BACKING, OR IT SHALL BE TIED TO THE PIPE WITH SUITABLE RODS OR CLAMPS, TIED WITH MECHANICAL JOINT FITTING OR AS DIRECTED BY THE ENGINEER.

(H) CLEANING : THE HYDRANT SHALL BE THOROUGHLY CLEANED OF DIRT OR FOREIGN MATTER BEFORE SETTING.

PAYMENT

(A) THE UNIT PRICE STIPULATED TO BE PAID FOR EACH ITEM SPECIAL - "FURNISHING AND SETTING 6" HYDRANT" SHALL INCLUDE FURNISHING HYDRANT, HYDRANT BRANCH AND FITTINGS, VALVES, VALVE BOXES AND COVERS, SETTING, TESTING, PAINTING, EXCAVATING, SHEETING AND SHORING, BACKFILLING, AND THE FURNISHING OF ALL LABOR, MATERIAL, TOOLS AND APPLIANCES NECESSARY TO COMPLETE THE WORK AS SPECIFIED OR SHOWN.

ITEM 604 - MANHOLE ADJUSTED TO GRADE, AS PER PLAN

THE CONTRACTOR SHALL ADJUST THE EXISTING MANHOLE FRAME AND COVER TO FIT THE REVISED GRADE BY EXCAVATING AROUND THE FRAME AND RAISING OR LOWERING THE FRAME AND COVER BY ADDING TO OR REMOVING THE EXISTING BRICKS AND MORTAR. USE OF ADJUSTING RINGS SHALL NOT BE PERMITTED. IF REQUIRED BY THE ENGINEER, NEW FRAMES AND/OR COVERS WILL BE PAID FOR UNDER "ITEM SPECIAL–MISCELLANEOUS METAL".

PAYMENT

THE WORK INCLUDED IN THIS ITEM SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID FOR ITEM 604 – "MANHOLE ADJUSTED TO GRADE, AS PER PLAN", WHICH PRICE AND PAYMENT SHALL CONSTITUTE FULL COMPENSATION FOR ADJUSTING THE MANHOLE FRAME AND COVER, EXCAVATION, TAMPING EARTH, BRICK AND MASONRY MATERIAL AND FOR ALL LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO THIS ITEM.

ITEM SPECIAL – EXTEND AND ADJUST HYDRANT TO GRADE

WORK INCLUDED

THE WORK INCLUDED UNDER THIS ITEM SHALL CONSIST OF EXTENDING AND ADJUSTING EXISTING HYDRANTS TO GRADE AS DETAILED ON SHEET NO. AND AT THE LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER, INCLUDING EXCAVATING, REMOVING AND RESETTING OF EXISTING HYDRANTS AND APPURTENANCES, SHEETING AND BRACING, BACKFILL, LABOR, MATERIALS, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO MAKE THIS A COMPLETE ITEM OF WORK.

SETTING

(A) GENERAL LOCATION: THE HYDRANT SHALL BE LOCATED IN A MANNER TO PROVIDE COMPLETE ACCESSIBILITY, AND IN SUCH A MANNER THAT THE POSSIBILITY OF DAMAGE FROM VEHICLES OR INJURY TO PEDESTRIANS WILL BE MINIMIZED.

(B) LOCATION REGARDING CURB LINES: WHEN PLACED BEHIND CURB THE HYDRANT SHALL BE SET SO THAT THERE IS A MINIMUM OF TWO (2) FEET OF CLEARANCE FROM THE FACE OF CURB TO THE CLOSEST PORTION OF THE HYDRANT.

(C) LOCATION REGARDING SIDEWALK: WHEN SET IN THE LAWN SPACE BETWEEN THE CURB AND SIDEWALK OR BETWEEN THE SIDEWALK AND THE PROPERTY LINE, NO PORTION OF THE HYDRANT OR NOZZEL CAP SHALL BE WITHIN 6 INCHES OF THE SIDEWALK.

(D) POSITION OF NOZZLE: THE HYDRANT SHALL STAND PLUMB WITH THE NOZZLES POINTING TOWARD THE ROAD AT AN ANGLE OF 45 DEGREES THEREFROM. WHERE THE HYDRANT BRANCH PIPING IS PARALLEL WITH OR NOT AT RIGHT ANGLES TO THE CURB, THE CONTRACTOR SHALL RELEASE SWIVEL HEAD BOLTS AND ADJUST THE HYDRANT NOZZLES TO FACE THE ROAD AT THE PROPER ANGLE. A HYDRANT WITHOUT SWIVEL HEADS WILL BE ADJUSTED BY THE CITY OF CLEVELAND WHERE NECESSARY TO CORRECT THE ANGLE OF THE NOZZLES. THE ELEVATION SHALL CONFORM TO THE ESTABLISHED GRADE WITH TOPS OF FROST CASING AT LEAST FOUR INCHES ABOVE GRADE.

(E) DRAINAGE AT HYDRANT: DRAINAGE SHALL BE PROVIDED AT THE BASE OF THE HYDRANT BY FILLING AROUND THE ELBOW WITH COARSE GRAVEL OR CRUSHED STONE TO AT LEAST 6 INCHES ABOVE WASTE OPENING. WHEREVER A HYDRANT IS SET IN ROCK, CLAY, OR OTHER IMPERVIOUS SOIL, THE TRENCH SHALL BE WIDENED AND DEEPENED ON EACH SIDE OF THE HYDRANT BASE AND THE SPACE SHALL BE FILLED COMPACTLY WITH COARSE GRAVEL OR BROKEN STONE MIXED WITH COARSE SAND OF SUFFICIENT QUANTITY TO ABSORB ALL WATER TO BE DRAINED FROM THE HYDRANT WHEN THE VALVE IS CLOSED.

(F) ANCHORAGE FOR HYDRANT: THE HYDRANT SHALL BE SET ON A STONE SLAB OR SIMILAR FOUNDATION AND THE BASE OF THE HYDRANT AND THE HYDRANT TEE SHALL BE WELL BRACED AGAINST UNEXCAVATED EARTH AT THE END OF THE TRENCH WITH CONCRETE BACKING, OR IT SHALL BE TIED TO THE PIPE WITH SUITABLE RODS OR CLAMPS AS DIRECTED BY THE ENGINEER.

(G) CLEANING: THE HYDRANT SHALL BE THOROUGHLY CLEANED OF DIRT AND FOREIGN MATTER BEFORE SETTING.

PAYMENT

THE UNIT PRICE STIPULATED FOR EACH "ITEM SPECIAL – EXTEND AND ADJUST HYDRANT TO GRADE" SHALL INCLUDE ALL EXCAVATION, SHEETING, REMOVING AND RESETTING HYDRANT, EXTENDING BRANCH, TESTING, PAINTING, BACKFILLING AND FURNISHING ALL LABOR TOOLS, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN PLACE.

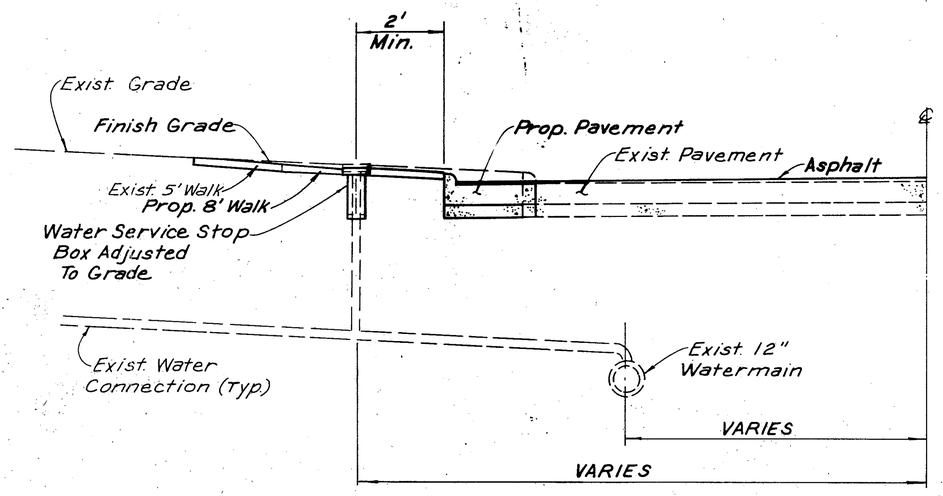
MAYFIELD ROAD

FHWA REGION	STATE	PROJECT	
5	OHIO		

18
426

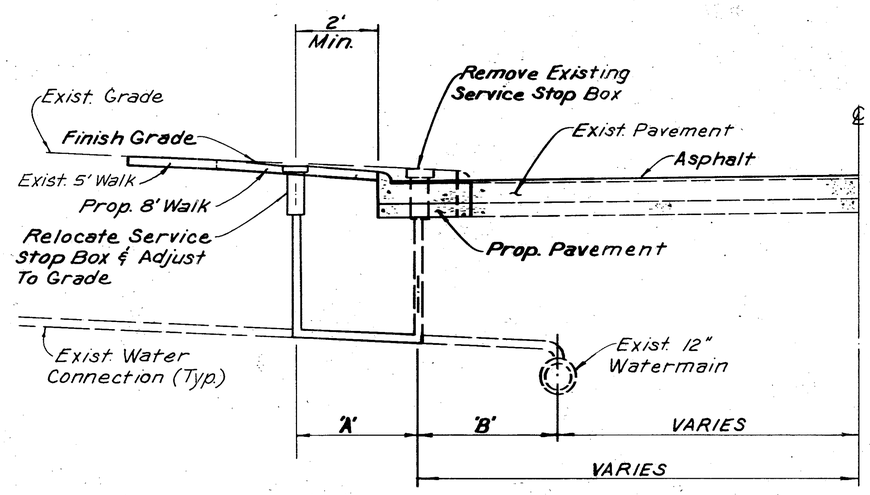
CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

WATERWORK DETAILS



ITEM 638

SERVICE STOP BOX
ADJUSTED TO GRADE
NO SCALE



ITEM SPECIAL

EXTEND WATER SERVICE CONNECTION COMPLETE
NO SCALE

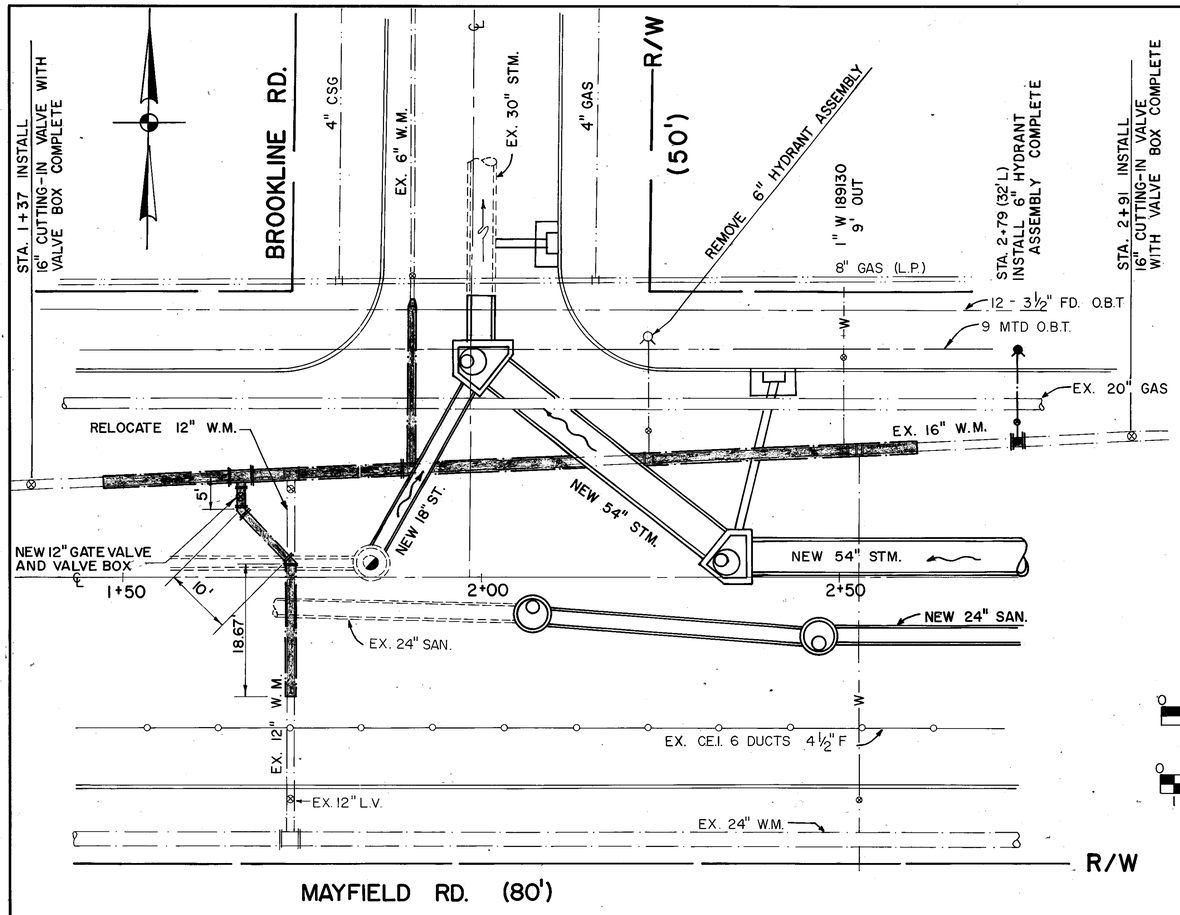
LEGEND

'A' - NEW COPPER
'B' - REPLACE WITH COPPER IF EXISTING IS LEAD

MAYFIELD ROAD

CALC. BY		NH-83(29)	OHIO	19
DATE			FHWA REGION	426
CHKD. BY				
DATE				

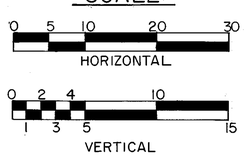
CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

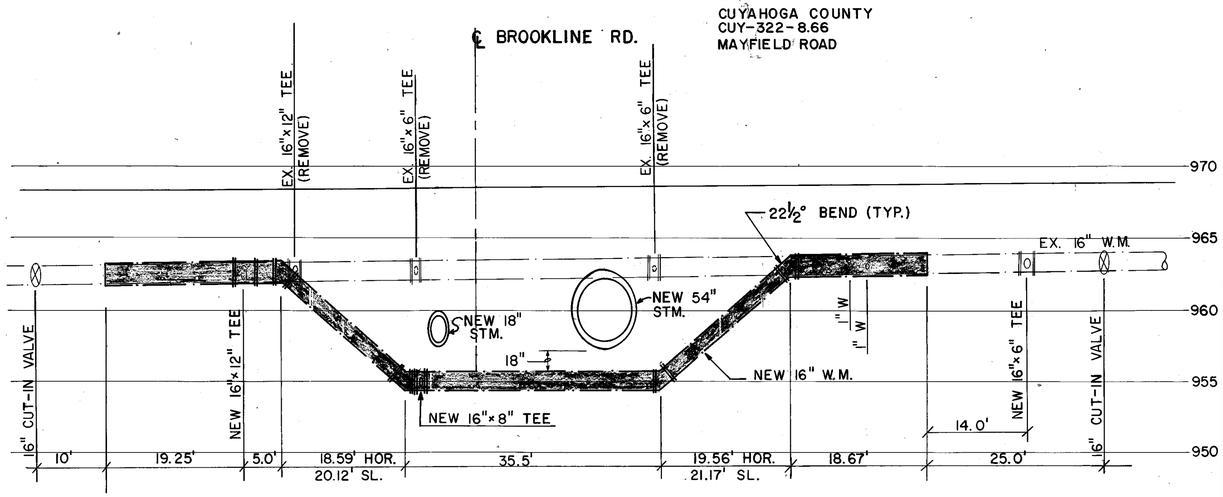


PLAN

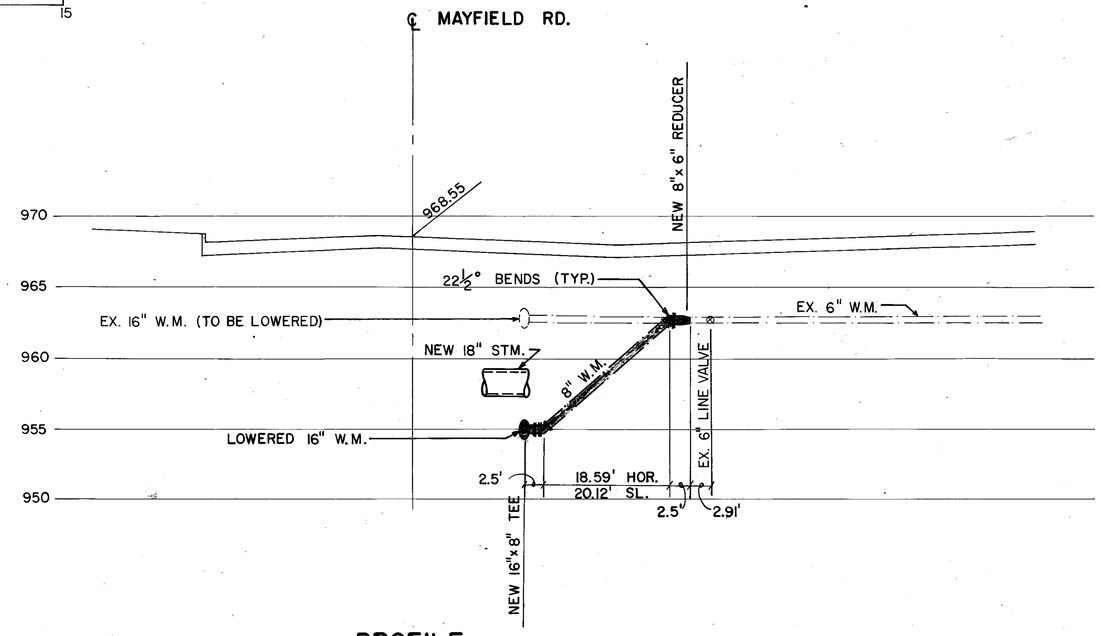
~~NOTE: CONTRACTOR MAY USE PUSH ON "FIELD LOK" OR "FAST GRIP" GASKET, JOINT RESTRAINT THROUGH 12" DIA. DUCTILE IRON PIPE IN WATER MAINS TO BE LOWERED OR RELOCATED.~~

SCALE:





PROFILE
16" WATER MAIN LOWERING AT BROOKLINE RD.



PROFILE
6" WATER MAIN LOWERING STA. 1+90

MAYFIELD ROAD

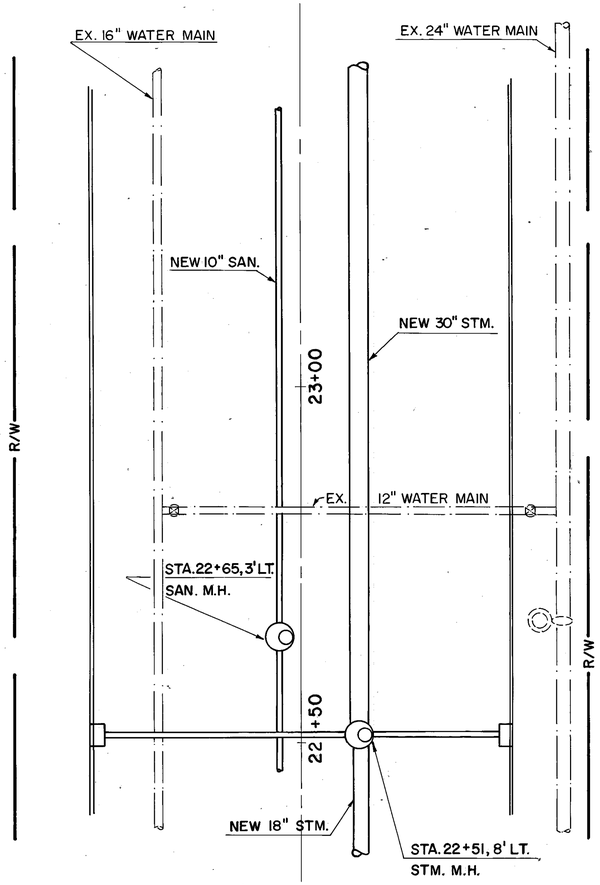
WATER WORK

BRUNING 44-132-67199

CALC. BY / DATE	NH-83(29)	OHIO
CHKD. BY / DATE		FHWA REGION

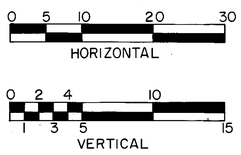
20
426

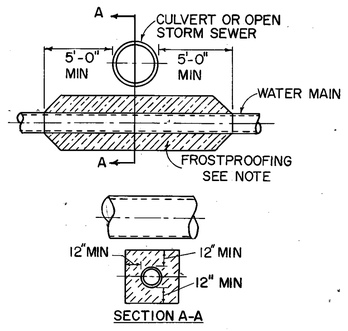
CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



PLAN

SCALE:

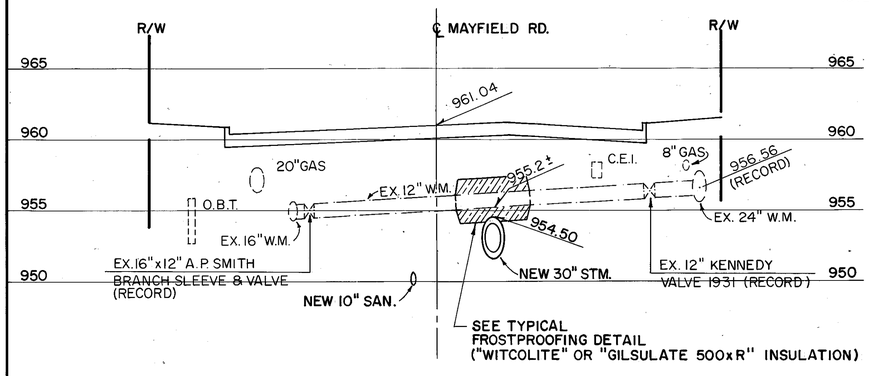




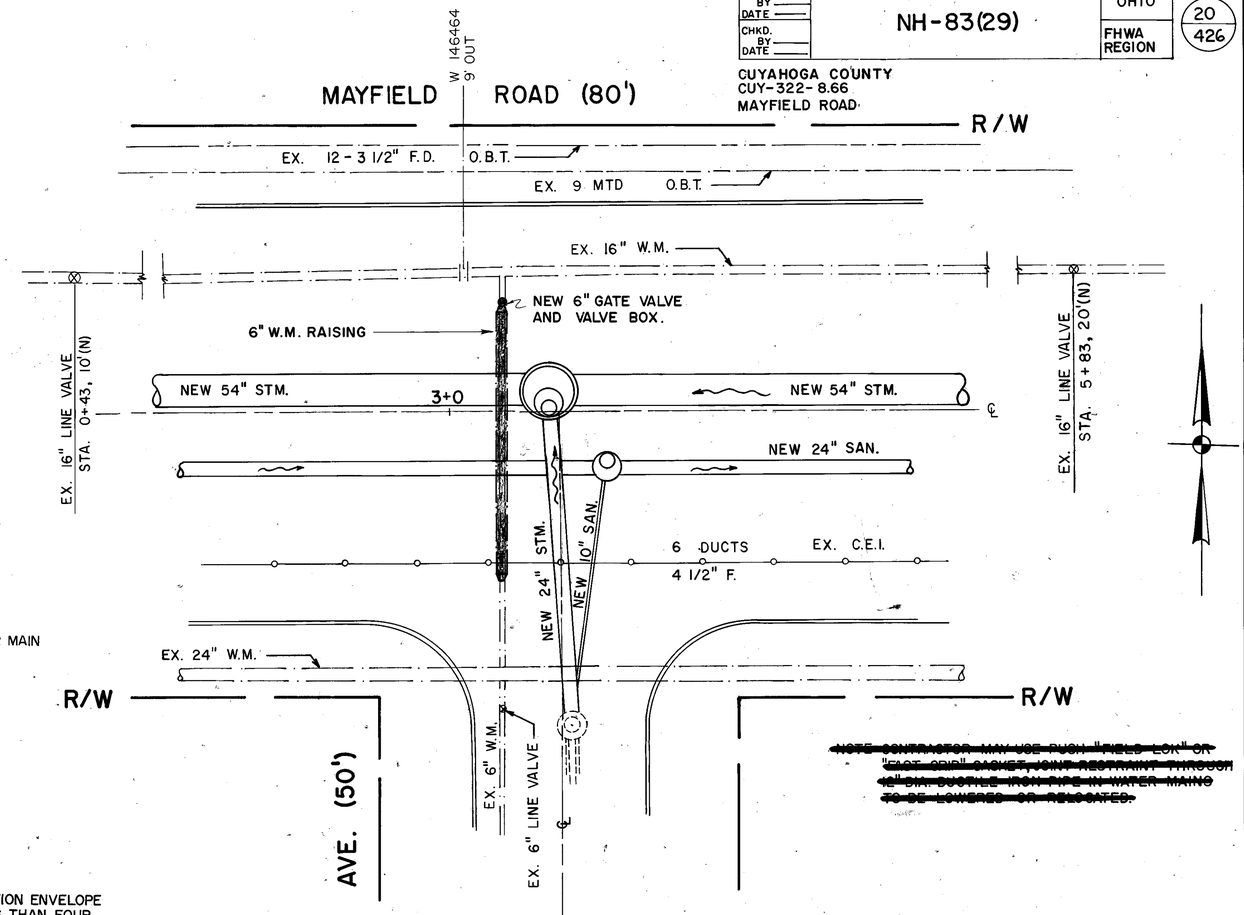
MINIMUM ONE FOOT FROSTPROOFING INSULATION ENVELOPE REQUIRED WITH WATER MAIN LAID WITH LESS THAN FOUR FEET COVER; CROSSING STORM SEWER 24" AND LARGER; OR CROSSING UNDER OPEN END CULVERTS.

NOTE: COMPACTED "WITCOLITE" INSULATION AS MANUFACTURED BY PIONEER PRODUCTS, DIVISION WITCO CHEMICAL COMPANY OR "GILSULATE 500 XR" AS MANUFACTURED BY AMERICAN THERMAL PRODUCTS, INC.

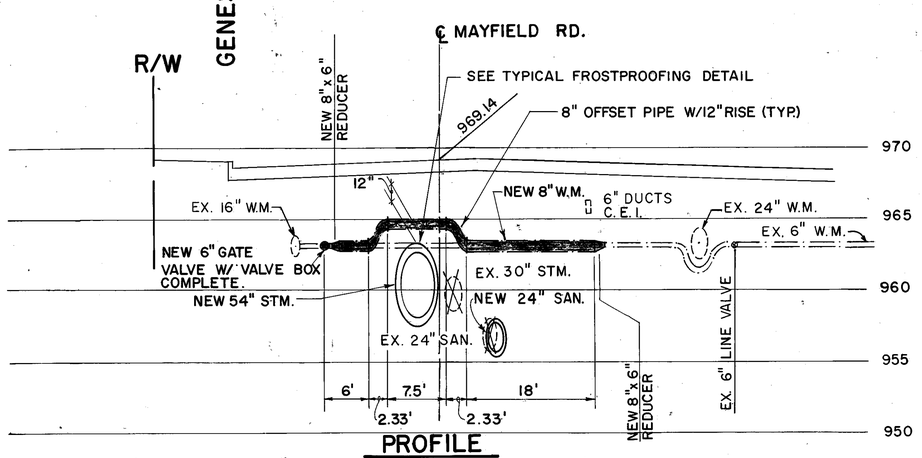
TYPICAL
FROSTPROOFING DETAIL



PROFILE
12" WATERMAIN CROSS CONNECTION
STA. 22+83



PLAN



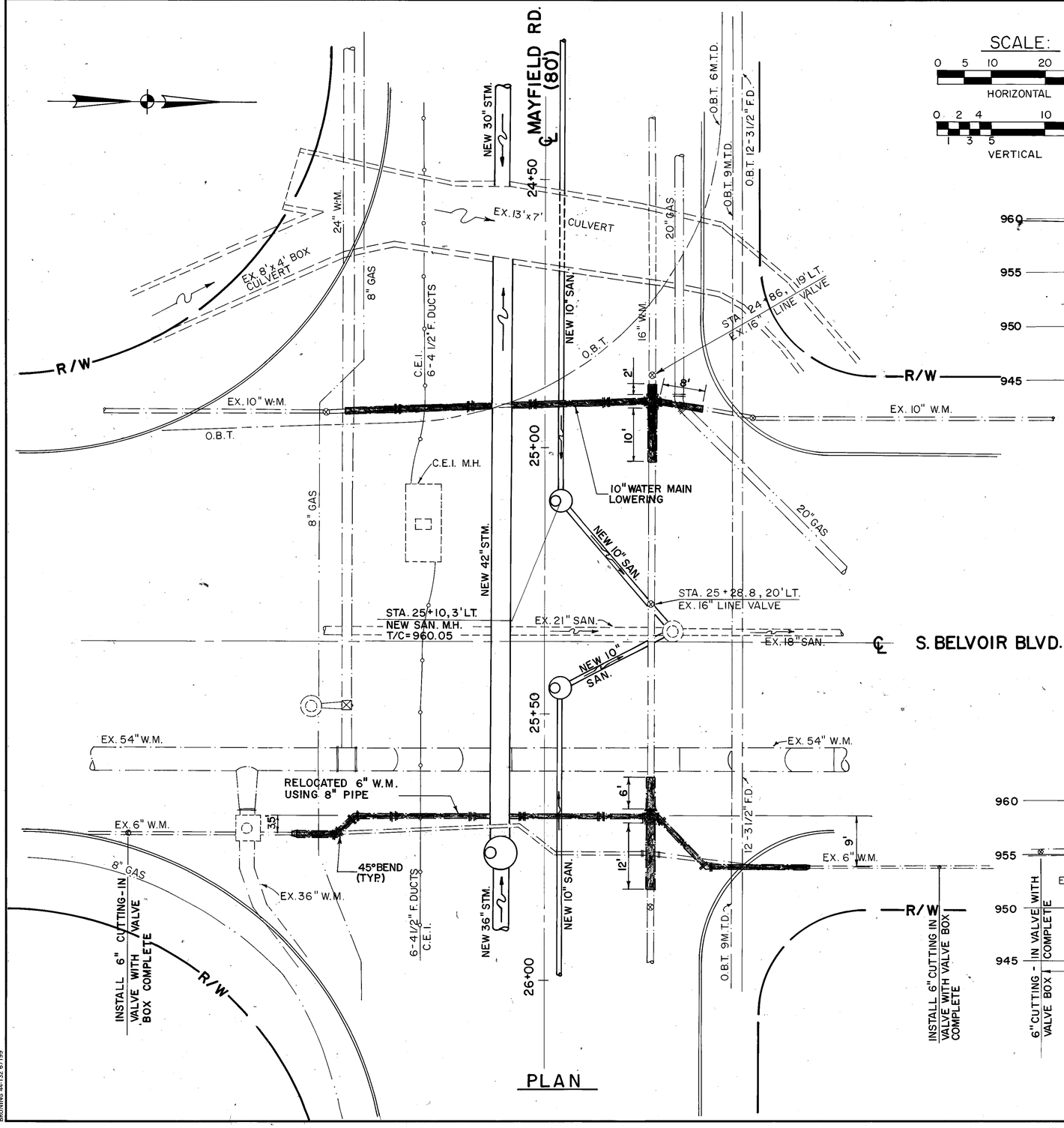
PROFILE
6" WATER MAIN RAISING
STA. 3+10

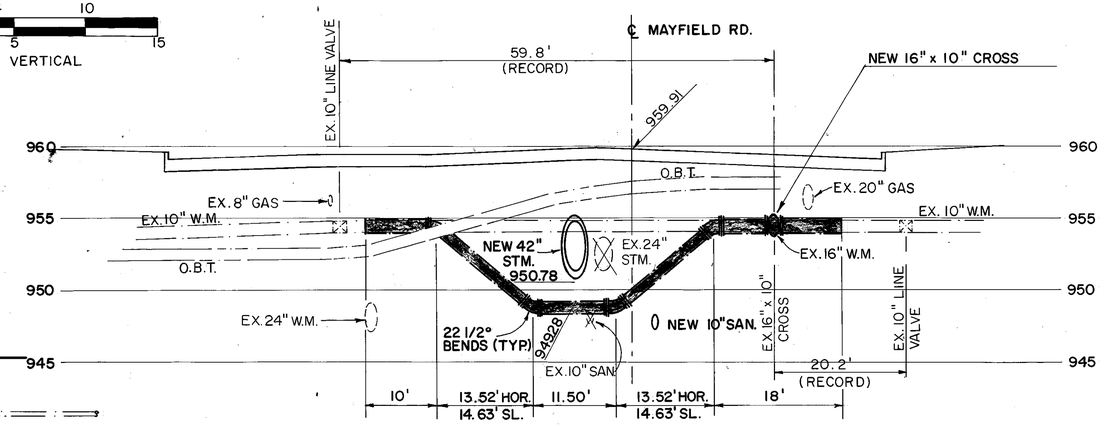
BRUNING 44-132, 67199

CALC. BY / DATE	NH-83(29)	OHIO	21
CHKD. BY / DATE		FHWA REGION	426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

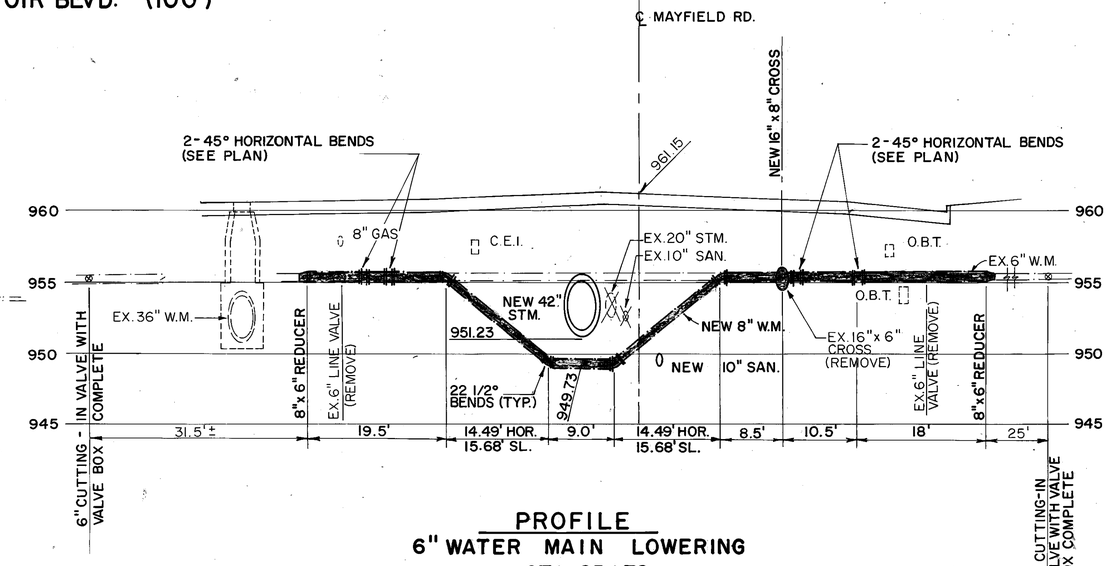
SCALE:
0 5 10 20 30
HORIZONTAL
0 2 4 10
1 3 5 15
VERTICAL





PROFILE
10" WATER MAIN LOWERING
STA. 24+92

~~NOTE-CONTRACTOR MAY USE PUSH ON "FIELD LOK" OR "FAST GRIP" GASKET, JOINT RESTRAINT THROUGH 16" DIA. DUCTILE IRON PIPE IN WATER MAINS TO BE LOWERED OR RELOCATED.~~



PROFILE
6" WATER MAIN LOWERING
STA. 25+72

MAYFIELD ROAD

WATER WORK

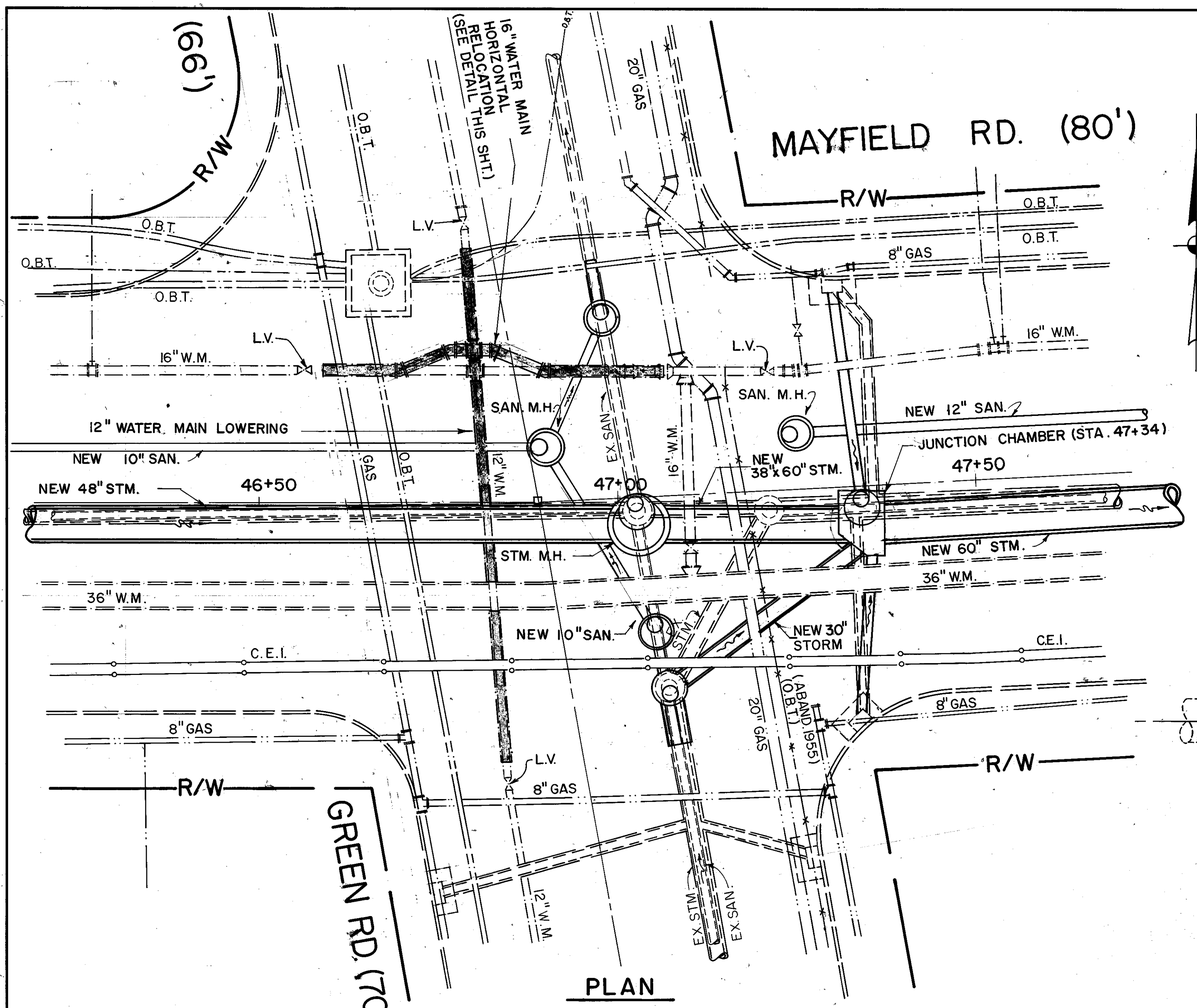
BRUNING 44-132 67199

CALC. BY DATE	NH-83(29)	OHIO	22
CHKD. BY DATE		FHWA REGION	426

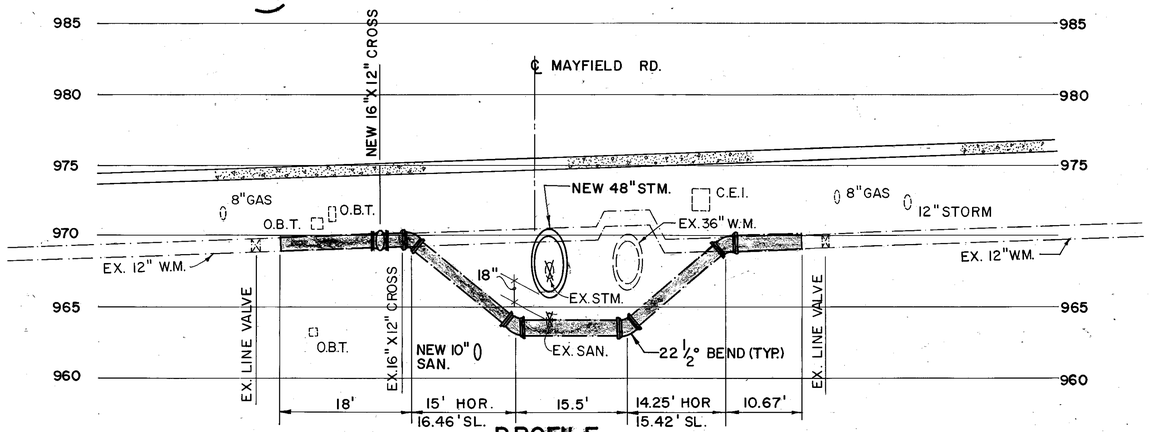
CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SCALE:
0 5 10 20 30 HORIZONTAL
0 2 4 10 VERTICAL
1 3 5 15

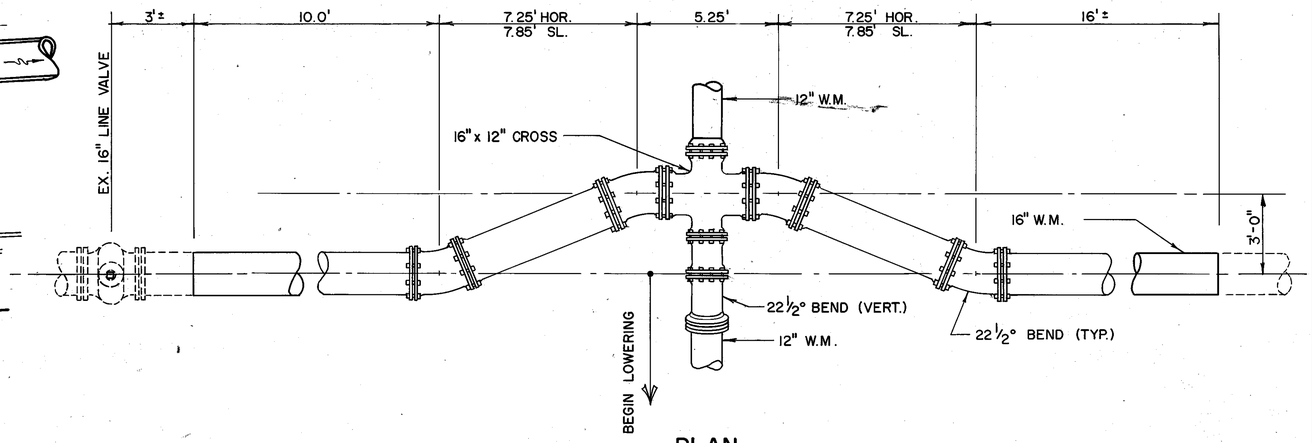
~~NOTE-CONTRACTOR MAY USE PUSH ON "FIELD LOK" OR "FAST GRIP" GASKET, JOINT RESTRAINT THROUGH 12" DIA. DUCTILE IRON PIPE IN WATER MAINS TO BE LOWERED OR RELOCATED.~~



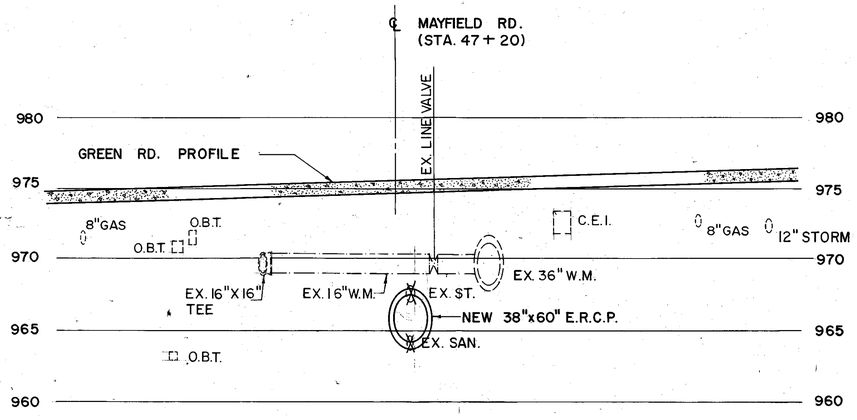
PLAN



PROFILE
12" WATER MAIN LOWERING



PLAN
16" WATER MAIN HORIZONTAL RELOCATION
SCALE: 3/8"=1'-0"

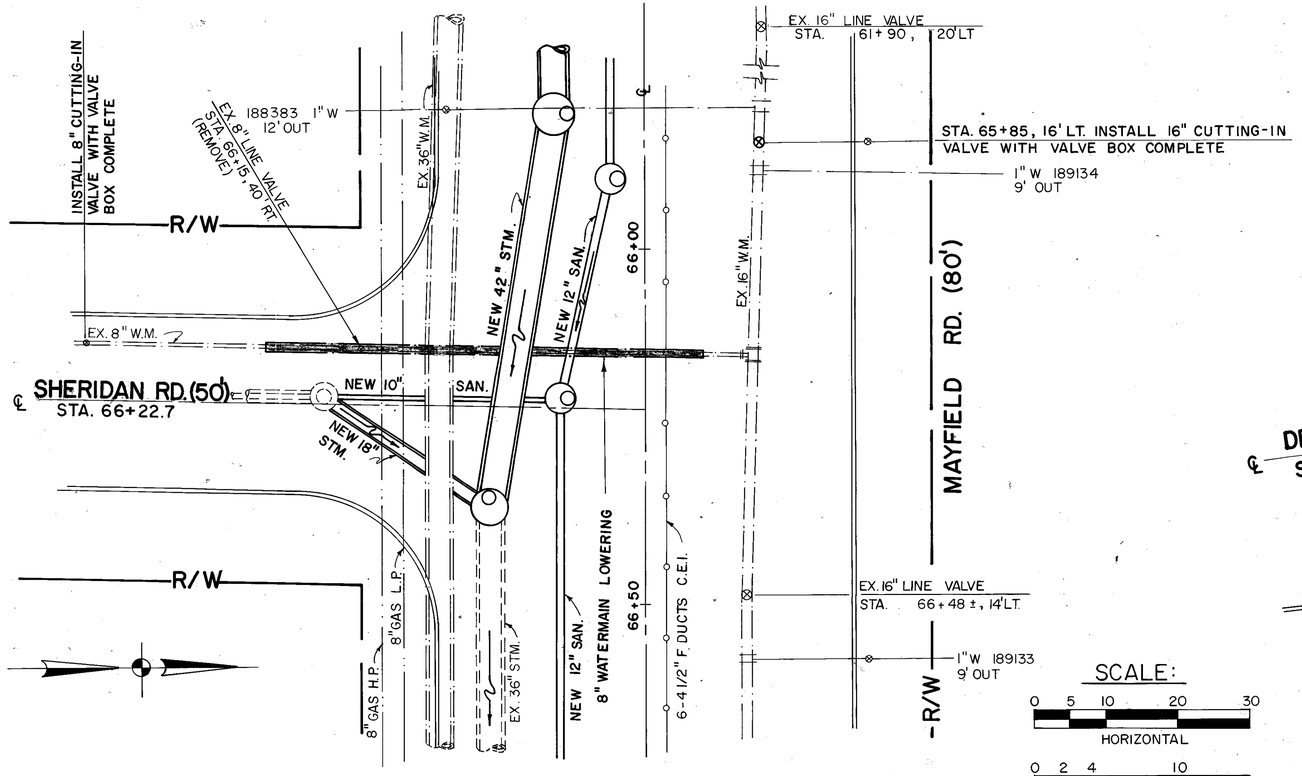


PROFILE
16" WATER MAIN CROSS CONNECTION

MAYFIELD ROAD

GREEN ROAD WATER WORK

BRUNING 44-132-67199



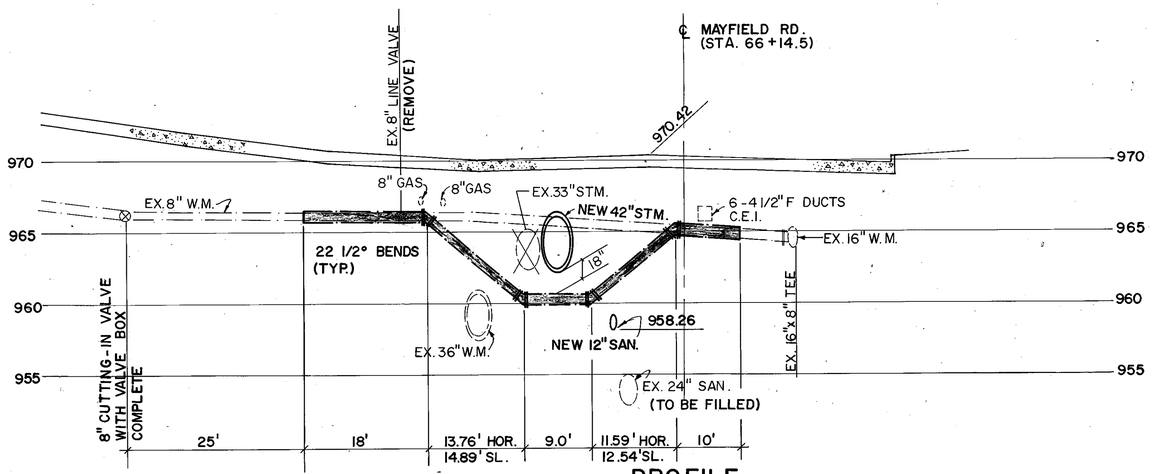
PLAN

SCALE:

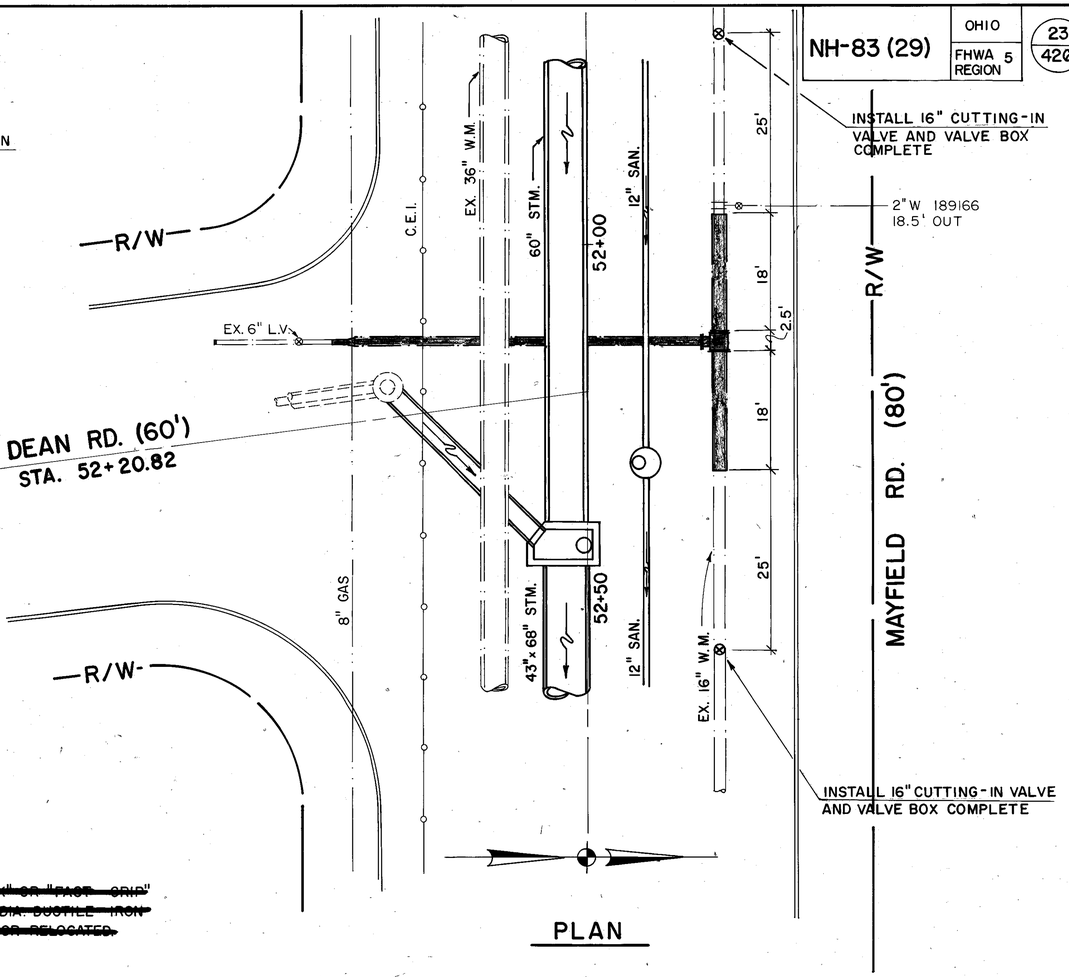
HORIZONTAL 0 5 10 20 30

VERTICAL 0 2 4 10 1 3 5 15

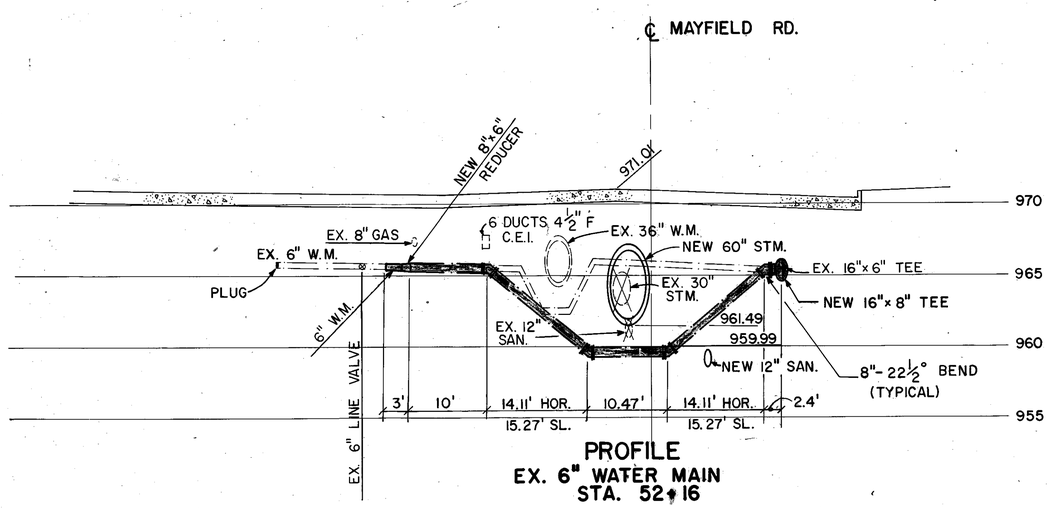
~~NOTE CONTRACTOR MAY USE PUSH "FIELD LOK" OR "FAST GRIP" GASKET JOINT RESTRAINT THROUGH 12" DIA. DUCTILE IRON PIPE IN WATER MAINS TO BE LOWERED OR RELOCATED.~~



PROFILE
8" WATER MAIN LOWERING
STA. 66+15



PLAN



PROFILE
EX. 6" WATER MAIN
STA. 52+16

MAYFIELD ROAD

WATER WORK

BRUNING 44-132-67199

PARTICIPATION

I – 100% CITY OF SOUTH EUCLID
II – 100% CITY OF LYNDHURST
III – NORMAL PROJECT PARTICIPATION – SOUTH EUCLID
IV – NORMAL PROJECT PARTICIPATION – LYNDHURST
V – 72% NORMAL PROJECT PARTICIPATION, 28% LYNDHURST

GENERAL SUMMARY

FHWA REGION	STATE	PROJECT	
5	OHIO		

24
426

CUYAHOGA COUNTY
CUY –322–8.66
MAYFIELD ROAD

ITEM	SHEET NUMBER																			PARTICIPATION					ITEM	ITEM EXTENSION	GRAND TOTAL	UNIT	DESCRIPTION	AS PER PLAN REF. SHEET
	2	3	7	10		28	29	30	31	32	33	34	35		37	43	53	55	57	406	I	II	III	IV	V						
																													ROADWAY	
201																							LUMP	LUMP		201	11000	LUMP		CLEARING AND GRUBBING	
202																1	1						1	1		202	11004	2	EACH	STRUCTURE REMOVED	
202						47,339			64,251		4,805	4,087	2,765		3,484								54909	71822		202	23000	126731	SQ. YD.	PAVEMENT REMOVED	
202											4,720												4,720			202	23500	4,720	SQ. YD.	WEARING COURSE REMOVED	
202						73,206				83,617	11,320	4,250											84,526	87,867		202	30000	172,393	SQ. FT.	WALK REMOVED	
202						12,615		16,922			3,095	3,809								200			15,910	20,731		202	32000	36,641	LIN. FT.	CURB REMOVED	
202																11,849	3413	528	4,438		453	65	11,924	7786		202	35100	20228	LIN. FT.	PIPE REMOVED, 24" AND UNDER	
202																1,977	2,661				737		1,240	2,661		202	35200	4638	LIN. FT.	PIPE REMOVED OVER 24"	
202																40	17	12	2		9		43	19		202	58000	71	EACH	MANHOLE REMOVED	
202																46	61						46	61		202	58300	107	EACH	CATCH BASIN OR INLET REMOVED	
202	5																						5			202	60000	5	EACH	MONUMENT ASSEMBLY ABANDONED	
203						4,105	4,738				1,155	844	515		295								5,775	5877		203	12000	11652	CU. YD.	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	
203							1,184																	1,184		203	20000	1,184	CU. YD.	EMBANKMENT	
203						48,155			64,251		5,021	4,494											53,176	68,745		203	50000	121,921	SQ. YD.	SUBGRADE COMPACTION	
604	10	3																					10	3		604	38504	13	EACH	CUYAHOGA COUNTY ROADWAY MONUMENT ASSEMBLY	425
604	5																						5			604	38700	5	EACH	CUYAHOGA COUNTY GEODETIC MONUMENT ASSEMBLY	425
608						73,206				84,997	13,319	2,435											86,525	87,432		608	10000	173,957	SQ. FT.	4" CONCRETE WALK	
608											43	39											43	39		608	50000	82	EACH	CURB RAMP, TYPE 1	
608											15	22											15	22		608	51000	37	EACH	CURB RAMP, TYPE 2	
SPECIAL			11,875																		11,875					SPECIAL	6089000	11,875	SQ. FT.	PAVING BRICK WALKS	
																													PAVEMENT	
254						65					855	957											920	957		254	01000	1,877	SQ. YD.	PAVEMENT PLANING, BITUMINOUS	
310						8,026			10,712		842	759	472		294								9,340	11,765		310	20001	21,105	CU. YD.	SUBBASE, TYPE II, AS PER PLAN	7
404											49	80											49	80		404	20000	129	CU. YD.	ASPHALT CONCRETE, AC–20	
407											64												64			407	10000	64	GAL.	TACK COAT	
451						48,155			64,251		5021	4,436											53,176	68,687		451	15000	121,863	SQ. YD.	10" REINFORCED CONCRETE PAVEMENT	
452													172		842								172	842		452	10000	1014	SQ. YD.	6" PLAIN CONCRETE PAVEMENT	
452											85		2,662		2,681								2,747	2,681		452	12000	5,428	SQ. YD.	8" PLAIN CONCRETE PAVEMENT	
452				150																			75	75		452	12000	150	SQ. YD.	8" PLAIN CONCRETE PAVEMENT, CLASS FS	
609						12,615		16,922			3179	3,715											15,794	20,637		609	14000	36,431	LIN. FT.	CURB, TYPE 2–A	
609											45												45			609	20000	45	LIN. FT.	CURB, TYPE 3–A	
609																				200			200			609	26000	200	LIN. FT.	CURB, TYPE 6	

MAYFIELD ROAD

PARTICIPATION

I – 100% CITY OF SOUTH EUCLID
II – 100% CITY OF LYNDHURST
III – NORMAL PROJECT PARTICIPATION – CITY OF SOUTH EUCLID
IV – NORMAL PROJECT PARTICIPATION – CITY OF LYNDHURST
V – 72% NORMAL PROJECT PARTICIPATION, 28% CITY OF LYNDHURST

GENERAL SUMMARY

FHWA REGION	STATE	PROJECT	
5	OHIO		

25
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

ITEM	SHEET NUMBER															PARTICIPATION					ITEM	ITEM EXTENSION	GRAND TOTAL	UNIT	DESCRIPTION	AS PER PLAN REF. SHEET
		8		33		43		53		59						I	II	III	IV	V						
																									— DRAINAGE —	
602								1.6											1.6		602	20001	1.6	CU. YD.	CONCRETE MASONRY, AS PER PLAN	8
603		200																100	100		603	00401	200	LIN. FT.	4" CONDUIT, TYPE E, AS PER PLAN A, 707.19, PS 46 MINIMUM	8
603		200						1,934		5850						715	550	5235	1,484		603	00901	7984	LIN. FT.	6" CONDUIT, TYPE B, AS PER PLAN A, 707.19, PS 46 MINIMUM	8
603		200				35												135	100		603	01101	235	LIN. FT.	6" CONDUIT, TYPE C, AS PER PLAN A, 707.19, PS 46 MINIMUM	8
603				610		729		1,290										1,339	1,290		603	01501	2,629	LIN. FT.	6" CONDUIT, TYPE F 707.17 NON-PERFORATED, ASTM D3034 SDR35, SS 931 OR SS 944	8
603						223												223			603	01801	223	LIN. FT.	8" CONDUIT, TYPE B, AS PER PLAN A, 707.19, PS 46 MIN. AS PER PLAN A	8
603		200				54		111										154	211		603	02001	365	LIN. FT.	8" CONDUIT, TYPE C, AS PER PLAN A, 707.19, PS 46 MINIMUM	8
603								4											4		603	03101	4	LIN. FT.	10" CONDUIT, TYPE B, AS PER PLAN A, 706.08 ES	8
603						3435		3603										3435	3603		603	04401	7038	LIN. FT.	12" CONDUIT, TYPE B, AS PER PLAN A, 706.02	8
603						380		238										380	238		603	05901	618	LIN. FT.	15" CONDUIT, TYPE B, AS PER PLAN-A, 706.02	8
603								56											56		603	05901	56	LIN. FT.	15" CONDUIT, TYPE B, AS PER PLAN-A, 706.08 ES	8
603						1,198										89		1,109			603	07401	1,198	LIN. FT.	18" CONDUIT, TYPE B, AS PER PLAN A, 706.02, 2000 D-LOAD	8
603								121											121		603	07401	121	LIN. FT.	18" CONDUIT, TYPE B, AS PER PLAN-A, 706.08ES	8
603								96											96		603	08901	96	LIN. FT.	21" CONDUIT, TYPE B, AS PER PLAN A, 706.02, 1500 D-LOAD	8
603						318										23		295			603	08901	318	LIN. FT.	21" CONDUIT, TYPE B, AS PER PLAN A, 706.02, 2000 D-LOAD	8
603								704											704		603	10401	704	LIN. FT.	24" CONDUIT, TYPE B, AS PER PLAN A, 706.02, 1500 D-LOAD	8
603						127												127			603	10401	127	LIN. FT.	24" CONDUIT, TYPE B, AS PER PLAN A, 706.02, 2000 D-LOAD	8
603								48											48		603	10401	48	LIN. FT.	24" CONDUIT, TYPE B, AS PER PLAN-A, 706.08 ES	8
603								8											8		603	13401	8	LIN. FT.	30" CONDUIT, TYPE B, AS PER PLAN A, 706.02, 1500 D-LOAD	8
603						244												244			603	13401	244	LIN. FT.	30" CONDUIT, TYPE B, AS PER PLAN A, 706.02, 2000 D-LOAD	8
603						2,325										327		1,998			603	16401	2,325	LIN. FT.	36" CONDUIT, TYPE B, AS PER PLAN A, 706.02, 2000 D-LOAD	8
603						530										410		120			603	19401	530	LIN. FT.	42" CONDUIT, TYPE B, AS PER PLAN A, 706.02, 2000 D-LOAD	8
603						497												497			603	20901	497	LIN. FT.	48" CONDUIT, TYPE B, AS PER PLAN A, 706.02, 2000 D-LOAD	8
603						387												387			603	22401	387	LIN. FT.	54" CONDUIT, TYPE B, AS PER PLAN A, 706.02, 2000 D-LOAD	8
603								3,381											3,381		603	23801	3,381	LIN. FT.	60" CONDUIT, TYPE B, AS PER PLAN A, 706.02, 1500 D-LOAD	8
603						496												496			603	23801	496	LIN. FT.	60" CONDUIT, TYPE B, AS PER PLAN A, 706.02, 2000 D-LOAD	8
603						33												33			603	52303	33	LIN. FT.	19" x 30" CONDUIT, TYPE B, AS PER PLAN A, 706.04, CL. HE III	8
603						23												23			603	53003	23	LIN. FT.	38" x 60" CONDUIT, TYPE B, AS PER PLAN A, 706.04, CL. HE III	8
603						307												307			603	53103	307	LIN. FT.	43" x 68" CONDUIT, TYPE B, AS PER PLAN A, 706.04, CL. HE III	8
603								286											286		603	53211	286	LIN. FT.	48" x 76" CONDUIT, TYPE B, AS PER PLAN A, 706.04, CL. HE II	8
603						33												33			603	53211	33	LIN. FT.	48" x 76" CONDUIT, TYPE B, AS PER PLAN A, 706.04, CL. HE III	8
604						8												8			604	00501	8	EACH	CATCH BASIN, NO. 3 WITH V GRATE, AS PER PLAN B, AND SUMP	416
604						3		82										3	82		604	00501	85	EACH	CATCH BASIN, NO. 3 WITH V GRATE, AS PER PLAN-A	8
604						52												52			604	00701	52	EACH	CATCH BASIN, NO. 3A WITH V GRATE, AS PER PLAN B, AND SUMP	416
604						20		41										20	41		604	00701	61	EACH	CATCH BASIN, NO. 3A WITH V GRATE, AS PER PLAN-A	8
604						4												4			604	02001	4	EACH	CATCH BASIN, NO. 6, AS PER PLAN-B, WITH SUMP	8
604						3		3										3	3		604	02001	6	EACH	CATCH BASIN, NO. 6, AS PER PLAN-A	8
604						16		5										16	5		604	09000	21	EACH	CATCH BASIN ADJUSTED TO GRADE	
604		10				12		15										17	20		604	10100	37	EACH	INLET, NO. 1	

MAYFIELD ROAD

PARTICIPATION

I – 100% CITY OF SOUTH EUCLID
II – 100% CITY OF LYNDHURST
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IV – NORMAL PROJECT PARTICIPATION – CITY OF LYNDHURST
V – 72% NORMAL PROJECT PARTICIPATION, 28% CITY OF LYNDHURST

GENERAL SUMMARY

FHWA REGION	STATE	PROJECT	
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CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

ITEM	SHEET NUMBER															PARTICIPATION					ITEM	ITEM EXTENSION	GRAND TOTAL	UNIT	DESCRIPTION	AS PER PLAN REF. SHEET
	8		9		33		43		53		55		57		59	I	II	III	IV	V						
																									– DRAINAGE (CONT.) –	
604							29		9							5		24	9		604	31500	38	EACH	MANHOLE, NO. 3	
604									2										2		604	31800	2	EACH	MANHOLE, NO. 4	
604									4										4		604	32100	4	EACH	MANHOLE, NO. 5	
604							12		30		3		13					15	43		604	34501	58	EACH	MANHOLE ADJUSTED TO GRADE, AS PER PLAN	8
604	10						2				1							8	5		604	35501	13	EACH	MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN	8
604							10											10			604	37501	10	EACH	JUNCTION CHAMBER, AS PER PLAN	413
SPECIAL							61											61			SPECIAL	60460000	61	LIN. FT.	TRENCH DRAIN	416
605					2,567		11,734		17,931									14,301	17,931		605	11110	32,232	LIN. FT.	6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP	
																									– SANITARY – Y-060	
603			200															100	100		603	00101	200	LIN. FT.	4" CONDUIT, TYPE B, AS PER PLAN B, 707.19, PS 46 MINIMUM	9
603			200										3,304		5,360	1250	550	4210	2,854		603	00901	8,864	LIN. FT.	6" CONDUIT, TYPE B, AS PER PLAN B, 707.19, PS 46 MINIMUM	9
603											235					13		222			603	01801	235	LIN. FT.	8" CONDUIT, TYPE B, AS PER PLAN B, 707.19, PS 46 MINIMUM	8
603			200								4,180					290		3,990	100		603	03101	4,380	LIN. FT.	10" CONDUIT, TYPE B, AS PER PLAN B, 707.19, PS 46 MINIMUM	9
603											356							356			603	03101	356	LIN. FT.	10" CONDUIT, TYPE B, AS PER PLAN B, 707.19, PS 115 MINIMUM	8
603											1,474					967		507			603	04401	1,474	LIN. FT.	12" CONDUIT, TYPE B, AS PER PLAN B, 707.19, PS 115 MINIMUM	8
603			200								455					455		100	100		603	04401	655	LIN. FT.	12" CONDUIT, TYPE B, AS PER PLAN B, 707.19, PS 46 MINIMUM	9
603													111				98		13		603	05901	111	LIN. FT.	15" CONDUIT, TYPE B, AS PER PLAN B, 707.19, PS 46 MINIMUM	8
603											8							8			603	07401	8	LIN. FT.	18" CONDUIT, TYPE B, AS PER PLAN B, 706.02, 2000 D-LOAD	8
603													33				8		25		603	07401	33	LIN. FT.	18" CONDUIT, TYPE B, AS PER PLAN B, 706.02, 1500 D-LOAD	8
603													708						708		603	08901	708	LIN. FT.	21" CONDUIT, TYPE B, AS PER PLAN B, 706.02, 1500 D-LOAD	8
603											395							395			603	10401	395	LIN. FT.	24" CONDUIT, TYPE B, AS PER PLAN B, 706.02, 2000 D-LOAD	8
603													6				6				603	10401	6	LIN. FT.	24" CONDUIT, TYPE B, AS PER PLAN B, 706.08 ES	8
603													1,097				257			840	603	11901	1,097	LIN. FT.	27" CONDUIT, TYPE B, AS PER PLAN B, 706.02 1500 D-LOAD	8
603													2,786							2,786	603	11901	2,786	LIN. FT.	27" CONDUIT, TYPE B, AS PER PLAN B, 706.02, 1750 D-LOAD	8
603													2,066				2,066				603	13401	2,066	LIN. FT.	30" CONDUIT, TYPE B, AS PER PLAN B, 706.02, 1500 D-LOAD	8
603													560				560				603	16401	560	LIN. FT.	36" CONDUIT, TYPE B, AS PER PLAN B, 706.02, 1500 D-LOAD	8
604											40		19			10	8	30	11		604	31500	59	EACH	MANHOLE, NO. 3, WITH 706.11 JOINTS	
604											1							1			604	31501	1	EACH	MANHOLE, NO. 3, AS PER PLAN WITH 706.11 JOINTS (STORM/SANITARY)	417
604													2						2		604	31501	2	EACH	MANHOLE, NO. 3, AS PER PLAN A, DROP WITH 706.11 JOINTS	421
604											1		1				1	1			604	31501	2	EACH	MANHOLE, NO. 3, AS PER PLAN B, DROP WITH 706.11 JOINTS	421
604													1						1		604	37501	1	EACH	JUNCTION CHAMBER, AS PER PLAN	419
SPECIAL											1,339		43			1,339	43				SPECIAL	20270000	1,382	LIN. FT.	FILL AND PLUG EXISTING CONDUIT (EXISTING 24" SANITARY SEWER)	
SPECIAL			6,640														6,640				SPECIAL	69098100	6,640	LIN. FT.	SANITARY SEWER TELEVISING	
SPECIAL			2,875														2,875				SPECIAL	69098100	2,875	LIN. FT.	SANITARY SEWER TESTING	

PARTICIPATION

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V – 72% NORMAL PROJECT PARTICIPATION, 28% CITY OF LYNDHURST

GENERAL SUMMARY

FHWA REGION	STATE	PROJECT	
5	OHIO		

27/426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

ITEM	SHEET NUMBER															PARTICIPATION					ITEM	ITEM EXTENSION	GRAND TOTAL	UNIT	DESCRIPTION	AS PER PLAN REF. SHEET
		9		10		28		29		33	34	65		67			I	II	III	IV	V						
																									– WATERWORK – Y-060	
604												60		45					60	45		604	34501	105	EACH	MANHOLE, ADJUSTED TO GRADE, AS PER PLAN	8
638												2							2			638	10700	2	EACH	FIRE HYDRANT REMOVED AND DISPOSED OF	
638												106		114					106	114		638	10800	220	EACH	VALVE BOX ADJUSTED TO GRADE	
638												130		107					130	107		638	10900	237	EACH	SERVICE BOX ADJUSTED TO GRADE	
SPECIAL												285							285			SPECIAL	63820440	285	LIN. FT.	8" WATER MAIN DUCTILE IRON PIPE WITH BOLTLESS RESTRAINED JOINTS AND FITTINGS, ANSI CLASS 56	
SPECIAL												69							69			SPECIAL	63820650	69	LIN. FT.	10" WATER MAIN DUCTILE IRON PIPE WITH BOLTLESS RESTRAINED JOINTS AND FITTINGS, ANSI CLASS 56	
SPECIAL												110							110			SPECIAL	63821010	110	LIN. FT.	12" WATER MAIN DUCTILE IRON PIPE WITH BOLTLESS RESTRAINED JOINTS AND FITTINGS, ANSI CLASS 56	
SPECIAL												240							240			SPECIAL	63821250	240	LIN. FT.	16" WATER MAIN DUCTILE IRON PIPE WITH BOLTLESS RESTRAINED JOINTS AND FITTINGS, ANSI CLASS 56	
SPECIAL												1							1			SPECIAL	63823000	1	EACH	6" GATE VALVE WITH VALVE BOX, COMPLETE	
SPECIAL												1							1			SPECIAL	63823108	1	EACH	12" GATE VALVE WITH VALVE BOX, COMPLETE	
SPECIAL												2							2			SPECIAL	63823500	2	EACH	6" CUTTING–IN VALVE WITH VALVE BOX, COMPLETE	
SPECIAL												1							1			SPECIAL	63823506	1	EACH	8" CUTTING–IN VALVE WITH VALVE BOX, COMPLETE	
SPECIAL												5							5			SPECIAL	63823700	5	EACH	16" CUTTING–IN VALVE WITH VALVE BOX, COMPLETE	
SPECIAL												2							2			SPECIAL	63824600	2	EACH	FURNISHING AND SETTING 6" HYDRANT, COMPLETE	
SPECIAL												1							1			SPECIAL	63824700	1	EACH	EXTEND AND ADJUST HYDRANT TO GRADE	
SPECIAL												1							1			SPECIAL	63826306	1	EACH	RETAP AND RECONNECT 1" WATER SERVICE CONNECTION, SHORT SIDE COMPLETE	
SPECIAL												1							1			SPECIAL	63826600	1	EACH	RETAP AND RECONNECT 1" WATER SERVICE CONNECTION, LONG SIDE COMPLETE	
SPECIAL												27		117					27	117		SPECIAL	63829408	144	EACH	EXTEND 1" WATER SERVICE CONNECTION, COMPLETE	
SPECIAL		500																	250	250		SPECIAL	63830000	500	LIN. FT.	COPPER WATER TUBING	
SPECIAL												25							25			SPECIAL	63830300	25	EACH	PLUGGING EXISTING SERVICE CONNECTION	
SPECIAL		1000																	500	500		SPECIAL	63844006	1000	LBS.	MISCELLANEOUS METAL WORK	
SPECIAL		10																	5	5		SPECIAL	63829706	10	EACH	INSTALL 3/4" WATER SERVICE CONNECTION, LONG SIDE COMPLETE	
SPECIAL		10																	5	5		SPECIAL	63829708	10	EACH	INSTALL 1" WATER SERVICE CONNECTION, LONG SIDE COMPLETE	
SPECIAL		10																	5	5		SPECIAL	63829800	10	EACH	INSTALL 1–1/2" WATER SERVICE CONNECTION, LONG SIDE COMPLETE	
SPECIAL		10																	5	5		SPECIAL	63829902	10	EACH	INSTALL 2" WATER SERVICE CONNECTION, LONG SIDE COMPLETE	
SPECIAL		10																	5	5		SPECIAL	63829806	10	EACH	INSTALL 3/4" WATER SERVICE CONNECTION, SHORT SIDE COMPLETE	
SPECIAL		10																	5	5		SPECIAL	63829808	10	EACH	INSTALL 1" WATER SERVICE CONNECTION, SHORT SIDE COMPLETE	
SPECIAL		10																	5	5		SPECIAL	63829900	10	EACH	INSTALL 1–1/2" WATER SERVICE CONNECTION, SHORT SIDE COMPLETE	
SPECIAL		10																	5	5		SPECIAL	63829902	10	EACH	INSTALL 2" WATER SERVICE CONNECTION, SHORT SIDE COMPLETE	
SPECIAL												LUMP							LUMP			SPECIAL	63898100	LUMP		WATERWORK, MISC.: FROSTPROOFING (WITCOLITE OR GILSULATE 500XR OR EQUAL)	
																									– EROSION CONTROL –	
207		4,000																	2,000	2,000		207	30000	4,000	LIN. FT.	FILTER FABRIC FENCE	
207		1,500																	750	750		207	70000	1,500	EACH	STRAW OR HAY BALES	
657		100																	50	50		657	10000	100	SQ. YD.	RIPRAP FOR TREE PROTECTION	
658		25																	12.5	12.5		658	10000	25	CU. YD.	TREE ROOT AERATION	
660						2502		16,954		993	791								3495	17745		660	30000	21240	SQ. YD.	SODDING	
659						0.23		1.53		0.09	0.07								0.32	1.60		659	20000	1.92	TON	COMMERCIAL FERTILIZER	

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GENERAL SUMMARY

FHWA REGION	STATE	PROJECT	
5	OHIO		

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426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

ITEM	SHEET NUMBER																	PARTICIPATION				ITEM	ITEM EXTENSION	GRAND TOTAL	UNIT	DESCRIPTION	AS PER PLAN REF. SHEET
	10	11		7										364		365		I	II	III	IV						
																										EROSION CONTROL (CONT.)	
659				100																50	50	659	35000	100	M.GAL.	WATER	
659				100																50	50	659	40000	100	M.SQ.FT	MOWING	

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GENERAL SUMMARY

FHWA REGION	STATE	PROJECT	
5	OHIO		

27B 426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

ITEM	SHEET NUMBER																PARTICIPATION				ITEM	ITEM EXTENSION	GRAND TOTAL	UNIT	DESCRIPTION	AS PER PLAN REF. SHEET
		10		364		365											I	II	III	IV						
																									– MAINTENANCE OF TRAFFIC (CONT.) –	
614				6															6		614	30200	6	EACH	TEMPORARY LANE ARROW, CLASS I, 642 PAINT	
614				19		18													19	18	614	30600	37	EACH	TEMPORARY LANE ARROW, CLASS I, 740.05, TYPE C	
614				43		1													43	1	614	31600	44	EACH	TEMPORARY WORD ON PAVEMENT, 72", CLASS I, 740.05, TYPE C	
615		111																	111		615	25000	111	SQ. YD.	TEMPORARY PAVEMENT, CLASS B	
616		600																	300	300	616	10000	600	M. GAL.	WATER	
616		50																	25	25	616	20000	50	TON	CALCIUM CHLORIDE	
644				24166		55893													24166	55893	644	30000	80059	LIN. FT.	REMOVAL OF PAVEMENT MARKING	
644				4		19													4	19	644	30020	23	EACH	REMOVAL OF PAVEMENT MARKING	
																									FOR TRAFFIC CONTROL QUANTITIES SEE SHEETS 250 TO 253.	
614																			LUMP	LUMP	614	11000	LUMP		MAINTAINING TRAFFIC	
619																			LUMP	LUMP	619	15020	LUMP		FIELD OFFICE, TYPE C	
623																			LUMP	LUMP	623	10000	LUMP		CONSTRUCTION LAYOUT STAKES	
624																			LUMP	LUMP	624	10000	LUMP		MOBILIZATION	

CALCULATIONS

CALC. BY: DATE:
CHKD. BY: DATE:

NH-83(29)

OHIO
F.H.W.A. REGION 5

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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

ITEM 202 – CURB REMOVED

STATION	STATION	SIDE	LENGTH FT.	QUANTITY FT.
0+54.40	74+00	LT. & RT.	7345.60 X 2	14,691.20
LESS BROOKLINE ROAD INTERSECTION				55.00
LESS GENESSEE ROAD INTERSECTION				55.00
LESS PLAINFIELD ROAD INTERSECTION				65.50
LESS SHERBROOK ROAD INTERSECTION				65.50
LESS WINSTON ROAD INTERSECTION				85.70
LESS HOLMDEN ROAD INTERSECTION				64.98
LESS GRANTLEIGH ROAD INTERSECTION				66.00
LESS FELTON ROAD INTERSECTION				65.00
LESS AVONDALE ROAD INTERSECTION				65.40
LESS MAPLEGROVE ROAD INTERSECTION				65.01
LESS VILLA DRIVE INTERSECTION				85.00
LESS ARGONNE ROAD INTERSECTION				65.31
LESS SOUTH BELVOIR BLVD. INTERSECTION				328.00
LESS FRANCIS COURT INTERSECTION				51.36
LESS SHEFFIELD ROAD INTERSECTION				120.84
LESS VICTORY DRIVE INTERSECTION				92.62
LESS GARDEN DRIVE INTERSECTION				60.19
LESS SOUTH GREEN RD. INTERSECTION				199.40
LESS DEAN DRIVE INTERSECTION				95.10
LESS DILL DRIVE INTERSECTION				65.41
LESS MAYWOOD ROAD INTERSECTION				65.21
LESS OAKMOUNT ROAD INTERSECTION				65.01
LESS SHERIDAN ROAD INTERSECTION				64.71
LESS DORSH ROAD INTERSECTION				65.00
TOTAL DEDUCT				-2076.25
CURB REMOVED				12,615 L.F.

ITEM 202 – PAVEMENT REMOVED

STATION	STATION	LENGTH FT.	WIDTH FT.	QUANTITY SQ.YD.
0+54.40	74+00	(7345.60 X	58) / 9 =	47,338.3

ITEM 203 – SUBGRADE COMPACTION

STATION	STATION	LENGTH FT.	WIDTH FT.	QUANTITY SQ.YD.
0+54.40	74+00	(7345.60 X	59) / 9 =	48,154.5

ITEM 203 – EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION

DEDUCT FOR PAVEMENT REMOVAL	QUANTITY CU.YD.
*23,829–[(STA.74+0 – 0+54.4) X 58 X 1.25 / 27]	4,105

* TOTAL SUM OF EXCAVATION QUANTITY CARRIED FROM CROSS SECTION SHEETS.

ITEM 254 – PAVEMENT PLANING, BITUMINOUS

STATION	STATION	LENGTH FT.	WIDTH FT.	QUANTITY SQ.YD.
0+44.40	0+54.40	(10 X	58) / 9 =	64.4

ITEM 310 – SUBBASE, TYPE II, AS PER PLAN

STATION	STATION	LENGTH FT.	WIDTH FT.	DEPTH FT.	QUANTITY CU.YD.
0+54.4	74+00	(7345.60 X	59 X	0.5) / 27 =	8025.7

ITEM 451 – 10" REINFORCED CONCRETE PAVEMENT

STATION	STATION	LENGTH FT.	WIDTH FT.	QUANTITY SQ.YD.
0+54.4	74+00	(7345.60 X	59) / 9 =	48,154.5

ITEM 609 – CURB, TYPE 2-A

STATION	STATION	SIDE	LENGTH FT.	QUANTITY FT.
0+54.40	74+00	LT. & RT.	7345.60 X 2	14,691.20
LESS BROOKLINE ROAD INTERSECTION				55.00
LESS GENESSEE ROAD INTERSECTION				55.00
LESS PLAINFIELD ROAD INTERSECTION				65.50
LESS SHERBROOK ROAD INTERSECTION				65.50
LESS WINSTON ROAD INTERSECTION				85.70
LESS HOLMDEN ROAD INTERSECTION				64.98
LESS GRANTLEIGH ROAD INTERSECTION				66.00
LESS FELTON ROAD INTERSECTION				65.00
LESS AVONDALE ROAD INTERSECTION				65.40
LESS MAPLEGROVE ROAD INTERSECTION				65.01
LESS VILLA DRIVE INTERSECTION				85.00
LESS ARGONNE ROAD INTERSECTION				65.31
LESS SOUTH BELVOIR BLVD. INTERSECTION				328.00
LESS FRANCIS COURT INTERSECTION				51.36
LESS SHEFFIELD ROAD INTERSECTION				120.84
LESS VICTORY DRIVE INTERSECTION				92.62
LESS GARDEN DRIVE INTERSECTION				60.19
LESS SOUTH GREEN RD. INTERSECTION				199.40
LESS DEAN DRIVE INTERSECTION				95.10
LESS DILL DRIVE INTERSECTION				65.41
LESS MAYWOOD ROAD INTERSECTION				65.21
LESS OAKMOUNT ROAD INTERSECTION				65.01
LESS SHERIDAN ROAD INTERSECTION				64.71
LESS DORSH ROAD INTERSECTION				65.00
TOTAL DEDUCT				-2076.25
TOTAL CURB				12,615 L.F.

SUMMARY OF SIDEWALK QUANTITIES

STATION FROM	STATION TO	SIDE	LIN. FT.	AREA SQ. FT.	DEDUCT FOR DRIVES & SODDING SQ. FT.	202 WALK REMOVED SQ. FT.	608 4" CONC. WALK SQ. FT.
0+85	1+71	LT.	86	860	323	537	537
0+91	2+87	RT.	196	1960	638	1322	1322
2+26	5+55	LT.	329	3290	1385	1905	1905
3+42	5+92	RT.	250	2500	805	1695	1695
6+20	8+75	LT.	255	2550	390	2160	2160
6+58	8+96	RT.	238	2380	185	2195	2195
9+61	11+70	LT.	209	2090	305	1785	1785
9+61	13+13	RT.	352	3520	1795	1725	1725
12+36	14+52	LT.	216	2160	797	1363	1363
13+78	17+05	RT.	327	3270	1930	1340	1340
15+17	17+00	LT.	183	1830	588	1242	1242
17+70	24+32	RT.	662	6620	2357	4263	4263
17+85	20+83	LT.	298	2980	2485	495	495
21+49	24+32	LT.	283	2830	1263	1567	1567
26+39	32+05	LT.	566	5660	2618	3042	3042
26+39	36+52	RT.	1013	10,130	3855	6275	6275
32+57	36+43	LT.	386	3860	1398	2462	2462
36+99	42+63	LT.	564	5640	1105	4535	4535
37+17	43+79	RT.	662	6620	3045	3575	3575
43+56	46+24	LT.	268	2680	0	2680	2680
44+39	46+24	RT.	185	1850	0	1850	1850
47+46	51+85	RT.	439	4390	625	3765	3765
47+46	57+52	LT.	1006	10,060	2275	7785	7785
52+81	58+60	RT.	579	5790	2877	2913	2913
58+18	73+02	LT.	1484	14,840	9330	5510	5510
59+25	61+81	RT.	256	2560	1180	1380	1380
62+46	65+89	RT.	343	3430	2000	1430	1430
66+54	74+00	RT.	746	7460	5215	2245	2245
73+67	74+00	LT.	33	330	165	165	165
TOTAL						73,206	73,206

SUMMARY OF SODDING QUANTITIES

STATION FROM	STATION TO	SIDE	LIN. FT.	AREA SQ. FT.	DEDUCT FOR DRIVES & WALKS SQ. FT.	660 SODDING SQ. FT.
9+61	13+13	RT.	352	1408	830	578
12+36	13+42	LT.	106	424	135	289
13+78	17+05	RT.	327	1308	345	963
16+40	17+00	LT.	60	240	0	240
17+70	19+24	RT.	154	616	205	411
17+85	20+83	LT.	298	1192	80	1112
21+49	21+98	LT.	49	196	0	196
23+97	24+24	RT.	27	108	0	108
25+98	27+45	LT.	147	588	80	508
26+50	28+45	RT.	195	780	240	540
32+57	33+37	LT.	80	320	160	160
33+30	33+65	RT.	35	140	0	140
34+62	34+97	RT.	35	140	0	140
39+50	43+00	RT.	350	1400	190	1210
55+10	55+35	LT.	25	100	0	100
54+88	58+60	RT.	372	2232	290	1942
58+18	73+02	LT.	1484	7420	1195	6225
59+25	61+81	RT.	256	1124	100	1024
62+46	65+89	RT.	343	1372	335	1037
66+54	69+40	RT.	286	1144	110	1034
69+40	74+00	RT.	460	4600	270	4330
73+67	74+00	LT.	33	231	0	231
TOTAL						22,518 ÷ 9 = 2502 SQ. YD.

QUANTITIES CARRIED TO GENERAL SUMMARY SHEETS 24 & 27.

ITEM 659 COMMERCIAL FERTILIZER
2502 × 9 × 20 ÷ 1000 ÷ 2000 = 0.2252
0.23 TON

MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

BRUNING 44-132 67199

FHWA REGION	STATE	PROJECT	
5	OHIO		

29
426

CUYAHOGA COUNTY
CUY –322–8.66
MAYFIELD ROAD

SUB–SUMMARIES

SHEET NO.	STATION		203 EXCAVATION NOT INCLUDING EMBANKMENT	203 EMBANKMENT	660 SODDING
	FROM	TO	CU. YD.	CU. YD.	SQ. YD.
168	74+00	76+00	604	10	347
169	76+00	80+00	1122	39	716
170	80+00	84+00	1126	56	732
171	84+00	88+00	1169	41	662
172	88+00	92+00	1124	29	724
173	92+00	96+00	1134	36	689
174	96+00	100+00	1105	33	671
175	100+00	104+00	1082	59	643
176	104+00	108+00	1089	28	645
177	108+00	112+00	1100	48	473
178	112+00	116+00	1096	40	556
179	116+00	120+00	1130	78	828
180	120+00	124+00	1152	71	803
181	124+00	128+00	1182	30	574
182	128+00	132+00	1144	21	682
183	132+00	136+00	1137	107	1130
184	136+00	140+00	1225	30	637
185	140+00	144+00	1344	15	488
186	144+00	148+00	1159	28	611
187	148+00	152+00	1337	48	543
188	152+00	156+00	1135	73	810
189	156+00	160+00	1138	45	790
190	160+00	164+00	1154	17	383
191	164+00	168+00	1020	49	429
192	168+00	172+00	856	131	1225
193	172+00	173+00	220	22	163
TOTAL			28,084	1,184	16,954
LESS AMOUNT FOR PAVEMENT (FROM THIS SHEET)			23,346		
GRAND TOTAL			4,738	1,184	16,954

QUANTITIES CARRIED TO GENERAL SUMMARY SHEETS 24 & 27.

ITEM 659 COMMERCIAL FERTILIZER
16,954×9×20÷1000÷2000 = 1.529 = 1.53 TON

STATION		PAVEMENT REMOVED (FROM SHEET NO. 31)	AVERAGE PAVEMENT THICKNESS	PAVEMENT REMOVED
FROM	TO	SQ. YD.	INCHES	CU. YD.
74+00	79+00	3,222	13	1164
79+00	80+87	1,205	13	435
80+87	83+49	1688	13	610
83+49	84+00	329	13	119
84+00	85+58	1,018	13	368
85+58	88+04	1,585	13	572
88+04	89+00	619	13	224
89+00	92+15	2,049	13	740
92+18	94+00	1,173	13	424
94+00	99+08	3,274	13	1182
99+08	99+50	271	13	98
99+50	105+00	3,544	13	1279
105+00	108+52	2,268	13	819
180+52	110+00	954	13	345
110+00	115+50	3,544	13	1279
115+50	121+00	3,544	13	1279
121+00	122+31	844	13	305
122+31	125+71	2,191	13	791
125+71	126+00	187	13	67
126+00	128+88	1,856	13	670
128+88	131+00	1,366	13	493
131+00	135+83	3,113	13	1124
135+83	138+00	110	13	40
136+00	139+05	1,966	13	710
139+05	140+11	683	13	247
140+11	141+00	574	13	207
141+00	142+57	1,012	13	365
142+57	146+00	2,210	13	798
146+00	149+84	2,475	13	894
149+84	151+00	748	13	270
151+00	155+50	2,900	13	1047
155+50	154+74	799	13	289
156+74	157+83	702	13	254
157+83	160+43	1676	13	605
160+43	161+00	367	13	132
161+00	165+00	2,578	13	931
165+00	169+50	2,900	13	1047
169+50	171+99	1,605	13	580
171+99	173+70	1,102	13	398
TOTAL		64251		23201

MAYFIELD ROAD

SUB–SUMMARIES

FHWA REGION	STATE	PROJECT	
5	OHIO		

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426

CUYAHOGA COUNTY
CUY –322–8.66
MAYFIELD ROAD

STATION		SIDE	202	609
			CURB REMOVED	CURB TYPE 2–A
FROM	TO		LIN. FT.	LIN. FT.
74+00	79+00	Lt.	500	500
79+00	80+87	Lt.	187	187
80+87	82+65	Lt.	178	178
83+49	84+00	Lt.	51	51
84+00	85+58	Lt.	158	158
85+58	86+99	Lt.	141	141
88+04	89+00	Lt.	96	96
89+00	91+23	Lt.	223	223
92+18	94+00	Lt.	182	182
94+00	98+14	Lt.	414	414
99+08	99+50	Lt.	42	42
99+50	105+00	Lt.	550	550
105+00	106+53	Lt.	153	153
108+52	110+00	Lt.	148	148
110+00	115+50	Lt.	550	550
115+50	121+00	Lt.	550	550
121+00	121+37	Lt.	37	37
122+31	124+76	Lt.	245	245
125+71	126+00	Lt.	29	29
126+00	127+95	Lt.	195	195
128+88	131+00	Lt.	212	212
131+00	134+75	Lt.	375	375
135+83	136+00	Lt.	17	17
136+00	138+21	Lt.	221	221
139+05	140+11	Lt.	106	106
140+11	141+00	Lt.	89	89
141+00	141+72	Lt.	72	72
142+57	146+00	Lt.	343	343
146+00	148+48	Lt.	248	248
149+84	151+00	Lt.	116	116
151+00	155+50	Lt.	450	450
155+50	156+74	Lt.	124	124
156+74	156+99	Lt.	25	25
157+83	160+43	Lt.	260	260
160+43	161+00	Lt.	57	57
161+00	163+13	Lt.	213	213
165+00	169+50	Lt.	450	450
169+50	171+06	Lt.	156	156
171+99	173+70	Lt.	171	171
TOTAL			8,334	8,334

STATION		SIDE	202	609
			CURB REMOVED	CURB TYPE 2–A
FROM	TO		LIN. FT.	LIN. FT.
74+00	79+00	Rt.	500	500
79+00	80+05	Rt.	105	105
80+87	83+49	Rt.	262	262
83+49	84+00	Rt.	51	51
84+00	84+29	Rt.	29	29
85+58	88+04	Rt.	246	246
88+04	89+00	Rt.	96	96
89+00	92+18	Rt.	318	318
92+18	94+00	Rt.	182	182
94+00	99+08	Rt.	508	508
99+08	99+50	Rt.	42	42
99+50	105+00	Rt.	550	550
105+00	106+53	Rt.	153	153
108+52	110+00	Rt.	148	148
110+00	115+50	Rt.	550	550
115+50	121+00	Rt.	550	550
121+00	122+31	Rt.	131	131
122+31	125+71	Rt.	340	340
125+71	126+00	Rt.	29	29
126+00	127+95	Rt.	195	195
128+88	131+00	Rt.	212	212
131+00	134+75	Rt.	375	375
135+83	136+00	Rt.	17	17
136+00	139+05	Rt.	305	305
139+05	139+09	Rt.	4	4
140+11	141+00	Rt.	89	89
141+00	141+72	Rt.	72	72
142+57	146+00	Rt.	343	343
146+00	148+48	Rt.	248	248
149+84	151+00	Rt.	116	116
151+00	155+50	Rt.	450	450
155+50	155+90	Rt.	40	40
156+74	157+83	Rt.	109	109
157+83	159+59	Rt.	176	176
160+43	161+00	Rt.	57	57
161+00	163+13	Rt.	213	213
165+00	169+50	Rt.	450	450
169+50	171+06	Rt.	156	156
171+99	173+70	Rt.	171	171
TOTAL			8,588	8,588
GRAND TOTALS			*16,922*	*16,922*

QUANTITIES CARRIED TO GENERAL SUMMARY SHEET 24.

MAYFIELD ROAD

FHWA REGION	STATE	PROJECT	
5	OHIO		

31
426

CUYAHOGA COUNTY
CUY –322–8.66
MAYFIELD ROAD

SUB–SUMMARIES

STATION		LENGTH	WIDTH	AREA	202
					PAVEMENT REMOVED
FROM	TO	FT.	FT.	SQ. FT.	SQ. YD.
74+00	79+00	500	58	29,000	3,222
79+00	80+87	187	58	10,846	1,205
80+87	83+49	262	58	15,196	1,688
83+49	84+00	51	58	2,958	329
84+00	85+58	158	58	9,164	1,018
85+58	88+04	246	58	14,268	1,585
88+04	89+00	96	58	5,568	619
89+00	92+18	318	58	18,444	2,049
92+18	94+00	182	58	10,556	1,173
94+00	99+08	508	58	29,464	3,274
99+08	99+50	42	58	2,436	271
99+50	105+00	550	58	31,900	3,544
105+00	108+52	352	58	20,416	2,268
108+52	110+00	148	58	8,584	954
110+00	115+50	550	58	31,900	3,544
115+50	121+00	550	58	31,900	3,544
121+00	122+31	131	58	7,598	844
122+31	125+71	340	58	19,720	2,191
125+71	126+00	29	58	1,682	187
126+00	128+88	288	58	16,704	1,856
128+88	131+00	212	58	12,296	1,366
131+00	135+83	483	58	28,014	3,113
135+83	136+00	17	58	986	110
136+00	139+05	305	58	17,690	1,966
139+05	140+11	106	58	6,148	683
140+11	141+00	89	58	5,162	574
141+00	142+57	157	58	9,106	1,012
142+57	146+00	343	58	19,894	2,210
146+00	149+84	384	58	22,272	2,475
149+84	151+00	116	58	6,728	748
151+00	155+50	450	58	26,100	2,900
155+50	154+74	124	58	7,192	799
156+74	157+83	109	58	6,322	702
157+83	160+43	260	58	15,080	1,676
160+43	161+00	57	58	3,306	367
161+00	165+00	400	58	23,200	2,578
165+00	169+50	450	58	26,100	2,900
169+50	171+99	249	58	14,442	1,605
171+99	173+70	171	58	9,918	1,102
TOTAL					64,251

STATION		LENGTH	WIDTH	AREA	203	310	451
					SUBGRADE COMPACTION	6" SUBBASE TYPE II AS PER PLAN	10" PORTLAND CEMENT CONC. PAVEMENT
FROM	TO	FT.	FT.	SQ. FT.	SQ. YD.	CU. YD.	SQ. YD.
74+00	79+00	500	58	29,000	3,222	537	3222
79+00	80+87	187	58	10,846	1,205	201	1205
80+87	83+49	262	58	15,196	1,688	281	1688
83+49	84+00	51	58	2,958	329	55	329
84+00	85+58	158	58	9,164	1,018	170	1,018
85+58	88+04	246	58	14,268	1,585	264	1,585
88+04	89+00	96	58	5,568	619	103	619
89+00	92+18	318	58	18,444	2,049	342	2,049
92+18	94+00	182	58	10,556	1,173	196	1,173
94+00	99+08	508	58	29,464	3,274	546	3,274
99+08	99+50	42	58	2,436	271	45	271
99+50	105+00	550	58	31,900	3,544	591	3,544
105+00	108+52	352	58	20,416	2,268	378	2,268
108+52	110+00	148	58	8,584	954	159	954
110+00	115+50	550	58	31,900	3,544	591	3,544
115+50	121+00	550	58	31,900	3,544	591	3,544
121+00	122+31	131	58	7,598	844	141	844
122+31	125+71	340	58	19,720	2,191	365	2,191
125+71	126+00	29	58	1,682	187	31	187
126+00	128+88	288	58	16,704	1,856	309	1,856
128+88	131+00	212	58	12,296	1,366	228	1,366
131+00	135+83	483	58	28,014	3,113	519	3,113
135+83	136+00	17	58	986	110	18	110
136+00	139+05	305	58	17,690	1,966	328	1,966
139+05	140+11	106	58	6,148	683	114	683
140+11	141+00	89	58	5,162	574	96	574
141+00	142+57	157	58	9,106	1,012	169	1,012
142+57	146+00	343	58	19,894	2,210	368	2,210
146+00	149+84	384	58	22,272	2,475	412	2,475
149+84	151+00	116	58	6,728	748	125	748
151+00	155+50	450	58	26,100	2,900	483	2,900
155+50	156+74	124	58	7,192	799	133	799
156+74	157+83	109	58	6,322	702	117	702
157+83	160+43	260	58	15,080	1,676	279	1,676
160+43	161+00	57	58	3,306	367	61	367
161+00	165+00	400	58	23,200	2,578	430	2,578
165+00	169+50	450	58	26,100	2,900	483	2,900
169+50	171+99	249	58	14,442	1,605	267	1,605
171+99	173+70	171	58	9,918	1,102	184	1,102
TOTAL					64,251	10,712	64,251

QUANTITIES CARRIED TO GENERAL SUMMARY SHEET 24.

MAYFIELD ROAD

FHWA REGION	STATE	PROJECT	
5	OHIO		

32
426

CUYAHOGA COUNTY
CUY –322–8.66
MAYFIELD ROAD

SUB–SUMMARIES

STATION		SIDE	LIN. FT.	DEDUCT FOR DRIVES & INTERSECTIONS	LIN. FT.	202	608
						WALK REMOVED	4" CONC. WALK
FROM	TO					SQ. FT.	SQ. FT.
74+00	79+00	Lt.	500	78	422	2532	2532
74+00	79+00	Rt.	500	24	476	2380	2380
79+00	84+00	Lt.	500	65	435	2610	2610
79+00	84+00	Rt.	500	35	465	2325	2325
84+00	89+00	Lt.	500	91	409	2454	2454
84+00	89+00	Rt.	500	60	440	2200	2200
89+00	94+00	Lt.	500	75	425	2550	2550
89+00	94+00	Rt.	500	0	500	2500	2500
94+00	99+50	Lt.	550	94	456	2736	2736
94+00	99+50	Rt.	550	23	527	2705	2635
99+50	105+00	Lt.	550	92	458	2748	2748
99+50	105+00	Rt.	550	124	426	2816	2130
105+00	110+00	Lt.	500	187	313	1993	1878
105+00	110+00	Rt.	500	100	400	2000	2000
110+00	115+50	Lt.	550	137	413	2478	2478
110+00	115+50	Rt.	550	68	482	2410	2410
115+50	121+00	Lt.	550	126	424	2544	2544
115+50	121+00	Rt.	550	81	469	2345	2345
121+00	126+00	Lt.	500	125	375	2250	2250
121+00	126+00	Rt.	500	100	400	2000	2000
126+00	131+00	Lt.	500	144	356	2136	2136
126+00	131+00	Rt.	500	141	359	1795	1795
131+00	136+00	Lt.	500	185	315	1890	1890
131+00	136+00	Rt.	500	141	359	1795	1795
136+00	141+00	Lt.	500	121	379	2274	2274
136+00	141+00	Rt.	500	80	420	2100	2100
141+00	146+00	Lt.	500	153	347	2424	2082
141+00	146+00	Rt.	500	96	404	2020	2020
146+00	151+00	Lt.	500	194	306	1836	1836
146+00	151+00	Rt.	500	105	395	1975	1957
151+00	155+50	Lt.	450	116	334	2004	2004
151+00	155+50	Rt.	450	140	310	1550	1550
155+50	161+00	Lt.	550	105	445	2670	2670
155+50	161+00	Rt.	550	102	448	2240	2240
161+00	165+00	Lt.	400	175	225	1350	1350
161+00	165+00	Rt.	400	188	212	1060	1060
165+00	169+50	Lt.	450	103	347	2082	2082
165+00	169+50	Rt.	450	82	368	1840	1840
135+64	138+45	Lt.	281	–	281	–	1405
138+81	139+50	Lt.	69	–	69	–	414
171+79	173+48	Rt.	169	37	132	–	792
TOTAL						83,617	84,997

QUANTITIES CARRIED TO GENERAL SUMMARY SHEET 24.

MAYFIELD ROAD

SUMMARY OF EXTRA AREA QUANTITIES

	NH-83(29)	OHIO	33 426
		F.H.W.A. REGION 5	

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SHEET NO.		STREET NAME	OFFSET	202 PAVEMENT REMOVED S.Y.	202 WEARING COURSE REMOVED S.Y.	202 CURB REMOVED L.F.	202 WALK REMOOVED S.F.			203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION C.Y.	203 SUBGRADE COMPACTION S.Y.		254 PAVEMENT PLANING, BITUMINOUS S.Y.		310 SUBBASE TYPE II C.Y.		404 ASPHALT CONCRETE, AC-20 C.Y.	407 TACK COAT GAL.		451 10" REINFORCED CONCRETE PAVEMENT S.Y.	452 8" PLAIN CONCRETE PAVEMENT S.Y.		603 6" CONDUIT, TYPE F AS PER PLAN L.F.	605 6" SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP L.F.		608 4" CONCRETE WALK S.F.		609 CURB, TYPE 2-A L.F.	609 CURB, TYPE 3-A L.F.		660 SODDING S.Y.	659 COMMERCIAL FERTILIZER TON	608 CURB RAMP, TYPE 1 EACH	608 CURB RAMP, TYPE 2 EACH		
194		BROOKLINE ROAD	LT.	145	145	118	280			43	151		27		25		1.5	2		151			20	98		480		118			52	.005	2			
194		GENESSEE AVE.	RT.	164	145	118	670			44	151		27		25		1.5	2		151	19		40	78		670		118					2			
195		PLAINFIELD ROAD	LT.	145	145	118	270			55	161		27		27		1.5	2		161			40	84		470		124			44		2			
195		SHERBROOK AVE.	RT.	157	145	118	575			50	161		27		27		1.5	2		161	12		40	84		630		124			31		2			
196		WINSTON ROAD	LT.	123	123	94	330			30	129		28		22		1.5	2		129				94		330		94			48		2			
196		HOLMDEN ROAD	RT.	131	131	108	330			30	146		27		25		1.5	2		146			20	84		470		114			54		2			
197		GRANTLEIGH ROAD	LT.	94	94	78	330			18	107		28		18		1.6	2		107				84		460		84			27		2			
197		FELTON ROAD	RT.	124	124	104	410			33	140		27		24		1.5	2		140			40	70		465		110			25		2			
198		AVONDALE ROAD	LT.	145	145	118	475			27	161		28		27		1.5	2		161				125		610		125			60		2			
198		MAPLEGROVE ROAD	RT.	210	210	168	570			85	229		27		38		1.5	2		229			40	134		635		174			77		2			
198		VILLA ROAD	LT.	123	123	94	300			34	128		27		22		1.5	2		128			20	74		355		94			50			2		
199		ARGONNE ROAD	LT.	94	94	81	270			26	108		27		18		2	2		108			20	64		270		87			44		1	1		
200		BELVOIR BLVD.	LT.&RT.	1059	1059	488	720			181	1086		133		181		8	10		1086			30	443		980		488			196		2	1		
201		FRANCIS CT.	LT.	80	80	78	360			24	84		23		14		1.5	2		84				78		360		78					2			
201		SHEFFIELD ROAD	LT.	130	95	78	560			27	99		27		17		1.5	2		99	35			78		574		78					2			
201		SHEFFIELD ROAD	RT.	125	125	102	320			36	137		27		23		1.5	2		137			40	67		380		107			26		2			
202		VICTORY DRIVE	LT.	187	187	108	540			32	193		39		32		2	3		193			10	93		540		108			8		2	1		
202		GARDEN DRIVE	RT.	108	108	53	245			30	111		23		19		1.5	2		111			20	78		245		53	45				2			
203		GREEN ROAD	LT.&RT. RT.	520	520	202	1075			89	532		120		89		7	9		532			50	144		1075		202					4			
199		DEAN ROAD	RT.	287	274	131	860			47	281				47					281	13		30	96		860		131					2			
204		DILL AVE.	LT.	113	107	90	500			34	121		28		21		1.5	2		121	6		20	76		570		96			24		2	1		
204		MAYWOOD ROAD	RT.	116	116	98	380			35	132		27		22		1.5	2		132			30	69		460		104			44		2	1		
205		OAKMOUNT ROAD	LT.	148	148	122	350			40	165		27		28		1.5	2		165			40	88		480		128			67			3		
205		SHERIDAN ROAD	RT.	171	171	138	310			70	187		27		31		1.5	2		187			30	109		460		144			72			2		
205		DORSH ROAD	LT.	106	106	90	290			35	121		27		20		1.5	2		121			30	75		490		96			44			3		
		TOTALS		4805	4720	3095	11320			1155	5021		855		842		49	64		5021	85		610	2567		13319		3179	45		993	009	43	15		

STEPHEN HOVANCSEK & ASSOC., INC.

QUATITIES CARRIED TO GENERAL SUMMARY SHEETS 24-27

BRUNING 44-132 67199

FHWA REGION	STATE	PROJECT	
5	OHIO		

34
426

CUYAHOGA COUNTY
CUY 322-8.66
MAYFIELD ROAD

INTERSECTION QUANTITIES

INTERSECTION	SHEET NO.	202 PAVEMENT REMOVED		202 WALK REMOVED	202 CURB REMOVED		203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	203 SUBGRADE COMPACTION		254 PAVEMENT PLANING BITUMINOUS		310 6" SUBBASE, TYPE II, AS PER PLAN		404 ASPHALT CONCRETE	451 10" PORTLAND CEMENT CEMENT PAVEMENT			608 4" CONCRETE WALK	608 CURB RAMP TYPE 1	608 CURB RAMP TYPE 2			609 CURB, TYPE 2-A	660 SODDING	659 COMMERCIAL FERTILIZER		
		SQ.YD.		SQ.FT.	LIN.FT.		CU.YD.	SQ.YD.		SQ.YD.		CU.YD.		CU.YD.	SQ.YD.			SQ.FT.	EACH	EACH			LIN.FT.	SQ.YD.	TON		
PARKSIDE CIRCLE	206	118		100	95		22	125		0		21		0	125			50	0	2			98	35			
DAYTONA ROAD	206	133		350	96		21	133		0		22		0	133			75	0	3			96	32			
CLUBSIDE ROAD	207	246		100	161		43	258		0		43		0	258			50	2	0			159	57			
EVANSTON ROAD	208	176		200	125		34	187		0		31		0	187			50	2	1			134	57			
GRENLEIGH ROAD	209	156		120	113		26	156		0		26		0	156			60	0	2			113	38			
CLEARVIEW ROAD	210	150		120	110		25	150		0		25		0	150			50	0	2			110	37			
RICHMOND ROAD	211	0		150	545		0	0		957		0		80	0			0	4	1			545	0			
CROSSROAD PLAZA	90																		2								
WILLSHIRE ROAD	212	150		120	112		28	157		0		26		0	157			60	1	1			170	36			
HENNING DRIVE	213	245		140	170		41	245		0		41		0	245			390	1	1			170	70			
PARKVIEW DRIVE	214	140		300	118		28	100		0		25		0	152			250	2	0			114	52			
JAEGER DRIVE	214	100		140	101		30	130		0		22		0	130			90	2	0			90	34			
WINCHESTER ROAD	215	120		230	134		36	158		0		26		0	158			180	2	0			120	44			
IRENE ROAD	215	126		230	126		37	162		0		27		0	162			160	2	0			116	47			
CHURCHILL ROAD	216	118		130	119		33	147		0		25		0	147			80	0	2			108	0			
COMMODORE ROAD	216	141		100	122		39	176		0		29		0	176			50	2	0			113	45			
BILTMORE ROAD	217	125		320	145		44	208		0		35		0	208			180	2	0			134	45			
GORDON ROAD	217	101		200	114		32	135		0		23		0	135			60	2	0			106	32			
SUNVIEW ROAD/AVE.	218,219	398		250	342		80	420		0		70		0	420			80	2	2			320	0			
EDGEFIELD ROAD	219	95		100	108		20	126		0		21		0	126			50	2	0			96	17			
FORD ROAD	220	92		100	121		28	110		0		20		0	0			50	1	1			95	20			
LYNDHURST ROAD	220	148		300	172		36	168		0		28		0	168			250	1	1			160	42			
BRAINARD ROAD	221	800		300	368		101	800		0		133		0	800			100	4	0			368	34			
IROQUOIS ROAD	222	94		100	107		31	128		0		21		0	128			50	3	0			95	17			
GREENS OF LYNDHURST SHOPPING CENTER DRIVE	102	115		50	85		29	115		0		19		0	115			20	0	3			85	0			
TOTAL		4087		4250	3809		844	4494		957		759		80	4436			2435	39	22			3715	791	0.07		

MAYFIELD ROAD

SUMMARY OF INTERSECTION QUANTITIES

LEGEND
SIDE: R = RIGHT
L = LEFT
DRIVE USE: C = COMMERCIAL
R = RESIDENTIAL
PAVEMENT TYPE: CONC. = CONCRETE

DRIVE QUANTITIES

FOR STANDARD DRIVEWAY DETAIL SEE SHEET 412

	NH-83(29)	OHIO F.H.W.A. REGION 5	35 426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

LEFT SIDE

									202		203		310								452	452		
SHEET NO.	STATION	SIDE	PAVEMENT TYPE	DRIVE USE	LENGTH	WIDTH AT CURB	WIDTH AT JOINT		PAVEMENT REMOVED		EXCAVATION		SUBBASE TYPE II								8" PLAIN CONCRETE PAVEMENT	6" PLAIN CONCRETE PAVEMENT		
					FT.	FT.	FT.		S.Y.		C.Y.		C.Y.								S.Y.	S.Y.		
68	0+69	L	CONC.	C	4.5	40	34		17		2.8		2.8								19			
68	1+15	L	CONC.	C	10	36	30		34		8.1		5.8								35			
68	3+17	L	CONC.	C	10	43	37		47		11.0		7.1								43			
69	4+26	L	CONC.	C	10	73	67		76		11.0		12.7								76			
69	5+29	L	CONC.	C	10	32	26		30		5.5		5.1								31			
69	7+40	L	CONC.	C	10	27	21		25		4.5		4.2								25			
69	7+97	L	CONC.	C	10	21	15		18		4.7		3.0								18			
70	10+39	L	CONC.	C	10	35	29		33		5.6		5.6								34			
70	12+63	L	CONC.	C	10	30	24		28		4.7		4.7								28			
70	13+50	L	CONC.	C	10	19	13		14		2.7		2.7								16			
71	15+54	L	CONC.	C	10	17	11		14		3.6		2.3								14			
71	16+29	L	CONC.	C	10	19	13		15		2.0		2.7								16			
71	18+59	L	CONC.	C	10	20	14		16		4.7		2.9								17			
72	22+10	L	CONC.	C	3.5	26	20		23		4.0		4.0								24			
72	22+73	L	CONC.	C	10	15	9		11		1.1		2.0								12			
72	23+50	L	CONC.	C	10	23	17		20		2.0		3.4								21			
72	23+78	L	CONC.	C	10	32	26		30		2.9		5.1								31			
73	24+48	L	CONC.	C	10	31	25		28		2.9		4.9								29			
73	26+82	L	CONC.	C	10	19	13		15		3.9		2.7								16			
73	27+87	L	CONC.	C	10	87	81		91		15.5		15.3								92			
74	29+56	L	CONC.	C	10	26	20		23		8.5		4.0								24			
74	29+81	L	CONC.	C	10	21	15		17		6.7		3.0								18			
74	30+33	L	CONC.	C	10	22	16		18		8.8		3.2								19			
74	31+07	L	CONC.	C	10	20	14		16		6.3		2.9								17			
74	31+40	L	CONC.	C	10	38	32		36		8.6		6.2								37			
74	32+95	L	CONC.	C	10	36	30		34		9.1		5.8								35			
74	33+60	L	CONC.	C	10	44	38		43		7.3		7.3								44			
75	34+71	L	CONC.	C	10	29	23		26		4.5		4.5								27			
75	35+08	L	CONC.	C	10	25	19		22		3.8		3.8								23			
75	38+31	L	CONC.	C	10	25	19		22		4.1		3.8								23			
75	38+79	L	CONC.	C	10	43	37		43		7.1		7.1								43			
76	39+35	L	CONC.	C	10	56	50		42		14.7		9.5								57			
78	49+22	L	CONC.	C	10	19	13		16		2.7		2.7								16			
78	50+43	L	CONC.	C	10	40	34		40		6.6		6.6								39			
79	54+47	L	CONC.	C	10	37	31		36		8.7		6.0								36			
79	55+58	L	CONC.	C	10	44	38		44		11.4		7.3								44			
79	56+16	L	CONC.	C	10	41	35		40		10.6		6.7								40			
79	57+16	L	CONC.	C	10	43	37		41		10.8		7.1								43			
80	59+27	L	CONC.	C	10	18	12		15		4.1		2.5								15			
80	59+80	L	CONC.	C	10	24	18		21		3.6		3.6								22			
80	60+36	L	CONC.	C	10	27	21		25		5.8		4.2								25			
80	61+17	L	CONC.	C	10	34	28		33		5.5		5.5								33			
80	62+36	L	CONC.	C	10	24	18		21		3.6		3.6								22			
81	64+55	L	CONC.	C	10	32	26		32		7.1		5.1								30			
81	67+05	L	CONC.	C	10	31	25		29		4.9		4.9								29			
82	70+30	L	CONC.	R	10	29	23		26		4.5		4.5									27		
82	71+70	L	CONC.	R	10	33	27		32		5.3		5.3									32		
	TOTALS THIS SIDE								1378		288		236								1358	59		

RIGHT SIDE

								202		203		310								452	452		
SHEET NO.	STATION	SIDE	PAVEMENT TYPE	DRIVE USE	LENGTH	WIDTH AT CURB	WIDTH AT JOINT		PAVEMENT REMOVED		EXCAVATION		SUBBASE TYPE II								8" PLAIN CONCRETE PAVEMENT	6" PLAIN CONCRETE PAVEMENT		
					FT.	FT.	FT.		S.Y.		C.Y.		C.Y.								S.Y.	S.Y.		
69	0+76	R	CONC.	C	10	39	33		38		3.8		6.4								38			
69	1+30	R	CONC.	C	10	36	30		35		3.8		5.8								35			
69	1+99	R	CONC.	C	10	35	29		32		5.6		5.6								35			
70	4+10	R	CONC.	C	10	29	23		24		4.5		4.5								27			
70	4+52	R	CONC.	C	10	19	13		25		2.7		2.7								16			
70	5+24	R	CONC.	C	10	44	38		42		7.3		7.3								44			
70	5+90	R	CONC.	C	10	23	17		19		3.4		3.4								21			
70	7+29	R	CONC.	C	10	23	17		20		3.4		3.4								21			
71	10+77	R	CONC.	C	10	33	27		29		5.3		5.3								32			
71	11+39	R	CONC.	C	10	25	19		22		3.8		3.8								23			
71	12+09	R	CONC.	C	10	39	33		38		5.7		6.4								38			
72	14+29	R	CONC.	C	10	42	36		41		4.2		6.9								42			
72	15+87	R	CONC.	C	10	33	27		31		3.2		5.3								32			
72	18+58	R	CONC.	C	10	18	12		14		2.5		2.5								15			
73	19+38	R	CONC.	C	10	32	26		30		5.1		5.1								31			
73	20+68	R	CONC.	C	10	51	45		51		10.8		8.6								52			
73	21+30	R	CONC.	C	10	19	13		15		2.7		2.7								16			
73	21+88	R	CONC.	C	10	22	16		19		1.9		3.2								19			
73	22+95	R	CONC.	C	10	28	22		26		2.6		4.4								26			
73	23+90	R	CONC.	C	10	28	22		26		2.6		4.3								26			
74	27+42	R	CONC.	C	10	50	44		50		8.4		8.4								51			
74	28+66	R	CONC.	C	10	45	39		44		7.5		7.5								45			
75	30+04	R	CONC.	C	10	31	25		28		8.0		4.9								29			
75	31+31	R	CONC.	C	10	25	19		22		3.8		3.8								23			
75	31+82	R	CONC.	C	10	22	16		18		2.5		3.2								19			
75	32+52	R	CONC.	C	10	33	27		31		5.3		5.3								32			
75	33+18	R	CONC.	C	10	30	24		28		4.7		4.7								28			
76	34+44	R	CONC.	C	10	46	40		46		7.7		7.7								46			
76	35+05	R	CONC.	C	10	19	13		15		1.6		2.7								16			
76	36+07	R	CONC.	C	10	44	38		44		7.3		7.3								44			
76	37+39	R	CONC.	C	10	48	42		48		8.1		8.1								48			
76	37+69	R	CONC.	C	10	16	10		12		2.1		2.1								13			
76	38+21	R	CONC.	C	10	18	12		14		2.5		2.5								15			
77	39+36	R	CONC.	C	10	32	26		30		5.1		5.1								31			
77	41+56	R	CONC.	C	10	40	34		39		5.0		6.6								39			
77	43+08	R	CONC.	C	10	23	17		20		2.0		3.4								20			
79	49+37	R	CONC.	C	10	19	13		15		2.0		2.7								16			
79	50+32	R	CONC.	C	10	28	22		26		2.6		4.3								26			
79	51+05	R	CONC.	C	10	29	23		27		2.7		4.5								27			
80	54+11	R	CONC.	C	10	44	38		44		10.2		7.3								44			
80	54+70	R	CONC.	C	10	38	32		37		6.3		6.3								38			
80	55+30	R	CONC.	C	10	26	20		24		6.5		4.0								25			
80	55+67	R	CONC.	C	10	25	19		22		5.3		3.8								23			
80	56+76	R	CONC.	C	10	20	14		17		2.9		2.9								17			
81	63+59	R	CONC.	R	10	24	18		21		3.6		3.6									21		
82	64+25	R	CONC.	R	10	19	13		15		4.2		2.6									16		
82	64+77	R	CONC.	R	10	18	12		14		2.4		2.4									15		
82	65+32	R	CONC.	R	10	17	11		13		3.2		2.3									14		
82	68+19	R	CONC.	R	10	26	20		23		4.8		4.0									24		
83	69+80	R	CONC.	R	10	24	18		23		3.9		3.9									23		
	TOTALS RIGHT SIDE								1387		227		236								1304	113		
	TOTALS LEFT SIDE								1378		288		236								1358	59		
	TOTALS								2765		515		472								2662	172		

MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

BRUNING 44132.67199

SUMMARY OF DRIVE QUANTITIES

FHWA REGION	STATE	PROJECT	
5	OHIO		

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426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

* C=COMMERCIAL R=RESIDENTIAL

Sheet No.	C or R*	Drive No.	Station	Side	AREA	PROP. AREA		202 PAVEMENT REMOVED SQ. YD.	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION CU. YD.	310 3" SUBBASE, TYPE II CU. YD	452 6" PLAIN CONCRETE PAVEMENT SQ. YD.	452 8" PLAIN CONCRETE PAVEMENT SQ. YD.
83	R	1A	76+56	LT	203	178		22.6	1.2	1.6	19.8	0.0
↕	R	2A	77+35	LT	135	150		15.0	1.2	1.4	16.7	0.0
	R	3A	78+05	LT	184	180		20.4	1.6	1.7	20.0	0.0
	R	4A	78+68	LT	135	156		15.0	1.3	1.4	17.3	0.0
	R	5A	78+86	RT	276	260		30.7	2.1	2.4	28.9	0.0
83	R	6A	78+89	LT	151	135		16.8	1.0	1.3	15.0	0.0
84	R	1A	80+72	LT	266	218.5		29.6	1.1	2.0	24.3	0.0
85	R	1A	84+07	LT	112	117		12.4	1.2	1.1	13.0	0.0
↕	R	2A	85+61	LT	120	109		13.3	0.8	1.0	12.1	0.0
	R	3A	86+41	LT	172	195		19.1	1.9	1.8	21.7	0.0
85	R	4A	88+64	LT	110	110		12.2	1.0	1.0	12.2	0.0
86	R	1A	90+47	LT	237	230		26.3	2.0	2.1	25.6	0.0
86	R	2A	93+97	LT	122	133		13.6	1.4	1.2	14.8	0.0
87	R	1A	94+60	LT	148	160		16.4	1.7	1.5	17.8	0.0
↕	R	2A	95+30	LT	144	164		16.0	1.6	1.5	18.2	0.0
	R	3A	96+52	LT	106	118		11.8	1.1	1.1	13.1	0.0
	R	4A	97+29	LT	120	130		13.3	1.4	1.2	14.4	0.0
	R	5A	97+72	LT	115	130		12.8	1.5	1.2	14.4	0.0
87	C	6A	99+09	RT	271	260		30.1	2.1	2.4	0.0	28.9
88	C	1A	100+91	LT	386	396		42.9	2.9	3.7	0.0	44.0
↕	C	2A	100+96	RT	298	314		33.1	2.7	2.9	0.0	34.9
	C	3A	101+55	RT	397	365		44.1	2.6	3.4	0.0	40.6
	C	4A	102+27	RT	354	365		39.3	2.5	3.1	0.0	36.7
	C	5A	102+72	LT	421	410		46.8	3.5	3.8	0.0	45.6
	R	6A	102+85	RT	175	184		19.4	1.9	1.7	20.4	0.0
	R	7A	104+46	RT	199	204		22.1	2.1	1.9	22.7	0.0
88	C	8A	104+80	LT	248	251		27.6	2.6	2.3	0.0	27.9
89	C	1A	105+60	LT	263	202		29.2	1.7	1.9	0.0	22.4
↕	C	2A	106+30	LT	471	513		52.3	5.1	4.8	0.0	57.0
89	C	3A	109+28	RT	294	285		32.7	2.4	2.6	0.0	31.7
	C	4A	109+88	LT	312	340		34.7	3.8	3.1	0.0	37.8
Totals								771.6	61	64.1	362.4	407.5

Sheet No.	C or R*	Drive No.	Station	Side	AREA	PROP. AREA		202 PAVEMENT REMOVED SQ. YD.	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION CU. YD.	310 3" SUBBASE, TYPE II CU. YD	452 6" PLAIN CONCRETE PAVEMENT SQ. YD.	452 8" PLAIN CONCRETE PAVEMENT SQ. YD.
90	C	1A	110+14	RT	224	238		24.9	2.5	2.2	0.0	26.4
↕		2A	NOT USED									
	C	3A	110+87	RT	317	324		35.2	3.2	3.0	0.0	36.0
	C	4A	111+09	LT	330	345		36.7	3.6	3.2	0.0	38.3
	C	5A	111.54	LT	322	325		35.8	3.1	3.0	0.0	36.1
	C	6A	111+94	LT	284	295		31.6	3.0	2.7	0.0	32.8
	C	7A	114+23	RT	351	327		39.0	2.4	3.0	0.0	36.3
90	C	8A	114+75	LT	417	414		46.3	3.8	3.8	0.0	46.0
91	C	1A	116+60	LT	298	318.3		33.1	3.4	2.9	0.0	35.4
↕	C	2A	116+87	LT	155	180		17.2	2.3	1.7	0.0	20.0
	C	3A	117+54	RT	261	280		29.0	3.1	2.6	0.0	31.1
	C	4A	117+69	LT	201	220		22.3	2.5	2.0	0.0	24.4
	C	5A	118+40	RT	443	400		49.2	2.6	3.7	0.0	44.4
	C	6A	118+50	LT	217	190		24.1	1.1	1.8	0.0	21.1
	R	7A	118+89	LT	97	116		10.8	1.7	1.1	12.8	0.0
	C	8A	119+23	RT	197	200		21.9	1.9	1.9	0.0	22.2
91	C	9A	119+85	LT	356	330		39.6	2.4	3.1	0.0	36.7
92	C	1A	121+96	RT	241	258		26.8	2.0	2.4	0.0	28.7
↕	C	2A	123+17	LT	265	283		29.4	2.5	2.6	0.0	31.4
	C	3A	123+63	RT	345	335		38.3	2.9	3.1	0.0	37.2
	C	4A	123+78	LT	183	203		20.3	2.3	1.9	0.0	22.6
	C	5A	124+22	RT	210	212		23.3	2.5	2.0	0.0	23.6
	C	6A	125+02	RT	211	234		23.4	1.2	2.2	0.0	26.0
92	C	7A	125+97	RT	326	330		36.2	3.2	3.1	0.0	36.7
93	R	1A	126+36	LT	157	149		17.4	1.2	1.4	16.6	0.0
↕	C	2A	127+22	LT	174	200		19.3	2.5	1.9	0.0	22.2
	C	3A	127+32	RT	333	360		37.0	4.0	3.3	0.0	40.0
	C	4A	128+63	LT	341	330		37.9	2.8	3.1	0.0	36.7
	C	5A	129+19	RT	224	260		24.9	3.3	2.4	0.0	28.9
	R	6A	129+61	RT	134	140		14.9	1.4	1.3	15.6	0.0
	C	7A	129+64	LT	361	350		40.1	3.0	3.2	0.0	38.9
	R	8A	130+07	RT	143	150		15.9	1.5	1.4	16.7	0.0
	C	9A	130+45	RT	224	240		24.9	2.6	2.2	0.0	26.7
93	C	10A	127+10	RT	176	176		19.6	1.6	1.6	0.0	19.6
								946.3	83.1	80.8	61.7	906.4

SUMMARY OF DRIVE QUANTITIES

FHWA REGION	STATE	PROJECT	
5	OHIO		

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426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

* C = COMMERCIAL R= RESIDENTIAL

Sheet No.	C or R*	Drive No.	Station	Side	AREA (SQ. FT.)	PROP. AREA		202 PAVEMENT REMOVED (SQ. YD.)	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION (CU. YD.)	310 3" SUBBASE, TYPE II (CU. YD)	452 6 "PLAIN CONCRETE PAVEMENT (SQ. YD.)	452 8" PLAIN CONCRETE PAVEMENT (SQ. YD.)
94	C	1A	131+02	RT	247	225		27.4	1.5	2.1	0.0	25.0
92	C	2A	123+41	LT	442	378		49.1	1.9	3.5	0.0	42.0
94	C	3A	132+03	LT	401	369		44.6	2.6	3.4	0.0	41.0
94	C	4A	133+33	RT	322	319.5		35.5	2.9	3.0	0.0	35.5
94	C	5A	133+38	RT	374	328.5		41.6	1.9	3.0	0.0	36.5
94	C	6A	134+45	LT	697	621		77.4	3.9	5.8	0.0	69.0
94	C	7A	134+78	RT	379	360		42.1	2.9	3.3	0.0	40.0
95	C	1A	137+57	RT	331	360		36.8	2.7	3.3	0.0	40.0
↕	C	2A	139+65	LT	459	432		51.0	3.3	4.0	0.0	48.0
	C	3A	140+09	RT	302	302		33.6	2.8	2.8	0.0	33.6
	R	4A	140+47	LT	191	162		21.2	1.0	1.5	18.0	0.0
95	R	5A	140+98	LT	164	171		18.2	1.7	1.6	19.0	0.0
96	C	1A	141+67	LT	250	234		27.8	1.8	2.2	0.0	26.0
↕	C	2A	143+68	LT	484	484		53.8	4.5	4.5	0.0	53.8
	C	3A	143+81	RT	254	270		28.2	2.9	2.5	0.0	30.0
	C	4A	144+24	LT	353	353		39.2	3.3	3.3	0.0	39.2
	R	5A	144+87	RT	107	120		11.9	1.4	1.1	13.3	0.0
	R	6A	145+36	RT	120	115		13.3	1.0	1.1	12.8	0.0
96	R	7A	145+79	RT	137	145		15.2	1.5	1.3	16.1	0.0
97	R	1A	146+32	RT	119	108		13.2	0.8	1.0	12.0	0.0
↕	C	2A	147+09	LT	265	252		29.4	2.0	2.3	0.0	28.0
	C	3A	147+33	RT	220	220		24.4	2.0	2.0	0.0	24.4
	C	4A	147+47	LT	339	339		37.7	3.1	3.1	0.0	37.7
	C	5A	147+52	RT	151	180		16.8	2.4	1.7	0.0	20.0
	C	6A	148+38	LT	400	400		44.4	3.7	3.7	0.0	44.4
	R	7A	150+57	RT	182	190		20.2	1.9	1.8	21.1	0.0
97	R	8A	150+67	LT	155	163		17.2	1.8	1.5	18.1	0.0
Totals								871.2	63.2	70.4	130.4	714.1

Sheet No.	C or R*	Drive No.	Station	Side	AREA (SQ. FT.)	PROP. AREA		202 PAVEMENT REMOVED (SQ. YD.)	203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION (CU. YD.)	310 3" SUBBASE, TYPE II (CU. YD)	452 6" PLAIN CONCRETE PAVEMENT (SQ. YD.)	452 8" PLAIN CONCRETE PAVEMENT (SQ. YD.)
98	R	1A	151+20	RT	151	140		16.8	1.1	1.3	15.6	0.0
↕	R	2A	151+30	LT	155	170		17.2	1.9	1.6	18.9	0.0
	R	3A	151+43	RT	203	210		22.6	2.1	1.9	23.3	0.0
	R	4A	151+93	LT	175	180		19.4	1.8	1.7	20.0	0.0
	R	5A	152+50	LT	168	180		18.7	1.9	1.7	20.0	0.0
	C	6A	152+80	RT	298	267		33.1	1.7	2.5	0.0	29.7
	R	7A	153+11	LT	152	162		16.9	1.7	1.5	18.0	0.0
	C	8A	153+40	RT	293	279		32.6	2.2	2.6	0.0	31.0
	R	9A	153+74	LT	192	199.5		21.3	2.0	1.8	22.2	0.0
	C	10A	153+91	RT	298	279		33.1	2.1	2.6	0.0	31.0
	R	11A	154+28	LT	168	180		18.7	1.9	1.7	20.0	0.0
	C	12A	154+54	RT	263	261.3		29.2	2.4	2.4	0.0	29.0
98	R	13A	153+30	LT	187	190		20.8	1.8	1.8	21.1	0.0
99	R	1A	155+61	LT	148	159		16.4	1.7	1.5	17.7	0.0
↕	R	2A	158+42	LT	138	135		15.3	1.2	1.3	15.0	0.0
	R	3A	158+58	RT	232	240		25.8	2.0	2.2	0.0	26.7
	C	4A	158+88	LT	125	125		13.9	1.2	1.2	13.9	0.0
	R	5A	159+42	LT	128	130		14.2	1.2	1.2	14.4	0.0
	R	6A	159+89	LT	114	113		12.7	1.0	1.0	12.6	0.0
	R	7A	160+41	LT	106	109.3		11.8	1.1	1.0	12.0	0.0
99	R	8A	160+87	LT	96	99		10.7	1.0	0.9	11.0	0.0
100	C	1A	161+31	RT	237	246		26.3	2.9	2.3	0.0	27.3
↕	R	2A	161+38	LT	95	104.5		10.6	1.1	1.0	11.6	0.0
	C	3A	161+92	RT	238	247		26.4	2.7	2.3	0.0	27.4
	C	4A	162+31	LT	341	352		37.9	4.8	3.6	0.0	43.3
	C	5A	162+54	RT	377	399		41.9	4.2	3.7	0.0	44.3
100	C	6A	163+21	LT	358	400		39.8	4.7	3.7	0.0	44.4
101	C	1A	165+62	LT	217	280.5		24.1	4.2	2.6	0.0	31.2
↕	C	2A	165+66	RT	282	300		31.3	3.2	2.8	0.0	33.3
	C	3A	166+39	LT	234	320		26	5.1	3.0	0.0	35.6
	C	4A	167+08	RT	271	275		30.1	2.6	2.5	0.0	30.6
	C	5A	167+51	RT	445	471		49.4	4.4	4.4	0.0	52.3
	C	6A	167+62	LT	231	240		25.7	2.4	2.2	0.0	26.7
101	C	7A	169+04	LT	270	280		30	2.6	2.6	0.0	31.1
102	C	1A	170+46	LT	209	225		23.2	2.5	2.1	0.0	25.0
↕	C	2A	172+55	LT	295	294		32.8	2.7	2.7	0.0	32.7
102	C	3A	173+31	RT	161	180		17.9	2.1	1.7	0.0	20
Grand Totals								894.6	87.2	78.6	287.3	652.6
								3483.7	294.5	293.9	841.8	2680.6

SUMMARY OF DRAINAGE QUANTITIES

	NH-83(29)	OHIO F.H.W.A. REGION 5	38 426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

** 707.17 NON-PERFORMED, ASTM D3034, SDR 35, SS931 OR SS944

SHEET NO.	REF. NO.	STATION FROM	STATION TO	OFFSET	202 PIPE REMOVED 24" & UNDER L.F.	202 PIPE REMOVED OVER 24" L.F.	202 MANHOLE REMOVED EA.	202 CATCH BASIN REMOVED EA.	603 6" CONDUIT TYPE F** L.F.	603 12" CONDUIT TYPE B, 706.02 AS PER PLAN A L.F.	603 18" CONDUIT, TYPE B 706.02, 2000 D-LOAD AS PER PLAN A L.F.	603 24" CONDUIT, TYPE B 706.02, 2000 D-LOAD AS PER PLAN A L.F.	603 30" CONDUIT, TYPE B 706.02, 2000 D-LOAD AS PER PLAN A L.F.	603 48" CONDUIT, TYPE B 706.02, 2000 D-LOAD AS PER PLAN A L.F.	603 54" CONDUIT, TYPE B 706.02, 2000 D-LOAD AS PER PLAN A L.F.	604 CATCH BASIN NO.3A WITH V GRATE AS PER PLAN A EACH	604 CATCH BASIN NO.3A WITH V GRATE AND SUMP AS PER PLAN B EACH	604 CATCH BASIN NO.6 W/SUMP AS PER PLAN B EACH	604 MANHOLE NO. 3, W/ 706.11 JOINTS (STORM) EACH	604 MANHOLE ADJUSTED TO GRADE, A.P.P. EACH	604 MANHOLE RECONSTRUCTED TO GRADE, A.P.P. EACH	604 JUNCTION CHAMBER AS PER PLAN EACH	605 6" SHALLOW PIPE U'DRAIN W\FABRIC WRAP L.F.	48"x12"x48" TEE EACH	54"x12"x54" TEE EACH
68	1-D	0+66		RT.	8			1		8								1							
↓	2-D	1+65	1+85	RT.						37							1			1					
	3-D	1+85	2+00	LT.	30	8					29		8												
	4-D	2+00	2+35	LT.		31	2			12						43	1						1		
	5-D	2+13	3+14	LT.		101										72							1		
	6-D	2+13	2+41	LT.	39			1		24							1								
	7-D	3+14	4+00	LT.		86	1									83				1					
	8-D	3+14	3+17	RT.	80							43										1			
	9-D	3+51		RT.	27			1		32							1								1
↓	10-D	3+04	3+16	RT.	19			1		12							1								
68	11-D	3+15	3+28	RT.	22			1		25							1								
68	1-UD	0+54	0+61	RT.																				7	
↓	2-UD	0+54	1+71	LT.																				117	
	3-UD	0+66	1+60	RT.					10															84	
	4-UD	2+26	2+36	LT.																				10	
	5-UD	1+65	2+87	RT.					10															112	
	6-UD	2+41	4+00	LT.					10															149	
	7-UD	3+42	3+46	RT.																				4	
68	8-UD	3+51	4+00	RT.					10															39	
69	1-D	4+96		LT.						26							1								1
↑	2-D	4+96		RT.						32							1								1
	3-D	4+00	6+03		189	203										171						1			
	4-D	5+74	5+96				1									18						1			
	5-D	5+96	9+00	RT.	297										301										
	6-D	6+10	6+65	LT.	40			1		37							1								1
	7-D	6+65	6+71	RT.	27			1		21							1								1
	8-D	8+42		RT.						21							1								1
	9-D	8+42		LT.						37							1								1
	10-D	5+96	6+24	RT.	45							41									1				
	11-D	5+89	9+00	RT.	311		1																		
	12-D	6+14	6+24	RT.	27			1		24							1								
↓	13-D	6+24	6+38	RT.	20			1		15								1							
69	14-D	5+75	5+99	LT.						65							1	1							
69	1-UD	4+00	4+91	LT.																				91	
↓	2-UD	4+00	4+91	RT.																				91	
	3-UD	4+96	5+55	LT.					10															49	
	4-UD	4+96	5+92	RT.					10															86	
	5-UD	6+20	6+60	LT.																				40	
	6-UD	6+58	6+60	RT.																				2	
	7-UD	6+65	8+37	LT.					10															162	
	8-UD	6+65	8+37	RT.					10															162	
↓	9-UD	8+42	8+75	LT.					10															23	
69	10-UD	8+42	9+00	RT.					10															48	
*** TOTALS					1181	429	5	9	100	428	29	84	8	301	387		3	13	1	1	2	1	4	1276	4	3

STEPHEN HOVANCSEK & ASSOC., INC.

*** TOTALS CARRIED TO SHEET 43

MAYFIELD ROAD

BRUNING 44-132 67199

SUMMARY OF DRAINAGE QUANTITIES

NH-83(29) | OHIO | F.H.W.A. REGION 5 | 39 / 426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

** 707.17 NON-PERFORATED, ASTM D3034, SDR 35, SS931 OR SS944

SHEET NO.	REF. NO.	STATION FROM	STATION TO	OFFSET	202 PIPE REMOVED 24" & UNDER L.F.	202 MANHOLE REMOVED EA.	202 CATCH BASIN REMOVED EA.	603 6" CONDUIT, TYPE C 707.19, PS 46 MIN. AS PER PLAN A L.F.	603 6" CONDUIT TYPE F ** L.F.	603 8" CONDUIT, TYPE B 707.19, PS 46 MIN. AS PER PLAN A L.F.	603 8" CONDUIT, TYPE C 707.19, PS 46 MIN. L.F.	603 12" CONDUIT TYPE B, 706.02 AS PER PLAN A L.F.	603 15" CONDUIT TYPE B, 706.02 AS PER PLAN A L.F.	603 18" CONDUIT, TYPE B 706.02.2000 D-LOAD AS PER PLAN A L.F.	603 24" CONDUIT, TYPE B 706.02.2000 D-LOAD AS PER PLAN A L.F.	603 30" CONDUIT, TYPE B 706.02.2000 D-LOAD AS PER PLAN A L.F.	603 36" CONDUIT, TYPE B 706.02.2000 D-LOAD AS PER PLAN A L.F.	603 48" CONDUIT, TYPE B 706.02.2000 D-LOAD AS PER PLAN A L.F.	604 CATCH BASIN NO.3A WITH V GRATE AS PER PLAN A EACH	604 CATCH BASIN NO.3A WITH V GRATE AND SUMP, A.P.P. B EACH	604 CATCH BASIN NO.6 AS PER PLAN A EACH	604 CATCH BASIN NO. 6 W/ SUMP, A.P.P. B EACH	604 CATCH BASIN ADJUSTED TO GRADE EACH	604 INLET NO. 1, EACH	604 MANHOLE NO. 3, W/ 706.11 JOINTS (STORM) EACH	604 MANHOLE ADJUSTED TO GRADE, A.P.P. EACH	SPEC. TRENCH DRAIN AS PER PLAN L.F.	605 6" SHALLOW PIPE U'DRAIN W\FABRIC WRAP L.F.	8" BEND	12" BEND	18"x12"x18" TEE EACH	30"x12"x30" TEE EACH	36"x12"x36" TEE EACH
70	1-D	9+00	9+29	RT.	29	1												29																
	2-D	9+17	9+41	RT.																			2											
	3-D	9+29		RT.	70											35									1									
	4-D	9+29	9+73	RT.	28		1					48								1														
	5-D	9+29	9+73	LT.	34		1					58								1														
	6-D	11+55		RT.							3	21								1				1									1	
	7-D	12+40		LT.								37								1													1	
	8-D	9+29	13+48	RT.	838	1											419								1									
	9-D	13+44	13+48	RT.	72									33																				
	10-D	13+48	14+00	RT.	104									52																				
	11-D	13+33	13+57	RT.																			2											
70	12-D	13+78	13+91	RT.	28		1					21								1												1		
70	1-UD	9+00	9+01	RT.																										1				
	2-UD	9+61	9+73	LT.					10																					2				
	3-UD	9+61	9+73	RT.					10																					2				
	4-UD	9+73	11+50	RT.					10																					167				
	5-UD	9+73	11+70	LT.					10																					187				
	6-UD	11+55	13+13	RT.					10																					148				
	7-UD	12+36	12+40	LT.					4																									
	8-UD	12+40	14+00	LT.					10																					150				
	9-UD	13+78	13+86	RT.																										8				
70	10-UD	13+91	14+00	RT.					9																									
71	1-D	14+00	15+41	RT.	282					24				131											1	1								
	2-D	15+31	16+43	LT.	35		1					37								1														
	3-D	15+41	15+45	RT.		2																												
	4-D	15+31	17+21	RT.	352	1						190														1								
	5-D	17+25	17+41	RT.	24		1					24								1														
	6-D	17+21	17+27	LT.								54													1									
	7-D	17+41	17+52	RT.	34								35																					
	8-D	17+41	17+51	RT.	22		1					16								1														
	9-D	17+51	19+00	RT.	298	1							149													1								
	10-D	16+25		RT.						23															1									
71	11-D	16+43		LT.						41															1						1			
71	1-UD	14+00	14+52	LT.																										52				
	2-UD	15+17	15+31	LT.					10																					4				
	3-UD	14+00	17+06	RT.																										306				
	4-UD	15+31	17+00	LT.					10																					159				
	5-UD	17+70	19+00	RT.																										130				
71	6-UD	17+85	19+00	LT.																										115				
72	1-D	19+00	20+02	RT.	204	1							102													1								
	2-D	20+02	22+51	RT.	498	1								249												1								
	3-D	20+02		LT.	35		1					37								1														
	4-D	20+02		RT.	25		1					21								1														
	5-D	22+51	23+50	LT.								37								1														
	6-D	22+51		RT.								21								1														
	7-D	22+51	24+00	RT.	298													149																
	8-D	23+75		LT.								37									1											1		1
	9-D	23+75		RT.								25										1												
	10-D	21+04		LT.								56								1												1		
	11-D	22+95		RT.						32																			22		1			
72	12-D	23+50		LT.				23																					17					
*** TOTALS					3310	8	8	23	93	120	3	740	286	465	35	149	419	29		2	12	1	1	4	4	7	1	39	1431	2	1	2	1	2

FOR REF #13-D SEE SHEET 40.

*** TOTALS CARRIED TO SHEET 43

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD

BRUNING 44-132-67199

SUMMARY OF DRAINAGE QUANTITIES

	NH-83(29)	OHIO F.H.W.A. REGION 5	40 / 426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

** 707.17 NON-PERFORATED, ASTM D3034, SDR 35, SS931 OR SS944

SHEET NO.	REF. NO.	STATION FROM	STATION TO	OFFSET	202 PIPE REMOVED 24" & UNDER L.F.	202 MANHOLE REMOVED EA.	202 CATCH BASIN REMOVED EA.	603 6" CONDUIT, TYPE C 707.19, PS 46 MIN., AS PER PLAN A L.F.	603 6" CONDUIT TYPE F ** L.F.	603 8" CONDUIT TYPE B, 707.19 PS 46 MIN., A.P.P. A L.F.	603 8" CONDUIT TYPE C, 707.19 PS 46 MIN. L.F.	603 12" CONDUIT TYPE B, 706.02 AS PER PLAN A L.F.	603 15" CONDUIT TYPE B, 706.02 AS PER PLAN A L.F.	603 18" CONDUIT, TYPE B 706.02,2000 D-LOAD AS PER PLAN A L.F.	603 21" CONDUIT, TYPE B 706.02,2000 D-LOAD AS PER PLAN A L.F.	603 30" CONDUIT, TYPE B 706.02,2000 D-LOAD AS PER PLAN A L.F.	603 36" CONDUIT, TYPE B 706.02,2000 D-LOAD AS PER PLAN A L.F.	603 42" CONDUIT TYPE B 706.02,2000 D-LOAD AS PER PLAN A L.F.	604 CATCH BASIN NO.3 WITH V GRATE AND SUMP, A.P.P. B EACH	604 CATCH BASIN NO.3A WITH V GRATE AS PER PLAN A EACH	604 CATCH BASIN NO.3A WITH V GRATE AND SUMP, A.P.P. B EACH	604 CATCH BASIN NO.6 W/ SUMP, A.P.P. B EACH	604 CATCH BASIN ADJUSTED TO GRADE EACH	604 INLET NO. 1 EACH	604 MANHOLE NO. 3, W/ 706.11 JOINTS (STORM) EACH	604 MANHOLE ADJUSTED TO GRADE, A.P.P. EACH	604 MANHOLE RECONSTRUCTED TO GRADE, A.P.P. EACH	SPEC. TRENCH DRAIN, AS PER PLAN L.F.	605 6" SHALLOW PIPE U'DRAIN W\FABRIC WRAP L.F.	12" BEND	18"x12"x18" TEE EACH	30"x12"x30" TEE EACH	36"x12"x36" TEE EACH	42"x12"x42" TEE EACH
72	13-D	23+84		RT.				12																				22							
	1-UD	19+00	20+02	LT.					10																				92						
	2-UD	19+00	20+02	RT.					10																				92						
	3-UD	20+07	20+83	LT.																									76						
	4-UD	20+07	22+51	RT.					10																				234						
	5-UD	21+49	22+51	LT.					10																				92						
	6-UD	22+56	23+75	RT.					10																				109						
	7-UD	22+56	23+75	LT.					10																				109						
	8-UD	23+80	24+00	RT.																									20						
72	9-UD	23+80	24+00	LT.																									20						
73	1-D	24+00	24+51	RT.	102												51										1								
	2-D	24+00	24+31	LT.			1					37								1										1		1			
	3-D	24+00	24+29	RT.	29		1					46								1										1					
	4-D	24+63	25+75	RT.	112														112																
	5-D	24+75		LT.								37										1								1				1	
	6-D	24+75		RT.								36										1								1				1	
	7-D	25+75	27+50	RT.	350	1							8					149								1									
	8-D	25+75	25+96	LT.	40		1					43										1													
	9-D	25+65	26+30	RT.	34	1						24												1										1	
	10-D	27+24	29+00	RT.	352	1												176								1									
	11-D	28+95		LT.	34		1					32										1												1	
	12-D	28+95		RT.	26		1					26										1												1	
73	13-D	25+33		RT.																						1									
73	1-UD	24+00	24+25	LT.					10																				15						
	2-UD	24+00	24+25	RT.					10																				15						
	3-UD	24+25	24+70	LT.					10																				35						
	4-UD	24+25	24+32	RT.					7																										
	5-UD	25+98	28+90	LT.																									292						
	6-UD	26+38	28+90	RT.																									252						
	7-UD	28+95	29+00	LT.					5																										
73	8-UD	28+95	29+00	RT.					5																										
74	1-D	29+00	29+47	RT.	94	1												47							1										
	2-D	29+47	32+92	RT.	690	1												345						1	1										
	3-D	31+90		LT.	33		1					32										1												1	
	4-D	32+92	34+00	RT.	216					60								108																	
74	5-D	32+18		RT.						30														1											
74	1-UD	29+00	31+85	LT.																									285						
	2-UD	29+00	34+00	RT.																									500						
	3-UD	31+90	32+06	LT.					10																				6						
74	4-UD	32+56	34+00	LT.																									144						
75	1-D	34+00	36+76	RT.	552	1												274							1										
	2-D	34+11	34+91	RT.						13		80									1			1											
	3-D	34+41	34+91	LT.								50									1														
	4-D	34+91	34+95	LT.	34		1					32								1														1	
	5-D	34+91	35+10	RT.	27		1					26								1														1	
	6-D	34+91	35+32	LT.								41									1														
	7-D	34+91	35+57	RT.	15	1					4	41									1			1											
	8-D	36+71	36+96	RT.																			2												
	9-D	36+74	36+80	RT.	76										38											1									
	10-D	36+74	39+00	RT.	452									226																					
	11-D	36+76	37+16	LT.	34		1					53									1														
	12-D	36+96	37+06	RT.	28		1																												
	13-D	38+00		LT.								32									1														
75	14-D	38+00		RT.								26									1														
	*** TOTALS				3330	7	10	12	117	103	4	694	8	226	38	51	1099	112		4	4	9	1	2	4	5	2	1	22	2388	5	2	2	6	2

STEPHEN HOVANCSEK & ASSOC., INC.

*** TOTALS CARRIED TO SHEET 43

MAYFIELD ROAD

BRUNING 44-132 67199

SUMMARY OF DRAINAGE QUANTITIES

	NH-83(29)	OHIO F.H.W.A. REGION 5

41
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

* PARTICIPATION-1 100% CITY OF SOUTH EUCLID

** 707.17 NON-PERFORATED, ASTM D3034, SDR 35, SS931 OR SS944

SHEET NO.	REF. NO.	STATION FROM	STATION TO	OFFSET	202 PIPE REMOVED 24" & UNDER L.F.	202 PIPE REMOVED OVER 24" L.F.	202 MANHOLE REMOVED EA.	202 CATCH BASIN REMOVED EA.	603 30" CONDUIT, TYPE B 706.02,2000 D-LOAD, AS PER PLAN A L.F.	603 6" CONDUIT TYPE F ** L.F.	603 8" CONDUIT TYPE C, 707.19 PS 46 MIN. L.F.	603 12" CONDUIT TYPE B, 706.02 AS PER PLAN A L.F.	603 18" CONDUIT, TYPE B 706.02,2000 D-LOAD AS PER PLAN A L.F.	603 21" CONDUIT, TYPE B 706.02,2000 D-LOAD AS PER PLAN A L.F.	603 24" CONDUIT, TYPE B 706.02,2000 D-LOAD AS PER PLAN A L.F.	603 48" CONDUIT, TYPE B 706.02,2000 D-LOAD AS PER PLAN A L.F.	603 60" CONDUIT, TYPE B 706.02,2000 D-LOAD AS PER PLAN A L.F.	603 19"x30" CONDUIT TYPE B, 706.04 HE III, A.P.P. A L.F.	603 38"x60" CONDUIT TYPE B, 706.04 HE III, A.P.P. A L.F.	603 43"x68" CONDUIT TYPE B, 706.04 HE III, A.P.P. A L.F.	604 CATCH BASIN NO.3 WITH V GRATE AND SUMP, A.P.P. B EACH	604 CATCH BASIN NO.3A WITH V GRATE AS PER PLAN A EACH	604 CATCH BASIN NO.3A WITH V GRATE AND SUMP, A.P.P. B EACH	604 CATCH BASIN NO.6 AS PER PLAN A EACH	604 CATCH BASIN ADJUSTED TO GRADE EACH	604 INLET NO. 1 EACH	604 MANHOLE NO. 3, W/ 706.11 JOINTS (STORM) EACH	604 MANHOLE ADJUSTED TO GRADE, A.P.P. EACH	604 JUNCTION CHAMBER AS PER PLAN EACH	605 6" SHALLOW PIPE U'DRAIN W\FABRIC WRAP L.F.	12" BEND	60"x12"x60" TEE EACH	(43"x68")x12"x (43"x68") TEE EACH
75	1-UD	34+00	34+91	LT.						10																			81				
	2-UD	34+00	34+91	RT.						10																			81				
	3-UD	34+91	36+44	LT.						10																			143				
	4-UD	34+91	36+53	RT.						10																			152				
	5-UD	36+99	37+16	LT.						10																			7				
	6-UD	37+16	37+95	LT.						10																			69				
	7-UD	37+17	37+95	RT.																									78				
	8-UD	38+00	39+00	LT.						10																			90				
75	9-UD	38+00	39+00	RT.						10																			90				
76	1-D	39+00	39+42	RT.	84		1						42														1						
	2-D	39+97	42+75	RT.	556		1					278															1						
	3-D	42+75	42+93	LT.	47			1				34												1				1					
	4-D	43+75		RT.								26												1									
	5-D	42+75	44+00	RT.	250		1							125													1						
76																																	
76	1-UD	39+00	42+64	LT.						10																			354				
	2-UD	39+00	43+75	RT.						10																			465				
	3-UD	43+80	44+00	LT.																									20				
76	4-UD	43+56	44+00	RT.																									44				
77	1-D	44+00	45+32	RT.	264									132	8												1	1					
	2-D	44+67	45+17	LT.								50														1							
	3-D	44+67	45+32	RT.								65														1							
	4-D	44+98	45+32	LT.	40			1				35												1									
	5-D	45+17		RT.	31			1			7												1										
	6-D	45+17	45+82	LT.							18	46														1							
	7-D	45+32	45+63	RT.								31														1							
	8-D	45+32	47+03	RT.	338		1									167											1						
	9-D	47+03	47+34	LT.	28		1		36										23														
	10-D	47+31	47+34	LT.	30			1				28												1					1				
	11-D	47+33	47+34	RT.	30			1				27												1									
	12-D	47+34	49+00	RT.	166	166												162															
77	13-D	46+73	47+25	RT.																					2								
77	1-UD	44+00	45+17	LT.						10																			107				
	2-UD	44+38	45+17	RT.						10																			69				
	3-UD	45+17	46+24	LT.						10																			97				
	4-UD	45+17	46+56	RT.						10																			129				
	5-UD	47+33	49+00	LT.						8																			159				
77	6-UD	47+45	49+00	RT.																									155				
78	1-D	49+00	49+67	RT.	67	67												63									1						
	2-D	51+81		LT.								32												1								1	
	3-D	51+00		RT.								26													1							1	
	4-D	49+67	52+42	RT.	275	275	2											271															
	5-D	52+08	52+47	RT.																					2								
	6-D	52+20	52+42	RT.	66														33									1					
	7-D	52+42	54+00	RT.	158	158															158												
	8-D	53+85		LT.								32												1								1	
78	9-D	53+85		RT.								15												1								1	
	*** TOTALS				2430	666	7	5	36	148	25	725	42	257	8	167	496	33	23	158	2	4	7	1	4	2	6	3	2	2390	1	2	2

STEPHEN HOVANCSEK & ASSOC., INC.

*** TOTALS CARRIED TO SHEET 43

MAYFIELD ROAD

SUMMARY OF DRAINAGE QUANTITIES

	NH-83(29)	OHIO F.H.W.A. REGION 5

42
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

* PARTICIPATION-I 100% CITY OF SOUTH EUCLID

**707.17 NON-PERFORATED, ASTM D3034, SDR 35, SS931 OR SS944

SHEET NO.	REF. NO.	STATION FROM	STATION TO	OFFSET	202 CATCH BASIN REMOVED EA.	202 MANHOLE REMOVED EA.	202 PIPE REMOVED 24" & UNDER L.F.	202 PIPE REMOVED OVER 24" L.F.	202 STRUCTURE REMOVED EACH	603 6" CONDUIT TYPE F ** L.F.	603 8" CONDUIT TYPE C, 707.19 PS 46 MIN L.F.	603 12" CONDUIT TYPE B, 706.02 AS PER PLAN A L.F.	603 15" CONDUIT TYPE B, 706.02 AS PER PLAN A L.F.	603 18" CONDUIT, TYPE B 706.02.2000 D-LOAD AS PER PLAN A L.F.	603 21" CONDUIT, TYPE B 706.02.2000 D-LOAD AS PER PLAN A L.F.	603 36" CONDUIT, TYPE B 706.02.2000 D-LOAD AS PER PLAN A L.F.	603 42" CONDUIT, TYPE B 706.02.2000 D-LOAD AS PER PLAN A L.F.	603 43"x68" CONDUIT TYPE B, 706.04 HE III, A.P.P. A L.F.	603 48"x76" CONDUIT TYPE B, 706.04 HE III, A.P.P. A L.F.	604 CATCH BASIN NO.3 WITH V GRATE AS PER PLAN A EACH	604 CATCH BASIN NO.3 WITH V GRATE AND SUMP, A.P.P. B EACH	604 CATCH BASIN NO.3A WITH V GRATE AS PER PLAN A EACH	604 CATCH BASIN NO.3A WITH V GRATE AND SUMP, A.P.P. B EACH	604 CATCH BASIN NO. 6 AS PER PLAN A EACH	604 CATCH BASIN NO. 6 WITH SUMP AS PER PLAN B EACH	604 CATCH BASIN ADJUSTED TO GRADE EACH	604 INLET NO. 1 EACH	604 MANHOLE NO. 3, W/ 706.11 JOINTS (STORM) EACH	604 MANHOLE ADJUSTED TO GRADE, A.P.P. EACH	604 JUNCTION CHAMBER AS PER PLAN EACH	605 6" SHALLOW PIPE U'DRAIN W\FABRIC WRAP L.F.	12" BEND	18"x12"x18" TEE EACH	36"x12"x36" TEE EACH	42"x12"x42" TEE EACH	(43"x68")x12"x (43"x68") TEE EACH
78	1-UD	49+00	51+81	LT.						10																				271					
	2-UD	49+00	51+00	RT.						10																				190					
	3-UD	51+86	53+85	LT.						10																				189					
	4-UD	51+05	51+85	RT.																										80					
	5-UD	52+80	53+85	RT.						10																				95					
	6-UD	53+90	54+00	RT.																										10					
78	7-UD	53+90	54+00	LT.																										10					
79	1-D	54+00	54+65	RT.		1	65*	75										65										1							
	2-D	54+43	54+54	LT.	1		33					38												1	1										1
	3-D	54+46	54+54	RT.	1		27					66									1														
	4-D	54+59	54+65	LT.					1										33									1							
	5-D	54+65	54+68	RT.		1	18											23										1							
	6-D	54+69	55+38	RT.		1		70									8	61										1							
	7-D	54+65	55+23	LT.		1	39					32												1								1			
	8-D	54+80	56+49	RT.		2	169																												
	9-D	56+50		LT.								34												1									I	1		
	10-D	54+69	57+73	RT.			125							285																1					
	11-D	57+50		RT.								16												1											
	12-D	57+96		LT.																															
	13-D	57+50	58+52	RT.		1	202						86																	1					
	14-D	58+14	58+36	LT.	1		33					42												1											
	15-D	58+79		RT.																										1					
79	16-D	58+93	59+00	RT.		1*	25*								23 *															1*					
79	1-UD	54+00	54+46	LT.						10																				36					
	2-UD	54+00	54+46	RT.						10																				36					
	3-UD	54+46	56+45	LT.						10																				189					
	4-UD	54+46	57+45	RT.						10																				289					
	5-UD	56+50	57+52	LT.						10																				92					
	6-UD	57+50	58+60	RT.						10																				100					
	7-UD	58+18	58+31	LT.																										13					
79	8-UD	58+36	59+00	LT.						10																				54					
80	1-D	61+53	62+27	RT.		1*		74*								74 *													1*						
	2-D	61+30		RT.				253*				50				253*						1													
	3-D	61+53		LT.			32*							33 *															1*	1					
	4-D	61+60	62+00	LT.							15	40										1				1									
	5-D	61+65	61+80	RT.	1		25					19									1												1		
	6-D	62+00	62+10	LT.	1		39													1															
	7-D	62+03	62+27	RT.																							2								
	8-D	62+13	62+27	RT.			28*							28 *														1							
	9-D	62+00	62+60	LT.								99												1										1	
	10-D	62+60		RT.	1		22					19												1										1	
80	11-D	62+27	64+00	RT.				173*									173*																		
80	1-UD	59+00	62+00	LT.						10																				290					
	2-UD	59+25	61+80	RT.						10																				245					
	3-UD	61+80	61+81	RT.						2																									
	4-UD	62+00	64+00	LT.						10																				190					
	5-UD	62+46	62+60	RT.						10																				4					
80	6-UD	62+60	64+00	RT.						10																				130					
	*** TOTALS				6	9	882	645	1	162	15	455	86	346	23	327	181	149	33	1	2	2	6	1	1	4	1	5	2	4	2513	2	2	1	2	1

*** TOTALS CARRIED TO SHEET 43

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD

SUMMARY OF DRAINAGE QUANTITIES

BRUNING 44-132 67199

SUMMARY OF DRAINAGE QUANTITIES

		NH-83(29)	OHIO F.H.W.A. REGION 5	43 / 426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

* PARTICIPATION- I 100% CITY OF SOUTH EUCLID

** 707.17 NON-PERFORATED, ASTM D3034, SDR 35, SS931 OR SS944

| SHEET NO. | REF. NO. | STATION FROM | STATION TO | OFFSET | 202 STRUCTURE REMOVED EACH | 202 PIPE REMOVED 24" & UNDER L.F. | 202 PIPE REMOVED OVER 24" L.F. | 202 MANHOLE REMOVED EA. | 202 CATCH BASIN REMOVED EA. | 603 6" CONDUIT TYPE F ** L.F. | 603 6" CONDUIT TYPE C 707.19 PS46 MIN,APP A L.F. | 603 8" CONDUIT TYPE B 707.19 PS46 MIN,APP A L.F. | 603 8" CONDUIT TYPE C 707.19 PS46 MIN L.F. | 603 12" CONDUIT,TYPE B 706.02,APP A L.F. | 603 15" CONDUIT,TYPE B 706.02,APP A L.F. | 603 18" CONDUIT,TYPE B 706.02, 2000 D-LOAD,APP A L.F. | 603 21" CONDUIT,TYPE B 706.02, 2000 D-LOAD,APP A L.F. | 603 24" CONDUIT,TYPE B 706.02, 2000 D-LOAD,APP A L.F. | 603 30" CONDUIT,TYPE B 706.02, 2000 D-LOAD,APP A L.F. | 603 36" CONDUIT,TYPE B 706.02,2000 D-LOAD AS PER PLAN A L.F. | 603 42" CONDUIT,TYPE B 706.02,2000 D-LOAD AS PER PLAN A L.F. | 603 48" CONDUIT, 706.02,2000 D-LOAD AS PER PLAN A L.F. | 603 54" CONDUIT, 706.02,2000 D-LOAD AS PER PLAN A L.F. | 603 60" CONDUIT, 706.02,2000 D-LOAD AS PER PLAN A L.F. | 603 19"x30"CONDUIT, TYPE B 706.04, HE III, APP A L.F. | 603 38"x60"CONDUIT, TYPE B 706.04, HE III, APP A L.F. | 603 43"x68"CONDUIT, TYPE B 706.04, HE III, APP A L.F. | 603 48"x76"CONDUIT, TYPE B 706.04, HE III, APP A L.F. | 604 CATCH BASIN NO.3 WITH V GRATE AS PER PLAN A EACH | 604 CATCH BASIN NO.3 WITH V GRATE AND SUMP,A.P.P. B EACH | 604 CATCH BASIN NO.3A WITH V GRATE AS PER PLAN A EACH | 604 CATCH BASIN NO.3A WITH V GRATE AND SUMP, A.P.P. B EACH | 604 CATCH BASIN NO. 6 AS PER PLAN A EACH | 604 CATCH BASIN NO. 6 W/ SUMP, A.P.P. B EACH | 604 CATCH BASIN ADJUSTED TO GRADE EACH | 604 INLET, NO.1 EA | 604 MANHOLE NO.3, W/ 706.11 JOINTS (STORM) EA | 604 MANHOLE ADJUSTED TO GRADE, A.P.P. EA | 604 MANHOLE RECONSTRUCTED TO GRADE, APP. EA | 604 JUNCTION CHAMBER AS PER PLAN EACH | 605 6" SHALLOW PIPE U'DRAIN W\FABRIC WRAP L.F. | SPEC TRENCH DRAIN, L.F. | 18"x12"x18" TEE EA. | 30"x12"x30" TEE EA. | 36"x12"x36" TEE EA. | 42"x12"x42" TEE EA. | 48"x12"x48" TEE EA. | 54"x12"x54" TEE EA. | 60"x12"x60" TEE EA. | 43"x68"x12"x43"x68" TEE EA. | 8" BEND EA | 12" BEND EA |
|---|---|---|---|---

( )- 100% CITY OF LYNDHURST

FHWA REGION	STATE	PROJECT	
5	OHIO		

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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SUMMARY OF DRAINAGE QUANTITIES

Sheet No.	Ref. No.	Station From	Station To	Offset	202 Catch Basin Removed (Each)	202 Manhole Removed (Each)	202 Pipe Removed 24" and Under (Lin. Ft.)	202 Pipe Removed Over 24" (Lin. Ft.)	202 Structures Removed (Each)	602 Concrete Masonry As Per Plan (Cu.Yd.)	603 6" Conduit, Type B, 707.19, PS 46 Minumum, As Per Plan (Lin. Ft.)	603 6" Conduit, Type F, 707.17 Non-Perforated ASTM D3034, SDR 35 SS831 or SS 945 (Lin. Ft.)	603 8" Conduit, Type C, 707.19 PS 46 Minimum (Lin. Ft.)	603 10" Conduit, Type B, 706.08 ES, As Per Plan -A (Lin. Ft.)	603 12" Conduit, Type B, 706.02, As Per Plan-A (Lin. Ft.)	603 15" Conduit, Type B, 706.02, As Per Plan-A (Lin. Ft.)	603 15" Conduit, Type B, 706.08 ES, As Per Plan-A (Lin. Ft.)	603 18" Conduit, Type B, 706.08 ES, As Per Plan-A (Lin. Ft.)	603 21" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A (Lin. Ft.)	603 24" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A (Lin. Ft.)	603 24" Conduit, Type B, 706.08 ES, As Per Plan-A (Lin. Ft.)	603 30" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A (Lin. Ft.)	603 60" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A (Lin. Ft.)	603 48" x 76" Conduit, Type B, 706.04 Class HE-II As Per Plan-A (Lin. Ft.)	604 Catch Basin, Adjust To Grade (Each)	604 Manhole Adjusted To Grade, As Per Plan (Stm.) (Each)	604 Catch Basin, No. 3, With "V" Grate As Per Plan-A (Each)	604 Catch Basin, No. 3A, With "V" Grate As Per Plan-A (Each)	604 Catch Basin, No. 6, As Per Plan-A (Each)	604 Manhole, No. 3, With 706.11 Joints (Storm) (Each)	604 Manhole, No. 4, With 706.11 Joints (Storm) (Each)	604 Manhole, No. 5, With 706.11 Joints (Storm) (Each)	604 Inlet, No. 1 (Each)	605 6" Shallow Pipe Underdrain with Fabric Wrap (Lin. Ft.)	12" Bend (Each)	15"x12"x15" Tee (Each)	18"x12"x18" Tee (Each)	21"x12"x21" Tee (Each)	24"x12"x24" Tee (Each)
60											1386																												
61											(550)																												
83	1-D	75+00		13' Rt.																						1												
↑	2-D	76+32		24' Lt.											41		8								1									1	1			
	3-D	77+32		34' Rt.											23												1							1	1			
	1-R	77+27		24' Lt.	1		34																															
	2-R	77+32		34' Rt.	1		24																															
	1-W	74+00	76+27	Lt.																															227					
	2-W	74+00	77+27	Rt.																															327					
	3-W	76+32	79+00	Lt.								10																							258					
83	4-W	77+32	79+00	Rt.								10																							158					
84	1-D	79+50		24' Lt.											36			8								1									1		1		
↑	2-D	81+84		24' Lt.											37			8								1									1		1		
	3-D	81+87		34' Rt.											23			8								1									1		1		
	4-D	82+00		10' Rt.																						1													
	5-D	83+81		24' Lt.											36				8							1												1	
	6-D	83+68		28' Lt.									12																				1						
	7-D	80+50	80+64	11 Rt.														14																					
	1-R	81+84		24' Lt.	1		34																															
	2-R	81+87		34' Rt.	1		24																															
	3-R	80+50	80+64	11 Rt.			14																															
	1-W	79+00	79+45	Lt.																															45					
	2-W	79+00	80+39	Rt.																															122					
	3-W	79+50	81+79	Lt.								10																							219					
	4-W	80+63	81+82	Rt.																															135					
	5-W	81+84	82+94	Lt.								10																							116					
	6-W	81+87	84+00	Rt.								10																							203					
	7-W	82+20	83+76	Lt.																															71					
84	8-W	83+81	84+00	Lt.								10																							9					
85	1-D	85+51		9' Rt.																						1												
↑	2-D	85+78		24' Lt.											35			8								1									1				
	3-D	85+83		34' Rt.											24			8								1									1				
	4-D	88+03		24' Lt.											35			8								1									1				
	5-D	85+86		28' Lt.									7																				1						
	6-D	88+27		28' Lt.									23																				1						
	7-D	87+90		34' Rt.											24			8								1									1				
	1-R	85+78		24' Lt.	1		34																															
	2-R	85+83		34' Rt.	1		24																															
	3-R	88+03		24' Lt.	1		34																															
	1-W	84+00	85+73	Lt.																															173					
	2-W	84+00	84+82	Rt.																															110					
	3-W	85+10		Rt.																															96					
	4-W	85+78	87+38	Lt.								10																							142					
	5-W	85+83	87+80	Rt.								10																							187					
	6-W	87+65	88+00	Lt.																															57					
↓	7-W	88+03	89+00	Lt.								10																							87					
85	8-W	87+90	89+00	Rt.								10																							100					
Totals					7		222				1936	100	42		314		8	70	8							3	1	9					3	2842	5	2	7	1	

TOTALS CARRIED TO SHEET 53

FHWA REGION	STATE	PROJECT	
5	OHIO		

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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SUMMARY OF DRAINAGE QUANTITIES

Sheet No.	Ref. No.	Station From	Station To	Offset	202 Catch Basin Removed Each	202 Manhole Removed Each	202 Pipe Removed 24" and Under Lin. Ft.	202 Pipe Removed Over 24" Lin. Ft.	202 Structures Removed Each	602 Concrete Masonry As Per Plan Cu.Yd.	603 6" Conduit, Type B, 707.19, PS 46 Minumum, As Per Plan Lin. Ft.	603 6" Conduit, Type F, 707.17 Non-Perforated ASTM D3034, SDR 35 SS931 or SS 945 Lin. Ft.	603 8" Conduit, Type C, 707.19 PS 46 Minimum Lin. Ft.	603 10" Conduit, Type B, 706.08 ES, As Per Plan -A Lin. Ft.	603 12" Conduit, Type B, 706.02, As Per Plan-A Lin. Ft.	603 15" Conduit, Type B, 706.02, As Per Plan-A Lin. Ft.	603 15" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 18" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 21" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 24" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 24" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 30" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 60" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 48" x 76" Conduit, Type B, 706.04, Class HE-A As Per Plan-A Lin. Ft.	604 Catch Basin, Adjust To Grade Each	604 Manhole Adjusted To Grade, As Per Plan (Stm.) Each	604 Catch Basin, No. 3, With 3/4" Grate As Per Plan-A Each	604 Catch Basin, No. 3A, With 3/4" Grate As Per Plan-A Each	604 Catch Basin, No. 6, As Per Plan-A Each	604 Manhole, No. 3, With 706.11 Joints (Storm) Each	604 Manhole, No. 4, With 706.11 Joints (Storm) Each	604 Manhole, No. 5, With 706.11 Joints (Storm) Each	604 Inlet, No. 1 Each	605 6" Shallow Pipe Underdrain with Fabric Wrap Lin. Ft.	12" Bend Each	15"x12"x15" Tee Each	18"x12"x18" Tee Each	21"x12"x21" Tee Each	24"x12"x24" Tee Each
86	1-D	89+01.5		9' Rt.																						1												
	2-D	91+00		24' Lt.											36			8									1									1		
	3-D	91+46	91+96	34' Rt.											50												1							1				
	4-D	91+96		34' Rt.												24												1										
	5-D	92+00.5		9' Rt.																						1												
	6-D	92+20		24' Lt.												36												1										
	7-D	92+53	91+96	34' Rt.											57												1											
	8-D	92+70	92+20	24' Lt.											50												1											
	9-D	93+94		34' Rt.											24												1								1			
	10-D	90+96		28' Lt.									5																			1					
	11-D	92+70		28' Lt.									4																			1					
	1-R	89+81		24' Lt.	1		34																															
	2-R	89+83		34' Rt.	1		24																															
	3-R	92+03		24' Lt.	1		35																															
	4-R	92+05		34' Rt.	1		26																															
	5-R	92+53		34' Rt.	1		24																															
	6-R	93+94		34' Rt.	1		24																															
	1-W	89+00	91+00	Lt.								10																						190				
	2-W	89+00	91+46	Rt.								10																						236				
	3-W	91+05	91+57	Lt.																														72				
	4-W	91+51	91+96	Rt.								10																						35				
	5-W	91+84	92+20	Lt.								10																						45				
	6-W	91+96	92+48	Rt.								10																						194				
	7-W	92+20	92+65	Lt.								10																						35				
	8-W	92+53	93+89	Rt.								10																						126				
	9-W	92+70	94+00	Lt.								10																						120				
86	10-W	93+94	94+00	Rt.								6																										
87	1-D	95+51		11 Rt.																						1												
	2-D	95+51		24' Lt.											37												1											
	3-D	97+35		34' Rt.											22			8									1									1		
	4-D	97+38		24' Lt.											38			8									1									1		
	5-D	99+00		11 Rt.																						1												
	6-D	99+05		24' Lt.											36												1											
	7-D	99+36		34' Rt.											44												1											
	8-D	95+47		27' Lt.									5																			1					
	9-D	97+41		27' Lt.									5																			1					
	10-D	99+04		27' Lt.									4																			1					
	1-R	97+35		35' Rt.	1		24																															
	2-R	97+38		23.5' Lt.	1		34																															
	1-W	94+00	95+46	Lt.																														146				
	2-W	94+00	97+30	Rt.								4																						326				
	3-W	95+51	97+33	Lt.								10																						172				
	4-W	97+35	99+31	Rt.								10																						186				
	5-W	97+38	98+48	Lt.								10																						118				
	6-W	98+74	99+00	Lt.																														45				
	7-W	99+05	99+50	Lt.								10																						35				
87	8-W	99+36	99+50	Rt.								10																						4				
Totals					8		225					140	23		394	60	16	8								4	2	10					5	2085	1	3	1		

TOTALS CARRIED TO SHEET 53

MAYFIELD ROAD

FHWA REGION	STATE	PROJECT	
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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SUMMARY OF DRAINAGE QUANTITIES

Sheet No.	Ref.No.	Station From	Station To	Offset	202 Catch Basin Removed Each	202 Manhole Removed Each	202 Pipe Removed 24" and Under Lin. Ft.	202 Pipe Removed Over 24" Lin. Ft.	202 Structures Removed Each	602 Concrete Masonry As Per Plan Cu.Yd.	603 6" Conduit, Type B, 707.19, PS 46 Minimum, As Per Plan Lin. Ft.	603 6" Conduit, Type F, 707.17 Non-Perforated ASTM D3034 SDR 35 S3501 or SS 946 Lin. Ft.	603 8" Conduit, Type C, 707.19 PS 46 Minimum Lin. Ft.	603 10" Conduit, Type B, 706.08 ES, As Per Plan -A Lin. Ft.	603 12" Conduit, Type B, 706.02, As Per Plan-A Lin. Ft.	603 15" Conduit, Type B, 706.02, As Per Plan-A Lin. Ft.	603 15" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 18" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 21" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 24" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 24" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 30" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 60" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 48" x 76" Conduit, Type B, 706.04 Class HE-II As Per Plan-A Lin. Ft.	604 Catch Basin, Adjust To Grade Each	604 Manhole Adjusted To Grade, As Per Plan (Stm.) Each	604 Catch Basin, No. 3, With "V" Grate As Per Plan-A Each	604 Catch Basin, No. 3A, With "V" Grate As Per Plan-A Each	604 Catch Basin, No. 6, As Per Plan-A Each	604 Manhole, No. 3, With 706.11 Joints (Storm) Each	604 Manhole, No. 4, With 706.11 Joints (Storm) Each	604 Manhole, No. 5, With 706.11 Joints (Storm) Each	604 Inlet, No. 1 Each	605 6" Shallow Pipe Underdrain with Fabric Wrap Lin. Ft.	12" Bend Each	15"x12"x15" Tee Each	18"x12"x18" Tee Each	21"x12"x21" Tee Each	24"x12"x24" Tee Each
88	1-D	102+50		11 Rt.																						1												
	2-D	102+99		11 Rt.																						1												
	3-D	103+05		34' Rt.											23												1											
	4-D	103+20		24' Lt.											35												1											
	5-D	104+25	104+98	34' Rt.											73												1											
	6-D	104+48	104+98	24' Lt.											50												1											
	7-D	104+97.5		12' Rt.																						1											
	8-D	104+98		34' Rt.												22												1										
	9-D	104+98		24' Lt.											5	37													2									
	10-D	103+20		27 Lt.									4																			1					
	1-R	104+98		24' Lt.	1		34																															
	2-R	104+98		34' Rt.	1		24																															
	1-W	99+50	103+20	Lt.								10																						360				
	2-W	99+50	102+99	Rt.								10																						339				
	3-W	103+04	104+25	Rt.								10																						111				
	4-W	103+25	104+48	Lt.								10																						113				
	5-W	104+30	104+98	Rt.								10																						58				
	6-W	104+53	104+97	Lt.								10																						10				
	7-W	104+97	105+00	Lt.								3																										
88	8-W	104+98	105+00	Rt.								2																										
89	1-D	105+90		24' Lt.											37							8						1										1
	2-D	105+98		34' Rt.											22							8						1										1
	3-D	107+17		11 Rt.																						1											
	4-D	107+65		12' Rt.																						1											
	5-D	107+88.5		20.5 Rt.																						1											
	6-D	107+99.5		32 Rt.																						1											
	7-D	108+00		13.5 Rt.																						1											
	8-D	108+14		34' Rt.																						1											
	9-D	108+63		34' Rt.											21												1										
	10-D	109+60		24' Lt.											38												1										
	11-D	109+53		34' Rt.											21												1										
	12-D	107+84		30' Lt.																						1											
	1-R	108+63		34' Rt.	1		24																															
	1-W	105+00	105+85	Lt.								7																						78				
	2-W	105+00	105+93	Rt.								8																						35				
	3-W	105+90	107+23	Lt.								10																						136				
	4-W	105+98	107+00	Rt.								10																						106				
	5-W	107+75	108+63	Rt.								10																						92				
	6-W	107+99	109+60	Lt.								10																						166				
	7-W	108+68	109+53	Rt.								10																						75				
	8-W	109+65	110+00	Lt.																														35				
89	9-W	109+58	110+00	Rt.																														42				
Totals					3		82					130	4		325	59						16					10	1	9	2				1	1756				2

TOTALS CARRIED TO SHEET 53

MAYFIELD ROAD

SUMMARY OF DRAINAGE QUANTITIES

FHWA REGION	STATE	PROJECT	
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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SUMMARY OF DRAINAGE QUANTITIES

Sheet No.	Ref. No.	Station From	Station To	Offset	202 Catch Basin Removed Each	202 Manhole Removed Each	202 Pipe Removed 24" and Under Lin. Ft.	202 Pipe Removed Over 24" Lin. Ft.	202 Structures Removed Each	602 Concrete Masonry As Per Plan Cu.Yd.	603 6" Conduit, Type B, 707.19, PS 46 Minumum, As Per Plan Lin. Ft.	603 8" Conduit, Type F, 707.17 Non-Perforated ASTM D3034, SDR 35 SS831 or SS 945 Lin. Ft.	603 8" Conduit, Type C, 707.19 PS 46 Minimum Lin. Ft.	603 10" Conduit, Type B, 706.08 ES, As Per Plan -A Lin. Ft.	603 12" Conduit, Type B, 706.02, As Per Plan-A Lin. Ft.	603 15" Conduit, Type B, 706.02, As Per Plan-A Lin. Ft.	603 15" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 18" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 21" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 24" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 24" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 24" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 30" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 60" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 48" x 76" Conduit, Type B, 706.04 Class HE-A As Per Plan-A Lin. Ft.	604 Catch Basin, Adjust To Grade Each	604 Manhole Adjusted To Grade, As Per Plan (Stm.) Each	604 Catch Basin, No. 3, With "V" Grate As Per Plan-A Each	604 Catch Basin, No. 3A, With "V" Grate As Per Plan-A Each	604 Catch Basin, No. 6, As Per Plan-A Each	604 Manhole, No. 3, With 706.11 Joints (Storm) Each	604 Manhole, No. 4, With 706.11 Joints (Storm) Each	604 Manhole, No. 5, With 706.11 Joints (Storm) Each	604 Inlet, No. 1 Each	605 6" Shallow Pipe Underdrain with Fabric Wrap Lin. Ft.	12" Bend Each	15"x12"x15" Tee Each	18"x12"x18" Tee Each	21"x12"x21" Tee Each	24"x12"x24" Tee Each
90	1-D	110+43		34' Rt.											21																							
	2-D	110+44		24' Lt.												36																							
	3-D	110+89	110+44	24' Lt.											45															1									
	4-D	111+48		25 Lt.																							1											
	5-D	111+53		34' Rt.											22															1									
	6-D	111+60		13' Rt.																								1										
	7-D	112+18		24' Lt.											38															1									
	8-D	113+00		34' Rt.											21																1								
	9-D	113+98		24' Lt.											38																1								
	10-D	114+33.5		14 Rt.																								1										
	11-D	114+50		27 Rt.																								1										
	12-D	114+78		34' Rt.											21																1								
	13-D	114+80		24' Lt.																							1											
	1-R	110+94		24' Lt.	1		34																															
	2-R	111+53		34' Rt.	1		24																															
	3-R	114+78		34' Rt.	1		24																															
	1-W	110+00	110+44	Lt.								10																							34				
	2-W	110+00	110+43	Rt.								10																							33				
	3-W	110+43	111+48	Rt.								10																							95				
	4-W	110+44	110+77	Lt.								10																							23				
	5-W	110+82	112+11	Lt.								10																							119				
	6-W	111+53	112+95	Rt.								10																							132				
	7-W	112+16	113+93	Lt.								10																							167				
	8-W	113+00	114+73	Rt.								10																							163				
	9-W	113+98	115+50	Lt.								10																							142				
90	10-W	114+78	115+50	Rt.								10																							62				
91	1-D	115+90		34' Rt.											21					8									1								1		
	2-D	116+00		24' Lt.											38					8										1							1		
	3-D	117+90		24' Lt.											37					8										1							1		
	4-D	117+92		34' Rt.											22					8										1							1		
	5-D	118+07		11.5 Rt.																								1										
	6-D	118+95		34' Rt.											23															1									1
	7-D	119+06		24' Lt.											36															1									1
	8-D	120+20		24' Lt.											36															1									1
	9-D	120+25		34' Rt.											22															1									1
	10-D	118+07	121+00	11.5 Rt.																	293																		
	1-R	117+90		24' Lt.	1		34																															
	2-R	117+92		34' Rt.	1		24																															
	3-R	118+07	121+00	11.5 Rt.			293																															
	1-W	115+50	115+95	Lt.																															45				
	2-W	115+50	115+85	Rt.																															35				
	3-W	115+90	117+87	Rt.								10																							187				
	4-W	116+00	117+85	Lt.								10																							175				
	5-W	117+90	119+01	Lt.								10																							101				
	6-W	117+92	118+90	Rt.								10																							88				
	7-W	118+95	120+20	Rt.								10																							115				
	8-W	119+06	120+15	Lt.								10																							99				
	9-W	120+20	121+00	Lt.								10																							70				
91	10-W	120+25	121+00	Rt.								10																							65				
Totals					5		433					180			441	36				32	293						2	4	12	4					1950				4	4

TOTALS CARRIED TO SHEET 53

MAYFIELD ROAD

FHWA REGION	STATE	PROJECT	
5	OHIO		

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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SUMMARY OF DRAINAGE QUANTITIES

Sheet No.	Ref. No.	Station From	Station To	Offset	202 Catch Basin Removed Each	202 Manhole Removed Each	202 Pipe Removed 24" and Under Lin. Ft.	202 Pipe Removed Over 24" Lin. Ft.	202 Structures Removed Each	602 Concrete Masonry As Per Plan Cu.Yd.	603 6" Conduit, Type B, 707.19, PS 46 Minumum, As Per Plan Lin. Ft.	603 6" Conduit, Type F, 707.17 Non-Perforated ASTM D3034 SDR 35 SS831 or SS 946 Lin. Ft.	603 8" Conduit, Type C, 707.19 PS 46 Minimum Lin. Ft.	603 10" Conduit, Type B, 706.08 ES, As Per Plan -A Lin. Ft.	603 12" Conduit, Type B, 706.02, As Per Plan-A Lin. Ft.	603 15" Conduit, Type B, 706.02, As Per Plan-A Lin. Ft.	603 15" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 18" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 21" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 24" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 24" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 30" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 60" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 48" x 76" Conduit, Type B, 706.04, Class HE-A As Per Plan-A Lin. Ft.	604 Catch Basin, Adjust To Grade Each	604 Manhole Adjusted To Grade, As Per Plan (Stm.) Each	604 Catch Basin, No. 3, With "J" Grate As Per Plan-A Each	604 Catch Basin, No. 3A, With "J" Grate As Per Plan-A Each	604 Catch Basin, No. 6, As Per Plan-A Each	604 Manhole, No. 3, With 706.11 Joints (Storm) Each	604 Manhole, No. 4, With 706.11 Joints (Storm) Each	604 Manhole, No. 5, With 706.11 Joints (Storm) Each	604 Inlet, No. 1 Each	605 6" Shallow Pipe Underdrain with Fabric Wrap Lin. Ft.	12" Bend Each	15"x12"x15" Tee Each	18"x12"x18" Tee Each	21"x12"x21" Tee Each	24"x12"x24" Tee Each
92	1-D	121+20		24' Lt.											36																								
	2-D	121+23		34' Rt.											22																								
	3-D	121+82		11 Rt.																									1										
	4-D	122+23		34' Rt.											22						8								1										1
	5-D	122+34		24' Lt.											36						8								1										1
	6-D	123+94		34' Rt.											23						8								1										1
	7-D	124+15		24' Lt.											36						8								1										1
	8-D	125+24		11 Rt.																									1										
	9-D	125+62		34' Rt.											23														1										
	10-D	125+77		24' Lt.											37														1										
	11-D	121+00	121+82	11 Rt.																82																		
	12-D	125+24	126+00	11 Rt.																76																		
	1-R	121+20		24' Lt.	1		34																																
	2-R	121+23		34' Rt.	1		24																																
	3-R	122+07		34' Rt.	1		24																																
	4-R	122+30		26 Lt.	1		36																																
	5-R	121+00	121+82	11 Rt.			82																																
	6-R	125+24	126+00	11 Rt.			76																																
	1-W	121+00	121+15	Lt.																																15				
	2-W	121+00	121+18	Rt.																																18				
	3-W	121+20	121+70	Lt.								10																								67				
	4-W	121+23	122+18	Rt.								10																								85				
	5-W	121+96	122+29	Lt.																																50				
	6-W	122+23	123+89	Lt.								10																								156				
	7-W	122+34	124+10	Lt.								10																								166				
	8-W	123+94	125+57	Rt.								10																								153				
	9-W	124+15	125+11	Lt.								10																								103				
	10-W	125+37	125+72	Lt.																																53				
	11-W	125+62	126+00	Rt.								10																								28				
92	12-W	125+77	126+00	Lt.								10																								13				
93	1-D	128+00		25 Lt.											36																1								1
	2-D	128+14		34' Rt.											22																1								1
	3-D	126+00	128+53	10.5 Rt.																253									1									
	4-D	129+75		24' Lt.											36				8										1								1	
	5-D	129+90		34' Rt.											23				8										1								1	
	6-D	130+82		34' Rt.											23				8										1								1	
	7-D	129+58		37 Rt.																								1										
	8-D	126+39		' Rt.											4																							1
	1-R	128+00		24' Lt.	1		34																																
	2-R	128+14		34' Rt.	1		24																																
	3-R	126+00	128+53	10.5 Rt.			253																																
	1-W	126+00	128+00	Lt.								10																								190				
	2-W	126+00	128+14	Rt.								10																								204				
	3-W	128+05	128+21	Lt.																																28				
	4-W	128+19	128+39	Rt.																																37				
	5-W	128+47	129+75	Lt.								10																								131				
	6-W	128+65	129+90	Rt.								10																								132				
	7-W	129+80	131+00	Lt.								5																								115				
	8-W	130+00	130+82	Rt.								10																								72				
93	9-W	130+87	131+00	Rt.																																13				
Totals					6		587					135			379				24	411	32				1	3	11	2						1829				3	7

TOTALS CARRIED TO SHEET 53

NOTE: SEE INTERSECTION DETAILS SHEET NOS. 194 TO 222 FOR LOCATION OF INTERSECTION CATCH BASINS

SUMMARY OF DRAINAGE QUANTITIES

FHWA REGION	STATE	PROJECT	
5	OHIO		

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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

Sheet No.	Ref. No.	Station From	Station To	Offset	202 Catch Basin Removed Each	202 Manhole Removed Each	202 Pipe Removed 24" and Under Lin. Ft.	202 Pipe Removed Over 24" Lin. Ft.	202 Structures Removed Each	602 Concrete Masonry As Per Plan Cu.Yd.	603 6" Conduit, Type B, 707.19, PS 46 Minumum, As Per Plan Lin. Ft.	603 6" Conduit, Type F, 707.17 Non-Perforated ASTM D3034, SDR 35 SS831 or SS 945 Lin. Ft.	603 8" Conduit, Type C, 707.19 PS 46 Minimum Lin. Ft.	603 10" Conduit, Type B, 706.08 ES, As Per Plan -A Lin. Ft.	603 12" Conduit, Type B, 706.02, As Per Plan-A Lin. Ft.	603 15" Conduit, Type B, 706.02, As Per Plan-A Lin. Ft.	603 15" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 18" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 21" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 24" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 24" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 30" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 60" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 48" x 76" Conduit, Type B, 706.04, Class HE-II, As Per Plan-A Lin. Ft.	604 Catch Basin, Adjust To Grade Each	604 Manhole Adjusted To Grade, As Per Plan (Stm.) Each	604 Catch Basin, No. 3, With "V" Grate As Per Plan-A Each	604 Catch Basin, No. 34, With "J" Grate As Per Plan-A Each	604 Catch Basin, No. 6, As Per Plan-A Each	604 Manhole, No. 3, With 706.11 Joints (Storm) Each	604 Manhole, No. 4, With 706.11 Joints (Storm) Each	604 Manhole, No. 5, With 706.11 Joints (Storm) Each	604 Inlet, No. 1 Each	605 6" Shallow Pipe Underdrain with Fabric Wrap Lin. Ft.	12" Bend Each	15"x12"x15" Tee Each	18"x12"x18" Tee Each	21"x12"x21" Tee Each	24"x12"x24" Tee Each
94	1-D	131+10		24' Lt.											36				8																1	
	2-D	131+51		34' Rt.											23				8																1	
	3-D	132+03		10' Rt.																								1								
	4-D	132+93		24' Lt.											36			8											1						1	
	5-D	133+00		34' Rt.											24			4											1						1	
	6-D	133+91		24' Lt.											35			8											1						1	
	7-D	134+02		34' Rt.											20			8											1						1	
	8-D	134+84		34' Rt.											20															1						
	9-D	135+05		25 Lt.											37														1							
	10-D	135+16.5		10' Rt.																								1								
	11-D	135+57		34' Rt.											24		8													1				1		
	12-D	135+83		24' Lt.											36		8													1				1		
	13-D	134+59		14' Rt.																								1								
	14-D	135+15		50.5' Rt.																								1								
	1-R	131+12		24' Lt.	1		34																													
	2-R	131+51		34' Rt.	1		24																													
	3-R	134+83		34' Rt.	1		21																													
	4-R	135+05		24' Lt.	1		36																													
	5-R	135+57		34' Rt.	1		24																													
	6-R	135+83		24' Lt.	1		34																													
	1-WI	131+00	131+10	Lt.								5																					5				
	2-WI	131+00	131+51	Rt.								10																					41				
	3-WI	131+15	132+93	Lt.								10																					168				
	4-WI	131+56	133+00	Rt.								10																					134				
	5-WI	132+98	133+91	Lt.								10																					83				
	6-WI	133+05	134+02	Rt.								10																					87				
	7-WI	133+96	135+05	Lt.								10																					99				
	8-WI	134+07	134+79	Rt.								10																					65				
	9-WI	134+84	135+03	Rt.																													32				
	10-WI	135+10	135+27	Lt.																													34				
	11-WI	135+29	135+57	Rt.								10																					33				
	12-WI	135+53	135+83	Lt.								10																					38				
	13-WI	135+62	136+00	Rt.								8																					30				
94	14-WI	135+88	136+00	Lt.								9																					3				
95	1-D	136+01	136+51	24' Lt.											50														1							
	2-D	136+02	136+52	34' Rt.											50														1							
	3-D	136+51		24' Lt.												40													1							
	4-D	136+52		34' Rt.												35													1							
	5-D	136+77		9.5 Rt.																								1								
	6-D	137+07	137+30	16'LL-11' Rt.																						30						1				
	7-D	137+08		7' Lt.						1.6																										
	8-D	137+30	138+58	11 Rt.																						128						1				
	9-D	137+91		34' Rt.											24														1							
	10-D	138+58	139+86	11 Rt.										4												128						1				
	11-D	139+09		24' Lt.											36														1							
	12-D	139+86	141+00	11 Rt.																								114								
	13-D	140+13		34' Rt.											24														1							
	14-D	138+52		56 ' Lt.											10		4														1			1		
	15-D	138+73.5		56 ' Lt.											12		4													1			1		
	2-R	137+09	137+30	11-11' Rt.		1		27																												
	3-R	137+30	138+58	11' Rt.		1		128																												
	5-R	138+58	139+86	11' Rt.		1		128																												
	6-R	138+95		24' Lt.	1		33																													
	8-R	139+86	141+00	11' Rt.			114																													
	9-R	139+94.5		34' Rt.	1		22																													
	10-R	138+52		47 Lt.	1		10																													
95	11-R	138+73.5		47 Lt.	1		11																													
Totals					10	3	363	283		1.6		112		4	497	75	24	28	16				114	286		5	13	5	1			3		852		4	4	2

TOTALS CARRIED TO SHEET 53

MAYFIELD ROAD

NOTE: SEE INTERSECTION DETAILS SHEET NOS. 194 TO 222 FOR LOCATION OF INTERSECTION CATCH BASINS

SUMMARY OF DRAINAGE QUANTITIES

FHWA REGION	STATE	PROJECT	
5	OHIO		

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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

Sheet No.	Ref. No.	Station From	Station To	Offset	202 Catch Basin Removed Each	202 Manhole Removed Each	202 Pipe Removed 24" and Under Lin. Ft.	202 Pipe Removed Over 24" Lin. Ft.	202 Structures Removed Each	602 Concrete Masonry As Per Plan Cu.Yd.	603 6" Conduit, Type B, 707.19, PS 46 Minimum, As Per Plan Lin. Ft.	603 6" Conduit, Type F, 707.17 Non-Perforated ASTM D3034, SDR 35 SS331 or SS 945 Lin. Ft.	603 8" Conduit, Type C, 707.19 PS 46 Minimum Lin. Ft.	603 10" Conduit, Type B, 706.02, ES, As Per Plan -A Lin. Ft.	603 12" Conduit, Type B, 706.02, As Per Plan-A Lin. Ft.	603 15" Conduit, Type B, 706.02, As Per Plan-A Lin. Ft.	603 15" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 18" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 21" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 24" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 24" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 30" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 60" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 48" x 76" Conduit, Type B, 706.04, Class HE-II As Per Plan-A Lin. Ft.	604 Catch Basin, Adjust To Grade Each	604 Manhole Adjusted To Grade, As Per Plan (Stm.) Each	604 Catch Basin, No. 3, With "J" Grate As Per Plan-A Each	604 Catch Basin, No. 3A, With "J" Grate As Per Plan-A Each	604 Catch Basin, No. 6, As Per Plan-A Each	604 Manhole, No. 3, With 706.11 Joints (Storm) Each	604 Manhole, No. 4, With 706.11 Joints (Storm) Each	604 Manhole, No. 5, With 706.11 Joints (Storm) Each	604 Inlet, No. 1 Each	605 6" Shallow Pipe Underdrain with Fabric Wrap Lin. Ft.	12" Bend Each	15"x12"x15" Tee Each	18"x12"x18" Tee Each	21"x12"x21" Tee Each	24"x12"x24" Tee Each
95	1-WD	136+00	136+01	Lt.								1																											
	2-WD	136+00	136+02	Rt.								2																											
	3-WD	136+01	136+46	Lt.								10																										35				
	4-WD	136+02	136+47	Rt.								10																										35				
	5-WD	136+51	138+50	Lt.								10																										205				
	6-WD	136+52	137+86	Rt.								10																										124				
	7-WD	137+91	139+43	Rt.																																		52				
	8-WD	138+76	139+04	Lt.								10																										163				
	9-WD	139+09	141+00	Lt.								10																										181				
	10-WD	139+77	140+08	Rt.																																		51				
95	11-WD	140+13	141+00	Rt.								10																										77				
96	1-D	141+00	142+14	11 Rt.																																1						
	2-D	142+14	145+50	11 Rt.															15																								
	3-D	142+59		34' Rt.											24																					1							
	4-D	142+61		24' Lt.											35																					1							
	5-D	143+26		24' Lt.											36																					1							
	6-D	144+04		34' Rt.											23																					1							
	7-D	144+49		24' Lt.											36																					1							
	8-D	145+08		34' Rt.											24																					1							
	9-D	145+50	146+00	11 Rt.																																							
	10-D	145+90		24' Lt.											35																					1							
	11-D	145+92		34' Rt.											24																					1							
	12-D	142+04		46' Lt.											10		4																				1						
	13-D	142+27		46' Lt.											12		4																				1						
	14-D	143+90		37' Rt.	1																																					
	2-R	141+00	142+14	11 Rt.		1	114																																			
	4-R	142+14	145+50	11 Rt.		1	10	336																																		
	5-R	142+40		34' Rt.	1		24																																			
	6-R	142+42		24' Lt.	1		34																																			
	8-R	145+50	146+00	11 Rt.				50																																		
	9-R	145+90		24' Lt.	1		34																																			
	10-R	145+92		34' Rt.	1		24																																			
	11-R	142+04		46 Lt.	1		10																																			
	12-R	142+27		46 Lt.	1		12																																			
	1-WD	141+00	142+02	Lt.																																		119				
	2-WD	141+00	142+01	Rt.																																		116				
	3-WD	142+27	142+54	Rt.																																		44				
	4-WD	142+28	142+56	Lt.																																		45				
	5-WD	142+59	143+99	Rt.								10																										130				
	6-WD	142+61	143+21	Lt.								10																										50				
	7-WD	143+26	144+44	Lt.								10																										108				
	8-WD	144+04	145+03	Rt.								10																										89				
	9-WD	144+49	145+85	Lt.								10																										126				
	10-WD	145+08	145+87	Rt.								10																										69				
	11-WD	145+90	146+00	Lt.								10																														
96	12-WD	145+92	146+00	Rt.								8																														
Totals					7	2	262	386				151			259		8	15																		1819	1	2				

TOTALS CARRIED TO SHEET 53

MAYFIELD ROAD

FHWA REGION	STATE	PROJECT	
5	OHIO		

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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SUMMARY OF DRAINAGE QUANTITIES

Sheet No.	Ref. No.	Station From	Station To	Offset	202 Catch Basin Removed Each	202 Manhole Removed Each	202 Pipe Removed 24" and Under Lin. Ft.	202 Pipe Removed Over 24" Lin. Ft.	202 Structures Removed Each	602 Concrete Masonry As Per Plan Cu.Yd.	603 6" Conduit, Type B, 707.19, PS 46 Minumum, As Per Plan Lin. Ft.	603 6" Conduit, Type F, 707.17 Non-Perforated ASTM D3034, SDR 35 SS831 or SS 945 Lin. Ft.	603 8" Conduit, Type C, 707.19 PS 46 Minimum Lin. Ft.	603 10" Conduit, Type B, 706.08, ES, As Per Plan -A Lin. Ft.	603 12" Conduit, Type B, 706.02, As Per Plan-A Lin. Ft.	603 15" Conduit, Type B, 706.02, As Per Plan-A Lin. Ft.	603 15" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 18" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 21" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 24" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 24" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 30" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 60" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 48" x 76" Conduit, Type B, 706.04 Class HE-II As Per Plan-A Lin. Ft.	604 Catch Basin, Adjust To Grade Each	604 Manhole Adjusted To Grade, As Per Plan (Stm.) Each	604 Catch Basin, No. 3, With "V" Grate As Per Plan-A Each	604 Catch Basin, No. 3A, With "V" Grate As Per Plan-A Each	604 Catch Basin, No. 6, As Per Plan-A Each	604 Manhole, No. 3, With 706.11 Joints (Storm) Each	604 Manhole, No. 4, With 706.11 Joints (Storm) Each	604 Manhole, No. 5, With 706.11 Joints (Storm) Each	604 Inlet, No. 1 Each	605 6" Shallow Pipe Underdrain with Fabric Wrap Lin. Ft.	12" Bend Each	15"x12"x15" Tee Each	18"x12"x18" Tee Each	21"x12"x21" Tee Each	24"x12"x24" Tee Each
97	1-D	146+00	148+96	11' Rt.											4									296						1								
	2-D	146+84		24' Lt.											36												1							1				
	3-D	147+70		34' Rt.											23												1											
	4-D	148+96	151+00	11' Rt.																				204														
	5-D	149+49.5		35' Rt.											24												1											
	6-D	149+90		24' Lt.											35												1							1				
	7-D	150+35		34' Rt.											24												1											
	2-R	146+00	148+96	11' Rt.		2	5	296																														
	3-R	149+49.5		34' Rt.	1		25																															
	5-R	148+96	151+00	11' Rt.				204																														
	1-W	146+00	146+79	Lt.								2																							79				
	2-W	146+00	147+65	Rt.								2																							63				
	3-W	146+84	149+21	Lt.								10																							164				
	4-W	147+70	149+00	Rt.								10																							137				
	5-W	149+27	149+45	Rt.																															34				
	6-W	149+49	149+85	Lt.																															79				
	7-W	149+50	150+30	Rt.								10																							70				
	8-W	149+90	151+00	Lt.								10																							100				
97	9-W	150+35	151+00	Rt.								10																							55				
98	1-D	151+00	152+47	11' Rt.												4								147						1								
	2-D	151+54		24' Lt.											36												1								1			
	3-D	151+66		34' Rt.											24												1											
	4-D	152+47	155+50	11' Rt.																				303														
	5-D	152+96		24' Lt.											36												1								1			
	6-D	153+05.5		34' Rt.											23												1											
	7-D	154+03		24' Lt.											36												1								1			
	8-D	154+80		34' Rt.											23												1											
	9-D	155+47		24' Lt.											36												1								1			
	10-D	152+98		27 Lt.									4																			1						
	11-D	154+03		27 Lt.									4																			1						
	2-R	151+00	152+47	11' Rt.		1		147																														
	3-R	152+96		24' Lt.	1		34																															
	4-R	153+05.5		34' Rt.	1		24																															
	6-R	152+47	155+50	11' Rt.				303																														
	1-W	151+00	151+49	Lt.																															49				
	2-W	151+00	151+61	Rt.																															61				
	3-W	151+54	152+91	Lt.								10																							127				
	4-W	151+66	153+00	Rt.								10																							124				
	5-W	152+96	153+98	Lt.								10																							92				
	6-W	153+05	154+75	Rt.								10																							160				
	7-W	154+03	155+42	Lt.								10																							129				
	8-W	154+80	155+50	Rt.								10																							60				
98	9-W	155+47	155+50	Lt.								3																											
Totals					3	3	88	950				115	8		360	4								950				12			1	1		2	1583	6				

TOTALS CARRIED TO SHEET 53

MAYFIELD ROAD

FHWA REGION	STATE	PROJECT	
5	OHIO		

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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SUMMARY OF DRAINAGE QUANTITIES

Sheet No.	Ref. No.	Station From	Station To	Offset	202 Catch Basin Removed Each	202 Manhole Removed Each	202 Pipe Removed 24" and Under Lin. Ft.	202 Pipe Removed Over 24" Lin. Ft.	202 Structures Removed Each	602 Concrete Masonry As Per Plan Cu.Yd.	603 6" Conduit, Type B, 707.19, PS 46 Minumum, As Per Plan Lin. Ft.	603 6" Conduit, Type F, 707.17 Non-Perforated ASTM D3034 SDR 35 SS831 or SS 946 Lin. Ft.	603 8" Conduit, Type C, 707.19 PS 46 Minimum Lin. Ft.	603 10" Conduit, Type B, 706.08 ES, As Per Plan -A Lin. Ft.	603 12" Conduit, Type B, 706.02, As Per Plan-A Lin. Ft.	603 15" Conduit, Type B, 706.02, As Per Plan-A Lin. Ft.	603 15" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 18" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 21" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 24" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 24" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 30" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 60" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-A Lin. Ft.	603 48" x 76" Conduit, Type B, 706.04 Class HE-II As Per Plan-A Lin. Ft.	604 Catch Basin, Adjust To Grade Each	604 Manhole Adjusted To Grade, As Per Plan (Stm.) Each	604 Catch Basin, No. 3, With "V" Grate As Per Plan-A Each	604 Catch Basin, No. 3A, With "V" Grate As Per Plan-A Each	604 Catch Basin, No. 6, As Per Plan-A Each	604 Manhole, No. 3, With 706.11 Joints (Storm) Each	604 Manhole, No. 4, With 706.11 Joints (Storm) Each	604 Manhole, No. 5, With 706.11 Joints (Storm) Each	604 Inlet, No. 1 Each	605 6" Shallow Pipe Underdrain with Fabric Wrap Lin. Ft.	12" Bend Each	15"x12"x15" Tee Each	18"x12"x18" Tee Each	21"x12"x21" Tee Each	24"x12"x24" Tee Each
99	1-D	155+50	156+29	11' Rt.																				79						1								
↓	2-D	156+29	160+01	11' Rt.																				372						1								
	3-D	156+78		34' Rt.											23												1											
	4-D	157+87		24' Lt.											36												1							1				
	5-D	158+31		34' Rt.											23												1											
	6-D	159+07		24' Lt.											36												1							1				
	7-D	160+01	161+00	11' Rt.																				99														
	8-D	160+46		34' Rt.											23												1											
	9-D	160+56.5		24' Lt.											36												1							1				
	2-R	155+50	156+29	11' Rt.		1		79																														
	4-R	156+29	160+01	11' Rt.		1	372																															
	5-R	156+68.5		34' Rt.	1		23																															
	6-R	157+79		24' Lt.	1		35																															
	8-R	160+01	161+00	11' Rt.			99																															
	9-R	160+27		34' Rt.	1		23																															
	10-R	160+56.5		24' Lt.	1		34																															
	1-WD	155+50	157+28	Lt.								7																						188				
	2-WD	155+50	156+19	Rt.																														88				
	3-WD	156+45	156+73	Rt.																														45				
	4-WD	156+78	158+26	Rt.								10																						138				
	5-WD	157+54	157+83	Lt.																														43				
	6-WD	157+87	159+02	Lt.								10																						105				
	7-WD	158+31	159+88	Rt.								10																						164				
	8-WD	159+07	160+52	Lt.								10																						135				
	9-WD	160+14	160+41	Rt.																														44				
↓	10-WD	160+46	161+00	Rt.								10																						44				
99	11-WD	160+57	161+00	Lt.								10																						33				
100	1-D	161+00	164+23	11' Rt.																				323						1								
↓	2-D	161+85		24' Lt.											36												1								1			
	3-D	162+16		34' Rt.											23												1											
	4-D	164+23	165+00	11' Rt.																				77														
	5-D	164+23		28' Rt.																													1					
	6-D	164+39		29' Lt.											42												1											
	7-D	164+69.5		35' Rt.											25												1											
	8-D	164+49.5		36.5' Rt.																						1												
	2-R	161+00	164+23	11' Rt.		1	323																															
	4-R	164+23	165+00	11' Rt.				77																														
	5-R	164+23		28' Rt.				19																														
	6-R	164+39		32' Lt.	1		42																															
	7-R	164+69.5		34' Rt.	1		22																															
	1-WD	161+00	161+80	Lt.																														80				
	2-WD	161+00	162+11	Rt.																														111				
	3-WD	161+85	163+42	Lt.								10																						152				
	4-WD	162+16	163+39	Rt.								10																						113				
	5-WD	164+10	164+34	Lt.																														45				
	6-WD	164+32	164+65	Rt.																														64				
↓	7-WD	164+39	165+00	Lt.								10																						52				
100	8-WD	164+70	165+00	Rt.								10																						20				
Totals					6	3	973	175				107			303									950			1	10			3		1		1664	4				

TOTALS CARRIED TO SHEET 53

MAYFIELD ROAD

FHWA REGION	STATE	PROJECT	
5	OHIO		

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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SUMMARY OF DRAINAGE QUANTITIES

Sheet No.	Ref. No.	Station From	Station To	Offset	202 Catch Basin Removed Each	202 Manhole Removed Each	202 Pipe Removed 24" and Under Lin. Ft.	202 Pipe Removed Over 24" Lin. Ft.	202 Structures Removed Each	602 Concrete Masonry As Per Plan Cu.Yd.	603 6" Conduit, Type B, 707.19 PS 46 Minimum, As Per Plan Lin. Ft.	603 6" Conduit, Type F, 707.17 Non-Perforated ASTM D3034, SDR 35 SS331 or SS 946 Lin. Ft.	603 8" Conduit, Type C, 707.19 PS 46 Minimum Lin. Ft.	603 10" Conduit, Type B, 706.08 ES, As Per Plan -A Lin. Ft.	603 12" Conduit, Type B, 706.02, As Per Plan-A Lin. Ft.	603 15" Conduit, Type B, 706.02, As Per Plan-A Lin. Ft.	603 15" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 18" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 21" Conduit, Type B, 706.02, 1500 D-Load As Per Plan-A Lin. Ft.	603 24" Conduit, Type B, 1500 D-Load, 706.02 As Per Plan-A Lin. Ft.	603 24" Conduit, Type B, 706.08 ES, As Per Plan-A Lin. Ft.	603 30" Conduit, Type B, 706.02, 1500 D-Load As Per Plan-A Lin. Ft.	603 60" Conduit, Type B, 706.02, 1500 D-Load As Per Plan-A Lin. Ft.	603 48" x 76" Conduit, Type B, 706.04 Class HE-A As Per Plan-A Lin. Ft.	604 Catch Basin, Adjust To Grade Each	604 Manhole Adjusted To Grade, As Per Plan (Stm.) Each	604 Catch Basin, No. 3, With "V" Grate As Per Plan-A Each	604 Catch Basin, No. 3A, With "V" Grate As Per Plan-A Each	604 Catch Basin, No. 6, As Per Plan-A Each	604 Manhole, No. 3, With 706.11 Joints (Storm) Each	604 Manhole, No. 4, With 706.11 Joints (Storm) Each	604 Manhole, No. 5, With 706.11 Joints (Storm) Each	604 Inlet, No. 1 Each	605 6" Shallow Pipe Underdrain with Fabric Wrap Lin. Ft.	12" Bend Each	15"x12"x15" Tee Each	18"x12"x18" Tee Each	21"x12"x21" Tee Each	24"x12"x24" Tee Each
101	1-D	165+00	166+58	11 Rt.																																			
	2-D	165+08		24' Lt.											36				16					158				1			1								
	3-D	165+93		33.5 Rt.											23													1							1				
	4-D	166+58	169+50	11 Rt.																				292							1							
	5-D	166+85		25.4' Lt.											37													1							1				
	6-D	166+85		32.4' Rt.											22													1											
	7-D	166+98		35 Rt.																							1											
	8-D	167+94		31.7 Rt.											21													1											
	9-D	168+70		27 Lt.											38													1							1				
	10-D	169+30		30.4' Rt.											20													1											
	11-D	165+08		27 Lt.									4																					1				
	12-D	166+96		29 Lt.									10																					1				
	13-D	168+84		30.2 Lt.									14																					1				
	2-R	165+00	166+58	11 Rt.		1		158																														
	4-R	166+58	169+50	11 Rt.		2		292																														
	5-R	166+78		27 Lt.	2		37																															
	6-R	166+92.5		27 Lt.	1		37																															
	7-R	167+10		10To32Rt.					1																													
	1-W	165+00	165+03	Lt.																															3				
	2-W	165+00	165+88	Rt.																															88				
	3-W	165+08	166+80	Lt.								10																							162				
	4-W	165+93	166+80	Rt.								10																							77				
	5-W	166+85	168+79	Lt.								10																							184				
	6-W	166+85	167+89	Rt.								10																							94				
	7-W	167+94	169+25	Rt.								10																							121				
	8-W	168+84	169+50	Lt.								10																							56				
101	9-W	169+30	169+50	Rt.								10																							10				
102	1-D	169+50	170+00	11 Rt.												4								50							1							
	2-D	170+00	173+67	11 Rt.																		8	367								1							
	3-D	170+08		28.3 Lt.											40													1											
	4-D	170+13.5		29.7 Rt.											19													1							1				
	5-D	171+83		30 Rt.											4												1											
	6-D	171+93		28 Rt.											17													1											
	7-D	172+00		30 Lt.											41													1							1				
	8-D	173+00		28 Rt.											17													1											
	9-D	170+04		32 Lt.									6																					1				
	2-R	169+50	170+00	11 Rt.		1		50																														
	3-R	170+08		30 Lt.	1		40																															
	4-R	170+08		26 Lt.		1																																
	5-R	170+13.5		30 Rt.	1		23																															
	7-R	170+00	173+67	11 Rt.		1		367																														
	8-R	171+85		30 Lt.	1		41																															
	1-W	169+50	170+03	Lt.																															53				
	2-W	169+50	170+08	Rt.																															58				
	3-W	170+08	171+42	Lt.								10																							140				
	4-W	170+13	171+35	Rt.								10																							122				
	5-W	171+70	171+95	Lt.																															43				
	6-W	171+93	172+95	Rt.								10																							92				
	7-W	172+00	173+84	Lt.								10																							174				
102	8-W	173+00	173+84	Rt.								10																							74				
Totals This Sheet					6	6	178	867	1			120	34		335	4			16			8	867		2		12			4			4	1551	5				
Totals Sheet 44					7		222				1936	100	42		314		8	70	8							3	1	9				3	2842	5	2	7	1	
Totals Sheet 45					8		225					140	23		394	60	16	8								4	2	10				5	2085	1	3	1		
Totals Sheet 46					3		82					130	4		325	59				16						10	1	9	2			1	1756				2	
Totals Sheet 47					5		433					180			441	36			32	293					2	4	12	4					1950			4	4	
Totals Sheet 48					6		587					135			379				24	411	32				1	3	11	2					1829			3	7	
Totals Sheet 49					10	3	363	283		1.6		112		4	497	75	24	28	16				114	286		5	13	5	1		3		852		4	4	2	
Totals Sheet 50					7	2	262	386				151			259		8	15					500				8	2		1	1		1819	1	2			
Totals Sheet 51					3	3	88	950				115	8		360	4							950				12			1	1	2	1583	6				
Totals Sheet 52					6	3	973	175				107			303								950			1	10			3		1	1664	4				
Grand Totals					61	17	3413	2661	1	1.6	1936	1290	111	4	3607	238	56	121	96	704	48	8	3381	286	5	30	82	41	3	9	2	4	15	17931	22	11	12	10	13

MAYFIELD ROAD

SUMMARY OF DRAINAGE QUANTITIES

SUMMARY OF SANITARY QUANTITIES

	NH-83(29)	OHIO F.H.W.A. REGION 5	54 426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SHEET NO.	REF. NO.	STATION FROM	STATION TO	OFFSET	202 PIPE REMOVED 24" & UNDER L.F.	202 MANHOLE REMOVED EA.	603 8" CONDUIT TYPE B 707.19 PS46 (MIN.) AS PER PLAN B L.F.	603 10" CONDUIT TYPE B 707.19 PS46 (MIN.) AS PER PLAN B L.F.	603 10" CONDUIT TYPE B 707.19 PS115 (MIN.) AS PER PLAN B L.F.	603 18" CONDUIT TYPE B 706.02, 2000 D-LOAD MINIMUM AS PER PLAN L.F.	603 24" CONDUIT TYPE B 706.02, 2000 D-LOAD MINIMUM AS PER PLAN L.F.	604 NO. 3 DROP MANHOLE AS PER PLAN B (SAN.) EACH	604 MANHOLE NO. 3 (SANITARY) EACH	604 MANHOLE ADJ. TO GRADE, A.P.P. (SANITARY) EACH	604 MANHOLE RECONSTRUCT TO GRADE, A.P.P. (SANITARY) EACH
68	1-S	1+99	2+47	RT.	18	1					48		1		
68	2-S	2+47	3+22	RT.	101						75		1		
68	3-S	3+22	4+00	RT.	115	1		37			78		1		
69	1-S	4+00	5+78	RT.							178		1		
	2-S	5+78	5+90	RT.						8	16		1		
	3-S	5+90	6+25	LT.				35					1		
	4-S	6+24	6+25	RT.	45		45								
69	5-S	6+25	9+00	LT.				275							
70	1-S	9+00	9+16	LT.				16					1		
	2-S	9+16	9+29	RT.			48								
	3-S	9+16	11+30	LT.				214					1		
	4-S	11+30	13+41	LT.			44	211					1		
70	5-S	13+41	14+00	LT.				59				1			
71	1-S	14+00	15+21	LT.				121					1		
	2-S	15+21	17+42	LT.				221					1		
	3-S	17+21	17+42	RT.	59	1		44							1
71	4-S	17+63	19+00	LT.				137					1		
72	1-S	19+00	20+12	LT.				112					1		
72	2-S	20+12	22+65	LT.				253					1		
72	3-S	22+65	24+00	LT.				135							
73	1-S	24+00	25+10	LT.	13	1		110					1		
	2-S	25+10	25+45	LT.				55						1	
	3-S	25+45	27+14	LT.	8	1		169					1		
73	4-S	27+14	29+00	LT.				186					1		
74	1-S	29+00	29+60	LT.				60					1		
74	2-S	29+60	33+16	LT.					356				1		
74	3-S	33+16	34+00	LT.				84							
75	1-S	34+00	36+82	LT.				282					1		
75	2-S	34+80	34+82	LT.			47								
75	3-S	36+82	39+00	LT.				218							
76	1-S	39+00	39+52	LT.				52					1		
76	2-S	40+10	43+24	LT.				314					1		
76	3-S	43+24	44+00	LT.				76					1		
		*** TOTALS			359	5	184	3476	356	8	395	1	23	1	1

*** TOTALS CARRIED TO SHEET 55

BRUNING 44-132 67199

SUMMARY OF SANITARY QUANTITIES

* PARTICIPATION-1 100% CITY OF SOUTH EUCLID

| | | |

PARTICIPATION LEGEND

000 – NORMAL PARTICIPATION – CITY OF LYNDHURST
(000) – 100% CITY OF LYNDHURST
{000} – 72% NORMAL PROJECT PARTICIPATION,
28% CITY OF LYNDHURST

SUMMARY OF SANITARY QUANTITIES

FHWA REGION	STATE	PROJECT	
5	OHIO		

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CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

Sheet No.	Ref. No.	Station From	Station To	Offset	202 Pipe Removed, 24" and Under	202 Manhole Removed	603 6" Conduit, Type B, 707.19 PS 46 Minimum As Per Plan-B	603 15" Conduit, Type B, 707.19 (PS 46 Min.) As Per Plan-B	603 18" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-B	603 21" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-B	603 24" Conduit, Type B, 706.08 ES, As Per Plan-B	603 27" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-B	603 27" Conduit, Type B, 706.02, 1750 D-Load, As Per Plan-B	603 30" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-B	603 36" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan-B	604 Manhole, Adjusted To Grade, As Per Plan (San.)	604 No. 3 Manhole (Sanitary)	604 No. 3 Drop Manhole As Per Plan -A (San.)	604 No. 3 Drop Manhole As Per Plan -B (San.)	604 Junction Chamber, As Per Plan (Sanitary)	Special Fill and Plug Existing Conduit (Exist. 24" Sewer)
					Lin. Ft.	Each	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Each	Each	Each	Each	Each	Lin. Ft.
60							2754														
61							(550)														
83	1-S	78+13		10' Rt.												1					
83	2-S	78+70		46' Rt.												1					
88	1-S	100+86		10' Rt.												1					
89	1-S	107+14		11' Rt.												1					
	2-S	107+90		17' Lt.		1															(15)
	3-S	107+92		9' Lt.		1															(8)
	4-S	108+01		9' Rt.	(65)			(65)								1					(20)
	5-S	108+66	110+00	℄											(142)				(1)		
	6-S	107+84		30' Lt.												1					
	7-S	107+87.5		25' Rt.												1					
89	8-S	108+66		9' Rt.				(9)			(6)						(1)				
90	1-S	111+55.5		9' Rt.												1					
	2-S	114+28.5		11' Rt.												1					
	3-S	110+00	111+10	℄											(110)						
	4-S	111+10	114+18	℄											(308)		(1)				
	5-S	114+18	115+50	℄				(24)						(132)				1			
90	6-S	114+32		21' Rt.												1					
91	1-S	118+07	121+00	10' Rt.						293											
	2-S	115+50	116+15	℄										(65)							
	3-S	116+15	118+75	℄										(260)			(1)				
	4-S	118+75	121+00	℄										(225)			(1)				
91	4-R	118+07	121+00	10' Rt.	293																
92	1-S	121+00	121+82	10' Rt.						82											
	2-S	125+24	126+00	10' Rt.						76											
	3-S	121+00	122+75	℄										(175)							
	4-S	122+75	126+00	℄										(325)			(1)				
	6-R	121+00	121+82	10' Rt.	82																
92	7-R	125+24	126+00	10' Rt.	76																
93	1-S	126+00	128+53	10' Rt.						253											
	2-S	126+00	126+75	℄										(75)							
	3-S	126+75	130+75	℄										(400)			(1)				
	4-S	130+75	131+00	℄										(25)			(1)				
93	4-R	126+00	128+53	10' Rt.	253																
94	1-S	131+21		9' Rt.												1					
	2-S	134+83		10' Rt.												1					
	3-S	131+00	134+84	℄										(384)							
	4-S	134+84	136+00	℄					(8)			(116)					(1)				
94	5-S	135+15		30.5' Rt.												1					
		Totals			769	2	3304	98	8	704	6	116		2066	560	13	8	1	1		43

MAYFIELD ROAD

PARTICIPATION LEGEND

000 – NORMAL PARTICIPATION – CITY OF LYNDHURST
(000) – 100% CITY OF LYNDHURST
{000} – 72% NORMAL PROJECT PARTICIPATION, 28% CITY OF LYNDHURST

SUMMARY OF SANITARY QUANTITIES

FHWA REGION	STATE	PROJECT	
5	OHIO		

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CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

Sheet No.	Ref. No.	Station From	Station To	Offset	202 Pipe Removed, 24" and Under	202 Manhole Removed	603 6" Conduit, Type B, 707.19 PS 45 Minimum As Per Plan–B	603 15" Conduit, Type B, 707.19 (PS 45 Min.) As Per Plan–B	603 18" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan–B	603 21" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan–B	603 24" Conduit, Type B, 706.08 ES As Per Plan–B	603 27" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan–B	603 27" Conduit, Type B, 706.02, 1750 D-Load, As Per Plan–B	603 30" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan–B	603 36" Conduit, Type B, 706.02, 1500 D-Load, As Per Plan–B	604 Manhole, Adjusted To Grade, As Per Plan (San.)	604 No. 3 Manhole (Sanitary)	604 No. 3 Drop Manhole As Per Plan –A (San.)	604 No. 3 Drop Manhole As Per Plan –B (San.)	604 Junction Chamber, As Per Plan (Sanitary)	Special Fill and Plug Existing Conduit (Exist. 24" Sewer)
					Lin. Ft.	Each	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Each	Each	Each	Each	Each	Lin. Ft.
95	1-S	137+17	137+41	9.5' Rt.– ℄					25								1				
	2-S	137+41	139+64	℄								{223}					1			1	
	3-S	139+64	141+00	℄								{136}									
	4-S	136+00	137+40	℄								(129)									
	5-S	137+29	137+41	℄								(12)					1				
	1-R	137+17	138+58	10' Rt.	141																
	4-R	138+58	139+86	10' Rt.	128																
95	7-R	139+86	141+00	10' Rt.	114																
96	1-S	141+00	141+85	℄								{85}					1				
	2-S	141+85	145+81	℄								{396}					1				
	3-S	145+81	146+00	℄									{19}								
	1-R	141+00	142+14	10' Rt.	114																
	3-R	142+14	145+50	10' Rt.	346																
96	7-R	145+50	146+00	10' Rt.	50																
97	1-S	146+00	149+81	℄									{381}				1				
	2-S	149+81	151+00	℄									{119}								
	1-R	146+00	148+96	10' Rt.	296																
97	4-R	148+96	151+00	10' Rt.	204																
98	1-S	151+00	153+81	℄									{281}				1				
	2-S	153+81	155+50	℄									{169}								
	1-R	151+00	152+47	10' Rt.	147																
98	3-R	152+47	155+50	10' Rt.	303																
99	1-S	155+50	157+81	℄									{231}				1				
	2-S	157+81	161+00	℄									{319}								
	1-R	155+50	156+29	10' Rt.	79																
	3-R	156+29	160+01	10' Rt.	372																
99	7-R	160+01	161+00	10' Rt.	99																
100	1-S	161+00	161+77	℄									{77}				1				
	2-S	161+77	165+00	℄									{323}								
	1-R	161+00	164+23	10' Rt.	323																
100	3-R	164+23	165+00	10' Rt.	77																
101	1-S	165+00	165+77	℄									{77}				1				
	2-S	165+77	169+50	℄									{373}								
	1-R	165+00	166+58	10' Rt.	158																
101	3-R	166+58	169+50	10' Rt.	292																
102	1-S	169+50	167+67	℄									{17}				1				
	2-S	169+67	173+67	℄									{400}					1			
	3-S	173+67	173+71	℄						4											
	4-S	173+67	173+76	℄ –9' Rt.				13													
	1-R	169+50	170+00	10' Rt.	50																
102	6-R	170+00	173+76	10' Rt.	376																
Totals					3669			13	25	4		981	2,786				11	1		1	
Totals Previous Sheet					769	2	3304	98	8	704	6	116		2066	560	13	8	1	1		43
Grand Totals					4438	2	3304	111	33	708	6	1,097	2,786	2066	560	13	19	2	1	1	43

MAYFIELD ROAD

CONNECTION SCHEDULE

	NH-83(29)	OHIO F.H.W.A. REGION 5

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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

* AS PER PLAN, PS 46 MIN.

SHEET NO.	STATION	SIDE	603 6" CONDUIT, TYPE 'B' 707.19 (STORM) * L.F.	603 6" CONDUIT, TYPE 'B' 707.19 (SANITARY) * L.F.
68	0+59	L	–	
	0+63	R	–	
	1+00	L		–
	1+06	L	–	
	1+16	R		–
	1+22	R	–	
	1+44	L		–
	1+50	L	–	
	1+77	R	–	
	2+47	L	15	
	2+49	L		30
	2+50	R	30	
	2+74	R		15
	2+93	L	15	
	2+95	L		30
	3+30	L	15	
	3+34	L		30
	3+72	R	30	
	3+76	L	15	
68	3+92	L		30
69	4+08	L	15	
	4+24	R	30	
	4+53	L	15	
	4+68	R	30	
	4+93	L	15	
	5+17	R	30	
	5+30	L	15	
	5+69	R	30	
	6+40	L	30	
	6+44	L		15
	6+71	R		30
	6+72	R	15	
	6+99	L	30	
	7+00	L		15
	7+04	L	30	
	7+18	R		30
	7+19	R	15	
	7+50	L		15
	7+51	L	30	
	7+66	R	15	
	7+69	R		30
	7+98	L		15
	8+00	L	30	
	8+20	R	15	
	8+22	R	15	
	8+25	R		30
	8+47	L	30	
	8+50	L		15
	8+65	R	15	
	8+71	R		30
	8+94	L	30	
69	8+97	L		15
	TOTALS		600	375

SHEET NO.	STATION	SIDE	603 6" CONDUIT, TYPE 'B' 707.19 (STORM) * L.F.	603 6" CONDUIT, TYPE 'B' 707.19 (SANITARY) * L.F.
70	9+36	L		15
	9+40	L	30	
	9+81	L		15
	9+85	L	30	
	9+87	R	15	
	10+31	L	30	
	10+32	R	15	
	10+33	L		15
	10+35	R		30
	10+71	R	15	
	10+73	R		30
	10+76	L	30	
	10+78	L		15
	11+22	R	15	
	11+24	R		30
	11+30	L	30	
	11+34	L		15
	11+68	R		30
	11+70	R	15	
	11+72	L		15
	11+76	L	30	
	12+22	L	30	
	12+25	L		15
	12+26	R	15	
	12+28	R		30
	12+64	L	30	
	12+67	L		15
	12+88	R	15	
	12+92	R		30
	13+12	L	30	
	13+16	L	30	
	13+18	L		15
	13+21	L		30
	13+67	L		15
70	13+69	L	30	
71	14+02	R	15	
	14+04	R		30
	14+17	L	30	
	14+19	L		15
	14+67	R	15	
	14+70	R		30
	15+27	R	15	
	15+31	R		30
	15+37	L	30	
	15+40	L		15
	15+85	R	15	
	15+88	R		30
	15+95	L		15
	15+98	L	30	
	16+37	L		15
	16+39	L	30	
	16+40	R		30
	16+42	R	15	
	16+79	L		15
	16+80	L	30	
	16+87	R		30
	16+89	R	15	
	17+17	L	30	
71	17+17	R		30
	TOTALS		705	645

SHEET NO.	STATION	SIDE	603 6" CONDUIT, TYPE 'B' 707.19 (STORM) * L.F.	603 6" CONDUIT, TYPE 'B' 707.19 (SANITARY) * L.F.
71	17+70	L	30	
	17+71	L		15
	18+06	R	15	
	18+07	R		30
	18+08	L	30	
	18+10	L	30	
	18+12	L		15
	18+46	L	30	
	18+50	L	30	
	18+52	L		15
	18+60	R	15	
	18+62	R		30
71	18+98	L	30	
72	19+01	L		15
	19+10	R	15	
	19+14	R		30
	19+52	L	30	
	19+56	L		15
	19+62	R	15	
	19+63	R		30
	20+05	L	30	
	20+09	L		15
	20+13	R	15	
	20+16	R		30
	20+55	L	30	
	20+58	L		15
	20+61	R	15	
	20+65	R		30
	21+10	R	15	
	21+14	R		30
	21+58	R	15	
	21+62	R		30
	21+66	L	30	
	21+68	L	30	
	21+70	L		15
	22+07	R	15	
	22+12	R		30
	22+17	L	30	
	22+22	L		15
	22+62	R	15	
	22+69	L		15
	22+78	L		15
	22+80	L	30	
	23+10	R		30
	23+14	R	15	
	23+20	L		15
	23+30	L		15
	23+32	L	30	
	23+58	R		30
	23+61	R	15	
	23+69	L		15
72	23+72	L	30	
73	24+09	R		30
	24+12	R	15	
	24+20	L		15
73	24+21	L	30	
	TOTALS		675	585

SHEET NO.	STATION	SIDE	603 6" CONDUIT, TYPE 'B' 707.19 (STORM) * L.F.	603 6" CONDUIT, TYPE 'B' 707.19 (SANITARY) * L.F.
73	26+11	L		15
	26+12	L	30	
	26+43	R		30
	26+45	R	15	
	26+57	L		15
	26+59	L	30	
	26+93	R		30
	26+96	R	15	
	27+13	L		15
	27+14	L	30	
	27+38	R		30
	27+42	R	15	
	27+43	R		30
	27+74	L		15
	27+75	L	30	
	27+82	R		30
	27+83	R	15	
	28+26	L		15
	28+27	L	30	
	28+45	R		30
	28+47	R	15	
	28+48	R		30
	28+50	R	15	
	28+59	L	30	
	28+77	L		15
	28+78	L	30	
73	28+99	R		30
74	29+02	R	15	
	29+04	R		30
	29+26	L	30	
	29+27	L		15
	29+57	R	15	
	29+58	R		30
	29+93	L	30	
	29+95	L		15
	30+25	R	15	
	30+27	R		30
	30+51	L	30	
	30+52	L		15
	30+83	R	15	
	30+85	R		30
	30+87	L	30	
	30+89	L		15
	31+31	L	30	
	31+32	L		15
	31+41	R	15	
	31+42	R		30
	31+79	L	30	
	31+82	L		15
	31+99	R		30
	32+01	R	15	
	32+52	R	15	
	32+53	R		30
	32+57	R		30
	32+58	R	15	
	32+63	L		15
74	32+64	L	30	
	TOTALS		630	675

SHEET NO.	STATION	SIDE	603 6" CONDUIT, TYPE 'B' 707.19 (STORM) * L.F.	603 6" CONDUIT, TYPE 'B' 707.19 (SANITARY) * L.F.
74	33+04	R		30
	33+07	L		15
	33+09	R	15	
	33+10	L		15
	33+11	L	30	
	33+55	R	15	
	33+57	R		30
	33+59	L		15
	33+60	L	30	
	33+60	R		30
74	33+62	R	15	
75	34+04	L		15
	34+06	L	30	
	34+16	R		30
	34+18	R	15	
	34+49	L		15
	34+52	L	30	
	34+53	L		15
	34+64	R	15	
	34+65	R		30
	34+97	L	30	
	34+98	L		15
	35+02	R		30
	35+26	R	15	
	35+35	L		15
	35+37	L	30	
	35+44	L	30	
	35+45	L		15
	35+64	R	15	
	35+65	R		30
	36+00	L		15
	36+02	L	30	
	36+20	R	15	
	36+22	R		30
	37+22	L		15
	37+25	L	30	
	37+36	R		30
	37+38	R	15	
	37+72	L		15
	37+75	L	30	
	37+90	R		30
	37+91	R	15	
	38+24	L		15
	38+26	L	30	
	38+40	R		30
	38+41	R	15	
	38+70	L		15
	38+72	L	30	
	38+89	R		30
75	38+90	R	15	
	TOTALS		540	570
TOTAL THIS SHEET			3150	2850

MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

CONNECTION SCHEDULE

		OHIO
	NH-83(29)	F.H.W.A. REGION 5

59
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

* PARTICIPATION - 100% CITY OF SOUTH EUCLID

** AS PER PLAN, PS 46 MIN.

SHEET NO.	STATION	SIDE	603 6" CONDUIT, TYPE 'B' 707.19 (STORM) ** L.F.	603 6" CONDUIT, TYPE 'B' 707.19 (SANITARY) ** L.F.
76	39+22	L		15
	39+23	L	30	
	39+33	R		30
	39+35	R	15	
	40+08	R		30
	40+09	R	15	
	40+22	L		15
	40+23	L	30	
	40+56	R		30
	40+57	R	15	
	40+72	L		15
	40+73	L	30	
	41+03	R		30
	41+05	R	15	
	41+23	L		15
	41+25	L	30	
	41+54	R		30
	41+55	R	15	
	41+73	L		15
	41+75	L	30	
	42+14	R		30
	42+16	R	15	
	42+21	L		15
	42+22	L	30	
	42+68	L		15
	42+78	L		15
	42+80	L	30	
	42+86	R		30
	42+88	R	15	
	43+36	R	15	
	43+69	L		15
	43+72	L	30	
	43+81	R		30
	43+82	R		30
76	43+84	R	15	
77	44+03	L		15
	44+09	L	30	
	44+29	R		30
	44+31	R	15	
	44+36	R	15	
	44+45	L		15
	44+46	L	30	
	44+50	L	30	
	44+83	L		15
	44+86	L	30	
	44+88	R	15	
	44+89	R		30
	44+94	R	15	
	45+25	L		15
	45+28	L	30	
	45+37	R		30
	45+39	R	15	
	45+41	R	15	
	45+67	L		15
	45+69	R		30
	45+70	L	30	
77	45+72	R	15	
	TOTALS		660	600

SHEET NO.	STATION	SIDE	603 6" CONDUIT, TYPE 'B' 707.19 (STORM) ** L.F.	603 6" CONDUIT, TYPE 'B' 707.19 (SANITARY) ** L.F.
77	46+18	L		15
	46+20	L	30	
	46+27	R	15	
	46+28	R		30
	46+31	R	15	
	47+49	L		15
	47+50	L	30	
	47+67	R	15	
	47+70	R		30
	47+73	R	15	
	47+89	L		15
	48+15	L		15
	48+17	L	30	
	48+23	R		30
	48+25	R	15	
	48+57	L	30	
	48+59	L		15
	48+61	R	15	
77	48+62	R		30
78	49+11	R	15	
	49+13	L		15
	49+14	L	30	
	49+21	R		30
	49+57	L	30	
	49+59	L		15
	49+69	R	15	
	49+71	R		30
	50+05	L	30	
	50+07	L		15
	50+09	R	15	
	50+11	R		30
	50+52	L		15
	50+53	L	30	
	50+57	R		30
	50+58	R	15	
	50+93	L	30	
	50+94	L		15
	51+17	R	15	
	51+21	R		30
	51+44	L		15
	51+45	L	30	
	51+60	R		30
	51+61	R	15	
	51+64	L		15
	51+65	L	30	
	51+92	L		15
	51+93	L	30	
	52+33	L	30	
	52+34	L		15 *
	52+36	R		30 *
	52+38	R	15	
	52+76	L		15 *
	52+77	L	30 *	
	52+80	R		30 *
	52+82	R	15	
	53+16	L		15 *
78	53+18	L	30 *	
	TOTALS		660	600

SHEET NO.	STATION	SIDE	603 6" CONDUIT, TYPE 'B' 707.19 (STORM) ** L.F.	603 6" CONDUIT, TYPE 'B' 707.19 (SANITARY) ** L.F.
78	53+20	R		30 *
	53+22	R	15	
	53+58	L		15 *
	53+60	L	30	
	53+68	R		30 *
	53+70	R	15	
78	53+99	L		15 *
79	54+03	L	30	
	54+12	R		30 *
	54+14	R	15	
	54+36	L		15 *
	54+39	L	30	
	55+05	R		30 *
	55+13	R	15	
	55+14	R		30 *
	55+15	L	30	
	55+17	L		15 *
	55+35	R		30 *
	55+66	L	30	
	55+67	L		15 *
	55+67	R	15	
	55+68	R		30 *
	56+15	L		15 *
	56+16	L	30	
	56+33	R	15	
	56+34	R		30 *
	56+62	L		15 *
	56+63	L	30	
	56+92	R		30 *
	56+94	R	15	
	57+23	L		15 *
	57+25	L	35	
	57+39	R		35 *
	57+42	R	15	
	58+10	R	15	
	58+11	R		30 *
	58+44	R		30 *
	58+45	R	15	
	58+55	L	40 *	
79	58+56	L		15 *
80	59+14	L	30 *	
	59+19	L		15 *
	59+41	R	15 *	
	59+46	R		30
	59+81	R		30 *
	59+82	L	30 *	
	59+84	L		15 *
	59+89	R	15 *	
	60+34	R	15 *	
	60+38	R		30 *
	60+39	L	30 *	
	60+42	L		15 *
	60+86	R	15 *	
	60+88	R		30 *
80	60+90	L	30 *	
	TOTALS		615	665

SHEET NO.	STATION	SIDE	603 6" CONDUIT, TYPE 'B' 707.19 (STORM) ** L.F.	603 6" CONDUIT, TYPE 'B' 707.19 (SANITARY) ** L.F.
80	60+93	L		15 *
	61+37	R		30 *
	61+40	R	15 *	
	61+51	L		15 *
	61+55	L	30 *	
	61+91	L		15 *
	61+96	L	30 *	
	62+41	L		15 *
	62+43	L	30 *	
	62+92	R		30 *
	62+94	R	15 *	
	63+00	L		15 *
	63+02	L	30 *	
	63+45	L	30 *	
	63+46	L		15 *
	63+50	R		30 *
	63+52	R	15 *	
	63+93	L		15 *
80	63+94	L	30 *	
81	64+07	R	15 *	
	64+09	R		30 *
	64+42	L	30 *	
	64+45	L		15 *
	64+66	R	15 *	
	64+68	R		30 *
	64+94	L	30 *	
	64+96	L		15 *
	65+29	R	15 *	
	65+31	R		30 *
	65+44	L	30 *	
	65+46	L		15 *
	65+72	R	15 *	
	65+74	R		30 *
	65+91	L	30 *	
	65+93	L		15 *
	66+37	L	30 *	
	66+39	L		15 *
	66+82	R	–	
	66+84	R		15 *
	66+88	L	15	
	66+90	L		15 *
	67+23	L	15	
	67+25	L		15 *
	67+35	R	–	
	67+36	R		15 *
	67+62	L	15	
	67+64	L		15 *
	67+70	L	15	
	67+72	L		15 *
	67+73	R	–	
	67+76	R		15 *
	68+06	L	15	
81	68+08	L		15 *

FHWA REGION	STATE	PROJECT	
5	OHIO		

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426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

CONNECTION SCHEDULE
(PARTICIPATION IV)

Sheet No.	Station	Side	603 (Storm) 6" Conduit, Type B, 707.19 PS 46 Minimum As Per Plan-A Lin. Ft.	603 (San.) 6" Conduit, Type B, 707.19 PS 46 Minimum As Per Plan-B Lin. Ft.
84	80+61	Lt.		6
↕	80+66	Rt.	6	
84	80+69	Lt.	6	
91	118+16	Lt.		16
↕	118+52	Rt.		8
	118+58	Lt.	16	
	118+62	Lt.		16
	118+81	Rt.	8	
	118+84	Rt.		8
	119+01	Lt.	16	
	119+04	Lt.		16
	119+68	Lt.	16	
	119+72	Lt.		16
	119+73	Rt.	8	
	119+76	Rt.		8
	119+99	Rt.	8	
	120+50	Rt.	8	
	120+52	Rt.		8
	120+62	Lt.	16	
↓	120+65	Lt.		16
91	120+99	Rt.	8	
92	121+01	Rt.		8
↕	121+09	Lt.	16	
	121+12	Rt.	8	
	121+26	Lt.	16	
	121+29	Lt.		16
	121+38	Rt.		8
	125+32	Rt.		8
	125+80	Lt.	16	
	125+84	Lt.		16
↓	125+88	Rt.	8	
92	125+90	Rt.		8
93	126+26	Rt.	8	
↕	126+28	Rt.		8
	126+50	Lt.	16	
	126+52	Lt.		16
	126+91	Rt.	8	
	126+93	Rt.		8
	126+98	Lt.	16	
	127+01	Lt.		16
	127+39	Rt.	8	
	127+41	Lt.	16	
	127+42	Rt.		8
	127+44	Lt.		16
	127+97	Rt.	8	
↓	127+99	Rt.		8
93	128+12	Rt.	8	
Totals			268	262

Sheet No.	Station	Side	603 (Storm) 6" Conduit, Type B, 707.19 PS 46 Minimum As Per Plan-A Lin. Ft.	603 (San.) 6" Conduit, Type B, 707.19 PS 46 Minimum As Per Plan-B Lin. Ft.
95	137+22	Rt.		20
↕	137+59	Rt.	3	
	137+61	Rt.		20
	137+70	Lt.	6	
	137+75	Lt.		6
	138+02	Lt.	6	
	138+06	Lt.	6	
	138+07	Lt.		6
	138+09	Rt.		22
	138+68	Lt.	6	
	139+13	Lt.		10
	139+15	Rt.		12
	139+16	Lt.	6	
	139+18	Lt.	6	
	139+97	Lt.		12
	140+00	Lt.	10	
	140+01	Rt.		30
	140+05	Rt.	7	
	140+56	Rt.		30
	140+60	Rt.	8	
↓	140+62	Lt.		31
95	140+65	Lt.	8	
96	141+11	Lt.		13
↕	141+13	Lt.	12	
	141+15	Rt.		31
	141+21	Rt.	9	
	141+64	Lt.		12
	141+66	Lt.	11	
	141+68	Rt.		30
	141+72	Rt.	8	
	142+63	Lt.		13
	142+65	Lt.	10	
	142+72	Rt.		31
	142+76	Rt.	4	
	143+13	Lt.		12
	143+16	Lt.	7	
	143+41	Rt.		30
	143+44	Rt.	4	
	143+61	Lt.		12
	143+63	Lt.	7	
	143+68	Rt.		30
	143+71	Rt.	4	
	143+81	Rt.	4	
	144+12	Lt.		12
	144+14	Lt.	7	
	144+20	Rt.		29
	144+23	Rt.	4	
	144+61	Lt.		11
	144+63	Lt.	7	
↓	144+70	Rt.		28
96	144+74	Rt.	4	
Totals			174	493

Sheet No.	Station	Side	603 (Storm) 6" Conduit, Type B, 707.19 PS 46 Minimum As Per Plan-A Lin. Ft.	603 (San.) 6" Conduit, Type B, 707.19 PS 46 Minimum As Per Plan-B Lin. Ft.
96	145+13	Lt.		11
↕	145+15	Lt.	6	
	145+20	Lt.		28
	145+25	Rt.	4	
	145+61	Lt.	7	
	145+63	Lt.		11
	145+71	Rt.	4	
	145+72	Rt.		29
↓	145+81	Lt.	8	
96	145+83	Rt.	5	
97	146+18	Lt.	8	
↕	146+20	Lt.		12
	146+26	Rt.	5	
	146+28	Rt.		29
	146+58	Lt.	9	
	146+60	Lt.		30
	146+69	Rt.	6	
	146+70	Rt.		30
	147+09	Lt.	9	
	147+10	Lt.		13
	147+17	Rt.	7	
	147+18	Rt.		31
	147+61	Lt.	11	
	147+63	Lt.		13
	147+69	Rt.	8	
	147+71	Rt.		32
	148+09	Lt.	11	
	148+11	Lt.		14
	148+17	Lt.	11	
	148+18	Rt.	8	
	148+19	Rt.		31
	148+27	Rt.	8	
	148+59	Lt.		14
	148+68	Rt.		32
	149+55	Lt.		14
	149+58	Lt.	11	
	150+06	Rt.		32
	150+09	Rt.	8	
	150+10	Lt.		14
	150+13	Lt.	11	
	150+52	Rt.		32
	150+56	Rt.	8	
	150+58	Lt.		14
↓	150+61	Lt.	11	
97	150+99	Rt.		32
98	151+02	Rt.	8	
↕	151+07	Lt.		14
	151+10	Lt.	11	
	151+45	Rt.		32
	151+48	Lt.	8	
↓	151+57	Lt.		14
98	151+60	Lt.	11	
Totals			222	558

Sheet No.	Station	Side	603 (Storm) 6" Conduit, Type B, 707.19 PS 46 Minimum As Per Plan-A Lin. Ft.	603 (San.) 6" Conduit, Type B, 707.19 PS 46 Minimum As Per Plan-B Lin. Ft.
98	151+93	Rt.		32
↕	151+96	Rt.	8	
	152+08	Lt.		14
	152+12	Lt.	11	
	152+39	Rt.		32
	152+42	Rt.	8	
	152+47	Lt.		14
	152+49	Lt.	8	
	152+57	Lt.		14
	152+61	Lt.	11	
	152+87	Lt.	11	
	152+97	Rt.	8	
	153+07	Lt.		14
	153+10	Lt.	11	
	153+38	Rt.		32
	153+41	Rt.	8	
	153+58	Lt.		14
	153+61	Lt.	8	
	154+00	Rt.		32
	154+05	Rt.	8	
	154+08	Lt.		14
	154+12	Lt.	8	
	154+57	Rt.		31
	154+59	Lt.		13
	154+61	Rt.	8	
	154+62	Lt.	11	
	155+10	Lt.		13
	155+12	Rt.		31
↓	155+13	Lt.	11	
98	155+16	Rt.	8	
99	155+58	Lt.		12
↕	155+62	Lt.	11	
	155+70	Rt.		30
	155+74	Rt.	8	
	156+52	Rt.	8	
	156+89	Rt.		30
	156+91	Rt.	8	
	156+95	Lt.		12
	156+97	Lt.	7	
	157+60	Lt.	11	
	158+02	Lt.		12
	158+05	Lt.	11	
	158+16	Rt.		30
	158+20	Rt.	8	
	158+55	Lt.		12
	158+56	Lt.	10	
	158+78	Rt.		30
	158+79	Rt.	7	
	159+08	Lt.		16
	159+09	Lt.	10	
	159+42	Rt.		30
↓	159+43	Rt.	7	
99	159+58	Lt.		16
	159+60	Lt.	10	
Totals			262	530

Sheet No.	Station	Side	603 (Storm) 6" Conduit, Type B, 707.19 PS 46 Minimum As Per Plan-A Lin. Ft.	603 (San.) 6" Conduit, Type B, 707.19 PS 46 Minimum As Per Plan-B Lin. Ft.
99	160+56	Lt.		13
↕	160+58	Rt.		31
	160+60	Lt.	11	
99	160+62	Rt.	8	
100	161+04	Lt.		13
↕	161+08	Lt.	12	
	161+25	Rt.		31
	161+27	Rt.	9	
	161+55	Lt.		13
	161+59	Lt.	13	
	161+94	Rt.		30
	161+98	Rt.	10	
	162+06	Lt.		14
	162+10	Lt.	14	
	162+54	Lt.		14
	162+56	Rt.		33
	162+58	Lt.	14	
	162+60	Rt.	11	
	163+07	Lt.		15
	163+11	Lt.	15	
	163+17	Rt.		34
	163+21	Rt.	12	
	164+62	Rt.		34
	164+66	Rt.	12	
↓	164+76	Lt.		15
100	164+79	Lt.	15	
101	165+14	Rt.		34
↕	165+17	Rt.	12	
	165+30	Lt.		15
	165+32	Lt.	15	
	165+59	Rt.		34
	165+62	Rt.	12	
	165+80	Lt.		15
	165+82	Lt.	15	
	166+13	Rt.		34
	166+17	Rt.	12	
	166+33	Lt.		15
	166+36	Lt.	15	
	166+54	Rt.		34
	166+70	Lt.		15
	166+71	Lt.	15	
	166+74	Lt.	15	
	166+89	Rt.	12	
	167+16	Rt.		34
	167+22	Rt.	12	
	167+55	Rt.		33
	167+59	Rt.	11	
	168+51	Rt.		33
	168+56	Rt.	11	
↓	169+04	Rt.		33
101	169+09	Rt.	11	
Totals			324	619

Sheet No.	Station	Side	603 (Storm) 6" Conduit, Type B, 707.19 PS 46 Minimum As Per Plan-A Lin. Ft.	603 (San.) 6" Conduit, Type B, 707.19 PS 46 Minimum As Per Plan-B Lin. Ft.
102	169+53	Rt.		33
↕	169+57	Rt.	11	
	170+16	Rt.		33
	170+20	Rt.	11	
	170+66	Rt.		33
	170+70	Rt.	11	
	171+17	Rt.		33
	171+21	Rt.	11	
	171+88	Rt.	11	
	171+89	Lt.	14	
	172+14	Lt.		33
	172+18	Lt.	14	
	172+24	Rt.		33
	172+28	Rt.	11	
	172+63	Lt.		14
	172+68	Lt.	14	
	172+73	Rt.		33
	173+14	Lt.		14
	173+18	Lt.	14	
↓	173+28	Rt.		33
102	173+32	Rt.	14	
Totals			136	292
Grand Totals			1386	2754

NOTE: THESE QUANTITIES ARE CARRIED DIRECTLY TO SHEETS 44 & 56

MAYFIELD ROAD

E-18

FHWA REGION	STATE	PROJECT	
5	OHIO		

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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

CONNECTION SCHEDULE
(PARTICIPATION II)

Sheet No.	Station	Side	603 (Storm) 6" Conduit, Type B, 707.19 PS 46 Minimum As Per Plan-A Lin. Ft.	603 (San.) 6" Conduit, Type B, 707.19 PS 46 Minimum As Per Plan-B Lin. Ft.
89	108+15	Rt.		10
↓	108+18	Rt.		10
	108+28	Lt.	10	
	108+58	Lt.	10	
	108+60	Lt.		10
	108+61	Rt.		10
	108+64	Lt.		10
	109+07	Lt.		10
	109+62	Lt.		10
↓	109+05	Lt.	10	
89	109+59	Lt.	10	
90	110+10	Lt.	10	
↓	110+12	Lt.		10
	110+35	Lt.	10	
	110+62	Lt.	10	
	110+63	Lt.		10
	111+07	Lt.	10	
	111+09	Lt.		10
	111+39	Lt.	10	
	111+62	Lt.		10
	111+67	Lt.	10	
	112+04	Lt.		10
	112+09	Lt.	10	
	112+55	Lt.		10
	112+59	Lt.	10	
	113+06	Lt.		10
	113+57	Lt.		10
	113+61	Lt.	10	
	114+05	Lt.	10	
	114+07	Lt.		10
	114+59	Lt.	10	
	114+62	Lt.		10
	115+10	Lt.	10	
↓	115+12	Lt.		10
90	115+35	Lt.	10	
91	115+60	Lt.		10
↓	115+62	Lt.	10	
	116+07	Lt.	10	
	116+12	Lt.		10
	116+39	Lt.	10	
	116+60	Lt.		10
	117+32	Lt.		10
	117+36	Lt.	10	
	118+16	Lt.		10
	118+60	Lt.	10	
	118+62	Lt.		10
	119+01	Lt.	10	
	119+04	Lt.		10
	119+67	Lt.	10	
	119+72	Lt.		10
	120+02	Lt.		10
↓	120+62	Lt.	10	
91	120+65	Lt.		10
	Totals		250	280

Sheet No.	Station	Side	603 (Storm) 6" Conduit, Type B, 707.19 PS 46 Minimum As Per Plan-A Lin. Ft.	603 (San.) 6" Conduit, Type B, 707.19 PS 46 Minimum As Per Plan-B Lin. Ft.
92	121+09	Lt.	10	
↓	121+26	Lt.	10	
	121+29	Lt.		10
	122+33	Lt.	10	
	122+39	Lt.	10	
	122+41	Lt.		10
	122+97	Lt.	10	
	123+01	Lt.		10
	123+79	Lt.	10	
	123+81	Lt.		10
	124+26	Lt.	10	
	124+29	Lt.	10	
	124+33	Lt.		10
	124+78	Lt.	10	
	124+82	Lt.		10
↓	125+80	Lt.	10	
92	125+84	Lt.		10
93	126+50	Lt.	10	
↓	126+52	Lt.		10
	126+98	Lt.	10	
	127+01	Lt.		10
	127+41	Lt.	10	
	127+44	Lt.		10
	128+61	Lt.	10	
	128+63	Lt.		10
	128+98	Lt.	10	
	129+03	Lt.		10
	129+48	Lt.	10	
	129+51	Lt.		10
	130+01	Lt.	10	
	130+03	Lt.		10
↓	130+60	Lt.	10	
93	130+62	Lt.		10
	Totals		180	150

Sheet No.	Station	Side	603 (Storm) 6" Conduit, Type B, 707.19 PS 46 Minimum As Per Plan-A Lin. Ft.	603 (San.) 6" Conduit, Type B, 707.19 PS 46 Minimum As Per Plan-B Lin. Ft.
94	131+22	Lt.		10
↓	131+33	Lt.	10	
	131+36	Lt.		10
	131+39	Lt.	10	
	131+81	Lt.	10	
	131+84	Lt.		10
	132+16	Lt.	10	
	132+19	Lt.		10
	132+59	Lt.	10	
	132+61	Lt.		10
	133+15	Lt.	10	
	133+18	Lt.		10
	133+78	Lt.	10	
	133+82	Lt.		10
	134+31	Lt.	10	
	134+35	Lt.		10
	134+91	Lt.	10	
	135+41	Lt.	10	
	135+76	Lt.	10	
↓	135+89	Lt.		10
94	135+93	Lt.	10	
95	136+28	Lt.		10
95	136+70	Lt.		10
95	137+23	Lt.		10
	Totals		120	120
	Grand Totals		550	550

NOTE: THESE QUANTITIES ARE CARRIED DIRECTLY TO SHEETS 44 & 56

MAYFIELD ROAD

SUMMARY OF WATERWORK QUANTITIES

	NH-83(29)	OHIO F.H.W.A. REGION 5	62 426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SHEET NO.	REF. NO.	STATION	OFFSET		604 MANHOLE, ADJUSTED TO GRADE, A.P.P. EACH	638 FIRE HYDRANT REMOVED AND DISPOSED OF EACH	SPECIAL FURNISHING AND SETTING 6" HYDRANT COMPLETE EACH	638 VALVE BOX, ADJUSTED TO GRADE EACH	638 SERVICE BOX, ADJUSTED TO GRADE EACH	SPECIAL PLUGGING EXIST. SERVICE CONNECTION EACH	SPECIAL EXTEND WATER SERVICE CONN. COMPLETE EACH
68	1-W	0+62	30' LT								1
↑	2-W	0+66	9' LT.		1						
	3-W	1+04	31' LT.						1		
	4-W	1+24	32' RT.						1		
	5-W	1+75	32' RT.					1			
	6-W	1+81	32' RT.						1		
	7-W	1+93	44' LT.					1			
	8-W	2+26	32' LT.			1					
	9-W	2+48	31' LT.						1		
	10-W	2+54	32' RT.						1		
	11-W	2+79	32' LT.				1				
	12-W	2+95	31' LT.						1		
	13-W	3+09	40' RT.					1			
	14-W	3+80	32' RT.						1		
68	15-W	3+87	31' LT.						1		
69	1-W	4+29	31' RT.						1		
↑	2-W	4+57	31' LT.							1	
	3-W	4+81	32' RT.						1		
	4-W	5+23	32' RT.						1		
	5-W	5+33	31' LT.							1	
	6-W	5+58	23' LT.					1			
	7-W	5+61	33' RT.		1						
	8-W	5+64	39' RT.					1			
	9-W	5+67	20' LT.					1			
	10-W	5+75	35' RT.					1			
	11-W	5+79	34' RT.		1						
	12-W	5+81	33' RT.						1		
	13-W	5+85	40' LT.					1			
	14-W	6+18	40' RT.					1			
	15-W	6+46	31' LT.						1		
	16-W	6+80	33' RT.						1		
	17-W	7+08	22'&35'RT.		1			1			
	18-W	7+24	32' RT.						1		
	19-W	7+52	31' LT.						1		
	20-W	7+79	31' RT.						1		
	21-W	8+26	32' RT.						1		
↓	22-W	8+53	34' LT.		1						
69	23-W	8+65	24' LT.					1			
TOTALS					5	1	1	11	18	2	1

SHEET NO.	REF. NO.	STATION	OFFSET		604 MANHOLE, ADJUSTED TO GRADE, A.P.P. EACH	638 FIRE HYDRANT REMOVED AND DISPOSED OF EACH	SPECIAL FURNISHING AND SETTING 6" HYDRANT COMPLETE EACH	638 VALVE BOX, ADJUSTED TO GRADE EACH	638 SERVICE BOX, ADJUSTED TO GRADE EACH	SPECIAL PLUGGING EXIST. SERVICE CONNECTION EACH	SPECIAL EXTEND WATER SERVICE CONN. COMPLETE EACH
70	1-W	9+05	18' LT.					1			
↑	2-W	9+06	31' RT.					1			
	3-W	9+21	40' RT.					1			
	4-W	9+28	40' LT.					1			
	5-W	9+55	20' LT.					1			
	6-W	9+92	31' RT.						1		
	7-W	9+93	31' LT.							1	
	8-W	10+36	32' LT.							1	
	9-W	10+40	31' RT.						1		
	10-W	10+80	31' RT.						1		
	11-W	10+89	31' LT.						1		
	12-W	11+27	32' RT.						1		
	13-W	11+40	31' LT.							1	
	14-W	11+53	23' LT.					1			
	15-W	11+77	33' RT.		1						
	16-W	11+80	32' RT.						1		
	17-W	11+96	42' LT.		1						
	18-W	12+33	31' RT.							1	
	19-W	12+70	31. LT.							1	
	20-W	12+95	31' RT.							1	
	21-W	13+23	31' LT.						1		
↓	22-W	13+38	40' RT.					1			
70	23-W	13+73	31' LT.						1		
71	1-W	14+06	31' RT.						1		
↑	2-W	14+23	31' LT.						1		
	3-W	14+43	37' RT.					1			
	4-W	14+47	23' LT.					1			
	5-W	14+57	31' RT.		1						
	6-W	14+76	31' RT.						1		
	7-W	14+76	39' LT.					1			
	8-W	15+33	31' RT.						1		
	9-W	15+40	34' LT.		1						
	10-W	15+43	31' LT.						1		
	11-W	15+90	33' RT.						1		
	12-W	16+01	31' LT.						1		
	13-W	16+40	31' LT.						1		
	14-W	16+45	31' RT.						1		
	15-W	16+82	34' LT.		1						
	16-W	16+91	31' RT.						1		
	17-W	16+99	32' RT.						1		
	18-W	16+99	17' LT.					1			
	19-W	17+16	36' RT.					1			
	20-W	17+21	47' RT.		1						
	21-W	17+37	40' RT.					1			
	22-W	17+51	40' LT.					1			
	23-W	17+57	23' LT.					1			
	24-W	17+69	20' LT.					1			
	25-W	17+79	31' LT.						1		
	26-W	18+10	32' RT.		1						
↓	27-W	18+19	31' LT.						1		
71	28-W	18+58	31' LT.						1		
TOTAL					7			16	22	6	
TOTAL LEFT SIDE					5	1	1	11	18	2	1
GRAND TOTALS					12	1	1	27	40	8	1

Carried to sheet 65

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD

SUMMARY OF WATERWORK QUANTITIES

	NH-83(29)	OHIO F.H.W.A. REGION 5

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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SHEET NO.	REF. NO.	STATION	OFFSET		604 MANHOLE, ADJUSTED TO GRADE, A.P.P. EACH	SPECIAL EXTEND AND ADJUST HYDRANT TO GRADE EACH		638 VALVE BOX, ADJUSTED TO GRADE EACH	638 SERVICE BOX, ADJUSTED TO GRADE EACH		SPECIAL EXTEND WATER SERVICE CONN. COMPLETE EACH
72	1-W	19+68	31' RT.						1		
	2-W	20+16	17' LT.					1			
	3-W	20+16	32' RT.		1						
	4-W	21+08	40' LT.					1			
	5-W	21+18	33' RT.						1		
	6-W	21+72	31' RT.						1		
	7-W	21+78	31' LT.						1		
	8-W	21+88	30' RT.								1
	9-W	22+36	33' LT.						1		
	10-W	22+59	35' RT.					1			
	11-W	22+69	33' RT.		1						
	12-W	22+78	37' RT.					1			
	13-W	22+82	33' RT.					1			
	14-W	23+05	31' LT.						1		
	15-W	23+21	31' RT.						1		
	16-W	23+38	31' LT.						1		
	17-W	23+40	36' RT.		1						
	18-W	23+66	32' RT.		1						
	19-W	23+67	23' LT.					1			
72	20-W	23+81	31' LT.						1		
73	1-W	24+18	31' RT.						1		
	2-W	24+22	31' LT.						1		
	3-W	24+86	19' LT.					1			
	4-W	24+91	40' LT.					1			
	5-W	24+93	41' RT.					1			
	6-W	25+28	20' LT.					1			
	7-W	25+31	37' RT.					1			
	8-W	25+46	35' RT.					1			
	9-W	25+46	41' RT.		1						
	10-W	25+50	13' LT.		1						
	11-W	25+57	48' LT.		1						
	12-W	25+57	31' RT.					1			
	13-W	25+71	56' RT.		1						
	14-W	25+72	40' RT.					1			
	15-W	25+76	40' LT.					1			
	16-W	25+81	50' RT.		1						
	17-W	25+85	20' LT.					1			
	18-W	26+04	31' LT.			1					
	19-W	26+08	31' LT.						1		
	20-W	26+52	32' LT.						1		
	21-W	26+60	31' RT.								1
	22-W	26+98	36' LT.						1		
	23-W	27+15	31' RT.								1
	24-W	27+19	16' RT.					1			
	25-W	27+29	13' RT.					1			
	26-W	27+29	22' RT.								
	27-W	27+49	14' RT.		1						
	28-W	27+60	31' RT.		1						1
	29-W	27+73	30' LT.								1
	30-W	27+87	29' RT.						1		1
	31-W	28+30	31' LT.						1		
73	32-W	28+59	32' RT.								
TOTALS					11	1		18	16		6

SHEET NO.	REF. NO.	STATION	OFFSET		604 MANHOLE, ADJUSTED TO GRADE, A.P.P. EACH	SPECIAL EXTEND AND ADJUST HYDRANT TO GRADE EACH		638 VALVE BOX, ADJUSTED TO GRADE EACH	638 SERVICE BOX, ADJUSTED TO GRADE EACH	SPECIAL PLUGGING EXIST. SERVICE CONNECTION EACH	SPECIAL EXTEND WATER SERVICE CONN. COMPLETE EACH
74	1-W	29+05	24' LT.					1			
	2-W	29+06	32' RT.						1		
	3-W	29+41	33' LT.						1		
	4-W	29+74	31' LT.						1		
	5-W	29+90	28' RT.								1
	6-W	29+99	31' LT.						1		
	7-W	30+23	31' RT.		1						
	8-W	30+25	32' RT.						1		
	9-W	30+58	31' LT.						1		
	10-W	45+41	31' RT.						1		
	11-W	30+93	31' LT.						1		
	12-W	30+95	31' LT.		1						
	13-W	31+35	32' LT.						1		
	14-W	31+72	31' RT.						1		
	15-W	32+16	20' LT.					1			
	16-W	32+21	31' RT.						1		
	17-W	32+22	40' LT.					1			
	18-W	32+57	25' LT.					1			
	19-W	32+61	34' RT.		1						
	20-W	32+61	31' RT.						1		
	21-W	32+71	31' LT.						1		
	22-W	33+08	28' RT.								1
	23-W	33+16	32' LT.						1		
	24-W	33+52	19' LT.					1			
	25-W	33+52	28' RT.								1
74	26-W	33+63	40' RT.		1						
75	1-W	34+05	32' LT.						1		
	2-W	34+19	28' RT.								1
	3-W	34+70	31' RT.								
	4-W	34+71	37' LT.		1						
	5-W	34+72	23' LT.					1			
	6-W	35+01	32' LT.							1	
	7-W	35+10	33' RT.					1			
	8-W	35+22	32' RT.						1		
	9-W	35+42	19' RT.		1						
	10-W	35+46	24' LT.					1			
	11-W	35+54	31' LT.							1	
	12-W	35+69	31' RT.						1		
	13-W	36+04	31' LT.							1	
	14-W	36+23	31' RT.						1		
	15-W	36+65	40' LT.					1			
	16-W	36+74	40' RT.					1			
	17-W	37+00	20' LT.					1			
	18-W	37+24	34' LT.							1	
	19-W	37+40	32' RT.						1		
	20-W	37+77	31' LT.							1	
	21-W	37+85	31' RT.						1		
	22-W	38+28	31' LT.							1	
	23-W	38+35	36' RT.		1						
	24-W	38+39	18' LT.						1		
	25-W	38+43	28' RT.								1
	26-W	38+50	24' LT.						1		
75	27-W	38+93	31' RT.						1		
TOTAL					7			11	23	6	5
TOTAL LEFT SIDE					11	1		18	16		6
GRAND TOTALS					18	1		29	39	6	11

Carried to sheet 65

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD

SUMMARY OF WATERWORK QUANTITIES

	NH-83(29)	OHIO F.H.W.A. REGION 5

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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SHEET NO.	REF. NO.	STATION	OFFSET		604 MANHOLE, ADJUSTED TO GRADE, A.P.P. EACH			G38 VALVE BOX, ADJUSTED TO GRADE EACH	G38 SERVICE BOX, ADJUSTED TO GRADE EACH		SPECIAL EXTEND WATER SERVICE CONN. COMPLETE EACH
76	1-W	39+01	33' LT.						1		
	2-W	39+01	38' LT.						1		
	3-W	39+35	35' RT.					1			
	4-W	39+45	18' LT.					1			
	5-W	39+48	36' RT.		1						
	6-W	39+55	21' LT.					1			
	7-W	39+55	31' LT.						1		
	8-W	39+57	21' LT.					1			
	9-W	39+69	13' RT.					1			
	10-W	41+51	23' LT.					1			
	11-W	41+67	31' RT.		1						
	12-W	41+86	11' RT.					1			
	13-W	41+88	19' RT.		1						
	14-W	41+97	14' RT.					1			
	15-W	42+07	14' RT.		1						
	16-W	42+20	28' RT.								1
	17-W	43+00	29' RT.								1
	18-W	43+12	39' LT.					1			
	19-W	43+40	32' RT.						1		
	20-W	43+74	34' LT.						1		
76	21-W	43+85	32' RT.								1
77	1-W	44+06	17' LT.					1			
	2-W	44+09	40' RT.					1			
	3-W	44+11	35' LT.						1		
	4-W	44+30	34' RT.						1		
	5-W	44+42	35' LT.						1		
	6-W	44+52	22' LT.					1			
	7-W	44+71	33' LT.						1		
	8-W	44+75	36' RT.		1						
	9-W	45+30	34' LT.						1		
	10-W	45+41	33' RT.						1		
	11-W	45+52	20' RT.		1						
	12-W	45+72	32' LT.								
	13-W	46+23	33' LT.		1						
	14-W	46+25	30' LT.								1
	15-W	46+54	16' LT.					1			
	16-W	46+72	36' LT.					1			
	17-W	46+82	36' RT.					1			
	18-W	47+17	21' RT.					1			
	19-W	47+22	21' LT.					1			
	20-W	47+51	31' LT.		1						
	21-W	47+55	15' RT.					1			
	22-W	47+92	31' LT.						1		
	23-W	48+21	31' LT.						1		
	24-W	48+40	20' RT.								1
	25-W	48+63	32' LT.						1		
	26-W	48+65	21' LT.					1			
	27-W	48+67	40' LT.		1						
77	28-W	44+41	20' RT.		1						
		TOTALS			10			19	14		5

SHEET NO.	REF. NO.	STATION	OFFSET		604 MANHOLE, ADJUSTED TO GRADE, A.P.P. EACH			G38 VALVE BOX, ADJUSTED TO GRADE EACH	G38 SERVICE BOX, ADJUSTED TO GRADE EACH	SPECIAL PLUGGING EXIST. SERVICE CONNECTION EACH	SPECIAL EXTEND WATER SERVICE CONN. COMPLETE EACH
78	1-W	49+11	34' LT.		1						
	2-W	49+11	32' LT.						1		
	3-W	49+19	32' RT.						1		
	4-W	49+46	33' LT.						1		
	5-W	49+68	31' LT.						1		
	6-W	49+75	32' RT.						1		
	7-W	50+12	23' LT.					1			
	8-W	50+18	32' RT.							1	
	9-W	50+23	31' LT.						1		
	10-W	50+57	31' LT.						1		
	11-W	50+80	33' RT.						1		
	12-W	51+02	21' LT.							1	
	13-W	51+18	32' RT.							1	
	14-W	51+26	20' LT.					1			
	15-W	51+27	37' LT.		1						
	16-W	51+47	31' RT.						1		
	17-W	51+96	22,34'LT.		1			1			
	18-W	52+16	38' RT.					1			
	19-W	52+81	33' LT.		1						
	20-W	52+81	22' LT.					1			
	21-W	53+23	31' LT.						1		
	22-W	53+35	25' LT.					1			
	23-W	53+37	31' RT.							1	
	24-W	53+64	33' LT.						1		
	25-W	53+71	29' RT.							1	
	26-W	53+96	32' LT.		1						
78	27-W	53+99	33' RT.		1						
79	1-W	54+02	31' RT.						1		
	2-W	54+35	31' LT.						1		
	3-W	54+50	32' RT.							1	
	4-W	54+80	17' RT.		1						
	5-W	55+12	31' LT.						1		
	6-W	55+17	27' RT.		1						
	7-W	55+18	18' LT.					1			
	8-W	55+28	17' LT.					1			
	9-W	55+66	32' RT.						1		
	10-W	55+74	31' LT.							1	
	11-W	56+20	31' LT.								1
	12-W	56+36	24' LT.					1			
	13-W	56+40	29' RT.		1						
	14-W	56+68	31' LT.								1
	15-W	57+08	15' RT.		1						
	16-W	57+28	22' RT.		1						
	17-W	57+28	32' LT.						1		
	18-W	57+40	32' RT.							1	
	19-W	57+66	20' LT.					1			
	20-W	57+81	40' LT.					1			
	21-W	58+03	32' RT.							1	
	22-W	58+36	32' RT.							1	
	23-W	58+57	33' LT.						1		
	24-W	58+78	22' RT.					1			
	25-W	58+84	40' RT.					1			
	26-W	56+88	21' RT.		1						
79	27-W	56+99	21' RT.					1			
		TOTAL			12			14	17	10	2
		TOTAL LEFT SIDE			10			19	14		5
		GRAND TOTALS			22			33	31	10	7

Carried to sheet 65

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD

SUMMARY OF WATERWORK QUANTITIES

	NH-83(29)	OHIO F.H.W.A. REGION 5	65 426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SHEET NO.	REF. NO.	STATION	OFFSET		604 MANHOLE, ADJUSTED TO GRADE, A.P.P. EACH	638 FIRE HYDRANT REMOVED AND DISPOSED OF EACH	SPECIAL FURNISHING AND SETTING 6" HYDRANT COMPLETE EACH	SPECIAL EXTEND AND ADJUST HYDRANT TO GRADE EACH		638 VALVE BOX, ADJUSTED TO GRADE EACH	638 SERVICE BOX, ADJUSTED TO GRADE EACH	SPECIAL PLUGGING EXIST. SERVICE CONNECTION EACH	SPECIAL EXTEND WATER SERVICE CONN. COMPLETE EACH
80	1-W	59+01	33' LT.								1		
	2-W	59+44	20' LT.							1			
	3-W	59+55	32' RT.									1	
	4-W	59+90	31' LT.								1		
	5-W	60+50	31' LT.								1		
	6-W	60+89	31' LT.								1		
	7-W	61+24	22' LT.							1			
	8-W	61+47	31' LT.								1		
	9-W	61+48	18' RT.		1								
	10-W	62+04	33' LT.								1		
	11-W	62+04	41' RT.							1			
	12-W	62+22	22' RT.		1								
	13-W	62+44	23' LT.			1				1			
	14-W	62+55	31' LT.								1		
	15-W	62+67	28' RT.										1
	16-W	62+75	32' LT.								1		
	17-W	62+95	28' RT.										1
	18-W	63+49	31' LT.								1		
	19-W	63+54	30' RT.										1
	20-W	63+73	31' LT.								1		
	21-W	63+84	28' RT.										1
80	22-W	63+65	32' RT.				1						
81	1-W	64+05	28' RT.										1
	2-W	64+50	31' LT.								1		
	3-W	64+74	29' RT.										1
	4-W	65+01	31' LT.								1		
	5-W	65+38	28' RT.										1
	6-W	65+39	19' LT.							1			
	7-W	65+50	31' LT.								1		
	8-W	65+79	28' RT.										1
	9-W	65+88	31' LT.								1		
	10-W	66+13	39' RT.							1			
	11-W	66+46	15' LT.							1			
	12-W	66+57	31' LT.								1		
	13-W	66+87	38' RT.								1		
	14-W	66+95	20' LT.							1			
	15-W	66+95	37' LT.		1								
	16-W	67+31	31' LT.								1		
	17-W	67+48	16' LT.							1			
	18-W	67+60	19' LT.							1			
	19-W	67+84	38' RT.								1		
81	20-W	68+01	31' RT.								1		
82	1-W	69+00	16' LT.							1			
	2-W	69+03	15' LT.							1			
	3-W	69+52	16' LT.							1			
	4-W	70+92	23' RT.		1								
	5-W	71+47	20' LT.							1			
	6-W	71+64	19' LT.							1			
	7-W	72+12	23' RT.		1								
	8-W	72+32	17' RT.		1								
	9-W	72+32	26' RT.							1			
	10-W	72+72	23' RT.		1								
	11-W	73+09	36' RT.								1		
	12-W	73+26	40' LT.							1			
82	13-W	73+44	33' LT.		1								
TOTAL					8	1	1			17	20	1	8
TOTAL FROM SHEET 62					12	1	1			27	40	8	1
TOTAL FROM SHEET 63					18			1		29	39	6	11
TOTAL FROM SHEET 64					22					33	31	10	7
GRAND TOTAL					60	2	2	1		106	130	25	27

SHEET NUMBER	LOCATION			SPECIAL 8" WATER MAIN DUCTILE IRON PIPE WITH BOLTLESS RESTRAINED JOINTS AND FITTINGS, ANSI CLASS 56 LIN. FT.	SPECIAL 10" WATER MAIN DUCTILE IRON PIPE WITH BOLTLESS RESTRAINED JOINTS AND FITTINGS, ANSI CLASS 56 LIN. FT.	SPECIAL 12" WATER MAIN DUCTILE IRON PIPE WITH BOLTLESS RESTRAINED JOINTS AND FITTINGS, ANSI CLASS 56 LIN. FT.	SPECIAL 16" WATER MAIN DUCTILE IRON PIPE WITH BOLTLESS RESTRAINED JOINTS AND FITTINGS, ANSI CLASS 56 LIN. FT.		SPEC. 6" GATE VALVE WITH VALVE BOX, COMPLETE EACH	SPEC. 12" GATE VALVE WITH VALVE BOX, COMPLETE EACH		SPEC. 6" CUTTING-IN VALVE WITH VALVE BOX, COMPLETE EACH	SPEC. 8" CUTTING-IN VALVE WITH VALVE BOX, COMPLETE EACH	SPEC. 16" CUTTING-IN VALVE WITH VALVE BOX, COMPLETE EACH			SPECIAL RETAP AND RECONNECT 1" WATER SERVICE CONNECTION, SHORT SIDE COMPLETE EACH	SPECIAL RETAP AND RECONNECT 1" WATER SERVICE CONNECTION, LONG SIDE COMPLETE EACH	SPECIAL FROST PROOFING ("WITCOLITE" OR "GILSULATE 500 XR INSULATION OR EQUAL) LUMP
19	STA. 1+47 TO STA.2+61 12" WATER MAIN HORIZONTAL RELOCATION, 6" WATER MAIN AND 16" WATER MAIN LOWERING			25		34	120			1				2			1	1	
20	STA. 3+10 6" WATER MAIN RAISING			36					1										LUMP
20	STA. 22+83 12" WATER MAIN CROSS CONNECTION																		LUMP
21	STA. 24+92 10" WATER MAIN LOWERING				69		14												
21	STA. 25+72 6" WATER MAIN LOWERING			102			20					2							
22	STA. 46+59 TO STA. 47+06 16" WATER MAIN HORIZONTAL RELOCATION AND 12" WATER MAIN LOWERING					76	47												
23	STA. 52+16 6" WATER MAIN LOWERING			57			39							2					
23	STA. 66+15 8" WATER MAIN LOWERING			65									1	1					
TOTALS				285	69	110	240		1	1		2	1	5			1	1	LUMP

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD

FHWA REGION	STATE	PROJECT	
5	OHIO		

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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SUMMARY OF WATERWORK QUANTITIES

Sheet No.	Ref. No.	Station	Offset	604 Manhole, Adjust To Grade, As Per Plan		G38 Service Box, Adjusted To Grade	G38 Valve Box, Adjusted To Grade	G38 Extend Service Connection, Complete
				Each		Each	Each	Each
83	1-W	74+07	34' Lt.			1		
	2-W	74+09	35' Rt.			1		
	3-W	74+20	26' Rt.				1	
	4-W	74+30	25' Rt.	1				
	5-W	74+40	26' Rt.				1	
	6-W	74+44	22' Lt.				1	
	7-W	74+64	34' Lt.			1		
	8-W	75+07	39' Rt.	1				
	9-W	75+09	33' Lt.			1		
	10-W	75+16	36' Rt.			1		
	11-W	75+58	33' Lt.			1		
	12-W	75+68	27' Rt.	1				
	13-W	76+12	32' Lt.	1				
	14-W	76+38	36' Rt.			1		
	15-W	76+67	33' Lt.			1		
	16-W	77+09	29' Lt.			1		
	17-W	77+44	17' Lt.				1	
	18-W	77+61	32' Lt.			1		
	19-W	78+11	32' Lt.			1		
83	20-W	78+61	31' Lt.			1		
84	1-W	79+12	31' Lt.			1		
	2-W	79+59	31' Lt.			1		
	3-W	79+98	33' Lt.	1				
	4-W	80+34	18' Lt.				1	
	5-W	80+41	15' Lt.				1	
	6-W	80+49	14' Lt.	1				
	7-W	80+57	49' Rt.				1	
	8-W	80+58	13' Lt.				1	
	9-W	80+70	26' Lt.					1
	10-W	81+22	26' Lt.					1
	11-W	81+72	26' Lt.					1
	12-W	82+40	26' Lt.					1
	13-W	83+00	17' Lt.				1	
	14-W	83+00	41' Lt.				1	
	15-W	83+31	20' Rt.				1	
	16-W	83+56	18' Lt.				1	
84	17-W	83+87	26' Lt.					1
85	1-W	84+23	26' Lt.					1
	2-W	84+75	49' Rt.				1	
	3-W	84+80	13' Lt.				1	
	4-W	84+80	52' Lt.				1	
	5-W	84+94	26' Lt.					1
	6-W	85+13	26' Lt.	1				
	7-W	85+35	15' Lt.				1	
	8-W	86+04	26' Lt.					1
	9-W	86+46	26' Lt.					1
	10-W	86+70	38' Rt.			1		
	11-W	86+82	18' Lt.				1	
85	12-W	87+05	26' Lt.					1
Totals				7		15	17	10

Sheet No.	Ref. No.	Station	Offset	604 Manhole, Adjust To Grade, As Per Plan		G38 Service Box, Adjusted To Grade	G38 Valve Box, Adjusted To Grade	G38 Extend Service Connection, Complete
				Each		Each	Each	Each
85	13-W	87+45	17' Lt.				1	
	14-W	87+45	40' Lt.				1	
	15-W	88+34	26' Lt.					1
	16-W	88+67	38' Rt.			1		
85	17-W	88+78	26' Lt.					1
86	1-W	89+33	26' Lt.					1
	2-W	89+91	26' Lt.					1
	3-W	90+08	18' Lt.				1	
	4-W	90+41	26' Lt.					1
	5-W	90+72	38' Rt.			1		
	6-W	90+90	26' Lt.					1
	7-W	91+37	29' Lt.					1
	8-W	91+62	41' Lt.				1	
	9-W	91+63	17' Lt.				1	
	10-W	91+97	34' Lt.					1
	11-W	92+39	26' Lt.					1
	12-W	92+92	26' Lt.					1
	13-W	93+15	38' Rt.			1		
	14-W	93+37	18' Lt.				1	
	15-W	93+43	26' Lt.					1
86	16-W	93+50	14' Lt.				1	
87	1-W	94+11	26' Lt.					1
	2-W	94+82	26' Lt.					1
	3-W	95+24	38' Rt.			1		
	4-W	95+67	34' Lt.			1		
	5-W	96+37	26' Lt.					1
	6-W	96+64	17' Lt.				1	
	7-W	97+00	26' Lt.					1
	8-W	97+64	26' Lt.					1
	9-W	97+76	38' Rt.			1		
	10-W	98+13	26' Lt.					1
	11-W	98+55	42' Lt.				1	
	12-W	99+15	26' Lt.					1
87	13-W	99+48	38' Rt.			1		
88	1-W	99+64	26' Lt.					1
	2-W	99+79	18' Lt.				1	
	3-W	99+92	14' Lt.				1	
	4-W	100+13	12' Lt.				1	
	5-W	100+14	40' Rt.	1				
	6-W	101+42	15' Lt.				1	
	7-W	102+13	27' Lt.			1		
	8-W	102+45	32' Lt.			1		
	9-W	102+64	13' Lt.				1	
	10-W	102+64	50' Rt.			1		
	11-W	102+96	38' Rt.			1		
	12-W	103+05	17' Lt.				1	
	13-W	103+13	27' Lt.			1		
	14-W	103+53	13' Lt.				1	
88	15-W	103+53	38' Rt.	1				
Totals				2		12	16	19

Sheet No.	Ref. No.	Station	Offset	604 Manhole, Adjust To Grade, As Per Plan		G38 Service Box, Adjusted To Grade	G38 Valve Box, Adjusted To Grade	G38 Extend Service Connection, Complete
				Each		Each	Each	Each
88	16-W	103+99	27' Lt.			1		
	17-W	104+04	38' Rt.			1		
	18-W	104+35	27' Lt.			1		
	19-W	104+54	38' Rt.			1		
	20-W	104+77	15' Lt.	1				
88	21-W	104+85	26' Lt.			1		
89	1-W	105+47	26' Lt.					1
	2-W	105+87	15' Lt.				1	
	3-W	105+95	26' Lt.					1
	4-W	106+70	14' Lt.				1	
	5-W	106+87	51 Rt.				1	
	6-W	107+68	14' Lt.				1	
	7-W	108+30	15' Lt.				1	
	8-W	108+49	26' Lt.					1
	9-W	108+72	37' Rt.			1		
	10-W	108+95	26' Lt.					1
	11-W	109+11	37' Rt.			1		
	12-W	109+50	26' Lt.					1
	13-W	109+51	18' Lt.				1	
89	14-W	109+62	38' Rt.			1		
90	1-W	110+01	26' Lt.					1
	2-W	110+20	37' Rt.			1		
	3-W	110+53	26' Lt.					1
	4-W	110+77	13' Lt.	1				
	5-W	110+78	37' Rt.			1		
	6-W	111+05	13' Lt.				1	
	7-W	111+05	26' Lt.					1
	8-W	111+20	37' Rt.			1		
	9-W	111+59	16' Lt.				1	
	10-W	111+59	29' Lt.	1				
	11-W	111+73	37' Rt.			1		
	12-W	112+19	37' Rt.			1		
	13-W	112+30	33' Lt.			1		
	14-W	112+64	38' Rt.			1		
	15-W	112+80	16' Lt.				1	
	16-W	113+01	33' Lt.	1				
	17-W	113+14	38' Rt.			1		
	18-W	113+22	26' Lt.	1				
	19-W	113+23	14' Lt.			1		
	20-W	113+52	26' Lt.					1
	21-W	113+64	10' Lt.				1	
	22-W	113+64	48' Rt.	1				
	23-W	113+70	10' Lt.				1	
	24-W	114+00	37' Rt.			1		
	25-W	114+03	26' Lt.	1				
	26-W	114+69	38' Rt.			1		
	27-W	114+72	27' Lt.			1		
	28-W	115+14	38' Rt.			1		
	29-W	115+14	16' Lt.				1	
90	30-W	115+17	28' Lt.	1				
Totals				8		21	12	9

Sheet No.	Ref. No.	Station	Offset	604 Manhole, Adjust To Grade, As Per Plan		G38 Service Box, Adjusted To Grade	G38 Valve Box, Adjusted To Grade	G38 Extend Service Connection, Complete
				Each		Each	Each	Each
91	1-W	115+52	26' Lt.					1
	2-W	115+63	13' Lt.				1	
	3-W	115+63	39' Rt.	1				
	4-W	115+76	18' Lt.				1	
	5-W	115+89	15' Lt.				1	
	6-W	116+05	26' Lt.					1
	7-W	116+26	38' Rt.			1		
	8-W	116+27	14' Lt.				1	
	9-W	116+53	13' Lt.				1	
	10-W	116+54	27' Lt.	1				
	11-W	116+57	38' Rt.			1		
	12-W	117+08	49' Rt.			1		
	13-W	117+30	30' Lt.			1		
	14-W	117+54	13' Lt.				1	
	15-W	117+57	26' Lt.					1
	16-W	118+17	26' Lt.	1				
	17-W	118+18	13' Lt.				1	
	18-W	118+78	19' Lt.				1	
	19-W	118+88	38' Rt.	1				
	20-W	118+89	11 Lt.				1	
	21-W	119+51	31 Lt.			1		
	22-W	119+52	30' Lt.			1		
	23-W	119+80	42' Rt.			1		
	24-W	119+83	17' Lt.				1	
	25-W	120+03	14' Lt.				1	
	26-W	120+03	38' Rt.			1		
	27-W	120+50	26' Lt.					1
	28-W	120+60	38' Rt.			1		
	29-W	120+75	14' Lt.				1	
	30-W	120+75	27' Lt.				1	
91	31-W	120+95	40' Rt.			1		
92	1-W	121+18	26' Lt.					1
	2-W	121+43	9' Lt.				1	
	3-W	121+43	39' Rt.	1				
	4-W	121+76	17' Lt.				1	
	5-W	121+76	40' Lt.				1	
	6-W	121+89	16' Lt.				1	
	7-W	121+99	37' Rt.			1		
	8-W	122+02	13' Lt.				1	
	9-W	122+38	38' Rt.			1		
	10-W	122+52	26' Lt.					1
	11-W	122+58	43' Rt.	1				
	12-W	123+12	26' Lt.					1
	13-W	123+29	41 Rt.			1		
	14-W	123+64	32' Lt.			1		
	15-W	123+83	41 Rt.			1		
	16-W	124+38	39' Rt.	1				
	17-W	124+51	26' Lt.					1
	18-W	125+00	19' Lt.				1	
	19-W	125+16	17' Lt.				1	
	20-W	125+16	40' Lt.				1	
	21-W	125+34	39' Rt.	1				
	22-W	125+38	13' Lt.				1	
	23-W	125+38	40' Rt.	1				
92	24-W	125+95	26' Lt.					1
Totals				9		15	22	9
Totals This Sheet				26		63	67	47

MAYFIELD ROAD

FHWA REGION	STATE	PROJECT	
5	OHIO		

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426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SUMMARY OF WATERWORK QUANTITIES

Sheet No.	Ref.No.	Station	Offset	604 Manhole, Adjust To Grade, As Per Plan Each		G38 Service Box, Adjusted To Grade Each	G38 Valve Box, Adjusted To Grade Each	G38 Extend Service Connecton, Complete Each
93	1-W	126+32	36' Rt.					1
	2-W	126+56	26' Lt.					1
	3-W	126+99	36' Rt.					1
	4-W	127+06	26' Lt.					1
	5-W	127+50	42' Rt.			1		
	6-W	127+84	29' Lt.			1		
	7-W	128+08	36' Rt.					1
	8-W	128+23	41 Lt.				1	
	9-W	128+25	17' Lt.				1	
	10-W	128+34	18' Lt.				1	
	11-W	128+46	50' Rt.				1	
	12-W	128+77	13' Lt.				1	
	13-W	129+01	26' Lt.					1
	14-W	129+75	36' Rt.					1
	15-W	129+93	26' Lt.					1
	16-W	130+15	36' Rt.					1
	17-W	130+53	44' Rt.			1		
	18-W	130+66	36' Rt.					1
	19-W	130+87	15' Lt.				1	
93	20-W	130+87	29' Lt.	1				
94	1-W	131+11	15' Lt.				1	
	2-W	131+38	43' Rt.			1		
	3-W	131+60	18' Lt.				1	
	4-W	131+74	36' Rt.					1
	5-W	132+37	36' Rt.					1
	6-W	132+43	27 Lt.			1		
	7-W	132+90	41 Rt.			1		
	8-W	133+58	39' Rt.	1				
	9-W	133+79	28' Lt.	1				
	10-W	133+88	36' Rt.					1
	11-W	134+28	36' Rt.					1
	12-W	134+71	36' Rt.					1
	13-W	134+83	17 Lt.				1	
	14-W	134+90	14' Lt.	1				
	15-W	135+07	64' Rt.	1				
	16-W	135+34	40' Lt.	1				
	17-W	135+64	13' Lt.	1				
94	18-W	135+95	26' Lt.					1
95	1-W	136+33	26' Lt.					1
	2-W	136+63	26' Lt.					1
	3-W	137+21	26' Lt.					1
	4-W	138+10	20' Lt.				1	
	5-W	138+26	42' Rt.			1		
	6-W	138+54	40' Lt.				1	
	7-W	139+22	26' Lt.					1
	8-W	139+25	36' Rt.					1
	9-W	139+51	51 Rt.				1	
	10-W	139+70	26' Lt.					1
	11-W	140+09	28' Lt.	1				
	12-W	140+10	36' Rt.					1
	13-W	140+68	26' Lt.					1
	14-W	140+71	12' Lt.				1	
95	15-W	140+71	38' Rt.	1				
Totals				9		7	13	24

Sheet No.	Ref.No.	Station	Offset	604 Manhole, Adjust To Grade, As Per Plan Each		G38 Service Box, Adjusted To Grade Each	G38 Valve Box, Adjusted To Grade Each	G38 Extend Service Connecton, Complete Each
96	1-W	141+10	28' Lt.			1		
	2-W	141+22	44' Rt.			1		
	3-W	141+38	17' Lt.				1	
	4-W	141+53	26' Lt.					1
	5-W	141+75	37 Rt.			1		
	6-W	141+90	13' Lt.				1	
	7-W	142+06	49' Rt.				1	
	8-W	142+07	41 Lt.				1	
	9-W	142+66	26' Lt.					1
	10-W	143+17	26' Lt.					1
	11-W	143+68	26' Lt.					1
	12-W	144+24	36' Rt.					1
	13-W	144+64	17' Lt.				1	
	14-W	144+68	26' Lt.					1
	15-W	144+78	38' Rt.			1		
	16-W	145+26	36' Rt.					1
	17-W	145+63	26' Lt.					1
96	18-W	145+68	38' Rt.			1		
97	1-W	146+20	26' Lt.					1
	2-W	146+29	36' Rt.					1
	3-W	146+59	26' Lt.					1
	4-W	146+73	38' Rt.	1				
	5-W	147+09	26' Lt.					1
	6-W	147+22	36' Rt.					1
	7-W	147+66	17' Lt.				1	
	8-W	147+70	26' Lt.					1
	9-W	147+75	36' Rt.					1
	10-W	148+22	36' Rt.					1
	11-W	148+23	26' Lt.					1
	12-W	148+72	37 Rt.			1		
	13-W	148+88	13' Lt.				1	
	14-W	149+06	50' Rt.				1	
	15-W	149+33	41 Lt.				1	
	16-W	149+40	14' Lt.	1				
	17-W	149+60	39' Rt.			1		
	18-W	150+16	26' Lt.					1
	19-W	150+54	36' Rt.					1
	20-W	150+62	30' Lt.			1		
97	21-W	150+87	17 Lt.				1	
98	1-W	151+13	26' Lt.					1
	2-W	151+46	13' Lt.				1	
	3-W	151+47	48' Rt.	1				
	4-W	151+64	26' Lt.					1
	5-W	152+15	26' Lt.					1
	6-W	152+63	26' Lt.					1
	7-W	153+14	26' Lt.					1
	8-W	153+45	53' Rt.	1				
	9-W	153+47	12' Lt.				1	
	10-W	153+64	26' Lt.					1
	11-W	153+90	17 Lt.				1	
98	12-W	154+05	41 Rt.			1		
Totals				4		9	13	25

Sheet No.	Ref.No.	Station	Offset	604 Manhole, Adjust To Grade, As Per Plan Each		G38 Service Box, Adjusted To Grade Each	G38 Valve Box, Adjusted To Grade Each	G38 Extend Service Connecton, Complete Each
98	13-W	154+15	26' Lt.					1
	14-W	154+65	36' Rt.					1
	15-W	154+74	26' Lt.					1
	16-W	155+16	26' Lt.					1
98	17-W	155+20	36' Rt.					1
99	1-W	155+58	30' Lt.			1		
	2-W	155+77	36' Rt.					1
	3-W	156+07	15' Lt.				1	
	4-W	156+15	26' Lt.					1
	5-W	156+23	50' Rt.				1	
	6-W	156+63	31 Lt.			1		
	7-W	156+93	18' Lt.				1	
	8-W	156+95	36' Rt.					1
	9-W	157+25	18' Lt.				1	
	10-W	157+68	36' Rt.					1
	11-W	157+74	14' Lt.				1	
	12-W	158+06	26' Lt.					1
	13-W	158+24	12' Lt.				1	
	14-W	158+24	37 Rt.	1				
	15-W	158+59	26' Lt.					1
	16-W	158+82	36' Rt.					1
	17-W	159+11	26' Lt.					1
	18-W	159+45	38' Rt.			1		
	19-W	159+64	27 Lt.			1		
	20-W	159+96	49' Rt.				1	
	21-W	160+22	18' Lt.				1	
	22-W	160+24	26' Lt.					1
	23-W	160+61	37 Rt.			1		
99	24-W	160+72	26' Lt.					1
100	1-W	161+08	28' Lt.			1		
	2-W	161+27	36' Rt.					1
	3-W	161+55	28' Lt.			1		
	4-W	161+98	37 Rt.			1		
	5-W	162+10	28' Lt.			1		
	6-W	162+58	36' Rt.					1
	7-W	163+21	32' Lt.			1		
	8-W	163+23	36' Rt.					1
	9-W	163+46	18' Lt.				1	
	10-W	163+86	17' Lt.				1	
	11-W	163+86	40' Lt.				1	
100	12-W	163+94	50' Rt.				1	
Totals				1		10	12	18

Sheet No.	Ref.No.	Station	Offset	604 Manhole, Adjust To Grade, As Per Plan Each		G38 Service Box, Adjusted To Grade Each	G38 Valve Box, Adjusted To Grade Each	G38 Extend Service Connecton, Complete Each
101	1-W	165+02	28' Lt.			1		
	2-W	165+05	36' Rt.					1
	3-W	165+32	16' Lt.				1	
	4-W	165+34	29' Lt.	1				
	5-W	165+64	36' Rt.					1
	6-W	165+97	28' Lt.			1		
	7-W	166+18	36' Rt.			1		
	8-W	166+44	16' Lt.				1	
	9-W	166+44	30' Lt.	1				
	10-W	166+62	16' Lt.				1	
	11-W	166+62	36' Rt.			1		
	12-W	166+65	16' Lt.				1	
	13-W	167+24	35' Rt.			1		
	14-W	167+36	31 Lt.	1				
	15-W	167+61	36' Rt.			1		
	16-W	168+10	30' Lt.			1		
	17-W	168+61	30' Lt.			1		
101	18-W	169+07	30' Lt.			1		
102	1-W	169+65	30' Lt.	1				
	2-W	169+72	19' Lt.				1	
	3-W	169+88	7' Lt.	1				
	4-W	170+14	36' Lt.			1		
	5-W	171+13	36' Lt.			1		
	6-W	171+25	36' Rt.					1
	7-W	171+32	15' Lt.				1	
	8-W	171+50	49' Lt.				1	
	9-W	172+10	36' Lt.			1		
	10-W	172+32	36' Rt.			1		
	11-W	172+57	36' Lt.			1		
	12-W	172+82	36' Rt.			1		
	13-W	172+91	13' Lt.				1	
	14-W	172+94	20' Lt.				1	
	15-W	173+02	36' Lt.			1		
	16-W	173+32	36' Rt.			1		
102	17-W	173+52	36' Lt.			1		
Totals				5		18	9	3
Totals This Sheet				19		44	47	70
Totals Prevoius Sheet				26		63	67	47
Grand Totals				45		107	114	117

MAYFIELD ROAD

	NH–83(29)	OHIO F.H.W.A. REGION 5	68 426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

FOR WATERMAIN LOWERING SEE SHEETS 19 & 20
FOR DRIVEWAY QUANTITIES SEE SHEET 35
FOR DRAINAGE QUANTITIES SEE SHEET 38
FOR SANITARY QUANTITIES SEE SHEET 54
FOR WATERWORK QUANTITIES SEE SHEET 62
FOR SEWER PROFILES SEE SHEETS 106 & 114
FOR EXTRA AREA DETAILS SEE SHEET 194
FOR TRAFFIC CONTROL PLANS SEE SHEET 250–253

* * * SODDING TO BE REPLACED

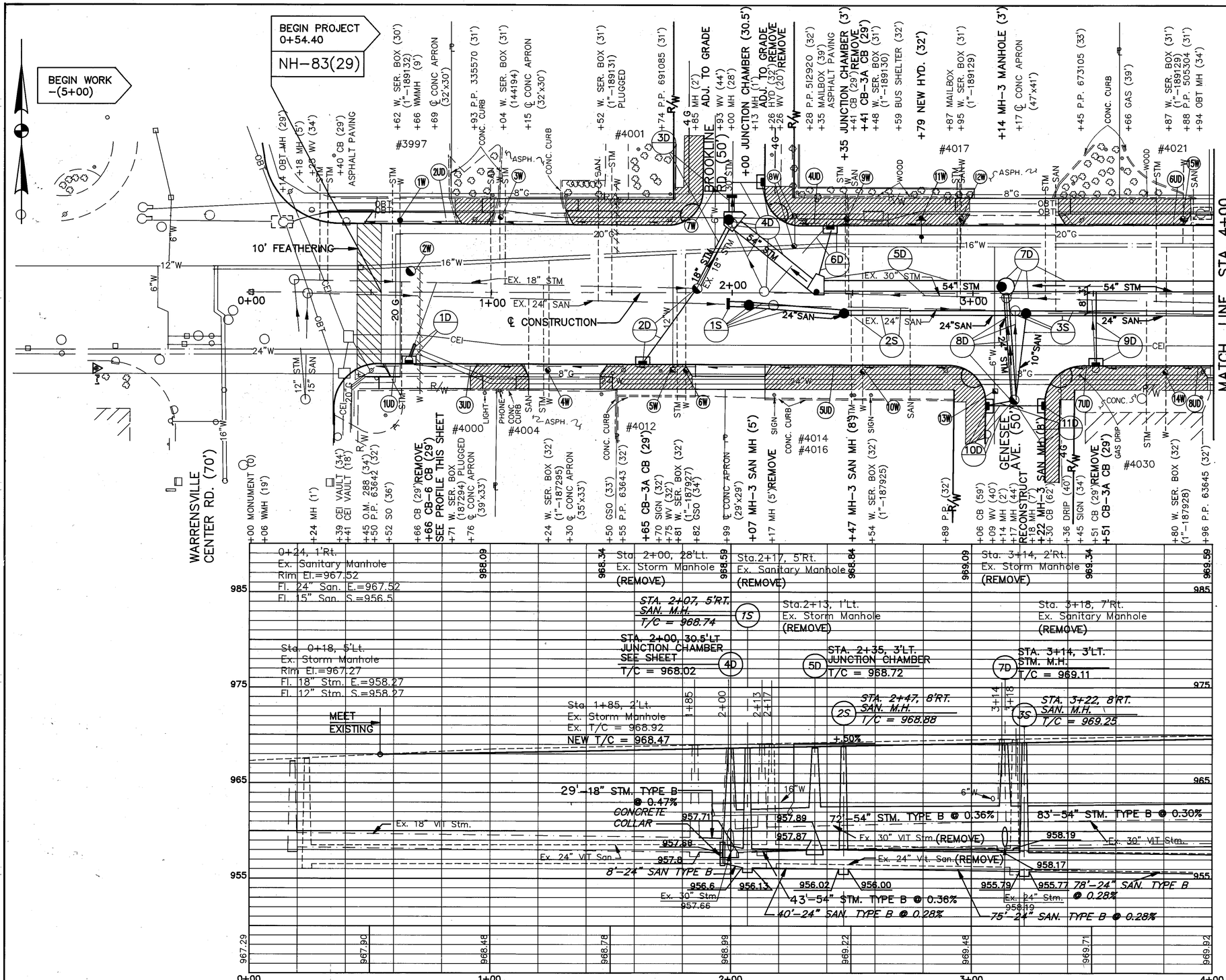
CONCRETE TO BE REPLACED

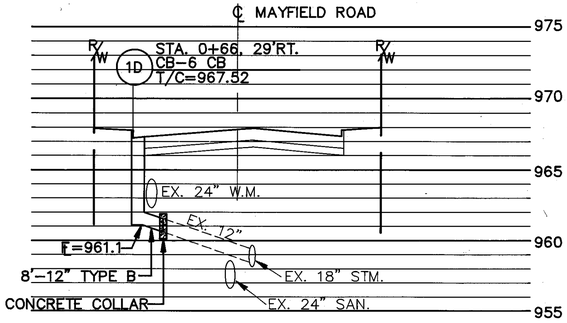
B.M. #1
O.M. MONUMENT #288 SET IN CONCRETE TREE LAWN, STA. 0+45, 34' SOUTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 967.325

B.M. #2
TOP OF HYDRANT ON NORTH–EAST CORNER OF MAYFIELD ROAD & BROOKLINE ROAD. STA. 2+26, 32' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 971.87

TRANSFER ELEVATION PRIOR TO WATERWORK

- ○ PLUGGING EXISTING SERVICE CONNECTION
- ◔ SERVICE BOX, ADJUST TO GRADE
- ● EXTEND WATER SERVICE CONNECTION, COMPLETE.





MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD PLAN STA. 0+00 TO STA. 4+00

	NH–83(29)	OHIO F.H.W.A. REGION 5	69 426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

FOR DRIVEWAY QUANTITIES SEE SHEET 35
FOR DRAINAGE QUANTITIES SEE SHEET 38
FOR SANITARY QUANTITIES SEE SHEET 54
FOR WATERWORK QUANTITIES SEE SHEET 62
FOR SEWER PROFILES SEE SHEETS 106 & 114
FOR EXTRA AREA DETAILS SEE SHEET 195
FOR TRAFFIC CONTROL PLANS SEE SHEET 250–253

* * * SODDING TO BE REPLACED

CONCRETE TO BE REPLACED

B.M. #3
TOP OF HYDRANT ON NORTH–WEST CORNER OF MAYFIELD ROAD & PLAINFIELD RD. STA. 5+58, 33' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 973.02

B.M. #4
TOP OF HYDRANT ON NORTH–WEST CORNER OF MAYFIELD ROAD & WINSTON ROAD. STA. 8+65, 33' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 974.58

○ PLUGGING EXISTING SERVICE CONNECTION

● SERVICE BOX, ADJUST TO GRADE

● EXTEND WATER SERVICE CONNECTION, COMPLETE.

MATCH LINE STA. 4+00

MATCH LINE STA. 9+00

MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD PLAN STA. 4+00 TO STA. 9+00

	NH-83(29)	OHIO F.H.W.A. REGION 5	70 426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

FOR DRIVEWAY QUANTITIES SEE SHEET 35
FOR DRAINAGE QUANTITIES SEE SHEET 39
FOR SANITARY QUANTITIES SEE SHEET 54
FOR WATERWORK QUANTITIES SEE SHEET 62
FOR SEWER PROFILES SEE SHEETS 107 & 115
FOR EXTRA AREA DETAILS SEE SHEETS 196 & 197
FOR TRAFFIC CONTROL PLANS SEE SHEET 250-253

* * * SODDING TO BE REPLACED

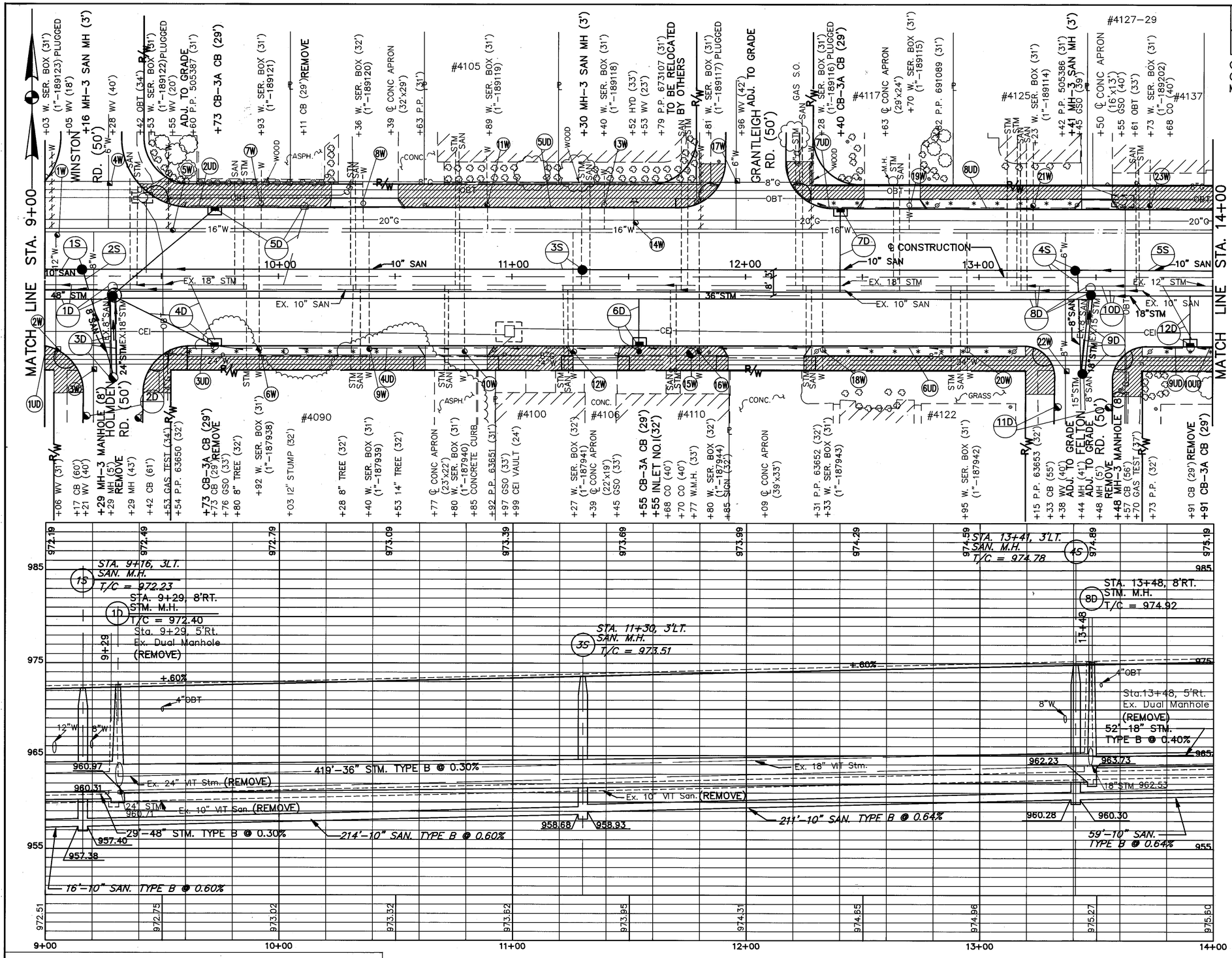
CONCRETE TO BE REPLACED

B.M. #5
TOP OF HYDRANT ON NORTH-WEST CORNER OF MAYFIELD ROAD & GRANTLEIGH ROAD. STA. 11+52, 33' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 975.50

○ PLUGGING EXISTING SERVICE CONNECTION

◉ SERVICE BOX, ADJUST TO GRADE

● EXTEND WATER SERVICE CONNECTION, COMPLETE.



STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD PLAN STA. 9+00 TO STA. 14+00

	NH–83(29)	OHIO F.H.W.A. REGION 5	71 426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

FOR DRIVEWAY QUANTITIES SEE SHEET 35
FOR DRAINAGE QUANTITIES SEE SHEET 39
FOR SANITARY QUANTITIES SEE SHEET 54
FOR WATERWORK QUANTITIES SEE SHEET 62
FOR SEWER PROFILES SEE SHEETS 107, 115 & 117
FOR EXTRA AREA DETAILS SEE SHEET 198
FOR TRAFFIC CONTROL PLANS SEE SHEET 250–253

* * * SODDING TO BE REPLACED

CONCRETE TO BE REPLACED

B.M. #6
TOP OF HYDRANT ON NORTH–WEST CORNER OF MAYFIELD ROAD & AVONDALE ROAD. STA. 14+47, 33' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 978.19

B.M. #7
O.M. MONUMENT #X–33, SET IN TREE LAWN, STA. 17+04, 34' SOUTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 976.92

B.M. #8
TOP OF HYDRANT ON NORTH–EAST CORNER OF MAYFIELD ROAD & VILLA DRIVE, STA. 17+60, 65' NORTH OF OF MAYFIELD ROAD.
ELEV. = 979.27

○ PLUGGING EXISTING SERVICE CONNECTION

● SERVICE BOX, ADJUST TO GRADE

● EXTEND WATER SERVICE CONNECTION, COMPLETE.

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD PLAN STA. 14+00 TO STA. 19+00

	NH–83(29)	OHIO F.H.W.A. REGION 5	72 426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

FOR WATERMAIN FROST PROOFING SEE SHEET 20
FOR DRIVEWAY QUANTITIES SEE SHEET 35
FOR DRAINAGE QUANTITIES SEE SHEETS 39 & 40
FOR SANITARY QUANTITIES SEE SHEET 54
FOR WATERWORK QUANTITIES SEE SHEET 63
FOR SEWER PROFILES SEE SHEETS 107, 108 & 117
FOR EXTRA AREA DETAILS SEE SHEET 199
FOR TRAFFIC CONTROL PLANS SEE SHEET 250 - 253

* * * SODDING TO BE REPLACED

CONCRETE TO BE REPLACED

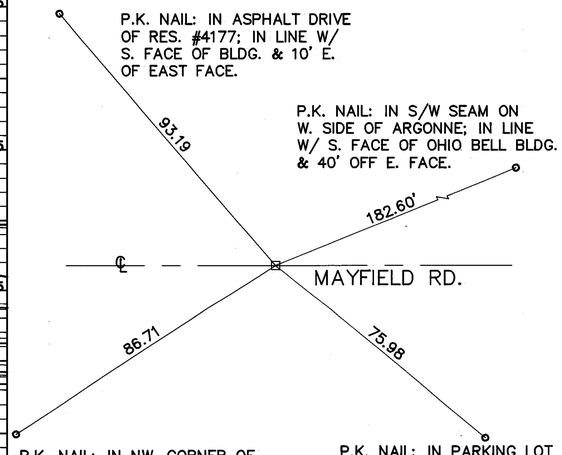
B.M. #9
TOP OF HYDRANT ON NORTH–WEST CORNER OF MAYFIELD ROAD & ARGONNE ROAD. STA. 20+80, 32' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 970.30

B.M. #10
TOP OF HYDRANT, STA. 23+60, 33' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 961.63

○ PLUGGING EXISTING SERVICE CONNECTION

◐ SERVICE BOX, ADJUST TO GRADE

● EXTEND WATER SERVICE CONNECTION, COMPLETE.



MONUMENT REFERENCE
STA. 19+24

MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD PLAN STA. 19+00 TO STA. 24+00

	NH-83(29)	OHIO F.H.W.A. REGION 5	73 426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

FOR WATERMAIN LOWERINGS SEE SHEETS 21
FOR DRIVEWAY QUANTITIES SEE SHEET 35
FOR DRAINAGE QUANTITIES SEE SHEET 40
FOR SANITARY QUANTITIES SEE SHEET 54
FOR WATERWORK QUANTITIES SEE SHEET 63
FOR SEWER PROFILES SEE SHEETS 108 & 113
FOR EXTRA AREA DETAILS SEE SHEET 200
FOR TRAFFIC CONTROL PLANS SEE SHEETS 250-253

NOTE 1:
REMOVE EXISTING SANITARY SEWER UP TO CULVERT ON BOTH SIDES. GROUT REMAINING PORTION OF EXISTING 10" SANITARY SEWER UNDER CULVERT.

* * * SODDING TO BE REPLACED

CONCRETE TO BE REPLACED

B.M. #11
O.M. MONUMENT #1504 SET IN TREE LAWN ON NORTHEAST CORNER OF MAYFIELD ROAD & S. BELVOIR BLVD. STA. 25+85, 42' NORTH OF ℄ OF MAYFIELD ROAD
ELEV. = 960.39

B.M. #12
TOP OF HYDRANT ON NORTH EAST CORNER OF MAYFIELD ROAD AND S. BELVOIR BLVD. STA. 26+04, 31' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 964.05

○ PLUGGING EXISTING SERVICE CONNECTION

◔ SERVICE BOX, ADJUST TO GRADE

● EXTEND WATER SERVICE CONNECTION, COMPLETE.

P.I. = STA. 26+87.82
P.C. = STA. 25+87.24
P.T. = STA. 27+88.07 BACK
STA. 27+88.40 AHEAD
△ = 8°02'00"
Dc = 4°00'00"
R = 1432.39'
L = 200.83'
E = 3.53'
T = 100.58'

MATCH LINE STA. 24+00

MATCH LINE STA. 29+00

#4233 #4234 #4253 #4254 #4257 #4261 #4265-67 #4274 #4281 #4282

+18 P.P. 222516 (31')
+22 W. SER. BOX (31') (1" - 189194)
+23 GSO (31')
+25 CB-3 (29')
+25 INLET NO. I (39')
+31 CB (29') REMOVE
+48 ℄ CONC APRON (28'x25')
+87 W. SER. BOX (31') (1" - 188888)
+75 CB-3A CB (29')
+86 WV (19')
+91 WV (40')
+10 MH-3 SAN MH (3')
+28 WV (26')
+34 MH (24') ADJ. TO GRADE
+45 MH-3 SAN MH (3')
+50 WMMH (13')
ADJ. TO GRADE
+57 WMMH (48')
+76 WV (40')
+83 O.M. 1504 (42')
+85 WV (20')
+92 P.P. 222517 (31')
+96 CB (29') REMOVE
+96 CB-3A CB (29')
+98 OBT MH (36')
+03 WV (27')
+04 HYD (31')
+08 W. SER. BOX (31') (1" - 189198)
+52 W. SER. BOX (32') (1" - 185291)
+82 ℄ CONC APRON (17'x13')
+87 OBT MH (31')
+90 P.P. 512494 (29')
+98 W. SER. BOX (36') (1" - 142918)
+14 MH-3 SAN MH (7')
+22 TELEPHONE (40')
+73 W. SER. BOX (30') (1" - 189199)
+87 ℄ CONC APRON (86'x81')
+30 W. SER. BOX (31') (1" - 189200)
+32 P.P. (31')
+67 CB (29') REMOVE
+95 CB-3A CB (29')
+18 W. SER. BOX (31') (1" - 187957)
+25 CB-3 CB (29') REMOVE
+29 CEI VAULT (23')
+35 P.P. 65927 (33')
+54 CB (31') RECONSTRUCT
+73 P.P. (47')
+75 CB-3A CB (29') REMOVE
+93 WV (41')
+00 MH (5') REMOVE
+12 CEI VAULT (23')
+28 SIGN (56')
+31 WV (37')
+33 MH (45')
+46 WV (35')
+46 WMMH (41')
+49 MH (5') REMOVE
+57 WV (31')
+70 WMMH (56')
+72 WV (40')
+74 ?? (38')
+75 MH-3 MANHOLE (8') REMOVE
+76 MH (5') REMOVE
+81 WMMH (50')
+84 MH (31')
+93 P.P. (54')
+28 ℄ CONC APRON (40'x36')
+30 CB-6 CB (32')
+46 P.P. 65928 (33')
+60 W. SER. BOX (31') (1" - 187962)
+95 P.P. (34')
+15 W. SER. BOX (31') (1" - 187963)
+24 MH-3 MANHOLE (8') REMOVE
+29 WMMH (22')
+29 WV (13')
+42 ℄ CONC APRON (55'x44')
+49 WMMH (14')
+50 MH (4') REMOVE
+60 W. SER. BOX (31') (1" - 187964)
+87 W. SER. BOX (29') (1" - 187966)
+96 LIGHT POLE (32')
+05 CEI VAULT (23')
+08 VENT POLE (32')
+59 W. SER. BOX (32') (1" - 187965)
+66 ℄ CONC APRON (44'x39')
+72 CB (30') REMOVE
+79 GSO (31')
+92 P.P. 63666 (32')

Sta. 25+00, 5'Rt.
Ex. Dual Manhole
(REMOVE)

500' VC
PVI STA = 24+25
PVI ELEV = 955.09
A.D. = 7.20
K = 69.1
SSD = 327'

STA. 25+10, 3'LT.
SAN. M.H.
T/C = 960.05
1S

Sta. 25+34, 24'Lt.
Ex. Sanitary Manhole
(REMOVE)

STA. 25+45, 3'LT.
SAN. M.H.
T/C = 960.57
3S

Sta. 25+49, 5'Rt.
Ex. Dual Manhole
(REMOVE)

Sta. 25+76, 5'Rt.
Ex. Dual Manhole
(REMOVE)

STA. 25+75, 8'RT.
STM. M.H.
T/C = 961.25
7D

STA. 27+14, 7'LT.
SAN. M.H.
T/C = 965.34
4S

STA. 27+24, 3'RT.
STM. M.H.
T/C = 965.91
10D

Sta.27+50, 4'Rt.
Ex. Dual Manhole
(REMOVE)

EVC STA = 26+75
EVC ELEV = 964.09

BVC STA = 28+50
BVC ELEV = 970.39

350' VC

EX. 13'x7' Conc. Culvert

OBT DUCTS

CEI DUCT

Ex. 20" VIT Stm. (REMOVE)

Ex. 24" VIT Stm.

Ex. 24" VIT Stm. (REMOVE)

Ex. 10" Vit. San. (REMOVE)

Ex. 10" Vit. San. (REMOVE)

110'-10" SAN. TYPE B @ 1.20%

51'-30" STM. TYPE B @ 0.40%

32'-10" SAN. TYPE B @ 4.06%

112'-42" STM. TYPE B @ 0.54%

23'-10" SAN. TYPE B @ 10.87%

169'-10" SAN. TYPE B @ 3.43%

149'-36" STM. TYPE B @ 2.80%

176'-36" STM. TYPE B @ 2.20%

186'-10" SAN. TYPE B @ 2.20%

951.04 950.99 946.80 947.06 945.5 945.5 948.10 948.00 951.60 952.10 953.90 953.92 956.27 956.29

959.47 959.56 959.88 960.03 963.56 965.36 967.31 968.97 970.85 972.58

24+00 25+00 26+00 27+00 28+00 29+00

959.64 959.59 959.64 959.77 960.00 960.31 960.72 961.21 961.80 962.47 963.24 964.09 964.99 966.79 968.59 970.39 971.25 972.05

975 965 955

DRILL HOLE: IN CB RIM IN SW. CORNER OF PARKING LOT; 12' N. OF S. FACE OF #4257 & 25' FROM E. SIDE OF BLDG.

DRILL HOLE: IN TOP OF CURB, AT E. SIDE OF MEDIAN FOR BELVOIR BLVD.; 10' FROM S. END OF GRASS MEDIAN.

MAYFIELD RD.

67.81
159.97
105.76
86.13

MONUMENT REFERENCE
STA. 26+88

TOP BOLT: E. BOLT IN 2' CONC. BASE FOR ROTATING SIGN IN NW. PROP. CORNER.

P.K. NAIL: TOP OF ASPHALT CURB ON E. ℄ OF GAS STA. 5' FROM BACK OF S/W 1' W. OF CONC. RETAINING WALL.

MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD PLAN STA. 24+00 TO STA. 29+00

	NH–83(29)	OHIO F.H.W.A. REGION 5	74 426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

FOR DRIVEWAY QUANTITIES SEE SHEET 35
FOR DRAINAGE QUANTITIES SEE SHEET 40
FOR SANITARY QUANTITIES SEE SHEET 54
FOR WATERWORK QUANTITIES SEE SHEET 63
FOR SEWER PROFILES SEE SHEET 119
FOR EXTRA AREA DETAILS SEE SHEET 201
FOR TRAFFIC CONTROL PLANS SEE SHEET 250–253

* * * SODDING TO BE REPLACED

CONCRETE TO BE REPLACED

B.M. #13
TOP OF HYDRANT, STA. 29+06, 32' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 975.05

B.M. #14
TOP OF HYDRANT ON NORTH–EAST CORNER OF MAYFIELD ROAD & FRANCIS COURT, STA. 32+56, 34' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 978.40

○ PLUGGING EXISTING SERVICE CONNECTION

◔ SERVICE BOX, ADJUST TO GRADE

● EXTEND WATER SERVICE CONNECTION, COMPLETE.

MATCH LINE STA. 29+00

MATCH LINE STA. 34+00

#4281 +04 GSO (37') +05 WV (24') +06 HYD (32') +41 W. SER. BOX (33') (1" – 147330)
#4285 +56 ℄ CONC APRON (25'x20') +60 MH–3 SAN MH (7') +70 P.P. 512496 (31') +74 W. SER. BOX (31') (1" – 189191) +81 ℄ CONCRETE APRON
#4297 +99 W. SER. BOX (31') (1" – 189190) +33 ℄ CONC APRON (18'x16') +58 W. SER. BOX (31') (1" – 189189)
#4311 +91 P.P. 222519 (31') +93 W. SER. BOX (31') (1" – 189188) +95 WMMH (31') +07 ℄ CONC APRON (16'x14') +35 W. SER. BOX (32') (1" – 189187) +40 ℄ CONC APRON (34'x32')
+90 CB–3A CB (29') +90 CB (30') REMOVE +06 GAS TEST (39') +11 P.P. (35')
FRANCIS CT. (30') +16 WV (20') +22 WV (40') +28 OBT (33')
#4321 +51 SIGN (33') +56 HYD (34') +57 WV (25') +71 W. SER. BOX (31') (1" – 189154) +81 SIGN (43') +95 ℄ CONC APRON (35'x30')
#4325 +16 W. SER. BOX (31') (1" – 189155) +16 MH–3 SAN MH (7') +32 P.P. 222520 (32') +52 WV (19') +60 ℄ CONC APRON (41'x38') +68 W. SER. BOX (31') (1" – 189156)
#4333 #4335 #4337

#4282 +02 GSO (34') +06 W. SER. BOX (32') (1" – 187966) +47 MH (5') REMOVE +47 MH–3 MANHOLE (3')
#4290 +90 W. SER. BOX (28') (1" – 146949) +04 ℄ CONC APRON (29'x25')
#4294 #4298 #4300 +11 GSO (34') +19 GAS TEST (34') +23 WMMH (31') +25 W. SER. BOX (31') (1" – 187967) +28 LIGHT POLE (31') CONCRETE STEPS
+77 P.P. 678541 (32') +86 W. SER. BOX (31') (1" – 187968) #4306
+18 P.P. 63668 (32') +31 ℄ CONC APRON (22'x19') +46 GSO (32') #4310
+64 GSO (29') +72 W. SER. BOX (31') (1" – 142630) +82 ℄ CONC APRON (18'x14') +90 GSO (34') #4314
+18 INLET NO.1 (33') +21 W. SER. BOX (31') (1" – 187969) +24 GAS TEST (32') +26 P.P. 63669 (32') +31 MAILBOX (32')
#4320 +52 ℄ CONC APRON (34'x27') +61 WMMH (34') +61 W. SER. BOX (31') (1" – 188365) +63 GSO (32') +65 GSO (39') +92 MH (3') REMOVE +92 MH–3 MANHOLE (3')
+08 W. SER. BOX (28') (1" – 188364) +18 ℄ CONC APRON (33'x24') +35 P.P. 63670 (31') +40 INLET NO.1 (32') +45 CEI VAULT (22') +52 WV(28') (6"–188563) +63 WMMH (40') +68 GSO (39')
RAMBLEWOOD CONDOS #4322 #4324 #4326 #4328 #4330 #4332

1S 1D 2D 2S 3D 3S 4D 5D 1UD 2UD 3UD 4UD

10" SAN — ℄ CONSTRUCTION — EX. 20" STM — EX. 10" SAN — 36" STM — 16"W — 6"W — 8"G — CEI — OBT — R/W — 6" CONC — 7" — 6"

30+00 31+00 32+00 33+00

972.05 972.77 973.42 974.00 974.50 974.94 975.60 975.82 975.97 976.05 975.99 975.79 975.59 975.39 975.19

PVI STA = 30+25
PVI ELEV = 976.69
A.D. = 4.00
K = 87.50
SSD = 341'

+65 HIGH POINT

E/C STA = 32+20.99
E/C ELEV = 975.99

STA. 29+60, 7'LT.
SAN. M.H.
T/C = 973.51

STA. 29+47, 3'RT.
STM. M.H.
T/C = 973.40

STA. 32+92, 3'RT.
STM. M.H.
T/C = 975.68

STA. 33+16, 7'LT.
SAN. M.H.
T/C = 975.38

350' VC

+3.60% −.40% −.40%

OBT DUCT

Sta. 29+47, 5' Rt.
Ex. Dual Manhole
(REMOVE)

Sta. 32+92, 3' Rt.
Ex. Dual Manhole
(REMOVE)

47'–36" STM. TYPE B @ 2.20%
961.21
961.19
959.33
959.35
345'–36" STM. TYPE B @ 0.40%
Ex. 20" VIT Stm. (REMOVE)
10" Ex. San. (REMOVE)
962.61
962.59
960.78
108'–36" STM. TYPE B @ 0.40%
6"W
960.80
84'–10" SAN. TYPE B @ 0.40%
356'–10" SAN. TYPE B @ 0.40%
60'–10" SAN. TYPE B @ 2.20%

974.58 974.28 975.43 976.21 976.53 976.50 976.39 976.23 976.08 975.81 975.64

985 975 965 955

29+00 30+00 31+00 32+00 33+00 34+00

STEPHEN HOVANCSEK & ASSOC., INC.

P.K. NAIL: IN ASPHALT DRIVE ON E. SIDE OF #4285; 3' N. OF S. FACE OF BLDG.

DRILL HOLE: IN S/W ON E. SIDE OF ST., 4' OFF W. BLDG. FACE, & 12' FROM S. FACE.

109.75 144.48 MAYFIELD RD. ℄ 135.83 68.98

P.K. NAIL: ON TOP OF CURB IN PARKING LOT, W. OF CONC. DR. FOR #4294; 8' S. OF S/W FOR MAYFIELD RD.

P.K. NAIL: IN NE. CORNER OF PARKING LOT FOR #4306; 3' SOUTH OF S/W & 3' W. OF CONC. DR. FOR #4310

MONUMENT REFERENCE
STA. 31+20

MAYFIELD ROAD

MAYFIELD ROAD PLAN STA. 29+00 TO STA. 34+00

	NH-83(29)	OHIO F.H.W.A. REGION 5	75 426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

FOR DRIVEWAY QUANTITIES SEE SHEET 35
FOR DRAINAGE QUANTITIES SEE SHEETS 40 & 41
FOR SANITARY QUANTITIES SEE SHEET 54
FOR WATERWORK QUANTITIES SEE SHEET 63
FOR SEWER PROFILES SEE SHEETS 109,110 & 115
FOR EXTRA AREA DETAILS SEE SHEET 201
FOR TRAFFIC CONTROL PLANS SEE SHEETS 250-253

* * * SODDING TO BE REPLACED

CONCRETE TO BE REPLACED

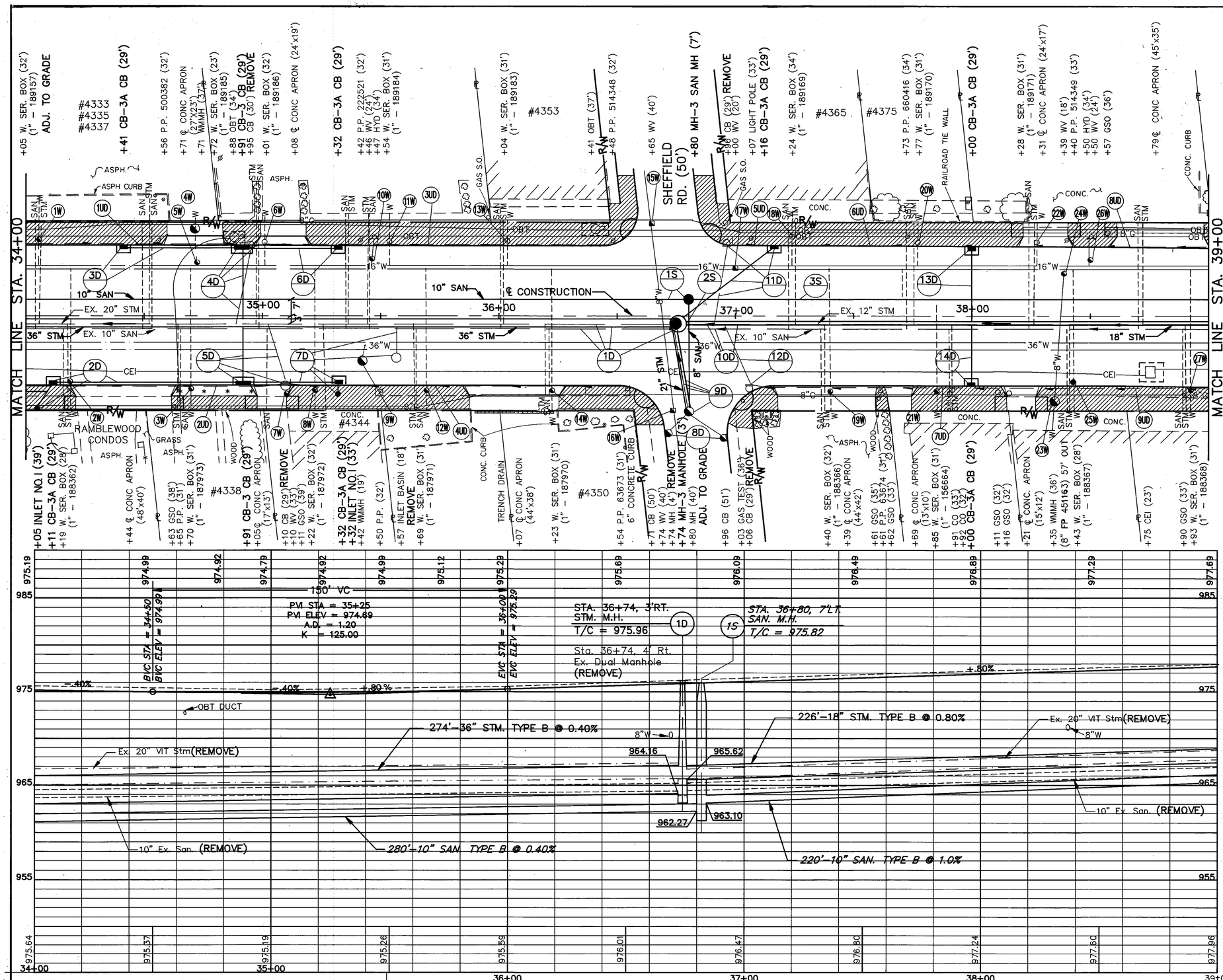
B.M. #15
TOP OF HYDRANT, STA. 35+47, 34' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 977.80

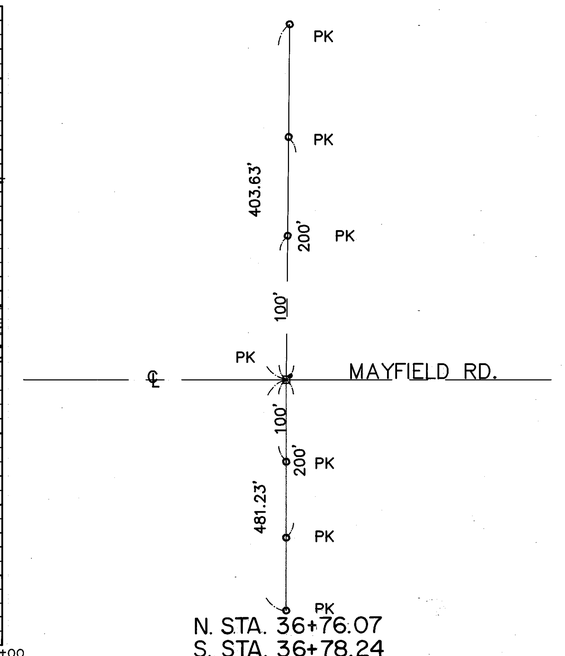
B.M. #16
TOP OF HYDRANT, STA. 38+50, 34' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 979.80

○ PLUGGING EXISTING SERVICE CONNECTION

● SERVICE BOX, ADJUST TO GRADE

● EXTEND WATER SERVICE CONNECTION, COMPLETE.





STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD PLAN STA. 34+00 TO STA. 39+00

	NH–83(29)	OHIO F.H.W.A. REGION 5	76 426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

FOR DRIVEWAY QUANTITIES SEE SHEET 35
FOR DRAINAGE QUANTITIES SEE SHEET 41
FOR SANITARY QUANTITIES SEE SHEET 54
FOR WATERWORK QUANTITIES SEE SHEET 64
FOR SEWER PROFILES SEE SHEET 111
FOR EXTRA AREA DETAILS SEE SHEET 202
FOR TRAFFIC CONTROL PLANS SEE SHEETS 250 – 253

* * * SODDING TO BE REPLACED

CONCRETE TO BE REPLACED

B.M. #17
TOP OF HYDRANT, STA. 41+51
33' NORTH OF ℄ MAYFIELD ROAD.
ELEV. = 980.62

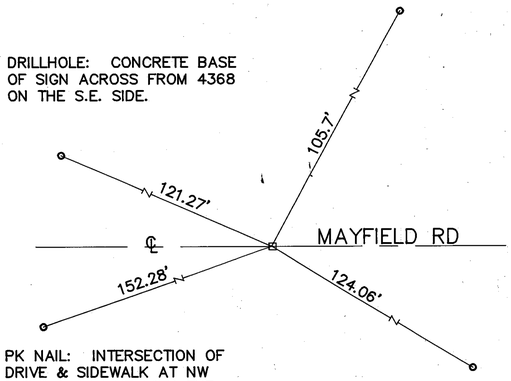
○ PLUGGING EXISTING SERVICE CONNECTION

◉ SERVICE BOX, ADJUST TO GRADE

● EXTEND WATER SERVICE CONNECTION, COMPLETE.

TOP BOLT: S.E. BOLT OF S.W. MOST LIGHT IN 2' DIAM. CONC. BASE; ACROSS FROM LUTHERAN CHURCH.

DRILLHOLE: CONCRETE BASE OF SIGN ACROSS FROM 4368 ON THE S.E. SIDE.



PK NAIL: INTERSECTION OF DRIVE & SIDEWALK AT NW CORNER, IN LINE WITH THE WEST SIDE OF 4368.

PK NAIL: TOP OF CURB IN ST. JOHN SCHOOL PARKING LOT; 2' EAST OF CHURCH WALK.

STA. 39+11
MONUMENT REFERENCE

MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD PLAN STA. 39+00 TO STA. 44+00

	NH–83(29)	OHIO F.H.W.A. REGION 5	77 426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

FOR 12" WATERMAIN LOWERING & 16" WATERMAIN RELOCATION DETAILS SEE SHEET 22
FOR DRIVEWAY QUANTITIES SEE SHEET 35
FOR DRAINAGE QUANTITIES SEE SHEET 41
FOR SANITARY QUANTITIES SEE SHEET 55
FOR WATERWORK QUANTITIES SEE SHEET 64
FOR SEWER PROFILES SEE SHEET 110
FOR EXTRA AREA DETAILS SEE SHEETS 202 & 203
FOR TRAFFIC CONTROL PLANS SEE SHEETS 250-253

* * * SODDING TO BE REPLACED

CONCRETE TO BE REPLACED

B.M. #18
TOP OF HYDRANT, STA. 44+52, 32' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 976.83

B.M. #19
TOP OF HYDRANT ON NORTH–EAST CORNER OF MAYFIELD ROAD & GREEN ROAD. STA. 47+25, 35' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 978.29

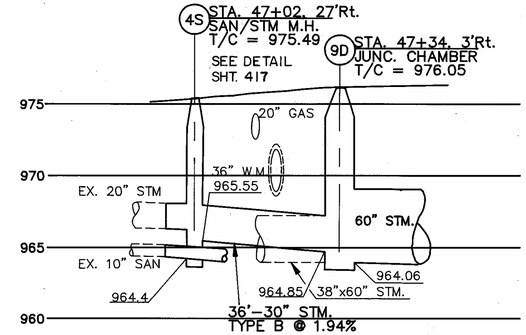
○ PLUGGING EXISTING SERVICE CONNECTION

◔ SERVICE BOX, ADJUST TO GRADE

● EXTEND WATER SERVICE CONNECTION, COMPLETE.

4S STA. 47+02, 27'Rt.
SAN/STM M.H.
T/C = 975.49
SEE DETAIL SHT. 417

9D STA. 47+34, 3'Rt.
JUNC. CHAMBER
T/C = 976.05



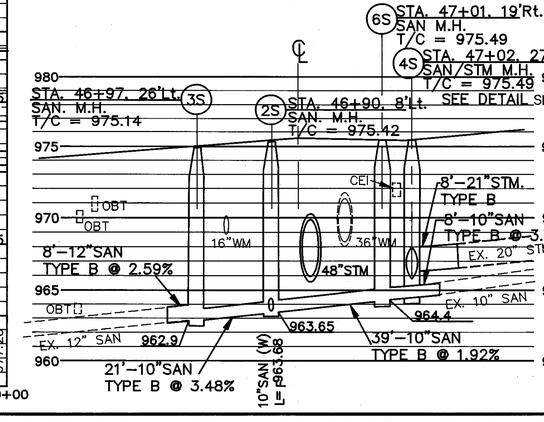
6S STA. 47+01, 19'Rt.
SAN M.H.
T/C = 975.49

4S STA. 47+02, 27'Rt.
SAN/STM M.H.
T/C = 975.49

3S STA. 46+97, 26'Lt.
SAN. M.H.
T/C = 975.14

2S STA. 46+90, 8'Lt.
SAN. M.H.
T/C = 975.42

SEE DETAIL SHT. 417



MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD PLAN STA. 44+00 TO STA. 49+00

	NH-83(29)	OHIO F.H.W.A. REGION 5	78 426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

FOR WATERMAIN LOWERING SEE SHEET 23
FOR DRIVEWAY QUANTITIES SEE SHEET 35
FOR DRAINAGE QUANTITIES SEE SHEETS 42 & 43
FOR SANITARY QUANTITIES SEE SHEET 55
FOR WATERWORK QUANTITIES SEE SHEET 64
FOR SEWER PROFILES SEE SHEETS 111 & 116
FOR EXTRA AREA DETAILS SEE SHEET 199
FOR TRAFFIC CONTROL PLANS SEE SHEET 250-253

* * * SODDING TO BE REPLACED

CONCRETE TO BE REPLACED

B.M. #20
CUYAHOGA COUNTY MONUMENT BD2CR150. STA. 49+04, 35' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 976.57

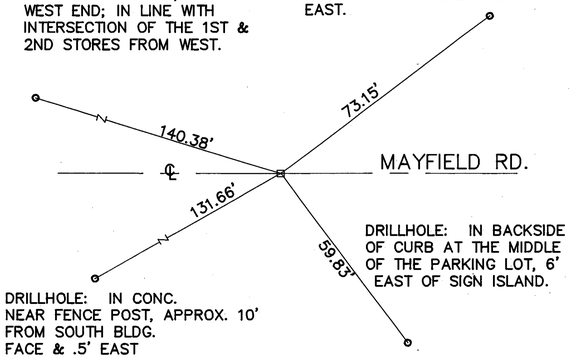
B.M. #21
TOP OF HYDRANT, STA. 50+12, 32' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 978.55

B.M. #22
TOP OF HYDRANT, STA. 53+35, 34' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 971.19

- PLUGGING EXISTING SERVICE CONNECTION
- SERVICE BOX, ADJUST TO GRADE
- EXTEND WATER SERVICE CONNECTION, COMPLETE.

IRON PIPE: WEST TIE DOWN PIN FOR CAR STOP, 2ND FROM WEST END; IN LINE WITH INTERSECTION OF THE 1ST & 2ND STORES FROM WEST.

IRON PIPE: EAST TIE DOWN PIN FOR CAR STOP, 11TH FROM EAST END; IN LINE WITH FRONT DOOR OF 1ST STORE FROM EAST.



DRILLHOLE: IN CONC. NEAR FENCE POST, APPROX. 10' FROM SOUTH BLDG. FACE & .5' EAST FROM EAST FACE.

DRILLHOLE: IN BACKSIDE OF CURB AT THE MIDDLE OF THE PARKING LOT, 6' EAST OF SIGN ISLAND.

STA. 53+04
MONUMENT REFERENCE

MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD PLAN STA. 49+00 TO STA. 54+00

	NH-83(29)	OHIO F.H.W.A. REGION 5	79 426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

FOR DRIVEWAY QUANTITIES SEE SHEET 35
FOR DRAINAGE QUANTITIES SEE SHEET 42
FOR SANITARY QUANTITIES SEE SHEET 55
FOR WATERWORK QUANTITIES SEE SHEET 64
FOR SEWER PROFILES SEE SHEETS 111, 112, 113, 116 & 117
FOR EXTRA AREA DETAILS SEE SHEET 204
FOR TRAFFIC CONTROL PLANS SEE SHEET 250-253

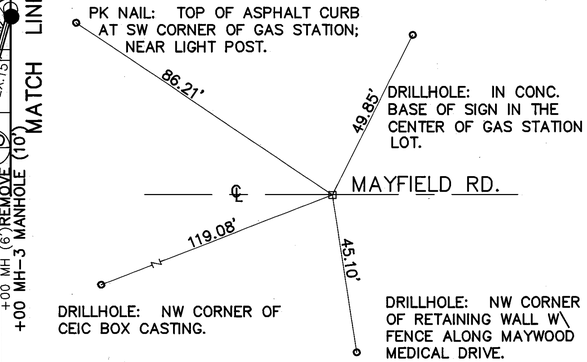
* * * SODDING TO BE REPLACED

CONCRETE TO BE REPLACED

B.M. #23
TOP OF HYDRANT, STA. 56+36
34' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 972.73

- PLUGGING EXISTING SERVICE CONNECTION
- SERVICE BOX, ADJ. TO GRADE
- EXTEND WATER SERVICE CONNECTION, COMPLETE.

PK NAIL: TOP OF ASPHALT CURB AT SW CORNER OF GAS STATION; NEAR LIGHT POST.



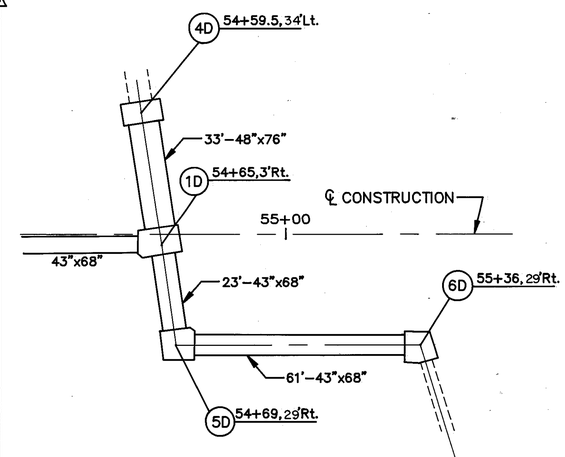
DRILLHOLE: IN CONC. BASE OF SIGN IN THE CENTER OF GAS STATION LOT.

DRILLHOLE: NW CORNER OF CEIC BOX CASTING.

DRILLHOLE: NW CORNER OF RETAINING WALL W\ FENCE ALONG MAYWOOD MEDICAL DRIVE.

STA. 59+00, 10' RT.
STM. M.H.
T/C = 975.54

STA. 57+48
MONUMENT REFERENCE



MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD PLAN STA. 54+00 TO STA. 59+00

	NH-83(29)	OHIO F.H.W.A. REGION 5	80 426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

FOR DRIVEWAY QUANTITIES SEE SHEET 35
FOR DRAINAGE QUANTITIES SEE SHEET 42
FOR SANITARY QUANTITIES SEE SHEET 55
FOR WATERWORK QUANTITIES SEE SHEET 65
FOR EXTRA AREA DETAILS SEE SHEET 205
FOR SEWER PROFILES SEE SHEETS 112 & 116
FOR TRAFFIC CONTROL PLANS SEE SHEET 250-253

* * * SODDING TO BE REPLACED

CONCRETE TO BE REPLACED

B.M. #24
TOP OF HYDRANT, STA. 59+39 33' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 978.78

B.M. #25
TOP OF HYDRANT, STA. 62+50, 32' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 977.25

○ PLUGGING EXISTING SERVICE CONNECTION
• SERVICE BOX, ADJUST TO GRADE
● EXTEND WATER SERVICE CONNECTION, COMPLETE.

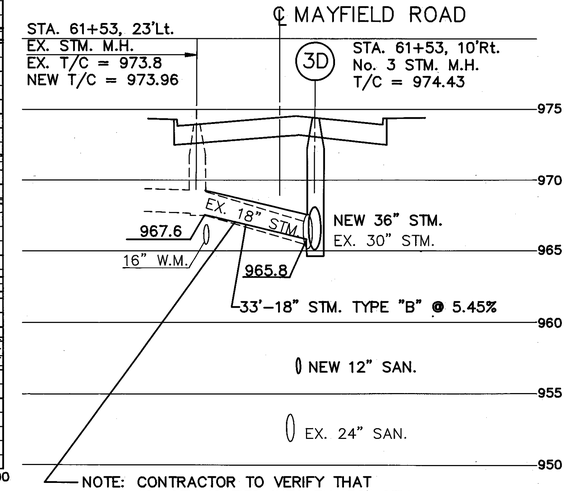
DRILLHOLE: IN FIRST STEP, WEST CORNER, ACROSS MAYFIELD FROM 4622.

DRILLHOLE: ON TOP OF STONE WALL OPPOSITE 4626 MAYFIELD. APPROX. 15' E OF BRICK COLUMN.

DRILLHOLE: SIDEWALK OF 4614, MAYFIELD ON SHERIDAN, OPPOSITE THE WALK TO THE FRONT DOOR.

DRILLHOLE: IN WATER VALVE IN DRIVE AT 4638. THE WESTERLY VALVE OF THE TWO.

STA. 63+79.07 MONUMENT REFERENCE



MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD PLAN STA. 59+00 TO STA. 64+00

	NH-83(29)	OHIO F.H.W.A. REGION 5	81 426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

FOR WATERMAIN LOWERING SEE SHEET 23
FOR DRIVEWAY QUANTITIES SEE SHEET 35
FOR DRAINAGE QUANTITIES SEE SHEET 43
FOR SANITARY QUANTITIES SEE SHEET 55
FOR WATERWORK QUANTITIES SEE SHEET 65
FOR SEWER PROFILES SEE SHEETS 112 & 116
FOR EXTRA AREA DETAILS SEE SHEET 205
FOR TRAFFIC CONTROL PLANS SEE SHEET 250-253

* * * SODDING TO BE REPLACED

CONCRETE TO BE REPLACED

B.M. #26
TOP OF HYDRANT, STA. 65+38
34' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 975.82

B.M. #27
TOP OF HYDRANT, STA. 67+59
34' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 967.11

○ PLUGGING EXISTING SERVICE CONNECTION

◉ SERVICE BOX, ADJUST TO GROUND

● EXTEND WATER SERVICE CONNECTION, COMPLETE.

MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD PLAN STA. 64+00 TO STA. 69+00

NH–83(29)	OHIO F.H.W.A. REGION 5	82 426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

FOR DRIVEWAY QUANTITIES SEE SHEET 37
FOR DRAINAGE QUANTITIES SEE SHEET 43
FOR SANITARY QUANTITIES SEE SHEET 55
FOR WATERWORK QUANTITIES SEE SHEET 65
FOR SEWER PROFILES SEE SHEETS 113 & 116
FOR EXTRA AREA DETAILS SEE SHEET 205
FOR TRAFFIC CONTROL PLANS SEE SHEET

* * * SODDING TO BE REPLACED

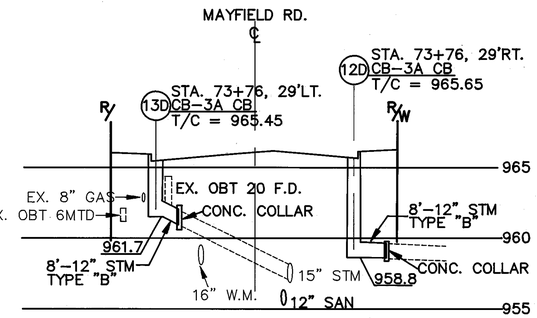
CONCRETE TO BE REPLACED

B.M. #28
TOP OF HYDRANT, STA. 71+47, 35' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 961.59

B.M. #29
O.M. MONUMENT #1115 SET IN SIDEWALK, STA. 73+54, 37' NORTH OF ℄ OF MAYFIELD ROAD.
ELEV. = 964.685

○ PLUGGING EXISTING SERVICE CONNECTION
◔ SERVICE BOX, ADJ. TO GRADE
● EXTEND WATER SERVICE CONNECTION, COMPLETE.

NOTE: OFFSETS BASED ON ℄ CONSTRUCTION



NOTE: OUTLET FOR 12D TO BE FIELD VERIFIED BY CONTRACTOR.

STATION TO STATION	202 WALK REMOVED 4 1/2" CONCRETE	608 WALK	660 SODDING	SPECIAL BRICK WALK REMOVED & REINSTALLED
	S.F.	S.F.	SQ.YD.	S.F.
0+00 TO 4+00	1621	1621	–	–
4+00 TO 9+00	3248	3248	–	–
9+00 TO 14+00	2823	2823	1239	–
14+00 TO 19+00	1432	1432	2008	–
19+00 TO 24+00	3689	3689	933	–
24+00 TO 29+00	983	983	1383	–
29+00 TO 34+00	3760	3760	372	–
34+00 TO 39+00	2196	2196	160	–
39+00 TO 44+00	1873	1873	1092	30
44+00 TO 49+00	2828	2828	–	497
49+00 TO 54+00	4486	4486	–	94
54+00 TO 59+00	983	983	2010	–
59+00 TO 64+00	97	97	3088	–
64+00 TO 69+00	–	–	3277	–
69+00 TO 74+00	100	100	6513	–
TOTAL	30,119	30,119	22,075	621

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD PLAN STA. 69+00 TO STA. 74+00

MAYFIELD ROAD

Indicates Existing Concrete Walk To Be Removed And Replaced.

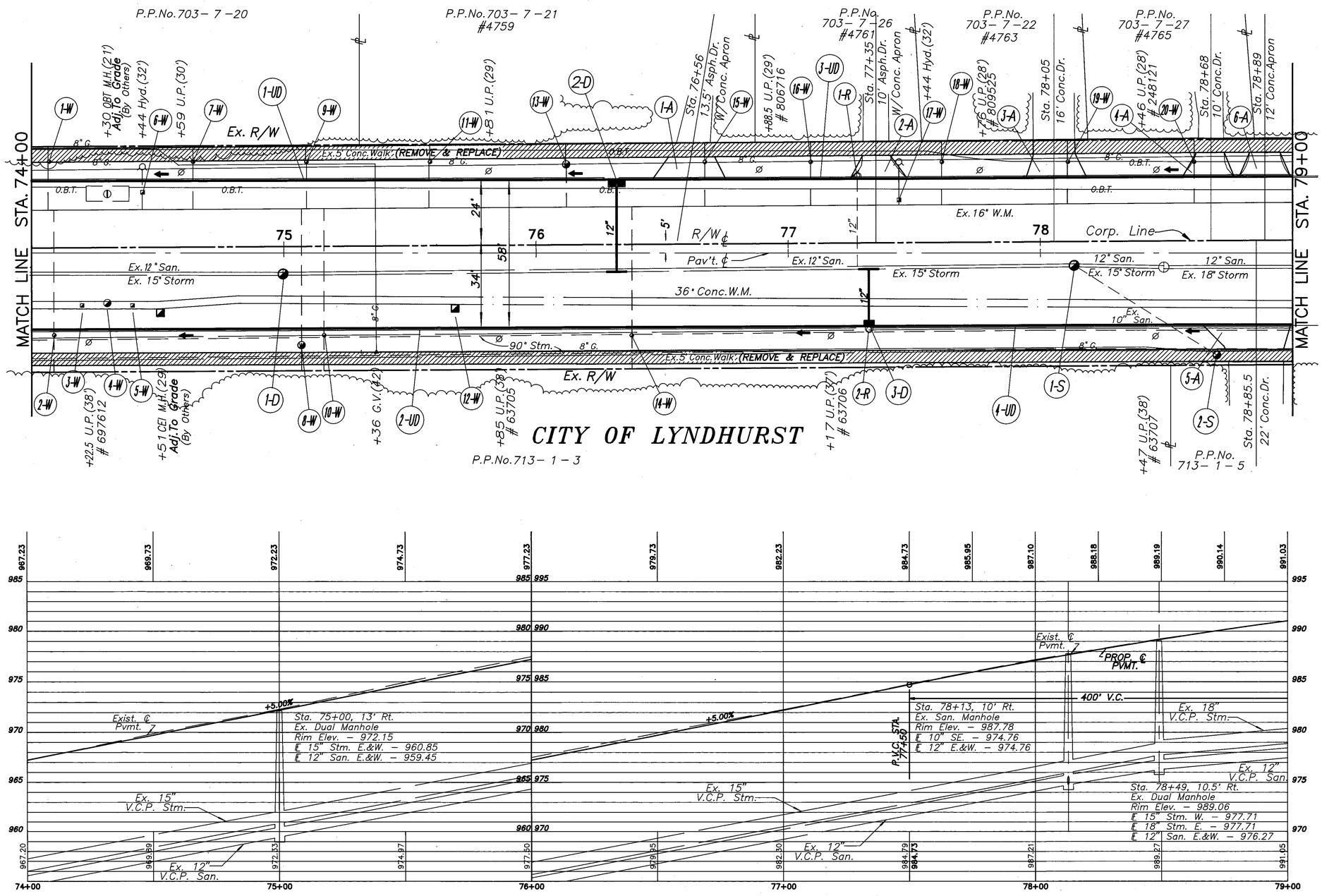
For Drainage Quantities See Sheet No.s 44 To 53.
For Waterwork Quantities See Sheet No.s 66 To 67.
For Traffic Control Plans See Sheet No.s 250 To 253.
For Driveway Quantities See Sheet No.s 35 To 36.
For Sewer Lateral Profiles See Sheet No.s 168 To 193.

0 5 10 20 40 60
SCALE IN FEET

FHWA REGION	STATE	PROJECT	
5	OHIO		

83
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD



N

MAYFIELD ROAD

PLAN AND PROFILE STA. 74+00 TO STA. 79+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

84
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

SCALE IN FEET: 0 5 10 20 40 60

N

CITY OF SOUTH EUCLID

CITY OF LYNDHURST

P.P.No. 703– 7 –23

P.P.No. 711–16– 3
#4807
First Church Of Christ Scientist

P.P.No. 711–16– 4
#4827

DAYTONA ROAD 60'
STA. 83+08

MATCH LINE STA. 79+00

MATCH LINE STA. 84+00

+62.5 U.P.(28') # 808446

+23 OBT M.H.(30.5')

+34.5 Hyd.(34') Corp.Line

Sta.80+41.45 O.M.Mon. (38') #1515

+48

Sta. 80+72 19' Asph.Dr. W/ Conc. Apron

+97 U.P.(27.5') # 810150

+63 G.V.(33')

+65 U.P.(28') # 9419

+53 OBT M.H.(20') Adj.To Grade (By Others)

+67 U.P.(28') # 810151

Ex. 8" W.M.

+50 U.P.(27.5') # 810152

+58 Hyd.(33')

Ex. 5' Conc. Walk (REMOVE & REPLACE)

Ex. R/W

Ex. 6' Conc. Walk (REMOVE & REPLACE)

Corp. Line

Ex. 12" San.

Ex. 18" Storm

Ex. 16" W.M.

Ex. 12" San.

Ex. 20" Storm

Ex. 36" Conc. W.M.

Ex. 90" Storm

Curb Ramp, Type 2

Butt Joint

Exist. Conc. Pav't.

Ex. Conc. Pav't.

CURB RAMP, TYPE 2

6' Wood Picket Fence

O.B.T.

Stm

San

80

81

82

83

R/W ℄

Pav't. ℄

12"

24'

34'

58'

49'

5'

16" W.M.

P.P.No. 713– 1 – 5

P.P.No. 713– 1 – 6

P.P.No. 713– 1 – 9 & 10

CITY OF LYNDHURST

+66 U.P.(36') # 63708

+91 U.P.(36') # 63709

+06.5 U.P.(36') # 63710

+26 U.P.(36') # 63711

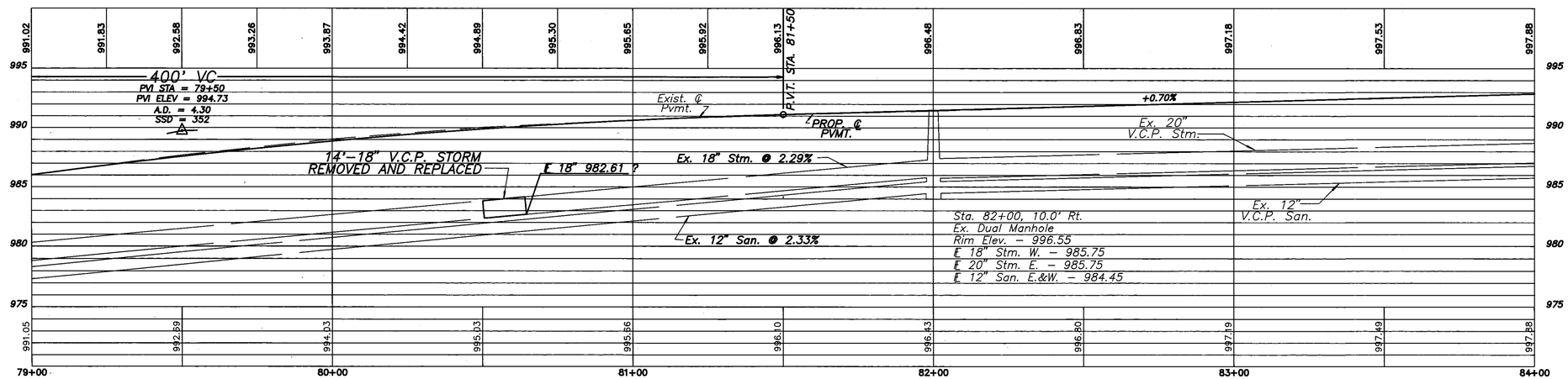
PARKSIDE CIRCLE 50'
STA. 80+46.7

B.M. #1
O.M. Monument #1515 Set In Existing Walk, Sta.80+48, 38' North Of Mayfield Road.
Elev. 994.21

Indicates Existing Concrete Walk To Be Removed And Replaced.

For Drainage Quantities See Sheet No.s 44 To 53.
For Waterwork Quantities See Sheet No.s 66 To 67.
For Intersection Details See Sheet No.s 206 To 222.
For Traffic Control Plans See Sheet No.s 250 To 253.
For Driveway Quantities See Sheet No.s 35 To 36.
For Sewer Lateral Profiles See Sheet No.s 168 To 193.

NOTE: Sanitary sewer below the storm sewer repair areas has been lined with a polyethelene liner. Contractor shall not disturb the sanitary sewer during the storm sewer removal and replacement.



MAYFIELD ROAD

PLAN AND PROFILE STA. 79+00 TO STA. 84+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

85
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

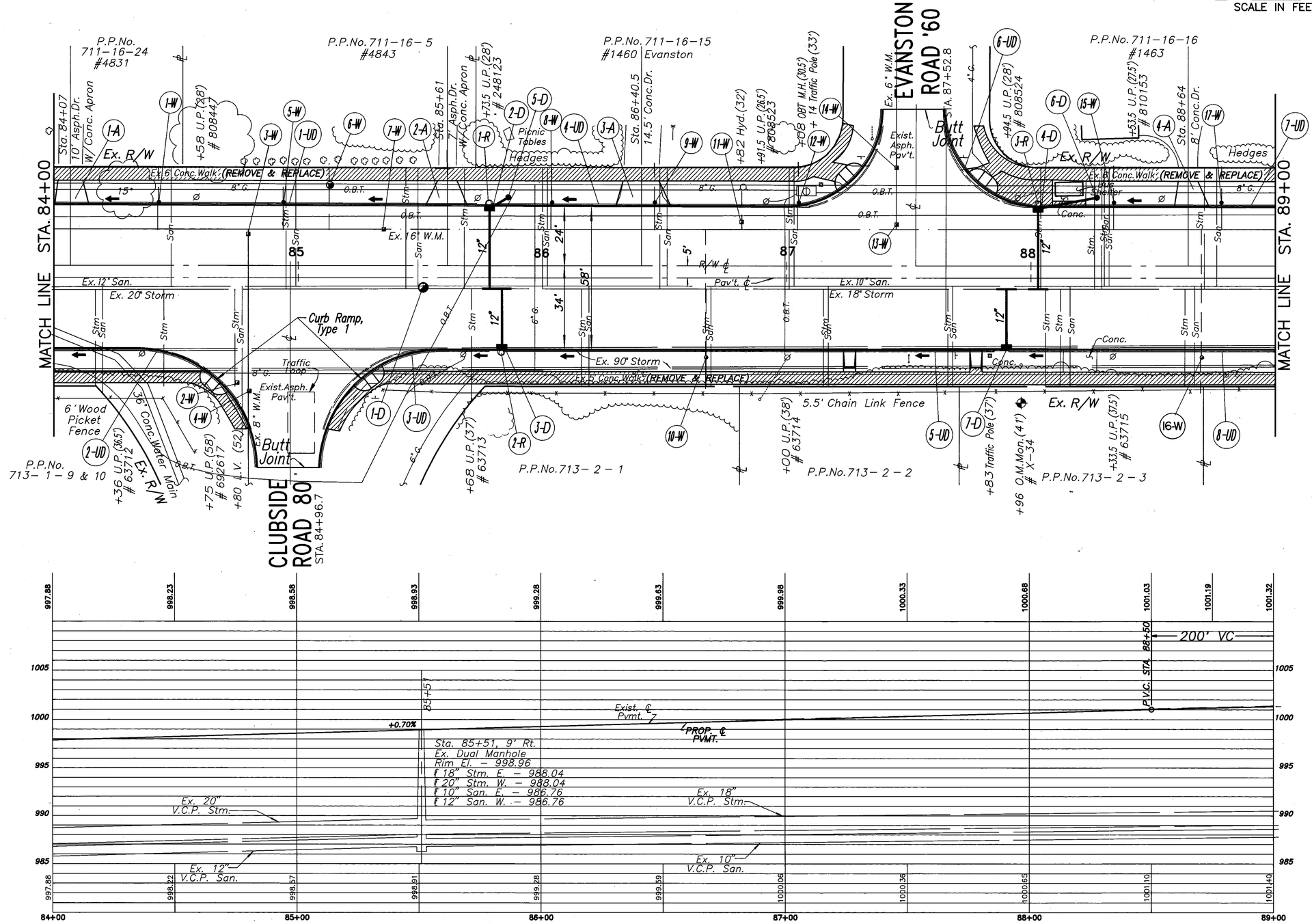
0 5 10 20 40 60
SCALE IN FEET

N

B.M. #2
O.M. Monument # X–34 Set
In Treelawn, Sta. 87+96, 41'
South Of Mayfield. Road.
Elev. 1001.03

Indicates Existing Concrete Walk To Be Removed And Replaced.

For Drainage Quantities See Sheet No.s 44 To 53.
For Waterwork Quantities See Sheet No.s 66 To 67.
For Intersection Details See Sheet No.s 206 To 222.
For Traffic Control Plans See Sheet No.s 250 To 253.
For Driveway Quantities See Sheet No.s 35 To 36.
For Sewer Lateral Profiles See Sheet No.s 168 To 193.



MAYFIELD ROAD

PLAN AND PROFILE STA. 84+00 TO STA. 89+00

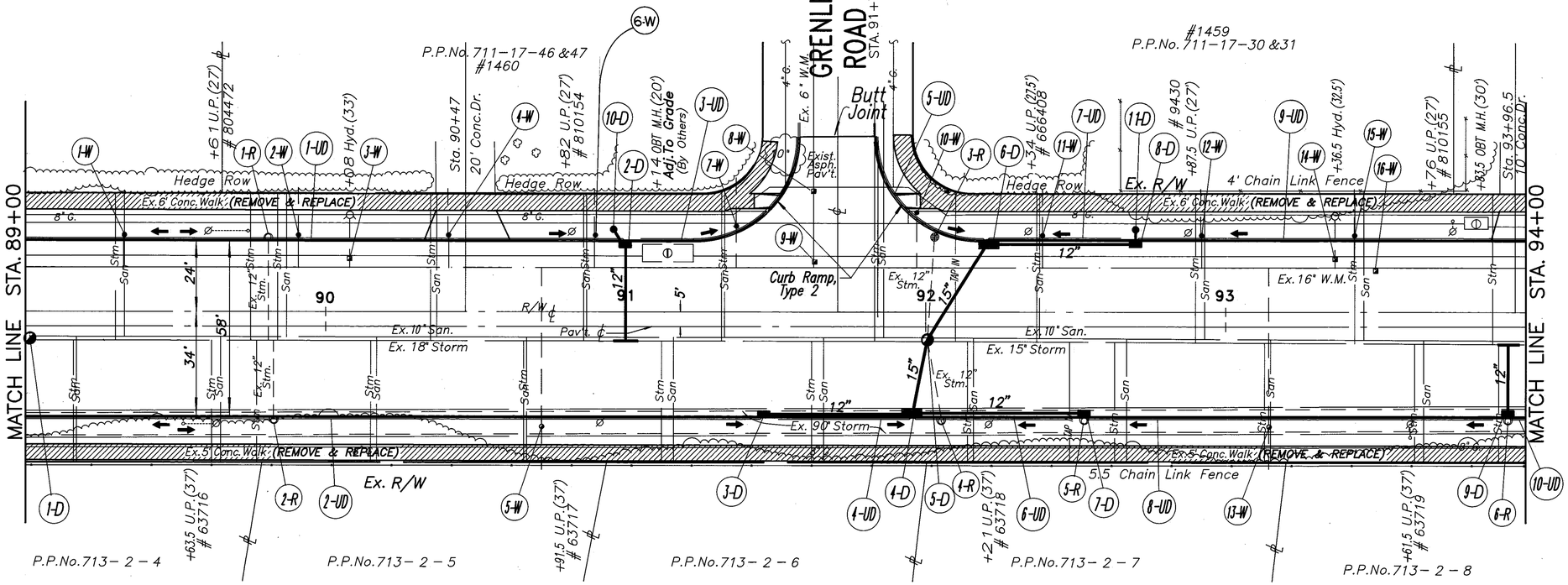
FHWA REGION	STATE	PROJECT	
5	OHIO		

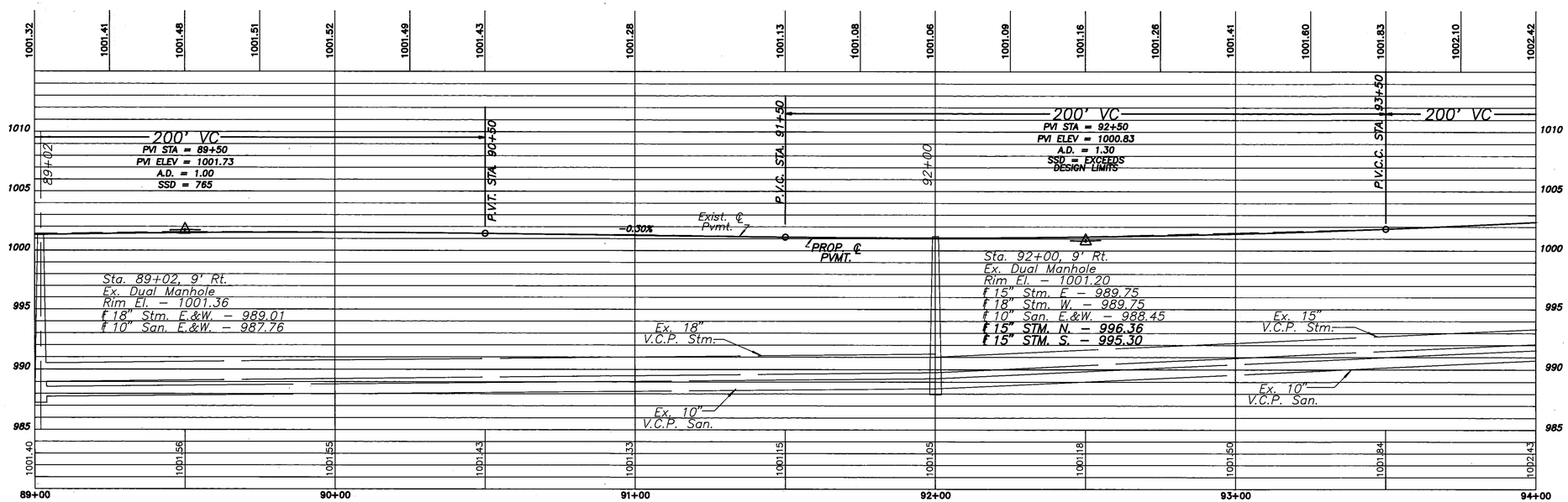
86
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

0 5 10 20 40 60
SCALE IN FEET

N





Indicates Existing Concrete Walk To Be Removed And Replaced.

MAYFIELD ROAD

For Drainage Quantities See Sheet No.s 44 To 53.
For Waterwork Quantities See Sheet No.s GG To G7.
For Intersection Details See Sheet No.s 206 To 222.
For Traffic Control Plans See Sheet No.s 250 To 253.
For Sewer Lateral Profiles See Sheet No.s 168 To 193.

PLAN AND PROFILE STA. 89+00 TO STA. 94+00

Indicates Existing Concrete Walk To Be Removed And Replaced.

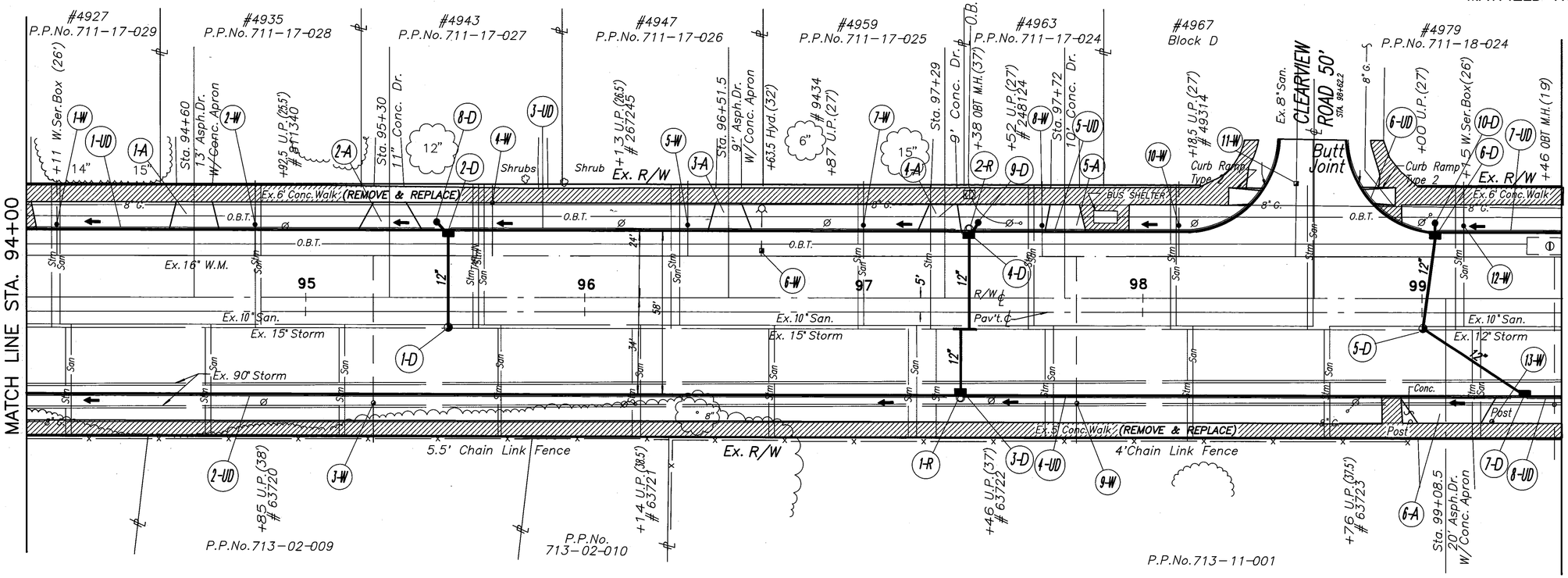
For Drainage Quantities See Sheet No.s 44 To 53.
For Waterwork Quantities See Sheet No.s 66 To 67.
For Intersection Details See Sheet No.s 206 To 222.
For Traffic Control Plans See Sheet No.s 250 To 253.
For Driveway Quantities See Sheet No.s 35 To 36.
For Sewer Lateral Profiles See Sheet No.s 168 To 193.

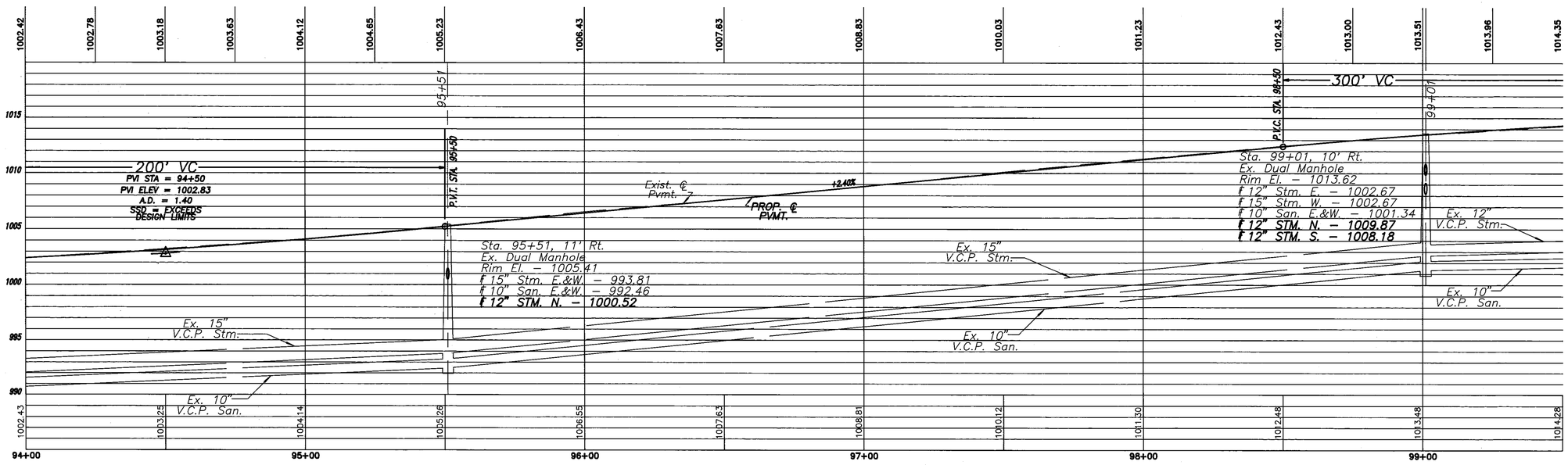
0 5 10 20 40 60
SCALE IN FEET

FHWA REGION	STATE	PROJECT	
5	OHIO		

87
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD





MAYFIELD ROAD

PLAN AND PROFILE STA. 94+00 TO STA. 99+50

B.M. #4
Spike Set In U.P. Sta.101+26, 38' South Of Mayfield Road.
Elev. 1015.67

B.M. #5
O.M. Monument # X–35 Set In Treelawn, Sta.102+58, 40.5' South Of Mayfield Road.
Elev. 1014.92

For Drainage Quantities See Sheet No.s 44 To 53.
For Waterwork Quantities See Sheet No.s 66 To 67.
For Traffic Control Plans See Sheet No.s 250 To 253.
For Driveway Quantities See Sheet No.s 35 To 36.
For Sewer Lateral Profiles See Sheet No.s 168 To 193.

Indicates Existing Concrete Walk To Be Removed And Replaced.

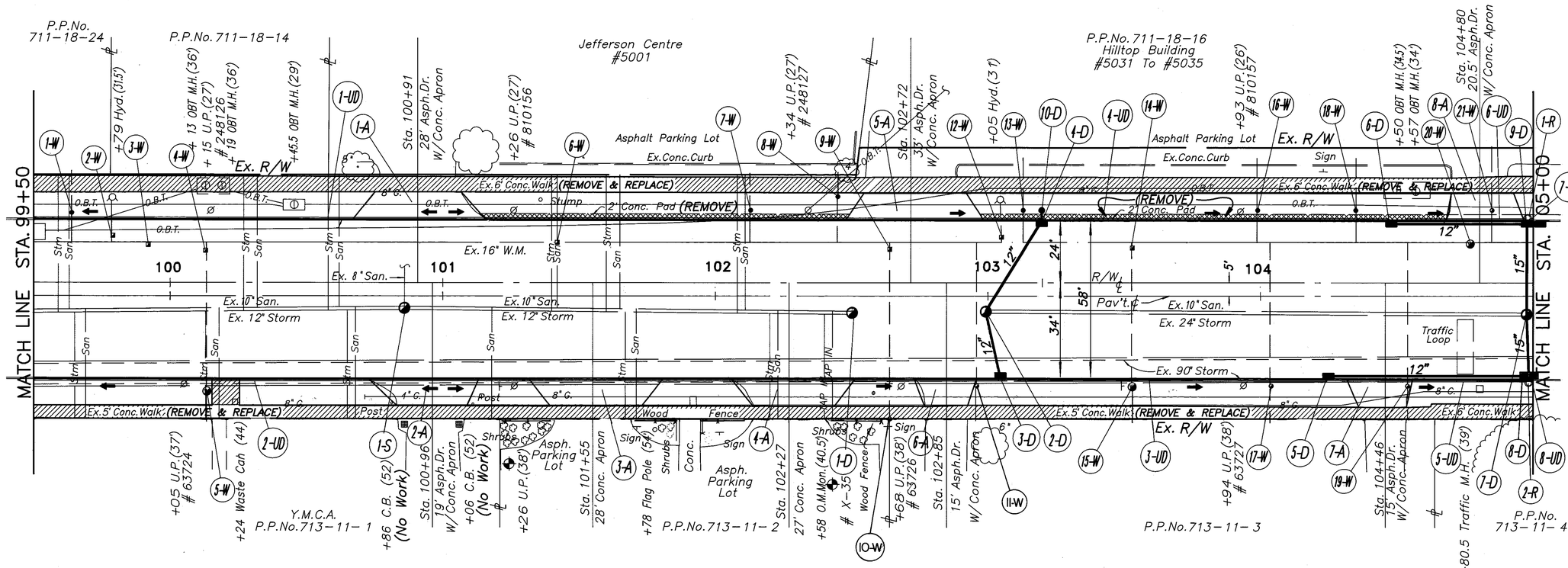
Indicates Existing Concrete Walk To Be Removed.

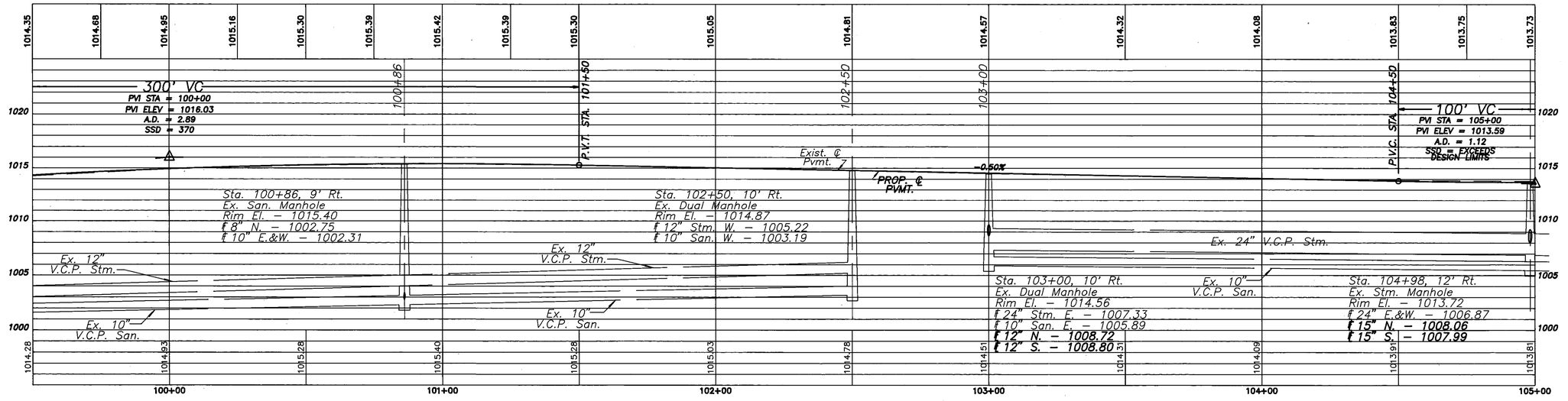
0 5 10 20 40 60
SCALE IN FEET

FISCAL YEAR	STATE	PROJECT	
5	OHIO		

88
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD





MAYFIELD ROAD

PLAN AND PROFILE STA. 99+50 TO STA. 105+00

B.M. #6
O.M. Monument #1628 Set .8' South Of Existing Walk, Sta.108+13, 51' South Of Mayfield. Road.
Elev. 1014.53

Indicates Existing Concrete Walk To Be Removed And Replaced.

Textured Concrete Paving To Be Removed & Replaced With Brick Pavers

For Sanitary Quantities See Sheet No. 56.
For Drainage Quantities See Sheet No.s 44 To 53.
For Waterwork Quantities See Sheet No.s 66 To 67.
For Intersection Details See Sheet No.s 206 To 222.
For Traffic Control Plans See Sheet No.s 250 To 253.
For Driveway Quantities See Sheet No.s 35 To 36.
For Sewer Lateral Profiles See Sheet No.s 168 To 193.
For Geotechnical Information See Sheet No.s 422 To 426.
For Sanitary Drop Manhole Details See Sheet No.421.

STA 108+66, ℄ NO. 3 DROP MH AS PER PLAN-B (SAN.)

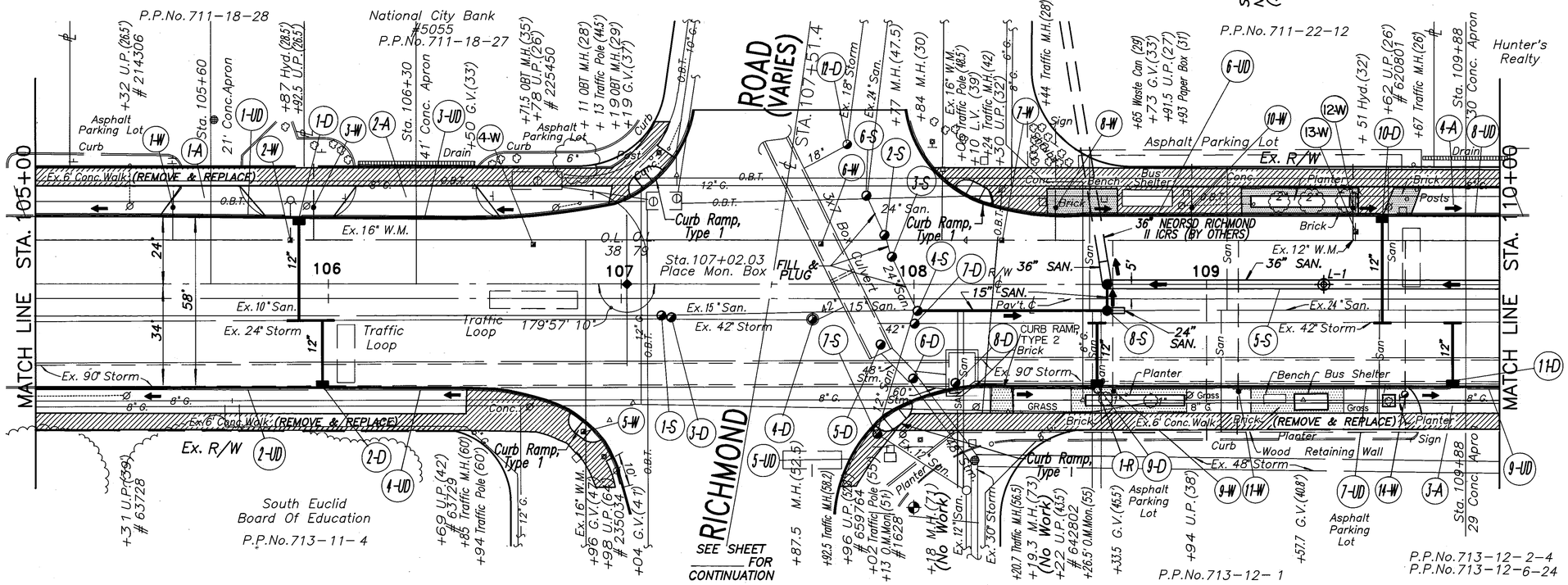
STA 108+66, 9' RT. NO. 3 MANHOLE (SAN.)

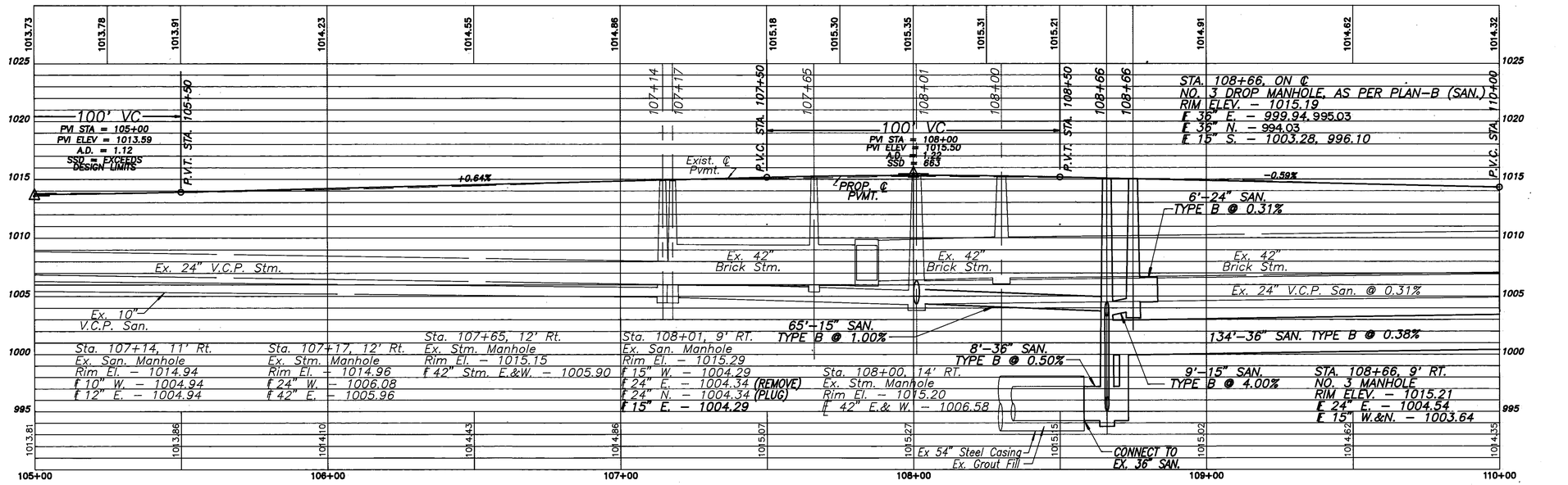
0 5 10 20 40 60
SCALE IN FEET

FHWA REGION	STATE	PROJECT	
5	OHIO		

89
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD





PLAN AND PROFILE STA. 105+00 TO STA. 110+00

B.M. #7
Spike Set In U.P. #63734, Sta.112+89, 39' South Of Mayfield Road.
Elev. 1016.79

For Sanitary Quantities See Sheet No. 56.
For Drainage Quantities See Sheet No.s 44 To 53.
For Waterwork Quantities See Sheet No.s 66 To 67.
For Traffic Control Plans See Sheet No.s 250 To 253.
For Driveway Quantities See Sheet No.s 35 To 36.
For Sewer Lateral Profiles See Sheet No.s 168 To 193.
For Geotechnical Information See Sheet No.s 422 To 426.
For Sanitary Drop Manhole Details See Sheet No. 421.

Indicates Existing Concrete Walk To Be Removed And Replaced.

Textured Concrete Paving To Be Removed And Replaced With Brick Pavers.

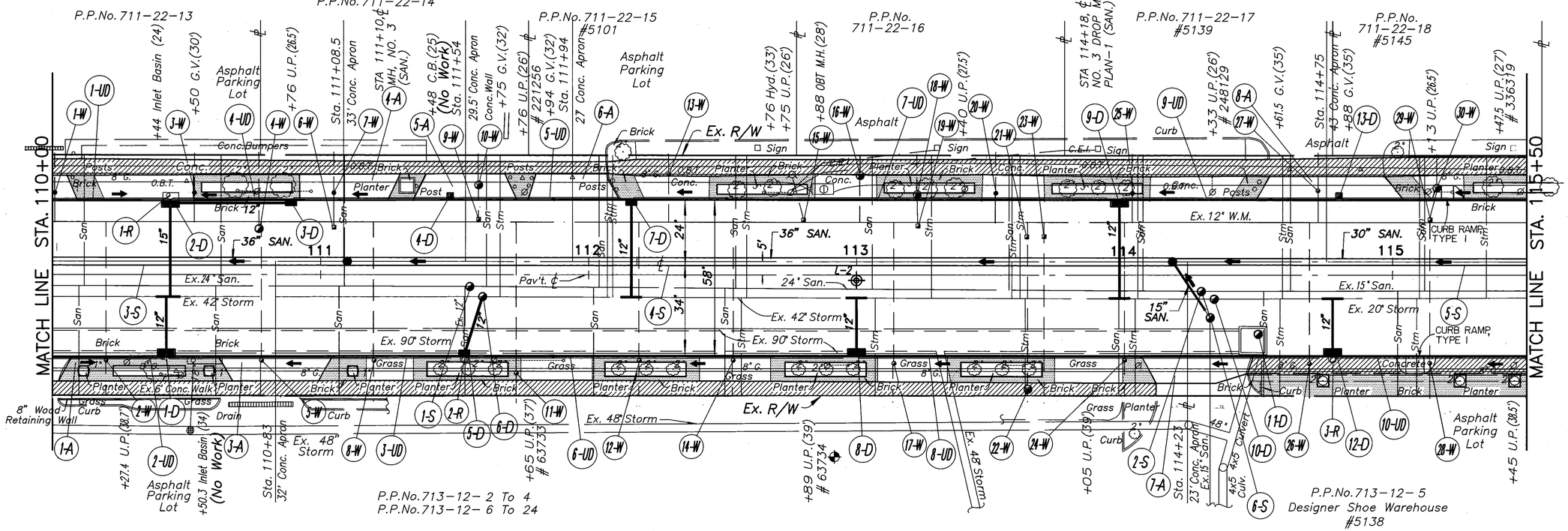
NOTE: Storm Connection Locations From Sta. 114+34 To Sta. 115+50 Are Not Verified From Sewer Videotapes.

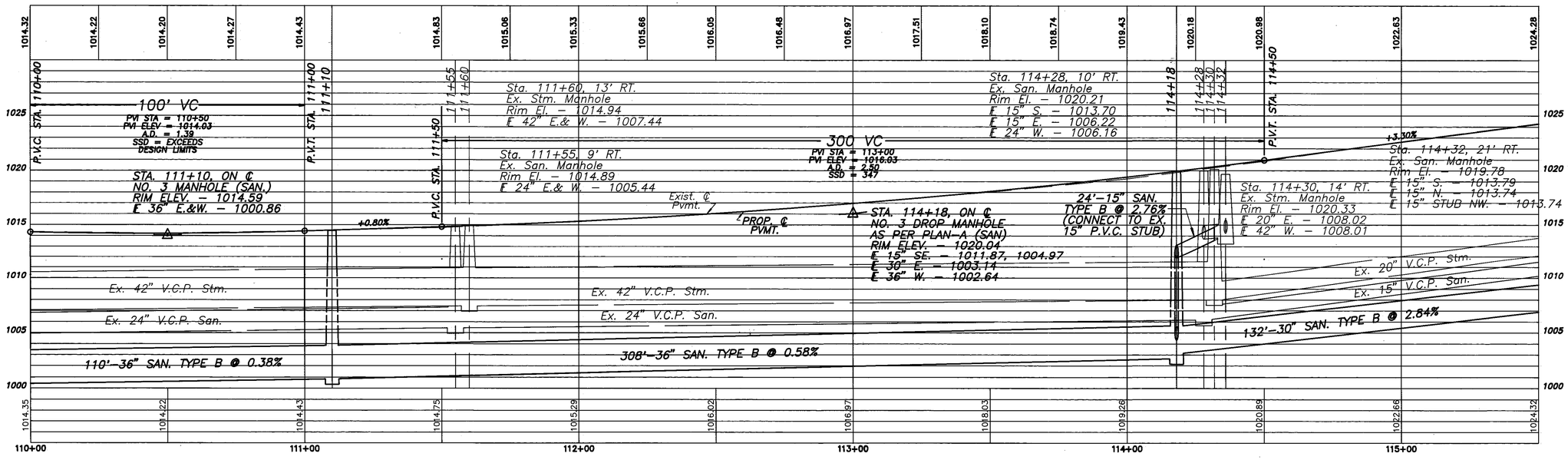
0 5 10 20 40 60
SCALE IN FEET

FHWA REGION	STATE	PROJECT	
5	OHIO		

90 / 426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD





MAYFIELD ROAD

PLAN AND PROFILE STA. 110+00 TO STA. 115+50

B.M. #8
O.M. Monument #140 Set
In Planter Area, Sta.118+81,
42' South Of Mayfield Road.
Elev. 1030.81

For Drainage Quantities See Sheet No.s 44 To 53.
For Waterwork Quantities See Sheet No.s 66 To 67.
For Traffic Control Plans See Sheet No.s 250 To 253.
For Driveway Quantities See Sheet No.s 35 To 36.
For Sewer Lateral Quantities See Sheet No.s 168 To 193.
For Geotechnical Information See Sheet No.s 422 To 426.

Indicates Existing Concrete Walk To Be Removed And Replaced.

Textured Concrete Paving To Be Removed & Replaced With Brick Pavers

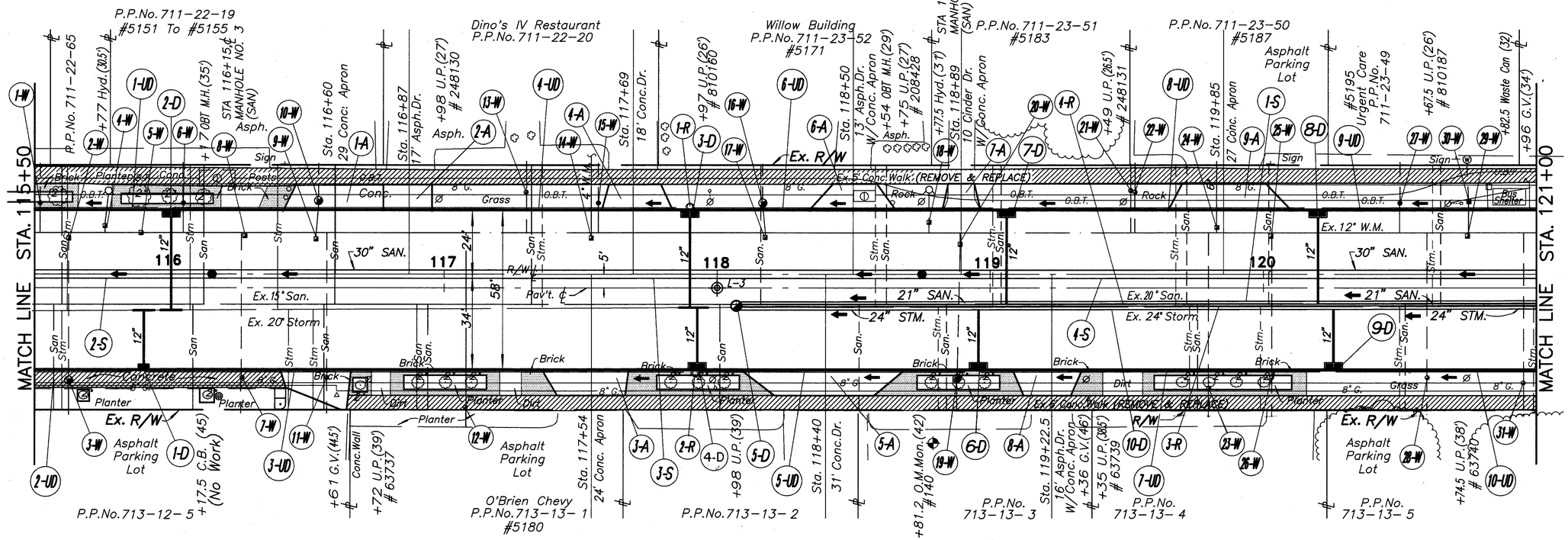
NOTE: Storm Connection Locations From Sta. 115+50 To Sta. 118+07 Are Not Verified From Sewer Videotapes.

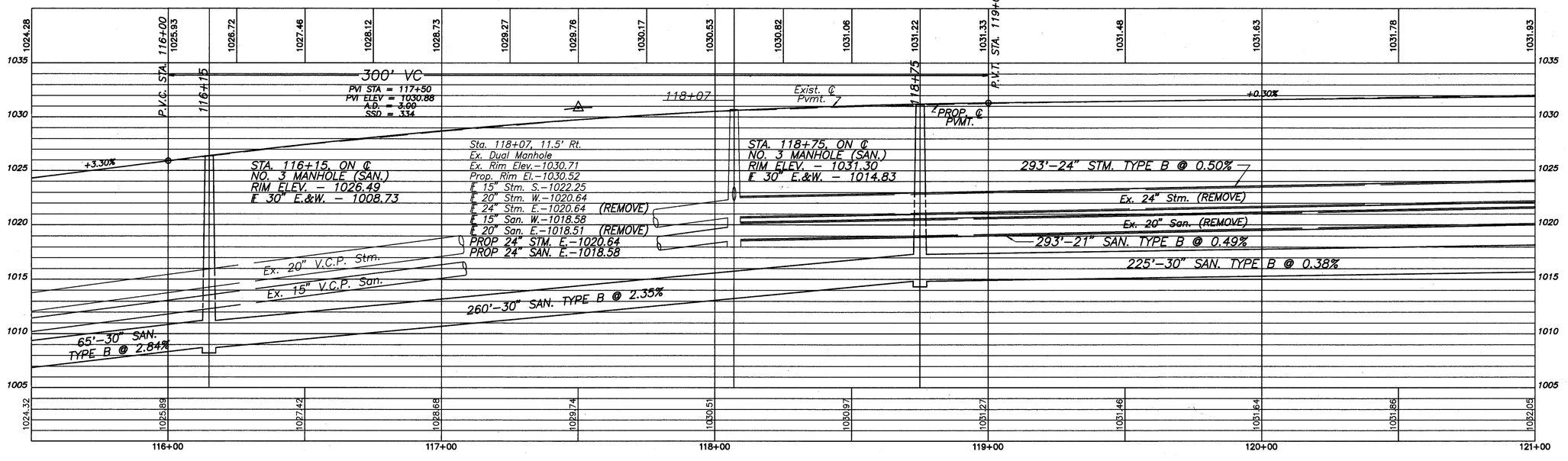
0 5 10 20 40 60
SCALE IN FEET

FHWA REGION	STATE	PROJECT	
5	OHIO		

91
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD





MAYFIELD ROAD

PLAN AND PROFILE STA. 115+50 TO STA. 121+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

92
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

Indicates Existing Concrete Walk To Be Removed And Replaced.

For Drainage Quantities See Sheet No.s 44 To 53
For Waterwork Quantities See Sheet No.s 66 To 67
For Intersection Details See Sheet No.s 206 To 222
For Traffic Control Plans See Sheet No.s 250 To 263
For Driveway Quantities See Sheet No.s 35 To 36
For Sewer Lateral Profiles See Sheet No.s 168 To 193
For Geotechnical Information See Sheet No.s 422 To 426

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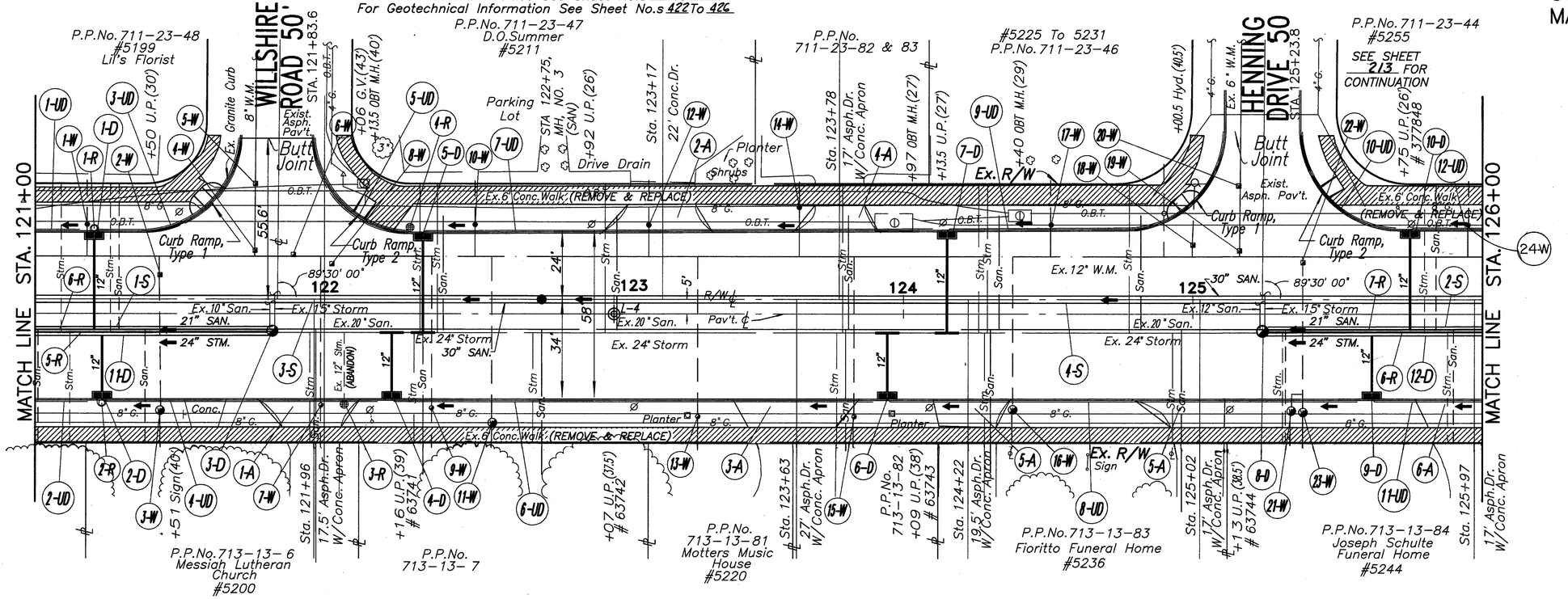
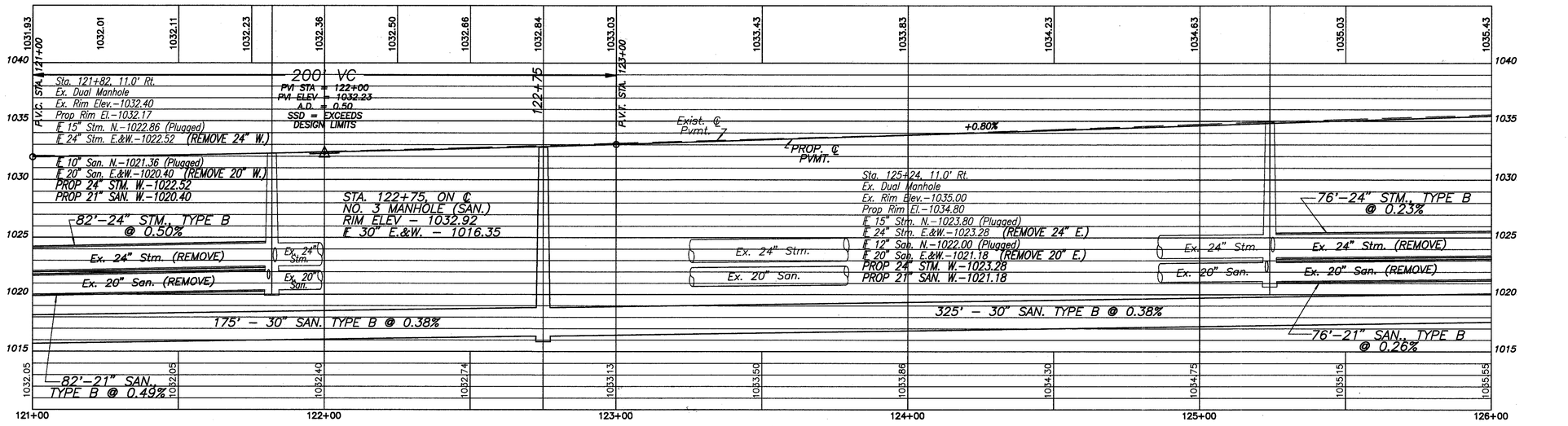
SCALE IN FEET





MAYFIELD ROAD

PLAN AND PROFILE STA. 121+00 TO STA. 126+00

B.M. #9
Spike Set In U.P. #63746, Sta.127+12, 38' South Of Mayfield Road.
Elev. 1036.55

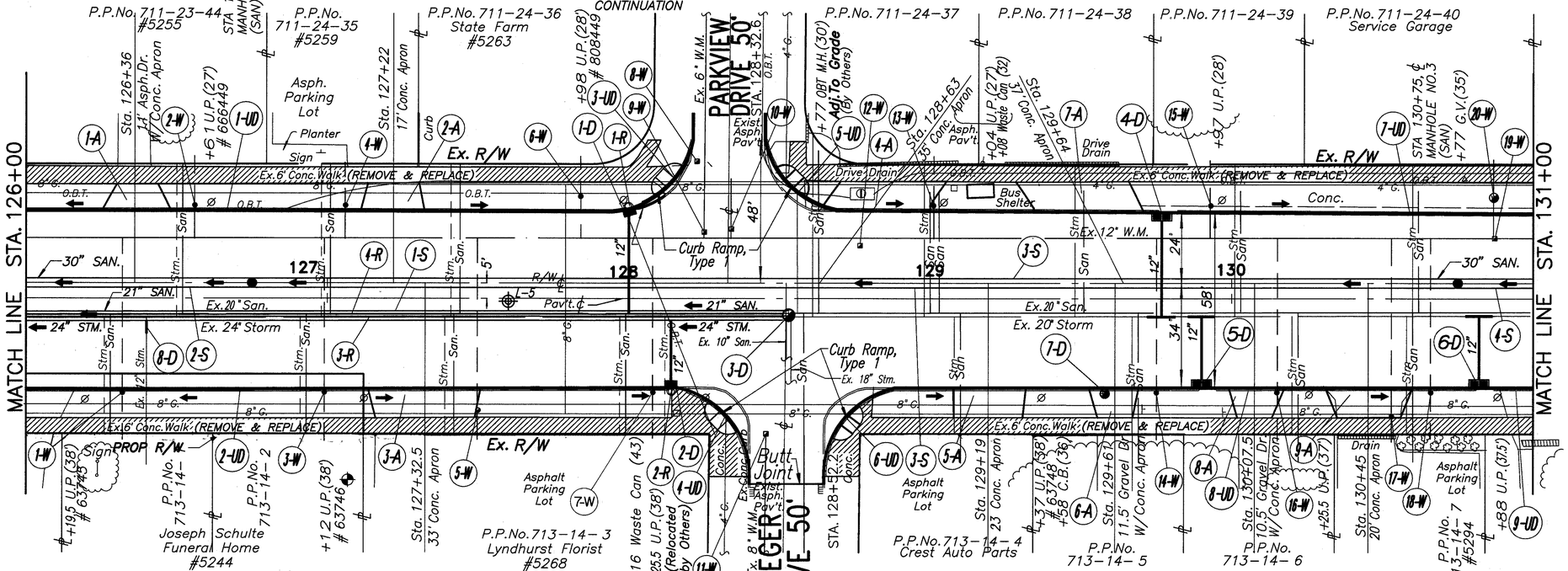
For Drainage Quantities See Sheet No.s 44 To 53.
For Waterwork Quantities See Sheet No.s 66 To 67.
For Intersection Details See Sheet No.s 206 To 222.
For Traffic Control Plans See Sheet No.s 250 To 263.
For Driveway Quantities See Sheet No.s 35 To 36.
For Sewer Lateral Profiles See Sheet No.s 168 To 193.
For Geotechnical Information See Sheet No.s 422 To 426.

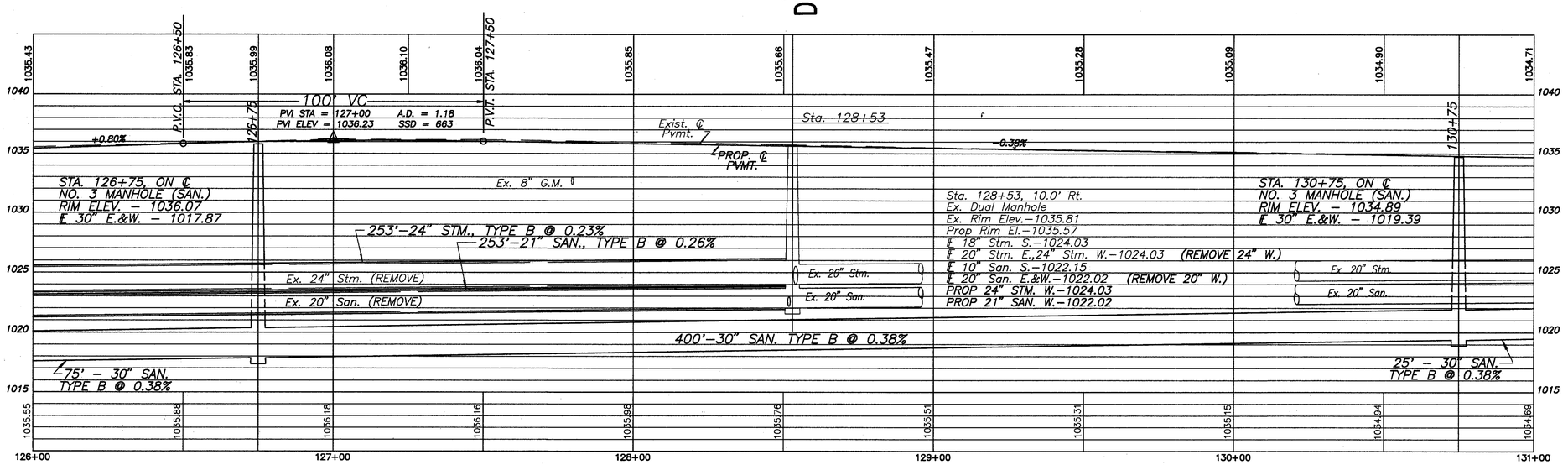
0 5 10 20 40 60
SCALE IN FEET

FHWA REGION	STATE	PROJECT	
5	OHIO		

93
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD





MAYFIELD ROAD

PLAN AND PROFILE STA. 126+00 TO STA. 131+00

B.M. #10
Spike Set In U.P. #63751, Sta.132+77.5, 37' South Of Mayfield Road.
Elev. 1034.29

Indicates Existing Concrete Walk To Be Removed And Replaced.

Textured Concrete Paving To Be Removed & Replaced With Brick Pavers

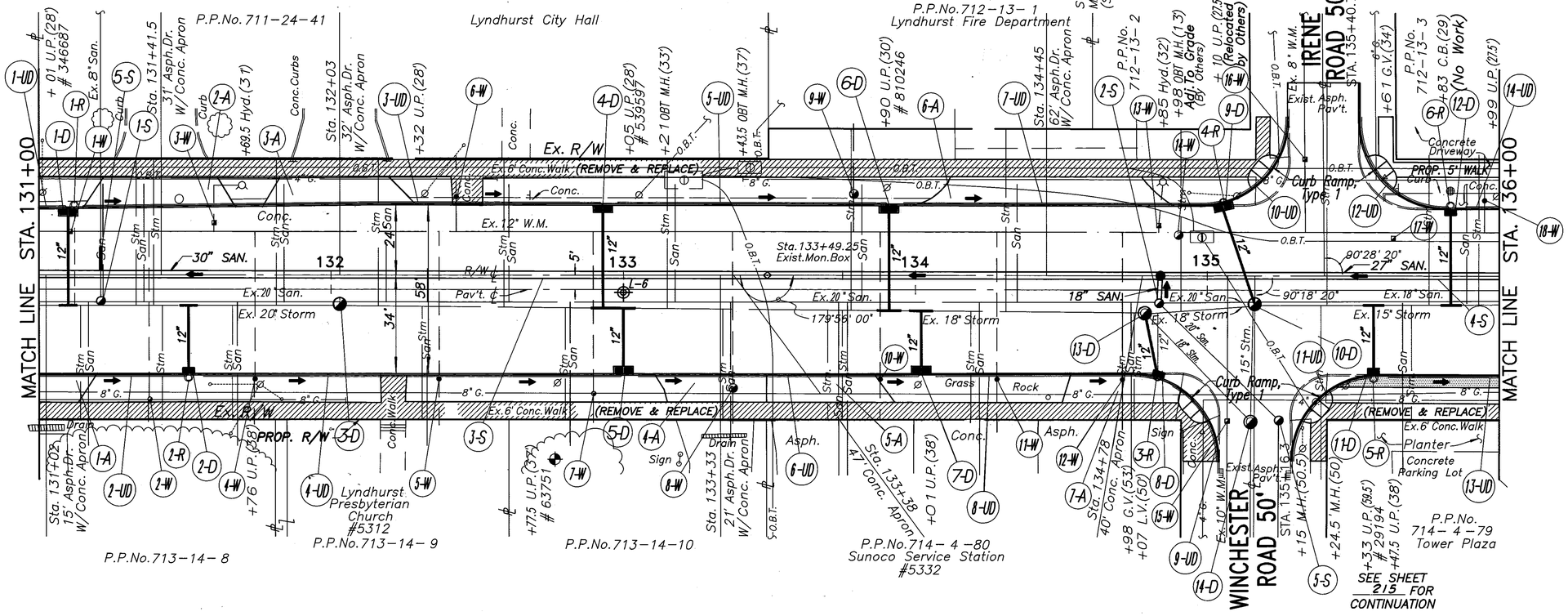
For Drainage Quantities See Sheet No.s 44 To 53.
For Waterwork Quantities See Sheet No.s 66 To 67.
For Intersection Details See Sheet No.s 206 To 222.
For Traffic Control Plans See Sheet No.s 250 To 263.
For Driveway Quantities See Sheet No.s 35 To 36.
For Sewer Lateral Profiles See Sheet No.s 168 To 193.
For Geotechnical Information See Sheet No.s 422 To 426.

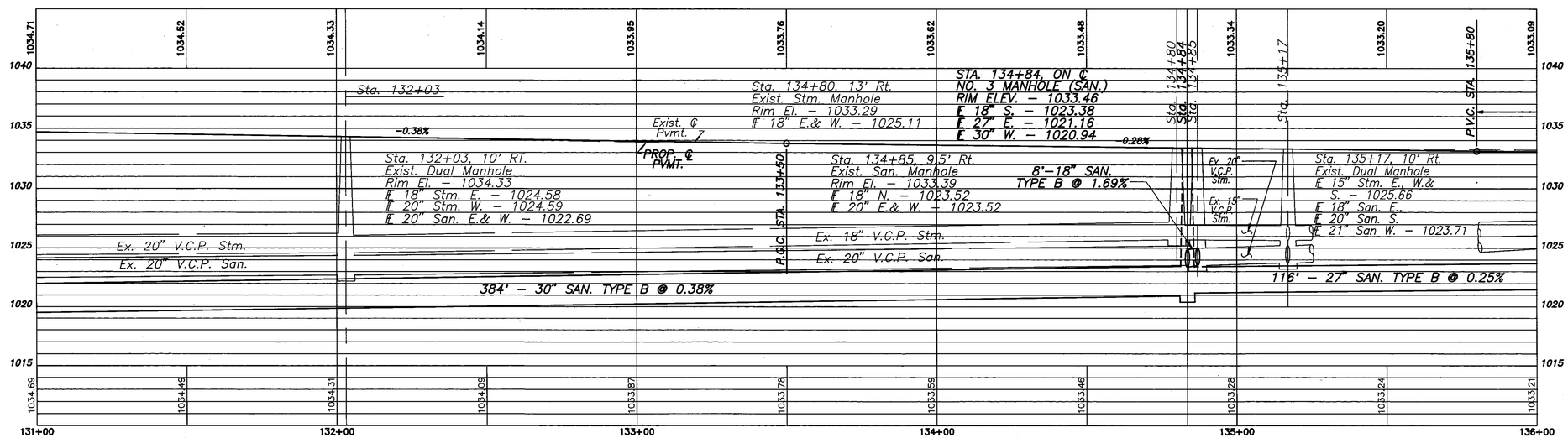
FHWA REGION	STATE	PROJECT	
5	OHIO		

94
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

0 5 10 20 40 60
SCALE IN FEET





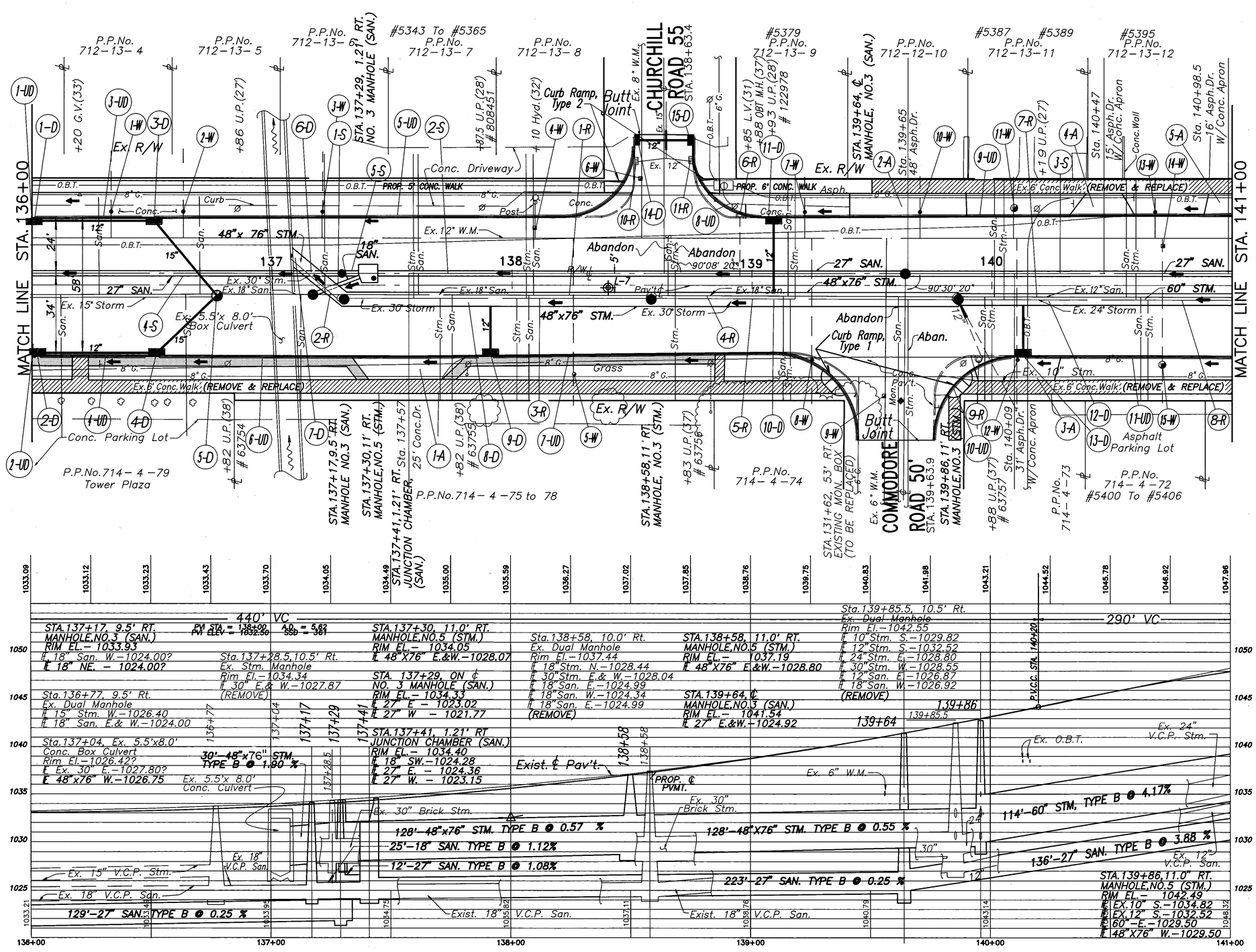
MAYFIELD ROAD

PLAN AND PROFILE STA. 131+00 TO STA. 136+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

95
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD



For Sanitary Quantities See Sheet No. 57.
For Drainage Quantities See Sheet No.s 44 To 53.
For Waterwork Quantities See Sheet No.s 66 To 67.
For Connection Quantities See Sheet No. 51.
For Intersection Details See Sheet No.s 206 To 222.
For Traffic Control Plans See Sheet No.s 250 To 263.
For Driveway Quantities See Sheet No.s 35 To 36.
For Sewer Lateral Profiles See Sheet No.s 168 To 193.
For Junction Chamber Details See Sheet No. 417.
For Geotechnical Information See Sheet No.s 422 To 426.
For Sanitary Drop Manhole Details See Sheet No. 418.
For Drop Manhole Details, See Sheet No. 421.

Indicates Existing Concrete Walk To Be Removed And Replaced.

Textured Concrete Paving To Be Removed & Replaced With Brick Pavers

NOTE: The sanitary sewer trench under the box culvert at Sta. 137+04 shall be backfilled with a cement grout. Include with Item 603, for pavement.

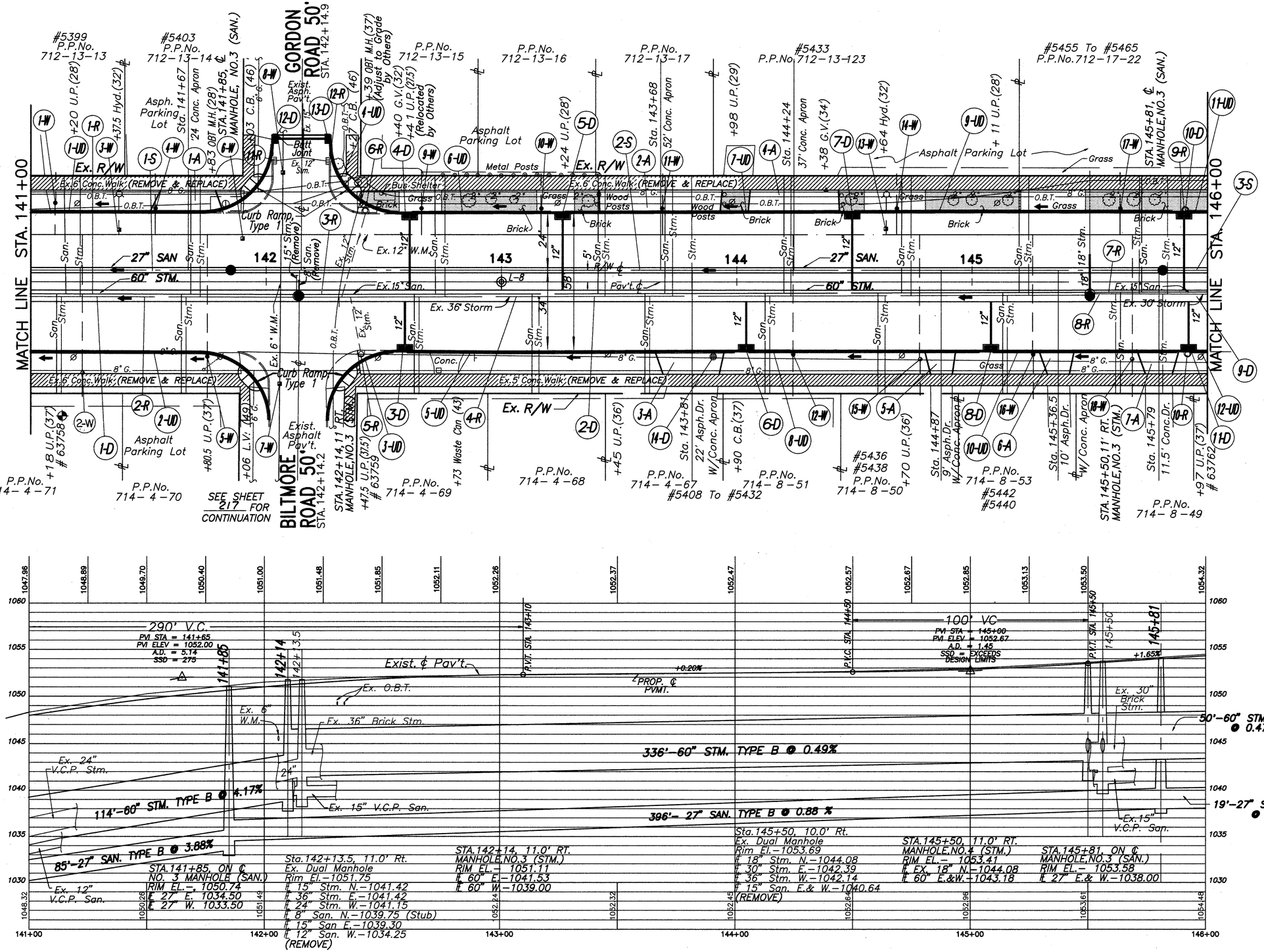
MAYFIELD ROAD

PLAN AND PROFILE STA. 136+00 TO STA. 141+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

96
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD



0 5 10 20 40 60
SCALE IN FEET

For Sanitary Quantities See Sheet No. 57.
For Drainage Quantities See Sheet No.s 44 To 53.
For Waterwork Quantities See Sheet No.s 66 To 67.
For Connection Quantities See Sheet No. 51.
For Intersection Details See Sheet No.s 206 To 222.
For Traffic Control Plans See Sheet No.s 250 To 263.
For Driveway Quantities See Sheet No.s 35 To 36.
For Sewer Lateral Profiles See Sheet No.s 168 To 193.

Indicates Existing Concrete Walk To Be Removed And Replaced.

Textured Concrete Paving To Be Removed & Replaced With Brick Pavers

B.M. #11
Spike Set In U.P. #63758, Sta. 141+18, 37' South Of Mayfield Road.
Elev. 1049.48

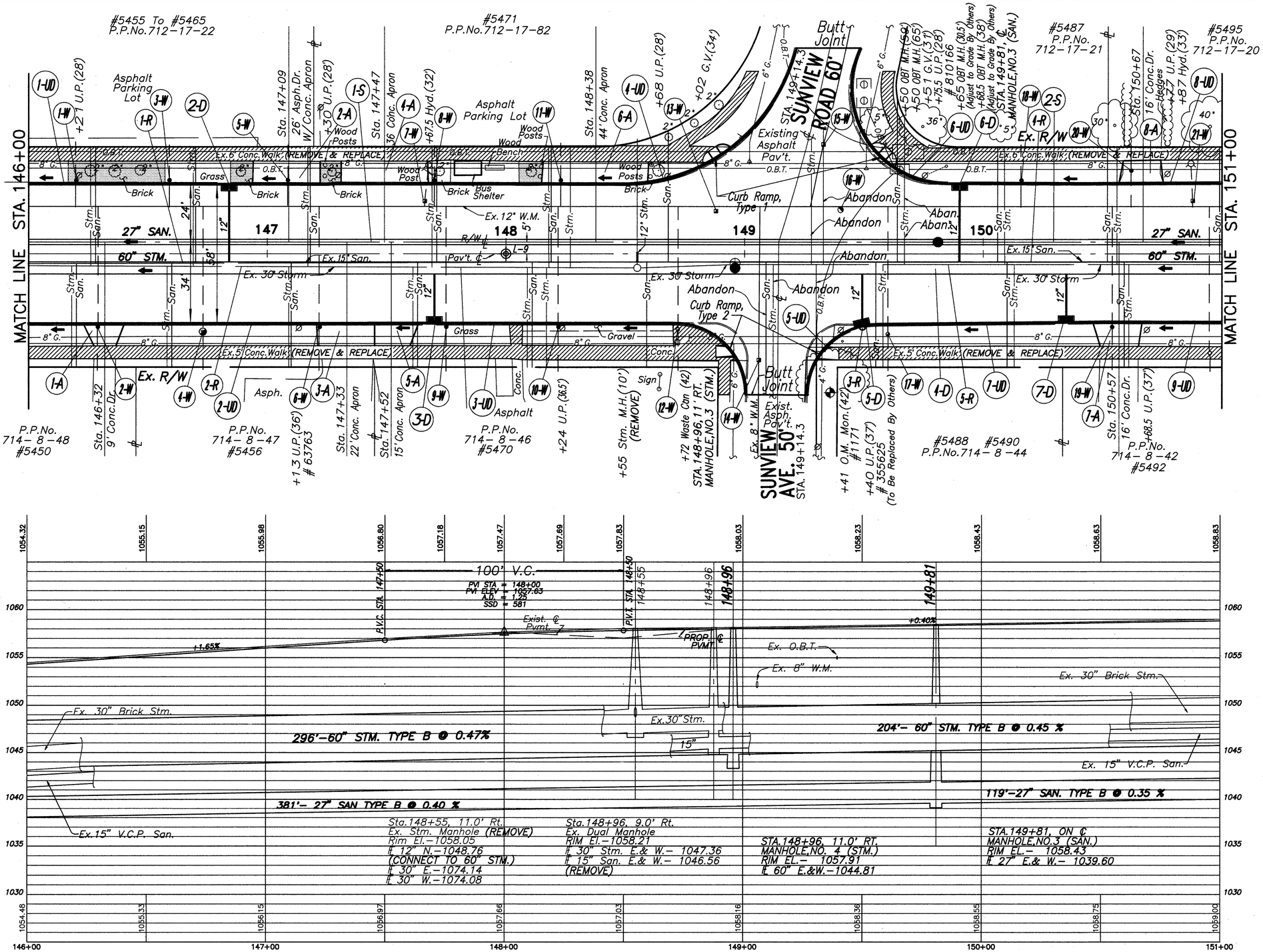
MAYFIELD ROAD

PLAN AND PROFILE STA. 141+00 TO STA. 146+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

97
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD



0 5 10 20 40 60
SCALE IN FEET

For Sanitary Quantities See Sheet No. 57
For Drainage Quantities See Sheet No.s 44 To 52
For Waterwork Quantities See Sheet No.s 66 To 67
For Connection Quantities See Sheet No. 51
For Intersection Details See Sheet No.s 206 To 222
For Traffic Control Plans See Sheet No.s 250 To 263
For Driveway Quantities See Sheet No.s 35 To 36
For Sewer Lateral Profiles See Sheet No.s 168 To 193
For Geotechnical Information See Sheet No.s 422 To 426

Indicates Existing Concrete Walk To Be Removed And Replaced.

Textured Concrete Paving To Be Removed & Replaced With Brick Pavers

B.M. #12
O.M. Monument #1171 Set 2.35' North Of Existing Walk, Sta.149+41, 42' South Of Mayfield Road.
Elev. 1057.79

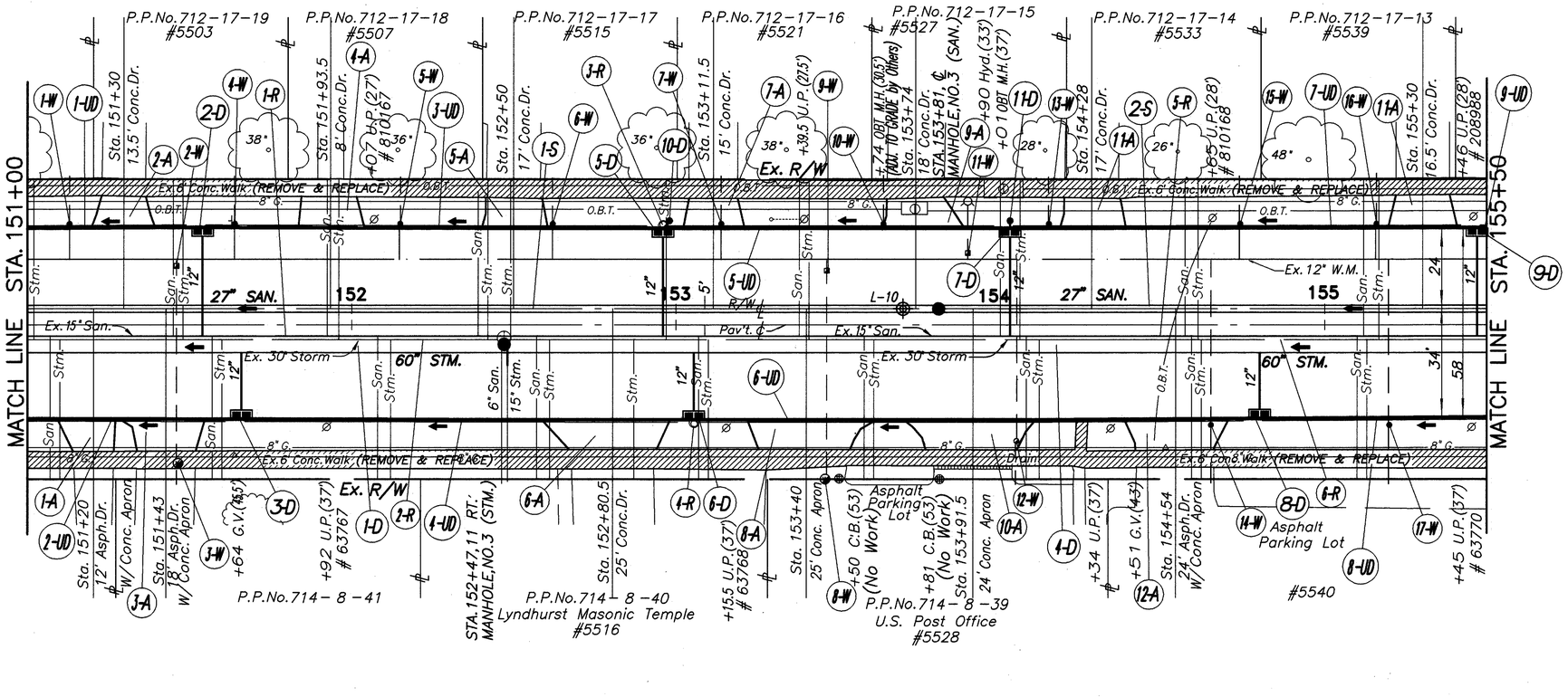
MAYFIELD ROAD

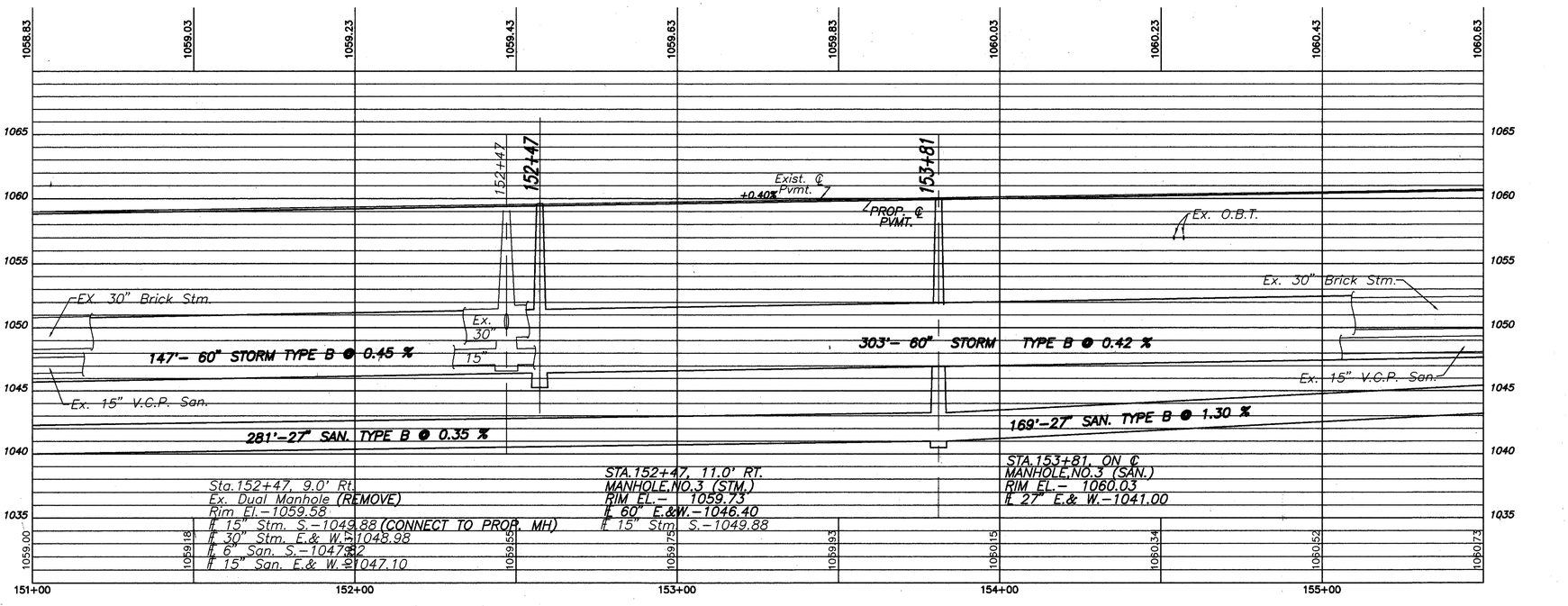
PLAN AND PROFILE STA. 146+00 TO STA. 151+00

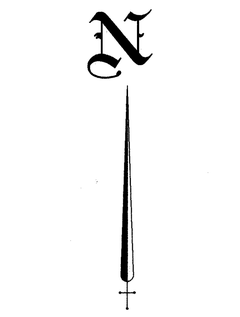
FHWA REGION	STATE	PROJECT	
5	OHIO		

98
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD







For Sanitary Quantities See Sheet No. 57
For Drainage Quantities See Sheet No.s 44 To 53
For Waterwork Quantities See Sheet No.s 66 To 67
For Connection Quantities See Sheet No. 51
For Traffic Control Plans See Sheet No.s 250 To 263
For Driveway Quantities See Sheet No.s 35 To 36
For Sewer Lateral Profiles See Sheet No.s 168 To 193

MAYFIELD ROAD

PLAN AND PROFILE STA. 151+00 TO STA. 155+50

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FHWA REGION	STATE	PROJECT	
5	OHIO		

99
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

N

0 5 10 20 40 60
SCALE IN FEET

B.M. #13
O.M. Monument #1173 Set 1.61' North Of Existing Walk, Sta.157+52, 43' South Of Mayfield Road.
Elev. 1062.38

For Sanitary Quantities See Sheet No. 57
For Drainage Quantities See Sheet No.s 44 To 53
For Waterwork Quantities See Sheet No.s 46 To 47
For Connection Quantities See Sheet No. 51
For Intersection Details See Sheet No.s 206 To 222
For Traffic Control Plans See Sheet No.s 250 To 263
For Driveway Quantities See Sheet No.s 35 To 36
For Sewer Lateral Profiles See Sheet No.s 168 To 193
For Geotechnical Information See Sheet No.s 422 To 426

Indicates Existing Concrete Walk To Be Removed And Replaced.

MATCH LINE STA. 155+50

MATCH LINE STA. 161+00

P.P.No. 712-17-12 #5547

P.P.No. 712-17-1

P.P.No. 712-21-1 #5567 #5569

P.P.No. 712-21-2 #5573 #5575

P.P.No. 712-21-3 #5579 #5581

P.P.No. 712-21-4

P.P.No. 712-21-5 #5589 #5591

P.P.No. 712-21-6 #5593 #5595

#5599

Sta. 155+61 11' Conc.Dr.

+34 U.P.(21.5)

+92.5 Hyd.(30.5) +1.2 U.P.(29)

+18.5 OBT M.H.(30) (Adjust To Grade By Others)

Ex. 12" W.M.

FORD ROAD 60' STA.157+42

+64 U.P.(28") ∅ 828454 (Reloc. by Others)

Sta. 157+81 ℄ MANHOLE,NO.3 (SAN.)

Sta. 158+42 10.5' Conc.Dr.

+56.5 U.P.(28") # 810169

Sta. 158+88 9.5' Conc.Dr.

Sta. 159+42.5 10' Conc.Dr.

+6.7 U.P.(28") # 692618

Sta. 159+89 9' Conc.Dr.

+22 Hyd.(32.5)

Sta. 160+41 8.5' Conc.Dr.

+65.5 OBT M.H.(28.5)

+69.5 U.P.(28")

Sta. 160+87 8' Conc.Dr.

Ex. R/W

Ex. 6' Conc. Walk (REMOVE & REPLACE)

Bus Shelter

Butt Joint

Curb Ramp, Type 1

Curb Ramp, Type 2

Abandon

27" SAN.

60" STM.

Ex. 30" Storm

Ex. 24" Storm

Ex. 15" San.

Ex. 12" San.

Ex. 6" W.M.

Pav't. ℄

Conc.

156 157 158 159 160

90°31' 20"

90°27' 40"

Curb Ramp, Type

Ex.6' Conc.Walk (REMOVE & REPLACE)

Asphalt Parking Lot

Exist. Asph. Pav't.

Ex.5' Conc.Walk

Ex. 6" W.M.

EDGEFIELD ROAD 50' STA.156+33

+23.5 L.V.(50) (Adjust to Grade)

+4' RT.

STA.156+29,11' RT. MANHOLE,NO.3 (STM.)

+35.5 U.P.(15") (Adjust to Grade)

#5564 P.P.No. 714-12-13

+52 O.M.Mon.(43) #1173

P.P.No. 714-12-14

+71 Waste Can (42)

+92 U.P.(37)

#5564 P.P.No. 714-12-15

Sta. 158+58 22' Conc. Apron

#5576 P.P.No. 714-12-16

+12.5 U.P.(38") # 63773

#5584 P.P.No. 714-12-17

+96 L.V.(50)

LYNDHURST ROAD 50' STA.160+02.5

STA.160+01,11' RT. MANHOLE,NO.3 (STM.)

+15.5 Mailbox (44) (Reloc. by Others)

+26 U.P.(39") (Reloc. by Others)

#5596 P.P.No. 714-12-18

#5540

SEE SHEET 219 FOR CONTINUATION

SEE SHEET 220 FOR CONTINUATION

MAYFIELD ROAD

1060.83 1060.83 1060.97 1061.19 1061.48 1061.86 1062.69 1063.52 1064.35 1065.18 1066.01 1066.84 1067.67 1068.50

100' V.C.
PVI STA = 156+50
PVI ELEV = 1061.03
A.D. = 1.26
ISSD = EXCEEDS DESIGN LIMITS

P.V.C. STA. 155+00

156+29

P.V.T. STA. 157+00

157+81

160+01

+0.40%

+1.56%

Exist. ℄ Pav't.

Exist. ℄ Pvmt.

PROP. ℄ PVMT.

Ex. O.B.T.

Ex. 8" Gas

Ex. 6" Gas

Ex. 6" W.M.

Ex. 30" Brick Stm.

Ex. 24" V.C.P. Stm.

Ex. 12" V.C.P. San.

Ex. 15" V.C.P. San.

79' - 60" STORM TYPE B @ 0.42%

372'-60" STORM TYPE B @ 1.68 %

99'- 60" STM. TYPE B @ 0.64 %

319'-27" SAN. TYPE B @ 1.36 %

231'-27" SAN. TYPE B @ 1.30 %

Sta.156+29, 9.0' Rt.
Ex. Dual Manhole
Rim El.-1061.16
℄ 24" Stm. E.-1050.43
℄ 30" Stm. W.-1050.11
℄ 12" San E.-1048.36
℄ 15" San. W.-1048.53
(REMOVE)

STA.156+29, 11.0' RT.
MANHOLE,NO.3 (STM.)
RIM EL.- 1060.91
℄ 60" E.& W.-1048.00

STA.157+81,℄
MANHOLE,NO.3 (SAN.)
RIM EL.- 1063.28
℄ 27" E.& W.-1046.20

Sta.160+01, 9.0' Rt.
Ex. Dual Manhole
Rim El.-1066.89
℄ 24" Stm. W.& E.-1055.46
℄ 12" San. W.& E.-1053.56
(REMOVE)

STA.160+01, 11.0' RT.
MANHOLE,NO.3 (STM.)
RIM EL.- 1066.76
℄ 60" E.& W.-1054.25

1060.73 1060.95 1061.30 1061.89 1062.67 1063.57 1064.36 1065.09 1065.98 1066.82 1067.66 1068.54

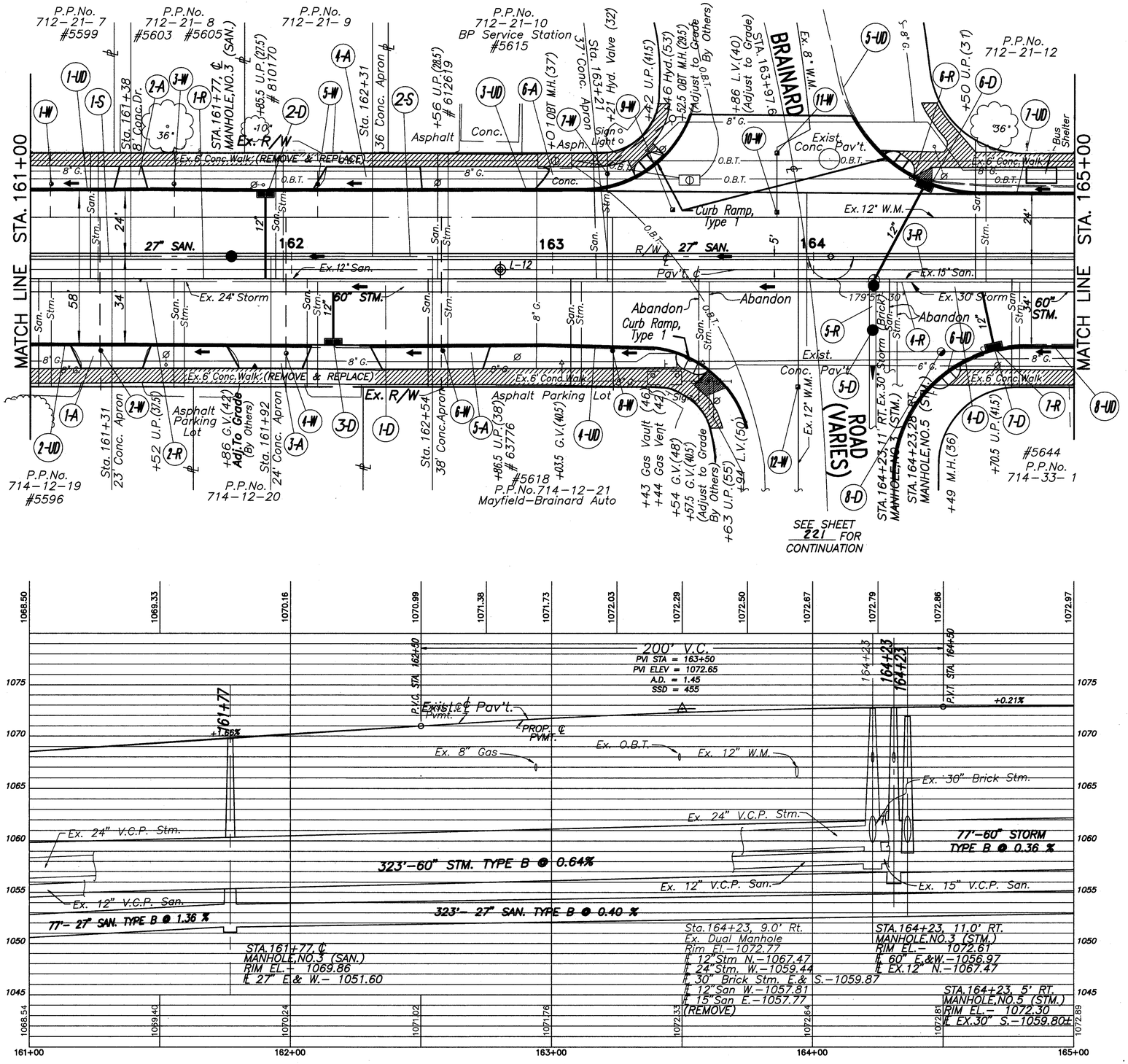
156+00 157+00 158+00 159+00 160+00 161+00

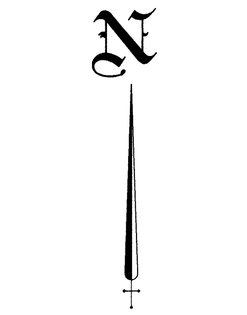
PLAN AND PROFILE STA. 155+50 TO STA. 161+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

100
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD





For Sanitary Quantities See Sheet No. 57
For Drainage Quantities See Sheet No.s 44 To 53
For Waterwork Quantities See Sheet No.s 46 To 67
For Connection Quantities See Sheet No. 51
For Intersection Details See Sheet No.s 206 To 222
For Traffic Control Plans See Sheet No.s 250 To 263
For Driveway Quantities See Sheet No.s 35 To 36
For Sewer Lateral Profiles See Sheet No.s 168 To 193
For Geotechnical Information See Sheet No.s 422 To 426

Indicates Existing Concrete Walk To Be Removed And Replaced.

Indicates Existing Concrete Walk To Be Removed

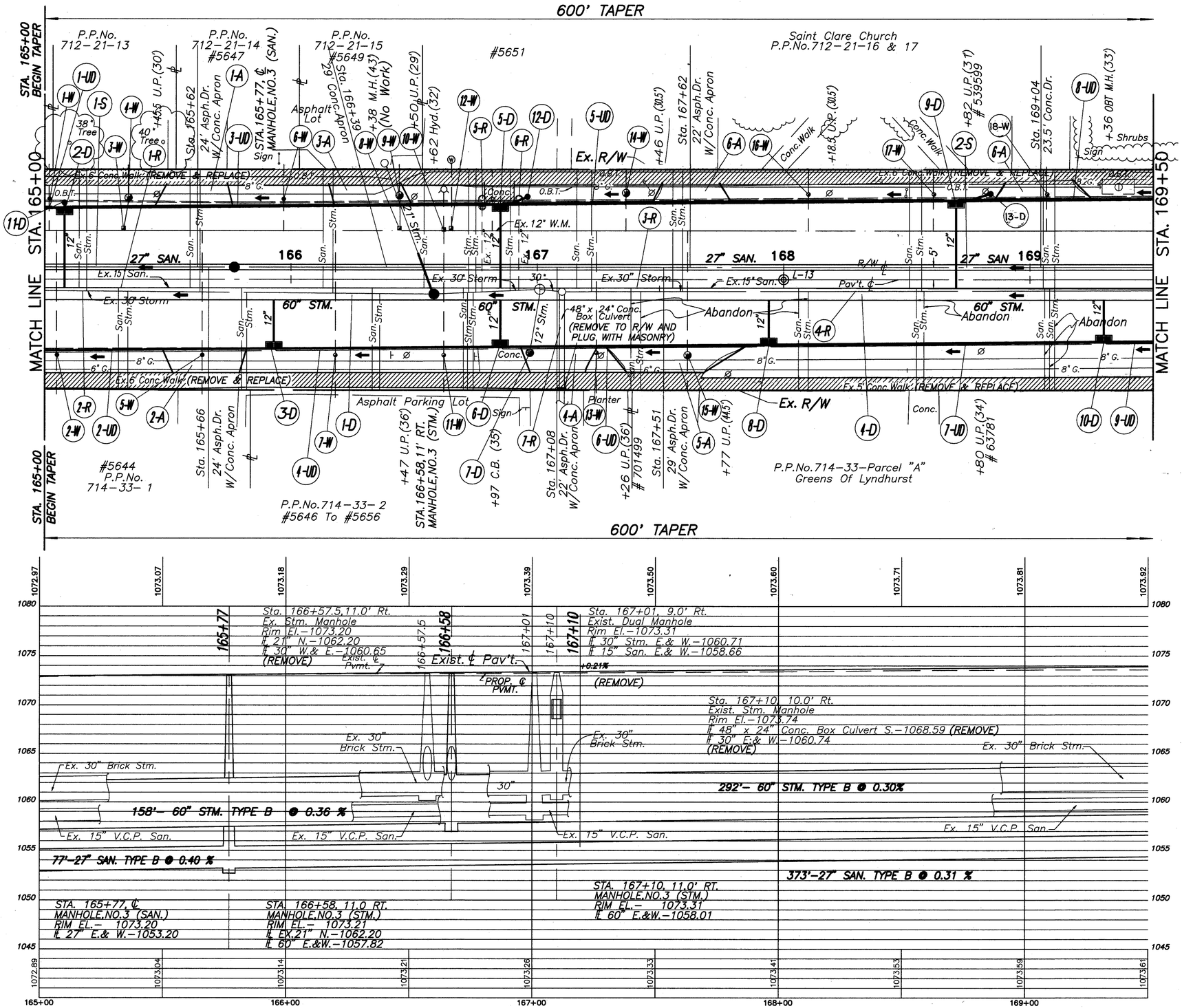
MAYFIELD ROAD

PLAN AND PROFILE STA. 161+00 TO STA. 165+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

101
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



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SCALE IN FEET

For Sanitary Quantities See Sheet No. 57
For Drainage Quantities See Sheet No.s 44 To 53
For Waterwork Quantities See Sheet No.s 66 To 67
For Connection Quantities See Sheet No. 51
For Traffic Control Plans See Sheet No.s 250 To 263
For Driveway Quantities See Sheet No.s 35 To 36
For Sewer Lateral Profiles See Sheet No.s 168 To 193
For Geotechnical Information See Sheet No.s 422 To 426

MAYFIELD ROAD

PLAN AND PROFILE STA. 165+00 TO STA. 169+50

FHWA REGION	STATE	PROJECT	
5	OHIO		

102
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

CITY OF MAYFIELD HEIGHTS

600' TAPER

P.P.No. 861– 1 –881 #5701

P.P.No. 861– 1 – 1 #5705 #5711

P.P.No. 861– 1 – 2

P.P.No. 861– 1 – 3

SEE SHEET 222 FOR CONTINUATION

IROQUOIS AVENUE 50'

STA. 167+67, ℄ MANHOLE,NO.3 (SAN.) +72 Hyd.(32') +83 OBT M.H.(40.5)

Corp. Line Sta. 169+88.90

+90 U.P.(31') # 122974

Asphalt Parking Lot

Sta. 170+46 22' Conc.Apron

Ex. R/W

STA. 171+00 END TAPER

+25 U.P.(32') # 537700 (Relocated by Others)

Traf.Loop

Ex. 6" W.M.

STA. 171+57.40

+80.5 Traf.Pole (43') +90 Control Box (39.5) +95 U.P.(41') +08 Waste Can (42)

Asph. Bus Shelter

+26 U.P.(33') # 615236

Sta. 172+75.5 17' Conc.Apron

+94 Hyd.(33)

+19 U.P.(33') O.B.T.

+28 OBT M.H.(38')

STA. 173+67, ℄ NO.3 DROP MANHOLE, AS PER PLAN–A (SAN.)

Shrubs

Ex. 5' Conc.Walk (REMOVE & REPLACE)

8" G.

Conc.

Exist. Asph. Pav't.

Curb Ramp, Type 1

Ex. 12" W.M.

Conc. Apron

O.B.T.

MATCH LINE STA. 169+50

170 Ex. 12" San. 27" SAN.

171 Corp. Line

172 27" SAN

173 L–14

Plug

21" SAN. (FUTURE)

45° Bend

Ex. 15" San.

Ex. 30" Storm

48" STM. (FUTURE)

60" STM.

Const. ℄

Ex. 15" San.

30" Stm.

Abandon

Ex. 30" BRICK Storm

Curb Ramp, Type 2

Conc. Island

Asphalt Pav't.

PROP. 6' CONC. WALK

48" STM.

Ex. 5' Conc.Walk (REMOVE & REPLACE)

Ex. R/W

Planter

Shrubs

Sign

Asph. Pav't.

Traf.Loop

+82 Traffic Pole (40)

+83 C.B.(30)

+02 U.P.(32') # 637835

+20 Traffic Pole (42)

Sta. 171+57.43' Conc. Apron

+85 U.P.(34')

STA. 170+00, 11' RT. MANHOLE,NO.3 (STM.)

P.P.No. 714–33–Parcel "A"

CITY OF LYNDHURST

600' TAPER

GREENS OF LYNDHURST SHOPPING CENTER

+40 U.P.(31')

#5722 – #5712

P.P.No. 714–33– 8

P.P.No. 714–33– 9

Sta. 173+31 33' Conc.Dr.

STA. 173+67, 11' RT. MANHOLE,NO.3 (STM.)

Corp. Line Sta. 173+70.02

+73 U.P.(31') # 637835

END PROJECT STA. 173+70

Federal Project No. NH-83(29)

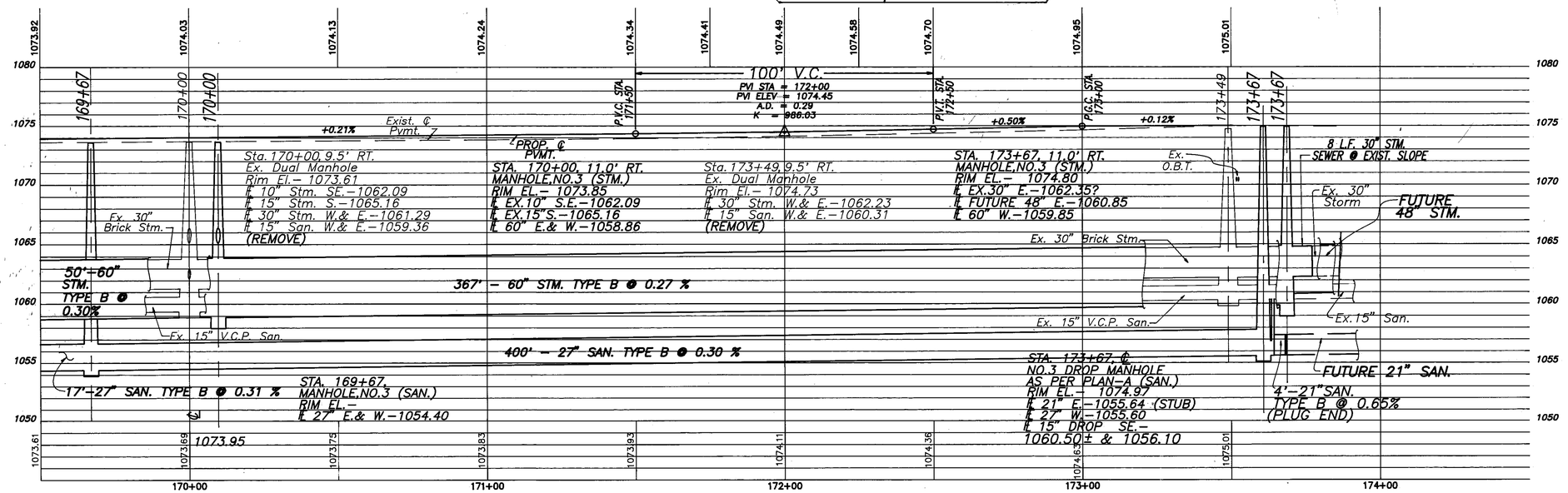
END WORK STA. 181+70

0 5 10 20 40 60

SCALE IN FEET

For Drainage Quantities See Sheet No.s 44 To 57.
For Waterwork Quantities See Sheet No.s 66 To 67.
For Connection Quantities See Sheet No. 51.
For Intersection Details See Sheet No.s 206 To 222.
For Traffic Control Plans See Sheet No.s 250 To 263.
For Driveway Quantities See Sheet No.s 35 To 36.
For Sanitary Quantities See Sheet No. 57.
For Sewer Lateral Profiles See Sheet No.s 168 To 193.
For Geotechnical Information See Sheet No. 422 To 426.
For Drop Manhole Details See Sheet No.s 421.

Indicates Existing Concrete Walk To Be Removed And Replaced.

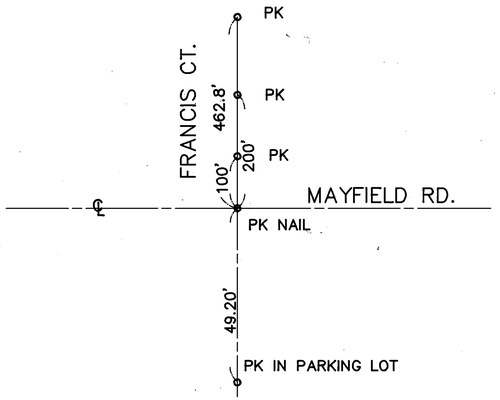


MAYFIELD ROAD

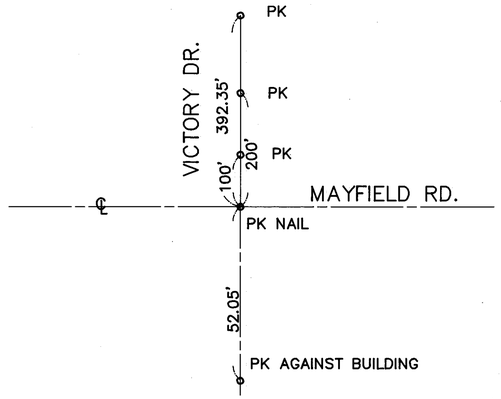
PLAN AND PROFILE STA. 169+50 TO STA. 173+70

	NH-83(29)	OHIO F.H.W.A. REGION 5	103 426

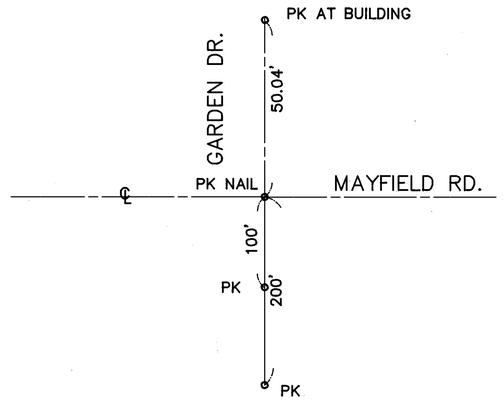
CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



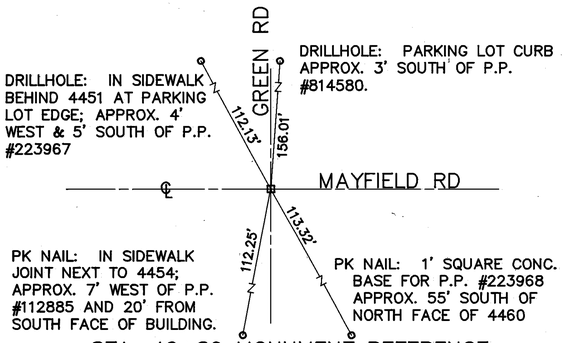
STA. 32+36.12
P.K. NAIL REFERENCE



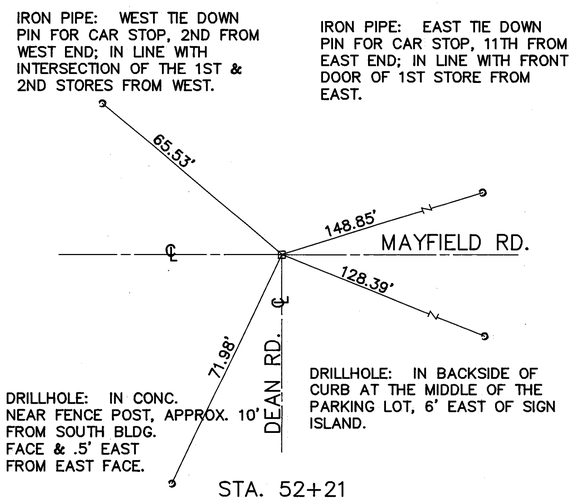
STA. 43+27.27
P.K. NAIL REFERENCE



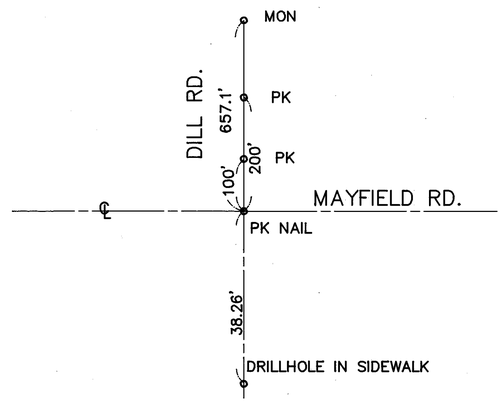
STA. 44+04.70
P.K. NAIL REFERENCE



STA. 46+89 MONUMENT REFERENCE



STA. 52+21
MONUMENT REFERENCE

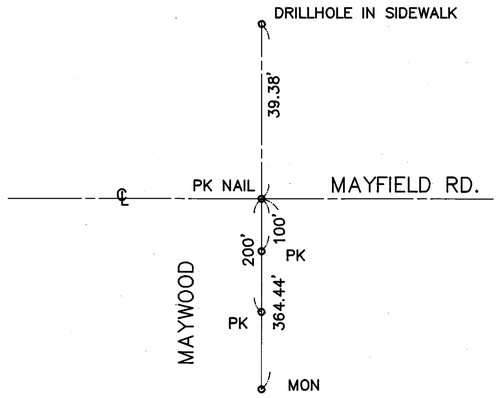


STA. 57+85.79
P.K. NAIL REFERENCE

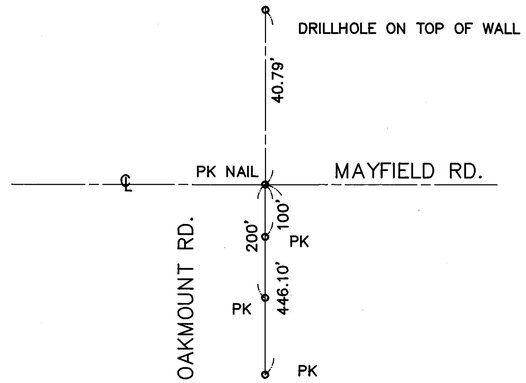
MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

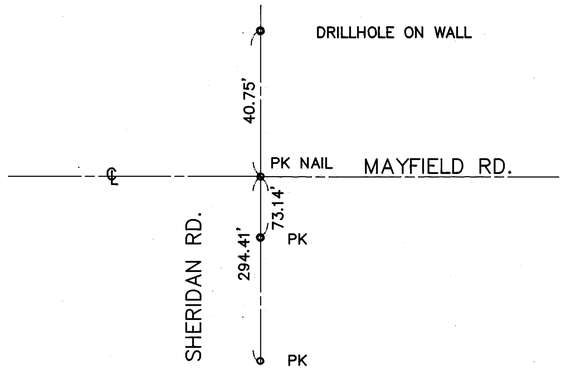
MONUMENT REFERENCES



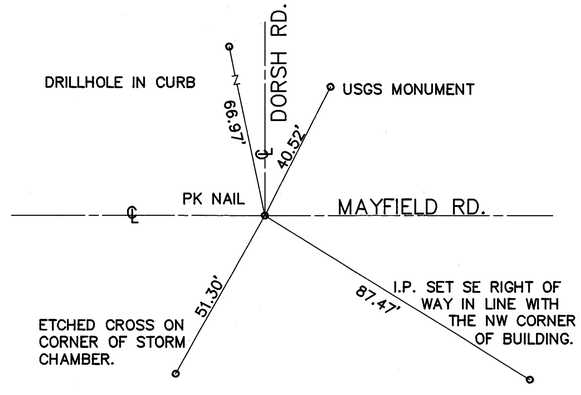
STA. 58+92.78
P.K. NAIL REFERENCE



STA. 62+14.74'
P.K. NAIL REFERENCE



STA. 66+22.71
P.K. NAIL REFERENCE



STA. 73+34.49
P.K. NAIL REFERENCE

MAYFIELD ROAD

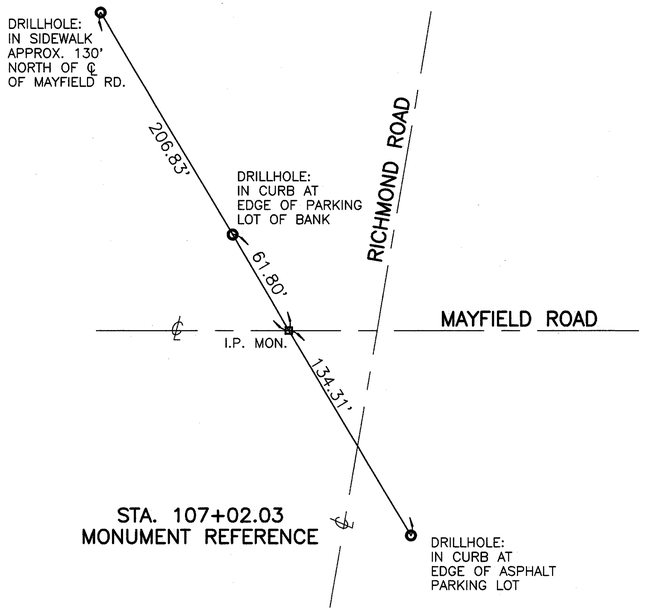
STEPHEN HOVANCSEK & ASSOC., INC.

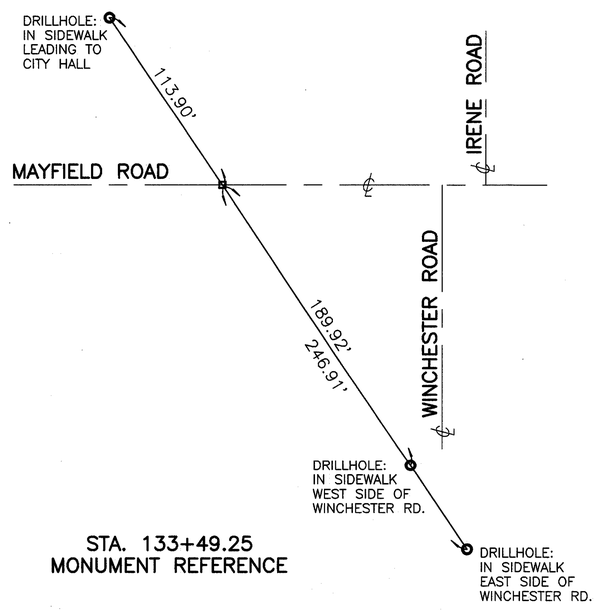
MONUMENT REFERENCES

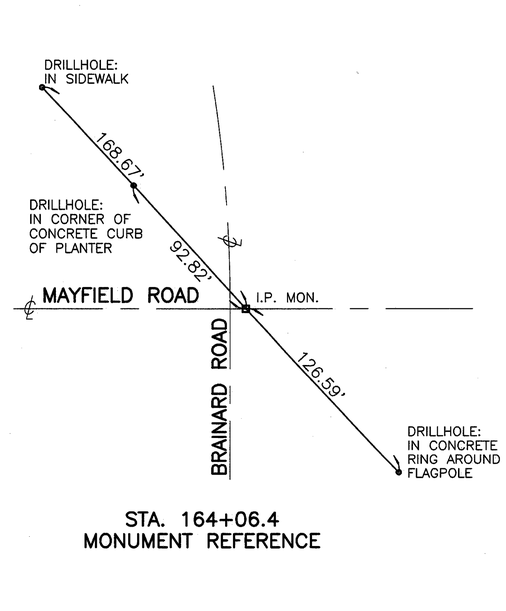
FHWA REGION	STATE	PROJECT	
5	OHIO		

105
426

CUYAHOGA COUNTY
CUY –322–8.66
MAYFIELD ROAD







MAYFIELD ROAD

MONUMENT REFERENCES

SEEDING	
END WIDTH	SQ. YDS.

NOTE: T/G ELEVATION IS CONTINUATION OF NORMAL PAVEMENT CROSS SLOPE.

STA. 3+51, 29' RT.
C.B. 3A, W/SUMP
T/G = 968.94

9D

EX. 8" GAS

EX. CEI
6 DUCTS
4-1/2" FD.

32'-12" STM. TYPE 'B' @ 9.69%

54" STM.

EX. 24" SAN.

EX. 30" STM.

960.1

963.2

24" SAN.

969.34
9D **STA. 3+51** 5D
969.71

STA. 2+41, 29' LT.
CB. 3A, W/SUMP
T/G = 968.20

6D

EX. OBT
9 MTD

EX. 20" GAS

EX. 16" W.M.
LOWERED 16" W.M.

24'-12" STM. TYPE 'B' @ 1.0%

959.25

959.01

968.80
STA. 2+41 6D
969.18

JUNCTION CHAMBER

4D

EXIST. M.H.
STA. 1+85, 2' LT.

STA. 1+65, 29' RT.
C.B.-3A, W/SUMP
T/G = 968.02

2D

EX. 8" GAS

EX. CEI
6 DUCTS
4-1/2" FD.

EX. 16" W.M.

29'-18" STM. @ 0.44%

37'-12" STM. TYPE 'B' @ 2.81 %

EX. 24" SAN.

59.66

960.70

OUT 30"
E = 57.66

57.68

57.8

968.42
STA. 1+65 2D
968.93

℄ 12" WATER

STA. 8+42, 29' LT.
C.B. 3A, W/SUMP
T/G = 971.25

EX. OBT
9 MTD

EX. OBT
16 FD.

EX. 20" GAS

EX. 16" W.M.

37'-12" STM. TYPE 'B' @ 1.62%

962.1

EX. 24" STM.
961.5

48" STM.

21'-12" STM. TYPE "B" @ 22.4%

961.5

EX. 10" SAN.

10" SAN

STA. 8+42, 29' RT.
C.B. 3A, W/SUMP
T/G = 971.45

EX. CEI
6 DUCTS
4-1/2" FD.

EX. 8" GAS

966.2

971.85
9D **STA. 8+42** 8D
972.21

STA. 6+65, 29' LT.
C.B. 3A, W/SUMP
T/G = 970.32

EX. OBT
16 FD.

EX. OBT
9 MTD

EX. 20" GAS

EX. 16" W.M.

37'-12" STM. TYPE 'B' @ 0.81 %

961.0

EX. 24" STM.

48" STM.

21'-12" STM. TYPE "B" @ 21.0%

960.7

960.8

EX. 10" SAN.

10" SAN.

STA. 6+65, 29' RT.
C.B. 3A, W/SUMP
T/G = 970.52

EX. CEI
6 DUCTS
4-1/2" FD.

EX. 8" GAS

965.2

970.92
6D **STA. 6+65** 7D
971.25

STA. 4+96, 29' LT.
C.B. 3A, W/SUMP
T/G = 969.47

9 MTD

12 MTD

EX. OBT

EX. 20" GAS

EX. 16" W.M.

26'-12" STM. TYPE "B" @ 1.15%

960.8

54" STM.

960.5

960.6

EX. 30" STM.

EX. 24" SAN.

24" SAN

32'-12" STM. TYPE "B" @ 11.2%

STA. 4+96, 29' RT.
C.B. 3A, W/SUMP
T/G = 969.67

EX. CEI
6 DUCTS
4-1/2" FD.

EX. 8" GAS

964.18

970.07
1D **STA. 4+96** 2D
970.41

CALC. BY DATE	NH-83 (29)	OHIO
CHKD. BY DATE		FHWA REGION

106
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL

MAYFIELD ROAD

SEWER PROFILE · · · STA. 1+65 TO STA. 8+42

SEEDING	
END WIDTH	SQ. YDS.

CALC. BY ____ DATE ____
CHKD. BY ____ DATE ____

NH-83(29)

OHIO
FHWA REGION

107
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL

STA. 12+40, 29' LT.
C.B. 3A, W/SUMP
T/G=973.63
7D
EX. 20" GAS
EX. 16" W.M.
37'-12" STM. TYPE "B" @ 6.10%
EX. 18" STM.
36" STM.
EX. 10" SAN.
10" SAN.
965.0
962.75
EX. C.E.I. 6 DUCTS 4 1/2" F.D.
974.23
7D
STA. 12+40
974.6

STA. 11+55, 32' RT.
INLET, NO. 1
T/G=973.60
STA. 11+55, 29' RT.
C.B. 3A, W/SUMP
T/G=973.32
6D
EX. 8" GAS
971.50
EX. C.E.I. 6 DUCTS 4 1/2" F.D.
EX. 20" GAS
EX. 16" W.M.
EX. 18" STM.
36" STM.
EX. 10" SAN.
21'-12" STM. TYPE "B" @ 25.6%
3'-8" STM TYPE "C" @ 2.0%
10" SAN.
968.0
962.62
973.72
STA. 11+55
974.0
6D

STA. 20+02, 8' RT.
STM. M.H.
T/C=970.36
1D
STA. 20+02, 29' LT.
C.B. 3A, W/SUMP
T/G=969.72
3D
STA. 20+02, 29' RT., C.B. 3A, W/SUMP T/G=969.92
20" GAS
EX. 16" W.M.
37'-12" STM. TYPE 'B' @ 1.0%
961.7
961.33
EX. 15" STM.
EX. 10" SAN.
EX. C.E.I. 6 DUCTS 4 1/2" F.D.
964.0
964.21
21'-12" STM. TYPE 'B' @ 1.0%
970.32
3D
STA. 20+02
970.9
4D

STA. 15+31, 29' LT.
C.B. 3A, W/SUMP
T/G=975.38
2D
STA. 15+31, 8' RT.
STM. M.H.
T/C=976.02
1D
STA. 15+24, 32' RT.
INLET, NO. 1
T/G=975.80
EX. 8" GAS
EX. C.E.I. 6 DUCTS 4 1/2" F.D.
EX. 20" GAS
EX. 16" W.M.
37'-12" STM TYPE "B" @ 5.95%
24'-8" STM. TYPE "B" @ 1.00%
EX. 12" STM.
18" STM.
EX. 10" SAN.
EX. 24" W.M.
967.0
964.8
969.76
970.00
10" SAN.
975.98
2D
STA. 15+31
976.1

STA. 9+73, 29' LT.
C.B. 3A, W/SUMP
T/G=972.02
5D
EX. 20" GAS
EX. 16" W.M.
58'-12" STM. TYPE "B" @ 2.0%
963.4
10" SAN.
962.2
EX. 10" SAN.
STA. 9+29, 8' RT.
STM. M.H.
T/C=972.40
1D
STA. 9+73, 29' RT.
C.B. 3A, W/SUMP
T/G=972.22
4D
EX. 18" STM.
O.B.T. DUCTS
EX. C.E.I. 6 DUCTS 4 1/2" F.D.
48'-12" STM. TYPE "B" @ 5.6%
966.0
963.3
972.62
5D
STA. 9+73
972.9
4D

STA. 13+91, 29' RT.
C.B. 3A, W/SUMP
T/G=974.74
12D
EX. 20" GAS
EX. 16" W.M.
EX. C.E.I. 6 DUCTS 4 1/2" F.D.
EX. 12" STM.
18" STM.
EX. 10" SAN.
21'-12" STM. TYPE "B" @ 23.8%
964.50
969.5
10" SAN.
975.14
12D
STA. 13+91
975.5

MAYFIELD ROAD

SEWER PROFILE··· STA. 9+73 TO STA. 20+02

CALC. BY DATE	NH-83(29)	OHIO
CHKD. BY DATE		FHWA REGION

108 / 426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS	CUT	FILL	CUT	FILL

STA. 24+25, 29' LT.
C.B. 3, W/SUMP
T/G = 958.99

STA. 24+25, 29' RT.
C.B. 3, W/SUMP
T/G = 959.19

OBT 9 MTD

OBT 6 MTD
TO BE RELOCATED

EX. 20" GAS

EX. 16" W.M.

37'-12" STM. TYPE "B" @ 1.00%

EX. OBT

956.23

BEND

30" STM.

21'-12" STM. TYPE "B" @ 6.2%

EX. 24" STM.

952.0

952.0

953.3

953.00

EX. 10" SAN.

EX. CEI 6 DUCTS 4 1/2" FD

EX. 8" GAS

EX. 24" W.M.

956.50

2D — 959.59 — STA. 24+25 — 959.52 — 3D

STA. 23+50, 39' LT.
TRENCH DRAIN
T/G = 959.50
INV. = 958.00

23'-6" STM. TYPE "C" @ 2.0%

STA. 23+75, 29' LT.
C.B. 6, W/SUMP
T/G = 959.17

STA. 23+84, 39' RT.
TRENCH DRAIN
T/G = 959.05
INV. = 957.00

STA. 23+75, 29' RT.
C.B. 3A
T/G = 959.37

OBT 9 MTD

OBT 6 MTD

OBT 12-3 1/2" FD

EX. 20" GAS

956.5

EX. 16" W.M.

37'-12" STM. TYPE "B" @ 1.00%

EX. O.B.T. DUCT

956.21

BEND

EX. 24" STM.

952.6

30" STM.

10" SAN.

EX. 10" SAN.

EX. 8" GAS

EX. 24" W.M.

12'-6" STM. TYPE "C" @ 1.0%

8D — 959.77 — STA. 23+75 — 959.66

STA. 23+75, 29' RT.
C.B. 6, W/SUMP
T/G = 959.37

STA. 24+25, 29' RT.
C.B. 3, W/SUMP
T/G = 959.19

50'-12" STM. TYPE "B" @ 1.00%

954.0

953.5

9D — SOUTH — 3D

2D STA. 22+51, 8' LT.
MH-3 MANHOLE
T/C = 961.81

STA. 22+51, 29' LT.
C.B. 3A, W/SUMP
T/G = 961.17

STA. 22+51, 29' RT.
C.B. 3A, W/SUMP
T/G = 961.37

OBT 9 MTD

EX. 20" GAS

EX. O.B.T. DUCT

EX. 16" W.M.

37'-12" STM. TYPE "B" @ 1.00%

EX. 15" STM.

21'-12" STM. TYPE "B" @ 12.9%

EX. CEI 6 DUCTS 4 1/2" FD

EX. 8" GAS

EX. 24" W.M.

OBT 16 MTD

952.20

EX. 10" SAN.

952.8

955.5

951.83

5D — 961.77 — STA. 22+51 — 961.94 — 6D

STA. 28+95, 29' LT.
C.B. 3A, W/SUMP
T/G = 971.29

STA. 28+95, 29' RT.
C.B. 3A, W/SUMP
T/G = 971.49

EX. OBT 9 MTD

EX. 8" GAS

EX. 16" W.M.

32'-12" STM. TYPE "B" @ 6.25%

36" STM.

EX. 20" STM.

26'-12"

STM. TYPE "B" @ 7.69%

EX. 36" W.M.

EX. CEI 6 DUCTS 4 1/2" FD

EX. 8" GAS

963.0

961.0

EX. 10" SAN.

963.0

961.0

11D — 971.89 — STA. 28+95 — 972.41 — 12D

7D STA. 25+75, 8' RT.
M.H. 3
T/C = 961.25

STA. 25+96, 29' LT.
C.B. 3A, W/SUMP
T/G = 961.12

EX. OBT 9 MTD

43'-12" STM. TYPE "B" @ 5.58%

957.0

EX. 16" W.M.

EX. 20" STM.

954.6

EX. 10" SAN.

952.90

EX. 15" STM.

8'-15" STM. TYPE "B"

8D — 961.69 — STA. 25+96 — 961.93

* STA. 26+30 SEE SHT. 113

STA. 24+75, 29' LT.
C.B. 3A, W/SUMP
T/G = 959.16

STA. 24+75, 43.5' RT.
C.B. 3A, W/SUMP
T/G = 959.12

8'

5D

20" C

956.5

16" W.M.

EX. OBT

37'-12" STM. TYPE "B" @ 1.00%

956.2

45° BEND

C.E.I. DUCT

8" GAS

953.3

20" STM.

952.5

36'-12" STM. TYPE "B" @ 4.33%

24" W.M.

954.06

5D — 959.77 — STA. 24+75 — 959.72 — 6D

MAYFIELD ROAD

SEWER PROFILE··· STA. 22+51 TO STA. 28+95

SEEDING	
END WIDTH	SQ. YDS.

CALC. BY / DATE	NH - 83(29)	OHIO
CHKD. BY / DATE		FHWA REGION

109/426

CUYAHOGA COUNTY
CUY - 322 - 8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL

STA. 34+41, 29' LT.
C.B. 3A
T/G = 974.43
3D

STA. 34+91, 29' LT.
C.B. 3, W/SUMP,
T/G = 974.29
4D

STA. 35+32, 29' LT.
C.B. 3A
T/G = 974.33
6D

50'-12" STM. TYPE 'B' @ 1.00%
971.25
970.75
970.75
41'-12" STM. TYPE 'B' @ 1.00%
971.16
970.7

NORTH

STA. 35+32, 33' RT.
INLET NO. 1
T/G = 974.75

STA. 34+91, 29' RT.
C.B. 3, W/SUMP
T/G = 974.49
5D

STA. 34+11, 29' RT.
C.B. 3A,
T/G = 974.75
2D

STA. 35+32, 29' RT.
C.B. 3A
T/G = 974.53
7D

80'-12" STM. TYPE "B" @ 1.00%
970.65
969.85
41'-12" STM. TYPE "B" @ 1.00%
969.85
970.26
972.50
4'-8" STM. TYPE "C" @ 10%
964.7

2D — SOUTH — 35+32 — 7D

STA. 32+18, 33' RT.
INLET NO. 1
T/G = 975.75
INV = 971.20
5D

STA. 31+90, 29' LT.
C.B. 3A, W/SUMP
T/G = 975.42
3D

32'-12" STM. TYPE 'B'
BEND
EX. OBT.
9 MTD.
EX. CEI.
6 DUCTS
4 1/2" FD.
EX. 8" GAS
EX. 36" W.M.
972.3
EX. 16" W.M.
971.6
36" STM.
30'-8" STM. TYPE "B" @ 24.0 %
964.5
EX. 10" SAN.
EX. 20" STM.

3D — 976.02 — STA. 31+90 — 976.4 — 5D

30 20 10 ℄ 10 20 30

STA. 36+74.3' RT.
M.H. 3
T/C = 975.94
1D

STA. 37+16, 29' LT.
C.B. 3A, W/SUMP
T/G = 975.62
11D

53'-12" STM. TYPE 'B' @ 1.00%
972.5
EX. 16" W.M.
971.97
EX. 36" W.M.
EX. 8" GAS
EX. 12" STM.
EX. 10" SAN.
36" STM.

976.22
STA. 37+16
976.58

STA. 33+40, 32' RT.
INLET NO. 1
T/G = 975.10
4D

975.43
STA. 33+40
EX. 36" W.M.
EX. CEI.
6 DUCTS
4 1/2" FD.
30'-8" STM. TYPE "B" @ 23.67 %
971.10
EX. 20" STM.
36" STM.
EX. 10" SAN.
10" SAN.
964.00

STA. 34+91, 29' LT.
C.B. 3, W/SUMP
T/G = 974.29
4D

STA. 34+91, 29' RT.
C.B. 3, W/SUMP
T/G = 974.49
5D

32'-12" STM. TYPE 'B'
BEND
970.7
EX. 16" W.M.
970.5
EX. CEI.
6 DUCTS
4 1/2" FD.
EX. 36" W.M.
36" STM.
965.7
EX. 10" SAN.
EX. 20" STM.
26'-12" STM. TYPE "B" @ 1.00%
964.44
964.70

4D — 974.89 — STA. 34+91 — 975.2 — 5D

30 20 10 ℄ 10 20 30

MAYFIELD ROAD

SEWER PROFILE · · · STA. 31+90 TO STA. 37+16

SEEDING	
ENG WIDTH	SQ. YDS.

NOTE: CONTRACTOR TO FIELD VERIFY ELEV. OF EX. 24" STORM IN THIS AREA.

STA. 45+25, 33' RT.
INLET NO. 1
T/G=974.10
INV.=972.00
EXIST. STM. M.H.

STA. 45+17, 29' LT.
C.B. 3, W/SUMP
T/G = 973.67

STA. 45+32, 3' RT
M.H. 3
T/C = 974.35

STA. 45+32, 29' RT.
C.B. 3A W/ SUMP
BUILT OVER EX. 24"
T/G= 973.89

8'-24" STM. TYPE "B"

48" STM.

35'-12" STM. TYPE "B" at 1.00%

970.0

EX. 16" W.M.

969.67

969.5

969.7

EX. 24"

7'-8" STM. TYPE "C" @ 1.0%

970.10 EX. 24" STM.

EX. 36" W.M.

EX. 15" STM.

EX. 10" SAN.

EX. CEI
6-DUCTS
4-1/2" F.D.

45+17

STA. 43+75, 29' RT.
C.B. 3A W/ SUMP
T/G= 975.04

974.27

STA. 45+17

974.48

26'-12" STM TYPE "B" at 1.0%

EX. 15" STM.

969.47

969.70

EX. 10" SAN.

EX. 36" W.M.

STA. 42+75, 31' LT.
C.B. 3A, W/SUMP
T/G = 976.20

STA. 42+75.3' RT.
MH-3 MANHOLE
T/G= 976.90

975.44

STA. 43+75

975.70

34'-12" STM. TYPE "B" @ 1.94%

972.36

EX. 16" W.M.

971.70

18" STM

EX. 12" STM.

EX. 10" SAN.

976.84

STA. 42+75

977.03

977.03

STA. 38+00 29' LT.
C.B. 3A, W/SUMP.
T/G = 976.29

STA. 38+00 29' RT.
C.B. 3A, W/SUMP.
T/G = 976.49

32'-12" STM. TYPE "B" @ 2.0%

45° BEND

EX. 36" W.M.

EX. CEI
6 DUCTS
4-1/2" F.D.

EX. 16" W.M.

972.7

9722

18" STM.

26'-12" STM. TYPE "B" @ 9.62%

EX. 12" STM.

EX. 10" SAN.

967.7

967.0

969.5

976.89

STA. 38+00

977.31

STA. 47+34, 3' RT.
M.H. 3
T/C = 976.09

STA. 47+33, 34' RT.
C.B. 3A, W/SUMP
T/G = 975.62

STA. 47+31, 29' LT.
C.B. 3A, W/SUMP
T/G = 975.40

28'-12" STM. TYPE "B" @ 13.57 %

EX. 16" W.M.

972.1

968.30

60" STM.

EX. 15" STM.

EX. 36" W.M.

27'-12" STM. TYPE "B" @ 5.07%

966.34

EX. 10" SAN.

967.7

976.00

STA. 47+31
STA. 47+33

976.32

STA. 45+32, 29' RT.
C.B. 3, W/SUMP
T/G=973.89

STA. 44+67, 29' RT.
C.B. 3A
T/G=974.02

STA. 45+63, 29' RT.
C.B. 3A
T/G=974.00

65'-12" STM. TYPE "B" @ 1.00

970.85

970.2

EX. 24" STORM

970.1

31'-12" STM. TYPE "B" @ 1.00%

970.2

970.51

45+32
SOUTH

STA. 45+17, 29' LT.
C.B. 3, W/SUMP
T/G=973.67

STA. 45+82, 32' LT.
INLET NO. 1
T/G=974.00
INV.=972.00

STA. 44+67, 29' LT.
C.B. 3A
T/G=973.82

STA. 45+63, 29' LT.
C.B. 3A
T/G=973.80

50'-12" STM. TYPE "B" @ 1.00%

970.7

970.2

970.1

46'-12" STM. TYPE "B" @ 1.00%

970.2

970.66

18'-8" STM.
TYPE "C" @ 1.0%

45+17
NORTH

MAYFIELD ROAD

CALC. BY / DATE	NH-83(29)	OHIO
CHKD. BY / DATE		FHWA REGION

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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL

SEWER PROFILE · · · STA. 38+00 TO STA. 47+33

SEEDING	
END WIDTH	SQ. YDS.

CALC. BY ____ DATE ____
CHKD. BY ____ DATE ____

NH-83(29)

OHIO
FHWA REGION

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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL

STA. 54+43, 29' LT.
C.B.-6, W/SUMP
T/G = 967.70

STA. 54+49, 29' LT.
C.B. 6
T/G = 967.79

STA. 54+46, 29' RT.
C.B. 3, W/SUMP
T/G = 967.39

32'-12" STM. TYPE "B" @ 1.56%

EX. 8" GAS
EX. 16" W.M.
963.20
43"x68" STM.
962.7
EX. 36" STM.
EX. 36" W.M.
EX. C.E.I. 6 DUCTS
EX. 8" GAS
EX. 12" SAN.

STA. 54+49, 29' LT.
CB-6
T/G = 967.79
R = 963.32

6'-12" STM. TYPE 'B' at 2.00%
12" STM.
STA. 54+43, 29' LT.
CB-6, W/SUMP
T/G = 967.70
R = 963.20

2D 967.79 **STA. 54+43** 968.3 3D

STA. 54+49

* FOR STA. 54+46 (SOUTH) SEE SHT. 112

PLAN

STA. 53+85, 29' LT.
C.B. 3A, W/SUMP
T/G = 967.41

STA. 53+85, 29' RT.
C.B. 3A
T/G = 967.61

32'-12" STM. TYPE "B" @ 1.25%

EX. 8" GAS
EX. 16" W.M.
962.40
43"x68" STM.
962.0
EX. 36" STM.
EX. 12" SAN.
EX. 36" W.M.
EX. C.E.I. 6 DUCTS
EX. 8" GAS

8D 968.01 **STA. 53+85** 968.5 9D

STA. 51+00, 29' RT
C.B. 6
T/G = 973.74

3D 974.14 **STA. 51+00** 974.47

EX. 36" STM.
EX. 36" W.M.
EX. CEI 6 DUCTS 5" F.D.
26'-12" STM. TYPE 'B' @ 1.0%
60" STM.
EX. 12" SAN.
964.1
964.36
EX. 8" GAS

STA. 51+81, 29' LT.
C.B. 3A, W/SUMP
T/G = 971.35

32'-12" STM. TYPE 'B' @ 1.00%

EX. 8" GAS
EX. 16" W.M.
968.0
967.74
60" STM.
EX. 36" STM.
EX. 12" SAN.
EX. 36" W.M.
EX. CEI 6 DUCTS 5" F.D.
EX. 8" GAS

2D 971.95 **STA. 51+81** 972.1

STA. 58+36, 29' LT.
C.B. 3A, W/SUMP
T/G = 974.19

STA. 58+36, 13' RT.
M.H. 3
T/C = 974.72

42'-12" STM. TYPE 'B' @ 1.65%

969.98
EX. 16" W.M.
EX. 12" STM.
969.29
EX. 24" SAN.
EX. 36" W.M.

974.79 **STA. 58+36** 974.9 14D

* FOR STATION 57+50 SEE SHT.* 113
* FOR STATION 56+50 SEE SHT.* 117

STA. 55+23, 29' LT.
C.B. 3A, W/SUMP
T/G = 967.55

32'-12" STM. TYPE 'B' @ 5.33%

964.1
16" W.M.
962.18
18" STM.
EX. 12" STM.
EX. 36" W.M.
EX. 12" SAN.

7D 968.15 **STA. 55+23** 968.7

STA. 56+00, 29' RT.
C.B. 3A, W/SUMP
T/G = 968.83

26'-12" STM. TYPE 'B' @ 2.00%

18" STM.
964.0
EX. 12" STM.
965.1
965.58
EX. 36" W.M.
NEW 12" SAN.
EX. 12" SAN.

969.23 **STA. 56+00** 969.57 8D

MAYFIELD ROAD

SEWER PROFILE··· STA. 51+81 TO STA. 58+36

SEEDING	
END WIDTH	SQ. YDS.

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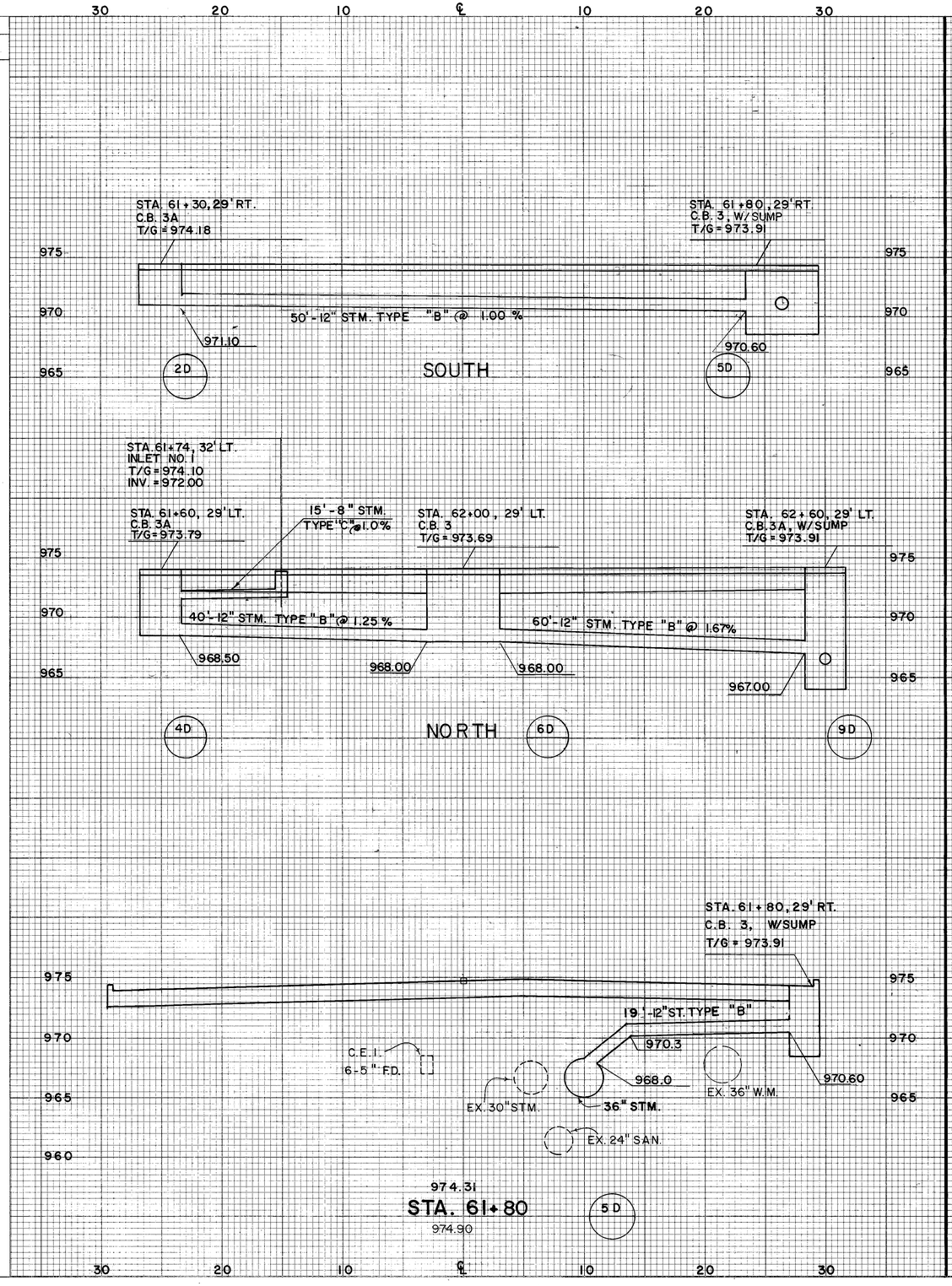
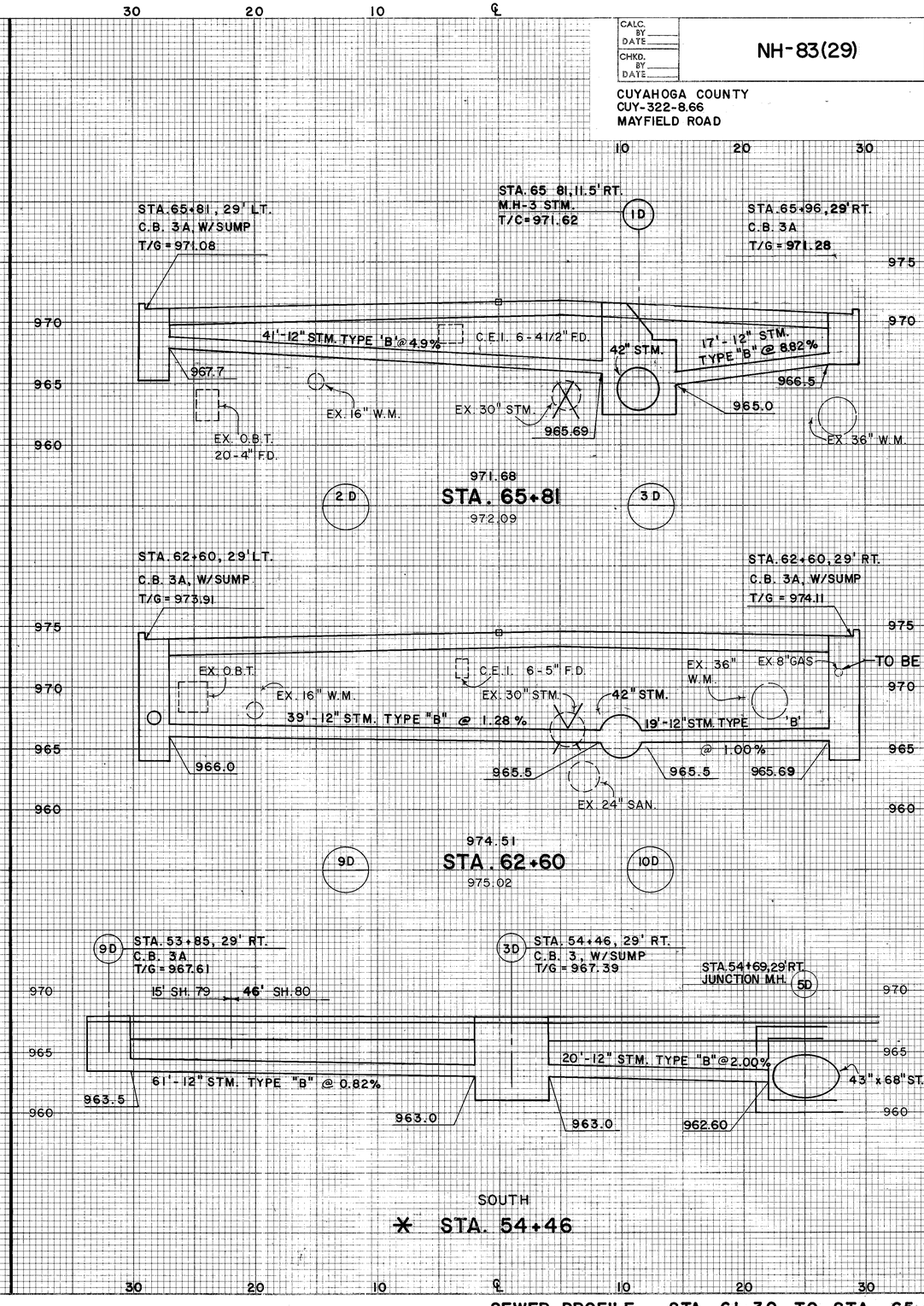
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL





MAYFIELD ROAD

SEWER PROFILE··· STA. 61+30 TO STA. 65+81

SEEDING	
END WIDTH	SQ. YDS.

STA. 70+00, 33' LT.
INLET NO. 1
T/G=958.55
INV.=956.55

STA. 70+07, 29' LT.
C.B. 3A, W/SUMP
T/G = 958.09

STA. 70+00, 13' RT.
M.H. 3
T/G=958.69
1D

STA. 70+07, 29' RT.
C.B. 3A, W/SUMP,
T/G = 958.29

43'-12" STM. TYPE "B" @ 6.98%
EX. CEI. 6 DUCTS 4 1/2" FD.
EX. 24" SAN.
36" STM.
18'-12" STM. TYPE "B" @ 13.33%
EX. 8" GAS
954.5
EX. OBT. 26 F.D.
EX. 16" W.M.
EX. 18" STM. 951.5
952.60
955.0
EX. 36" W.M.
7'-8" STM. TYPE "C" @ 1.0%

3D 958.69 STA. 70+07 958.8 4D

3D STA. 70+07, 29' LT.
C.B. 3A W/SUMP,
T/G = 958.09

5D STA. 70+57, 29' LT.
C.B. 3,
T/G = 957.91

STA. 71+07, 29' LT.
C.B. 3A,
T/G = 958.10
7D

50'-12" STM. TYPE 'B' @ 1.00%
50'-12" STM. TYPE 'B' @ 1.00%
954.55
954.80
954.82
955.07

NORTH
STA. 70+57

STA. 68+00, 29' LT.
C.B. 3A, W/SUMP,
T/G = 962.79

STA. 68+00, 29' RT.
C.B. 3A, W/SUMP,
T/G = 962.99

EX. CEI. 6 DUCTS 4 1/2" FD.
51'-12" STM. TYPE "B" @ 4.9%
7'-12" TYPE "B"
EX. 8" GAS
958.50
EX. 16" W.M.
956.0
EX. 36" STM.
956.6
958.0
EX. 24" SAN.
EX. 36" W.M.
EX. 36" OBT. 26-4" F.D.

6D 963.39 STA. 68+00 963.8 7D

STA. 26+30, 32' RT.
C.B. 6 W/SUMP
T/G = 962.14
9D

C.E.I. DUCT
24'-12" STM. TYPE 'B' @ 6.67%
EX. 20" STM.
EX. 10" SAN.
955.2
956.8
EX. 36" W.M.
962.62
* STA. 26+30

STA. 57+50, 13' RT.
M.H. 3
T/C = 972.98
10D

STA. 57+50, 29' RT.
C.B. 3A, W/SUMP
T/G = 972.65
11D

16'-12" STM TYPE "B" @ 1.00%
968.54
968.7
EX. 36" W.M.
973.05
* STA. 57+50
973.41

4D STA. 70+07, 29' RT.
C.B. 3A W/SUMP,
T/G = 958.29

6D STA. 70+57, 29' RT.
C.B. 3
T/G = 958.11

STA. 71+07, 29' RT.
C.B. 3A
T/G = 958.30
8D

50'-12" STM. TYPE 'B' @ 0.50%
50'-12" STM. TYPE 'B' @ 0.50%
955.05
955.30
955.32
955.57

SOUTH
STA. 70+57

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALC. BY ____ DATE ____
CHKD. BY ____ DATE ____

NH-83(29)

OHIO
FHWA REGION

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CUYAHOGA COUNTY
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MAYFIELD ROAD

MAYFIELD ROAD

SEWER PROFILE · · · STA. 68+00 TO STA. 71+07

SEEDING

END WIDTH	SQ. YDS

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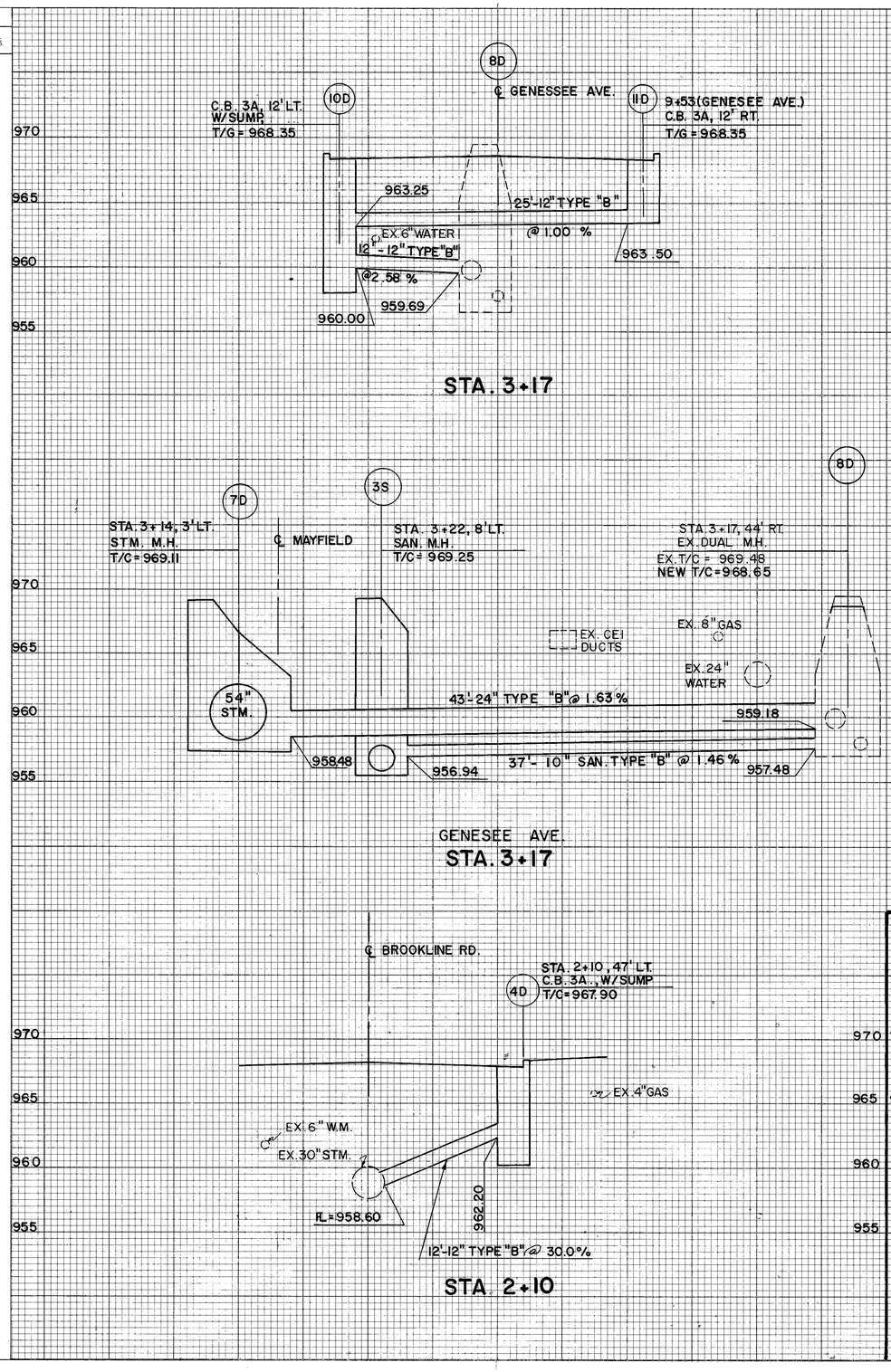
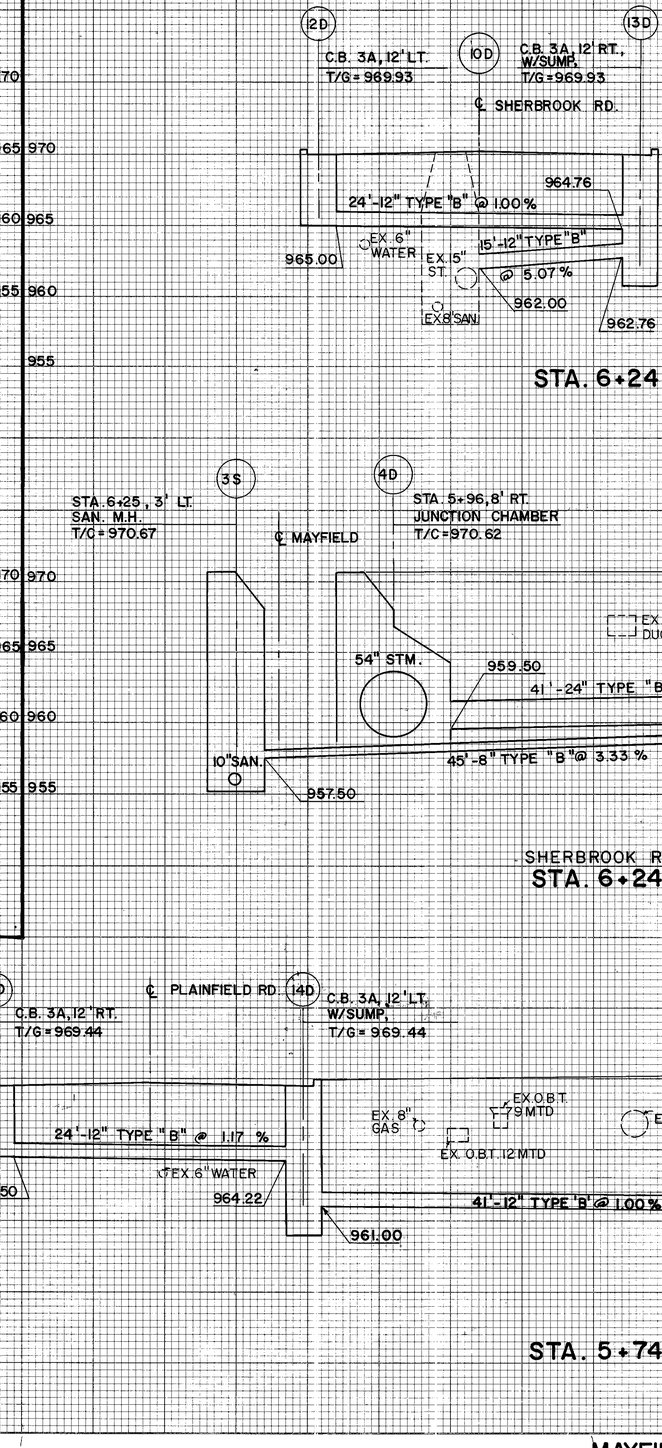
CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL



STA. 3+17

GENESEE AVE.
STA. 3+17



STA. 6+24

SHERBROOK RD.
STA. 6+24

STA. 2+10

STA. 5+74

MAYFIELD ROAD

MAYFIELD RD. ··· SEWER PROFILE

SEEDING	
END WIDTH	SQ. YDS.

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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL

STA. 17+27, 46' LT.
C.B. 3A, W/SUMP
T/G = 975.80

STA. 17+21, 8' RT.
M.H. 3
T/C = 976.60

EX. 8" GAS
EX. O.B.T.
EX. O.B.T. 9 MTD
EX. 20" GAS
EX. 16" WATER MAIN
54'-12" STM. TYPE "B" @ 1.00 %
967.54
EX. 12" STM.
EX. 10" SAN.
967.00

STA. 17+21 TO STA. 17+29

STA. 13+41, 3' LT.
SAN. M.H.
T/C = 974.78

℄ MAYFIELD

STA. 13+48, 8' RT.
STM. M.H.
T/C = 974.92

STA. 13+44, 41' RT.
Nº 3 M.H. (DROP) W/WEIR WALL
T/C = 974.40
IL-EX. 15" = 966.5
IL-EX. 8" = 965.6

EX. CEI DUCTS
EX. 8" GAS
EX. 24" WATER
33'-18" TYPE "B" @ 7.85 %
36" STM.
963.73
44'-8" TYPE "B" @ 1.00 %
966.32
8'-15" TYPE "B"
EX. 15" STM.
EX. 8" SAN.
10" SAN.
960.45
960.89
961.0
8'-8" TYPE "B"

FELTON ROAD
STA. 13+44

STA. 9+16, 3' LT.
SAN. M.H.
T/C = 972.23

℄ MAYFIELD

STA. 9+29, 8' RT.
STM. M.H.
T/C = 972.40

STA. 9+29, 43' RT.
EX. DUAL M.H.
EX. T/C = 972.55
NEW T/C = 972.55

EX. CEI DUCTS
EX. 8" GAS
EX. 8" WATER
EX. 24" WATER
35'-24" TYPE "B" @ 6.11 %
48" STM.
62.31
48'-8" SAN. TYPE "B" @ 5.31 %
64.45
10" SAN.
958.00
960.55

HOLMDEN ROAD
STA. 9+29

STA. 36+80, 7' LT.
SAN. M.H.
T/C = 975.80

℄ MAYFIELD

STA. 36+74, 3' RT.
STM. M.H.
T/C = 975.94
18" (W) IL = 965.60
36" (E) IL = 964.14

STA. 36+80, 40' RT.
EX. DUAL M.H.
EX. T/C = 975.84
NEW T/C = 975.41

EX. CEI DUCTS
EX. 36" WATER
EX. 8" GAS
967.05
965.39
36" STM.
38'-21" TYPE "B" @ 4.37 %
10" SAN.
963.00
47'-8" TYPE "B" @ 7.02 %
966.30

SHEFFIELD RD.
STA. 36+80

STA. 9+47 (MAPLEGROVE)
C.B. 3A, 12' LT.
T/G = 975.51

STA. 9+47 (MAPLEGROVE)
C.B. 3A, 12' RT.
W/SUMP
T/G = 975.51

℄ MAPLEGROVE

24'-12" STM. TYPE "B" @ 2.08 %
970.50
971.00
16'-12" ST.
EX. 8" W.M.
TYPE "B" @ 3.13 %
968.50
968.00

STA. 17+41

STA. 17+42, 3' LT.
SAN. M.H.
T/C = 976.36

℄ MAYFIELD

STA. 17+52, 8' RT.
STM. M.H.
T/C = 976.37
15" IL = 966.65

STA. 17+41, 41' RT.
EX. DUAL M.H.
EX. T/C = 976.88
NEW T/C = 975.84

EX. CEI DUCTS
EX. 8" GAS
EX. 24" WATER
967.38
966.68
15" STM.
35'-15" TYPE "B" @ 2.00 %
10" SAN.
964.17
44'-10" TYPE "B" @ 3.89 %
965.88

MAPLEGROVE RD.
STA. 17+41

MAYFIELD ROAD

MAYFIELD RD. ··· SEWER PROFILE

SEEDING	
END WIDTH	SQ. YDS.

CALC. BY / DATE	NH-83(29)	OHIO
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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL

STA. 58+88, 5' RT.
SAN. DROP M.H.
T/C = 975.54

7S

16D

STA. 59+00, 10' RT.
STM. M.H.
T/C = 975.54

EX. CONC. PROTECTION

8S

STA. 58+93, 32' RT.
EX. DUAL M.H.
EXT/C = 975.59
NEW T/C = 975.18

36" W.M.

966.36

966.60

23'-21" TYPE "B" @ 1.04%

28'-10" SAN. TYPE "B" @ 3.13%

965.50

964.62

MAYWOOD RD.

STA. 58+93

2S

MAYFIELD ℄

4D

STA. 52+32, 8' LT.
SAN. M.H.
T/C = 970.41

STA. 52+42, 3' RT.
JUNCTION CHAMBER
T/C = 970.34

6D

STA. 52+20, 28' RT.
EX. DUAL M.H.
EX. T/C = 970.48
NEW T/C = 970.51

C.E.I. DUCT

36" W.M.

961.90

962.20

33'-19" x 30" TYPE "B" at 0.91%

38'-8" TYPE "B" @ 5.11 %

960.80

958.86

DEAN DR.

STA. 52+20

STA. 43+98, 51' RT.
C.B. 3A, W/SUMP, A.P.P.
T/G = 974.76

6D

45° BEND

EX. C.E.I. DUCT

EX. 8" GAS

EX. 15" ST.

48'-12" STM. TYPE "B" @ 0.54%

969.5

EX. 10" SAN.

EX. 36" W.M.

969.25

STA. 43+98

11D

STA. 73+39, 46' LT.
EX. DUAL M.H.
T/C = 964.6
NEW T/C = 964.3

957.9

8" GAS

EX. O.B.T.

EX. O.B.T.

62'-18" STM. TYPE "B" @ 1.45%

55'-10" SAN. TYPE "B" at 3.45%

964

18"-11 1/4° BEND
SEE DETAIL ON
MISC. DETAIL SHEET 413

16" W.M.

954.5

DORSH ROAD

STA. 73+33

2D

STA. 73+20, 13' RT.
M.H. - 3
T/C = 963.64

10D

STA. 73+33, 8' RT.
M.H. - 3
T/C = 964.20

℄ MAYFIELD

FL = 957.0

2S

STA. 66+21, 12' RT.
SAN. M.H.
T/C = 970.15

℄ MAYFIELD RD.

5D

STA. 66+36, 22' RT.
STM. M.H.
T/C = 969.37

964.00

EX. 8" GAS

964.50

28'-18" STM. TYPE "B" @ 1.79%

18'-10" SAN. TYPE "B" @ 1.0%

36" W.M.

963.02

963.20

4'-10" SAN TYPE 'B' W/ 2 45° BENDS & CONC. COLLARS

959.21

11'-10" SAN TYPE 'B' at 10%

959.1

SHERIDAN RD.

STA. 66+21

5D

STA. 66+21, 45' RT.
EX. DUAL M.H.
EX. T/C = 971.01
NEW T/C = 970.75

1S

STA. 62+20, 5' RT.
SAN. M.H.
T/C = 974.31

1D

STA. 62+27, 10' RT.
STM. M.H.
T/C = 974.33

EX. CONC. PROTECTION

36" W.M.

965.17

967.35

28'-18" TYPE "B" @ 7.80%

30'-10" TYPE "B" @ 12.86%

966.00

962.14

OAKMOUNT RD.

STA. 62+13

8D

STA. 62+13, 34' RT.
EX. DUAL M.H.
EX. T/C = 974.47
NEW T/C = 974.11

MAYFIELD ROAD

MAYFIELD RD. ··· SEWER PROFILE

SEEDING	
END WIDTH	SQ. YDS.

CALC. BY / DATE	NH-83 (29)	OHIO
CHKD. BY / DATE		FHWA REGION

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426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL

STA. 17+28, 46' LT.
6D C.B.-3A C.B.
T/G = 975.80

STA. 17+21, 8' RT.
4D STM. M.H.
T/C = 976.60

C MAYFIELD RD.

EX. 8" GAS
EX. OBT 12-3 1/2" FD
EX. OBT 9 M.T.D.
EX. 20" GAS
EX. 16" W.M.
EX. 12" STM.
54'-12" STM.-TYPE "B" @ 2.52 %
967.90
966.54
EX. 10" SAN
10" SAN.

STA. 17+21

STA. 21+02, 39'
10D C.B.-3A C.B.
T/G = 966.50

C MAYFIELD RD.

EX. 8" GAS
EX. OBT 9 M.T.D.
EX. 20" GAS
16" W.M.
EX. 15" STM.
56'-12" STM. TYPE "B" @ 1.43 %
958.00
EX. 10" SAN.
10" SAN.
957.20
966.65
STA. 21+02

STA. 56+50, 29' LT.
CB-3A W/SUMP
T/G = 969.73
9D
EX. 8" GAS
EX. OBT 6 M.T.D.
34'-12" STM. TYPE 'B' @ 1.7%
966.50
966.0
EX. 12" STM.
18" STM.
16" W.M.
964.5
12" SAN.
EX. 12" SAN.
970.33
STA. 56+50
970.75

STA. 16+25, 31.5' RT.
INLET NO. 1
T/G = 976.25
10D
EX. CEI. 6 DUCTS 4 1/2" F.D.
EX. 8" GAS
EX. 24" W.M.
976.52
STA. 16+25
12" STM.
23'-8" STM TYPE "B" @ 27.17%
EX. 12" STM.
972.00
EX. 10" SAN
10" SAN.
965.75

11D STA. 16+43, 32' LT.
INLET NO. 1
T/G = 976.60
INV. = 972.80

EX. 8" GAS
EX. OBT 12-3 1/2"
OBT
EX. 20" GAS
8" BEND
EX. 16" W.M.
41'-8" STM. TYPE "B"
EX. 12" STM.
12" STM.
968.00
976.61
STA. 16+43
10" SAN.
EX. 10" SAN.

STA. 22+95, 39' RT.
11D
TRENCH DRAIN
T/G = 960.00
INV. = 958.00

EX. CEI. 6 DUCTS 4 1/2" F.D.
EX. 8" GAS
8" BEND
EX. 24" W.M.
EX. 24" STM.
30" STM.
32'-8" STM. TYPE "B"
955.0
10" SAN.
EX. 10" SAN.
960.81
STA. 22+95

4D STA. 54+59.5, 34' LT.
JUNCTION CHAMBER
T/C = 967.8

1D STA. 54+65, 3' RT.
JUNCTION CHAMBER
T/C = 967.86
43" x 68" ERCP FL. = 960.90(W)

5D STA. 54+69, 29' RT.
JUNCTION CHAMBER
T/C = 967.73
12" RCP FL. = 962.80(W)

6D STA. 55+36, 29' RT.
JUNCTION CHAMBER
T/C = 968.1

EX. 42" STM.
33'-48" x 76" STM. TYPE "B" @ 0.61%
23'-43" x 68" STM. TYPE "B" @ 2.61%
61'-43" x 68" STM. TYPE "B" @ 1.00%
EX. 42" BRICK TILE STM.
960.44
960.64
FL. 18" ST. 961.48
960.68
961.28
961.34
961.95
962.2 ±
STA. 54+65

40 30 20 10 0

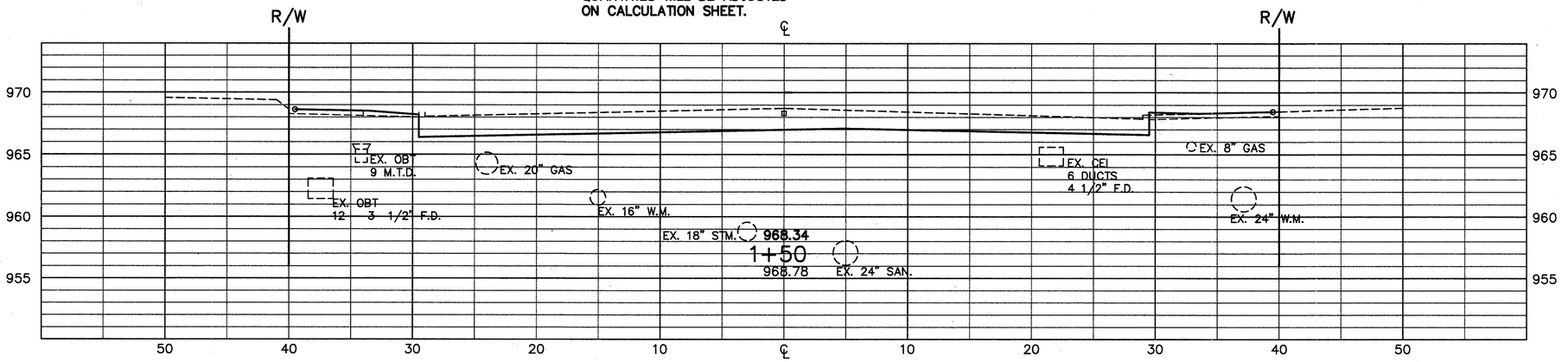
MAYFIELD ROAD

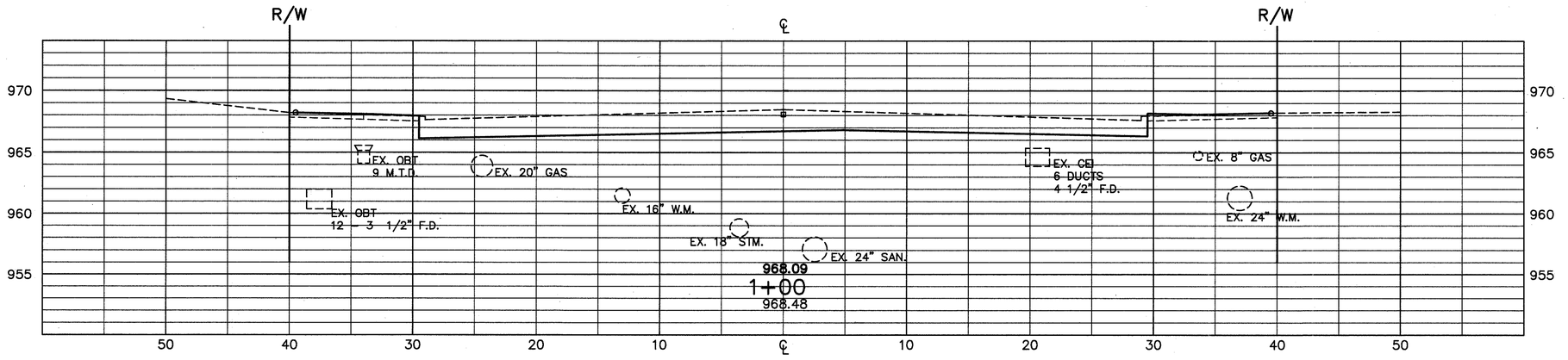
MAYFIELD RD.··· SEWER PROFILE

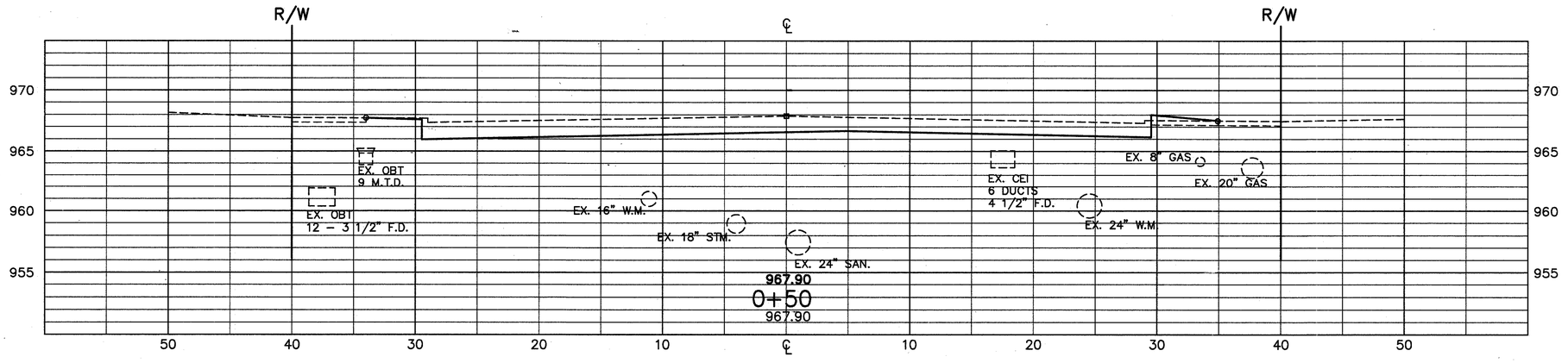
		OHIO	118
		F.H.W.A. REGION 5	426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

NOTE: EARTHWORK QUANTITIES IN TABLE INCLUDE EXISTING PAVEMENT. QUANTITIES WILL BE ADJUSTED ON CALCULATION SHEET.







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
90				
			165	
88				
			136	
STA. 0+54.4	73			
TOTAL			301	

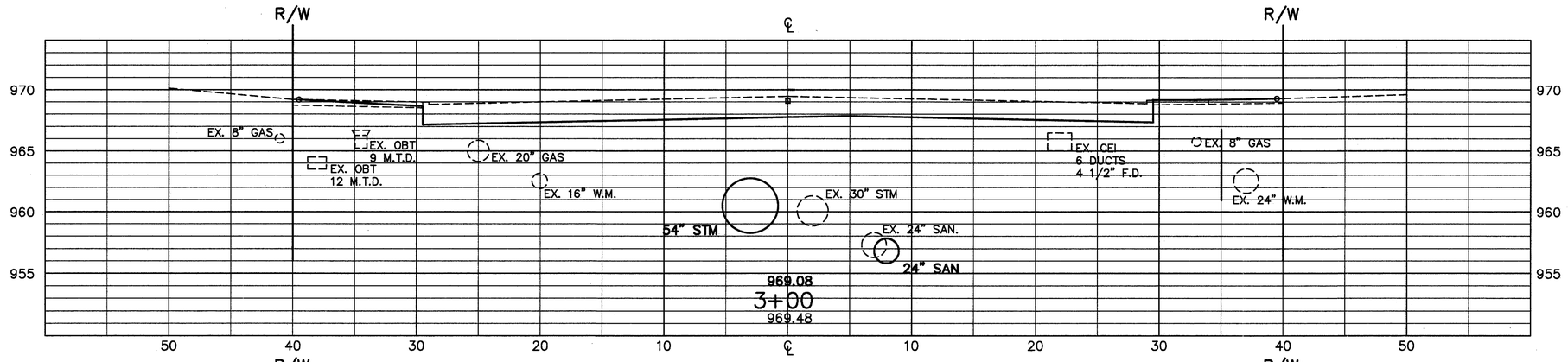
MAYFIELD ROAD

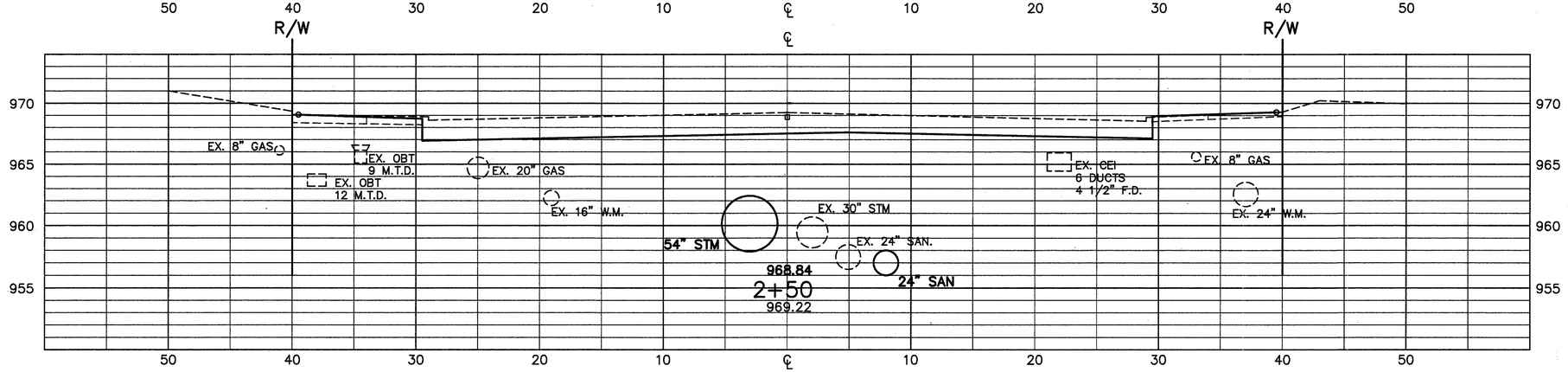
STEPHEN HOVANCSEK & ASSOC., INC.

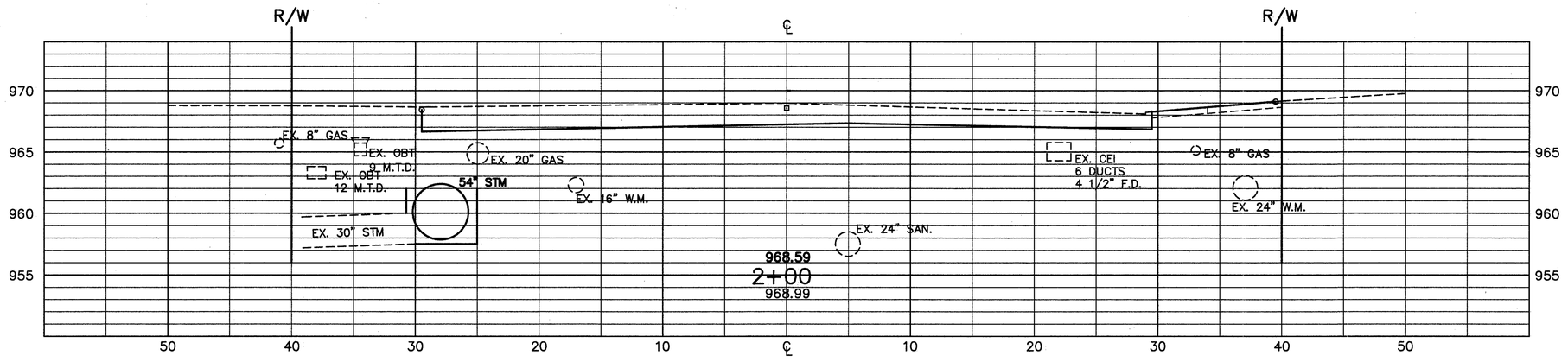
CROSS SECTIONS STA. 0+50 TO STA. 1+50

		OHIO	119
		F.H.W.A. REGION 5	426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	95			
			176	
	95			
			178	
	97			
			173	
STA. 1+50	90			
TOTAL			527	

MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

CROSS SECTIONS STA. 2+00 TO STA. 3+00

OHIO
F.H.W.A. REGION 5
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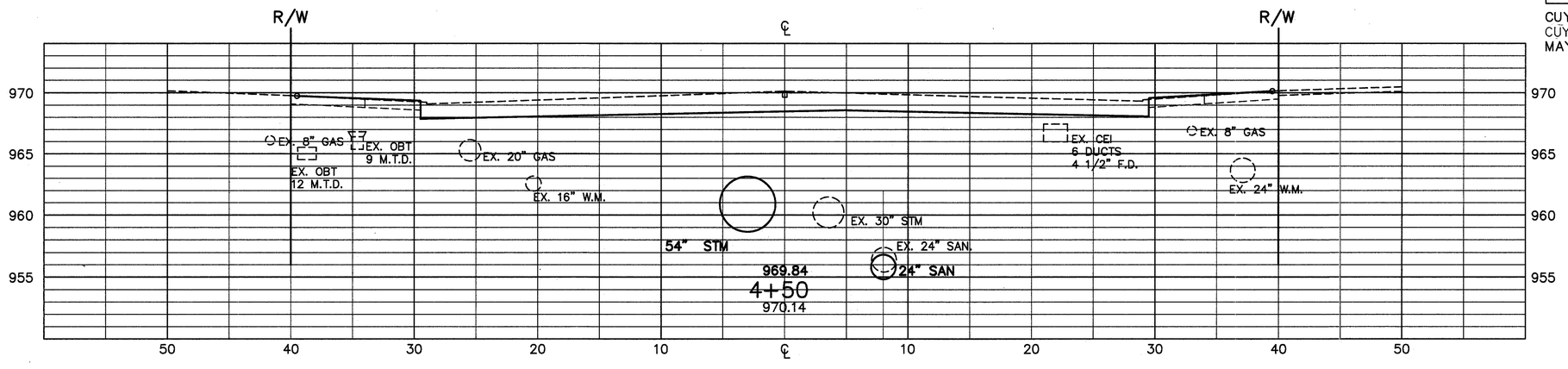
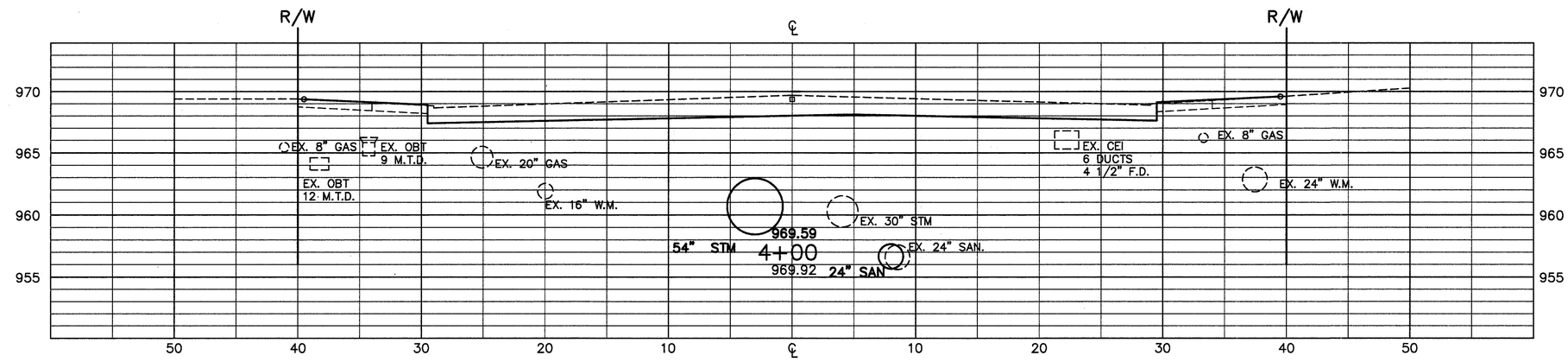
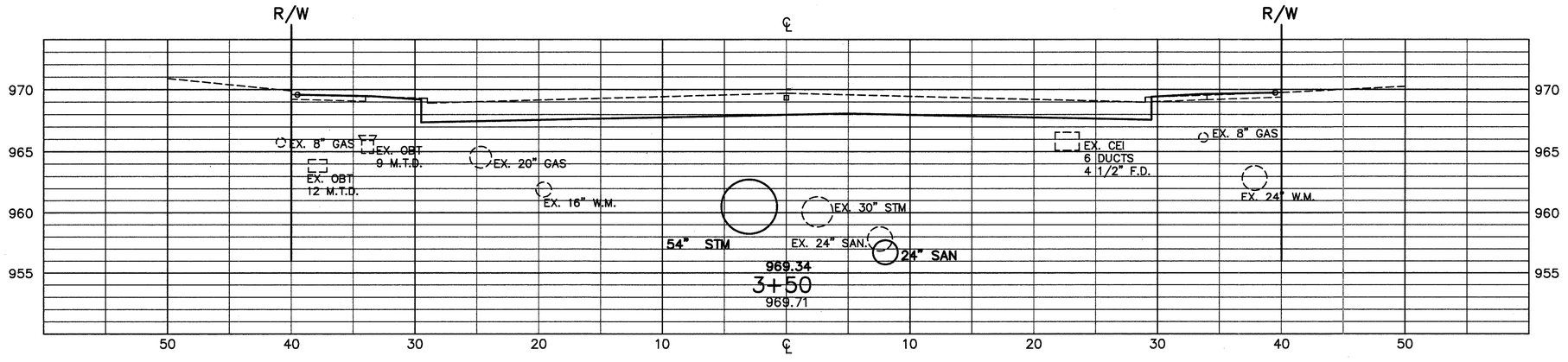
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	80			
			148	
	80			
			157	
	90			
STA. 3+00	95		171	
TOTAL			476	

MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

CROSS SECTIONS STA. 3+50 TO STA. 4+50

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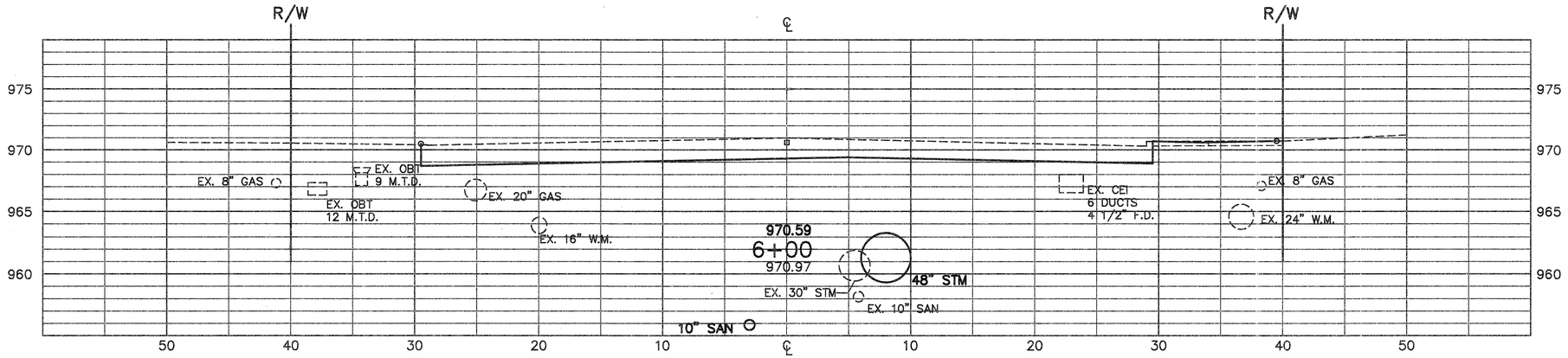
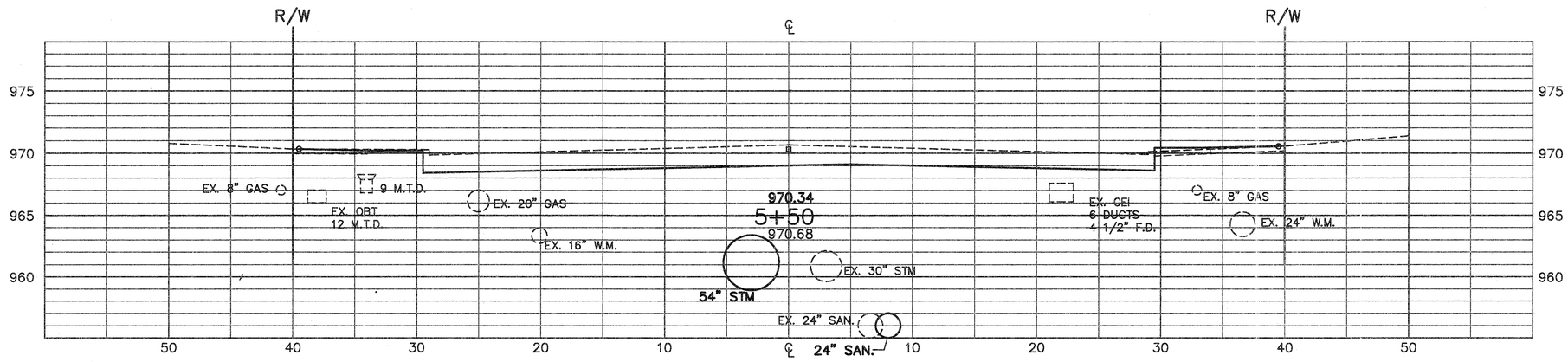
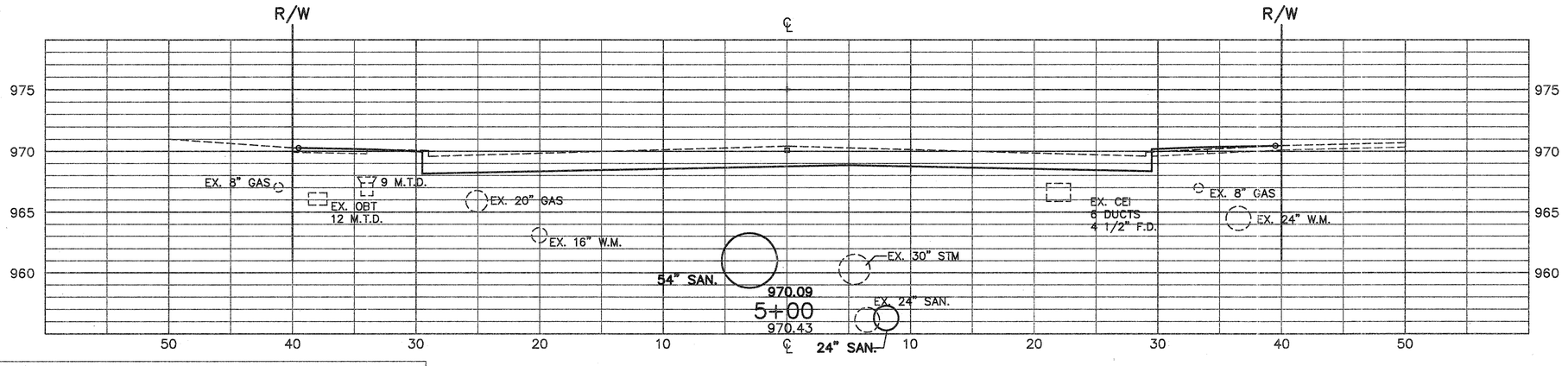
		OHIO	121
		F.H.W.A. REGION 5	426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	92			
			166	
	87			
			159	
	85			
STA. 4+50	80		153	
TOTAL			478	

MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

CROSS SECTIONS STA. 5+00 TO STA. 6+00

OHIO
F.H.W.A. REGION 5
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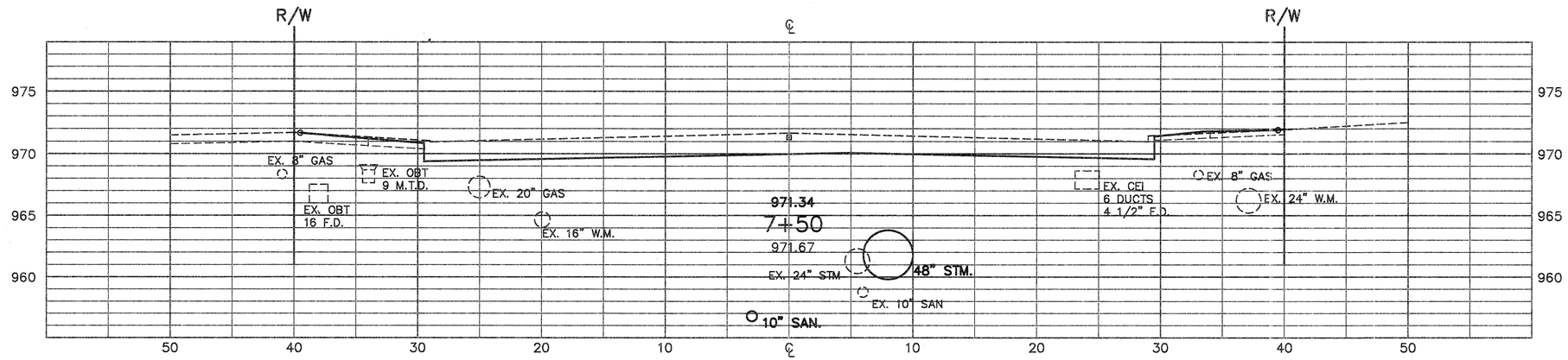
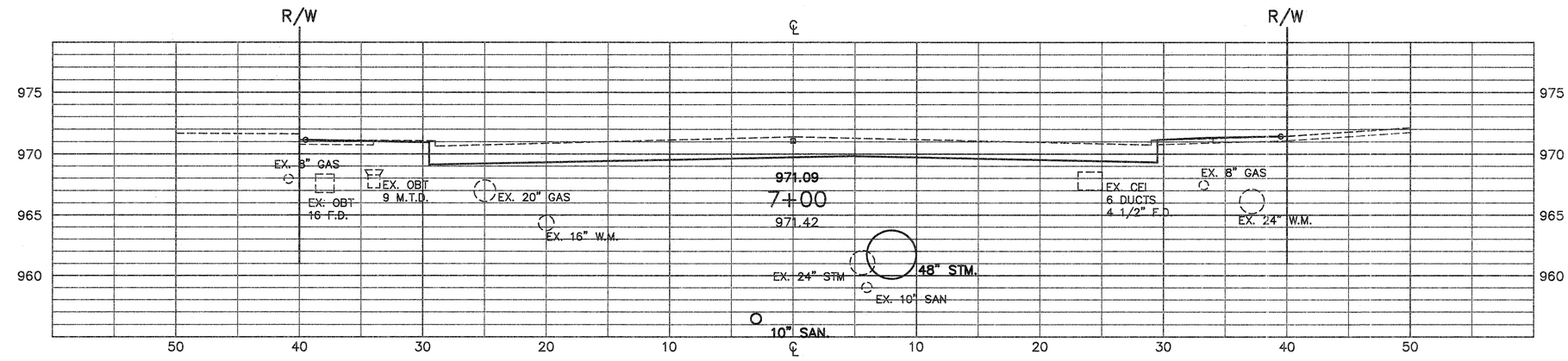
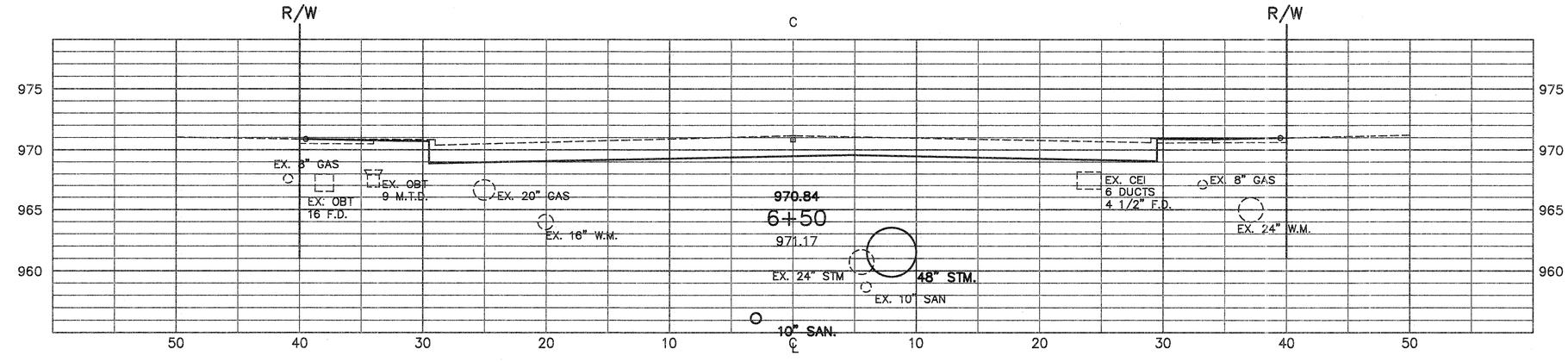
CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	88			
			161	
	86			
			161	
	88			
STA. 6+00	92		167	
TOTAL			489	

MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

CROSS SECTIONS STA. 6+50 TO STA. 7+50

OHIO
F.H.W.A. REGION 5

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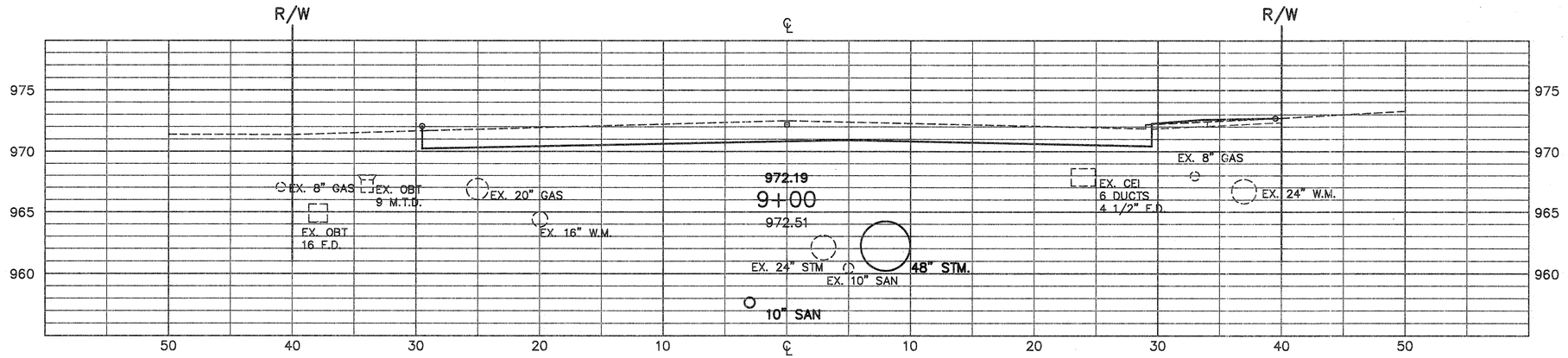
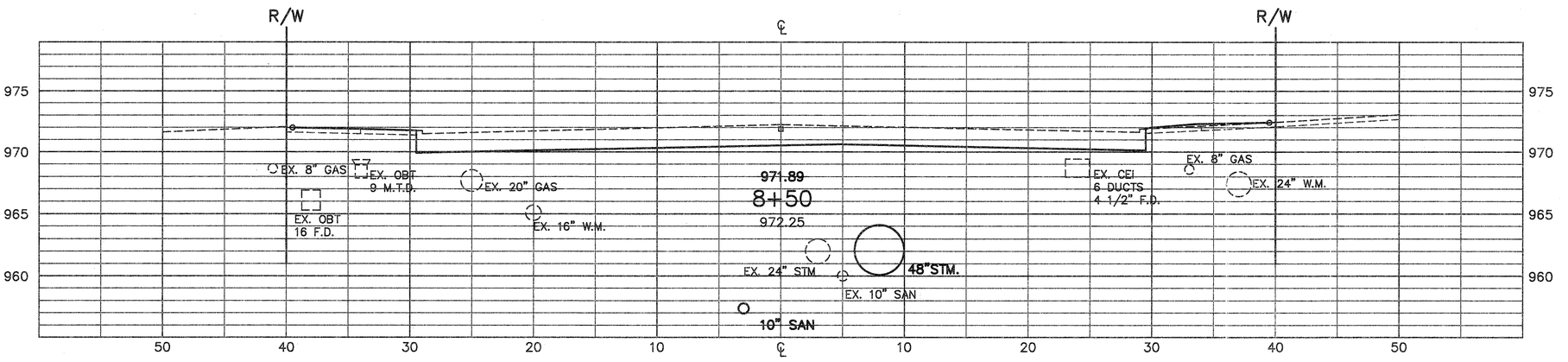
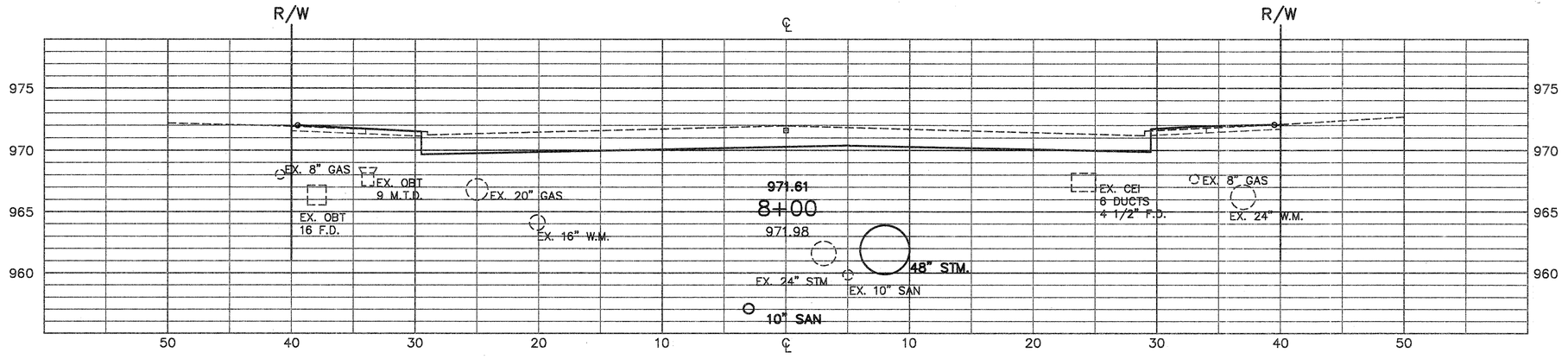
CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	90			
			169	
	92			
			167	
	88			
STA. 7+50	88		163	
TOTAL			499	

MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

CROSS SECTIONS STA. 8+00 TO STA. 9+00

OHIO
F.H.W.A. REGION 5
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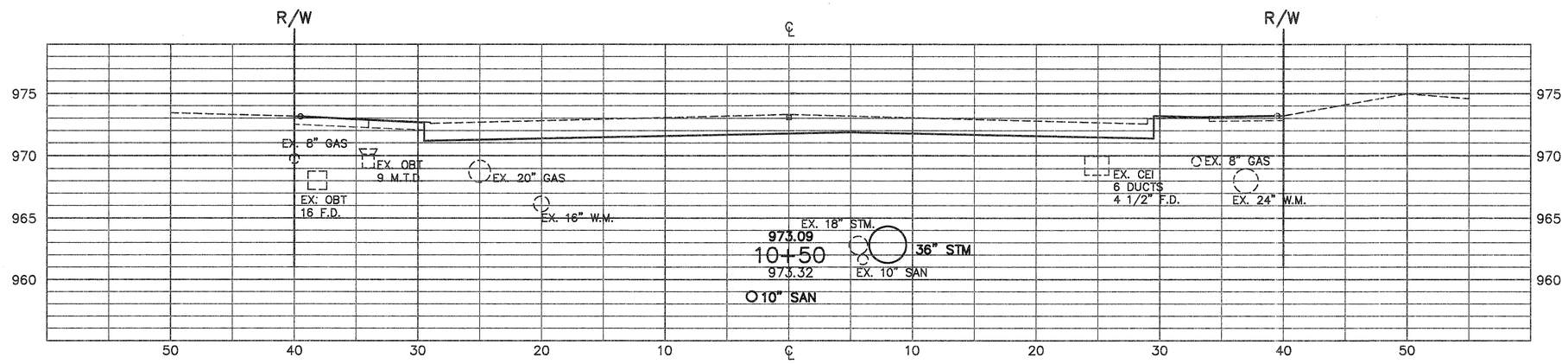
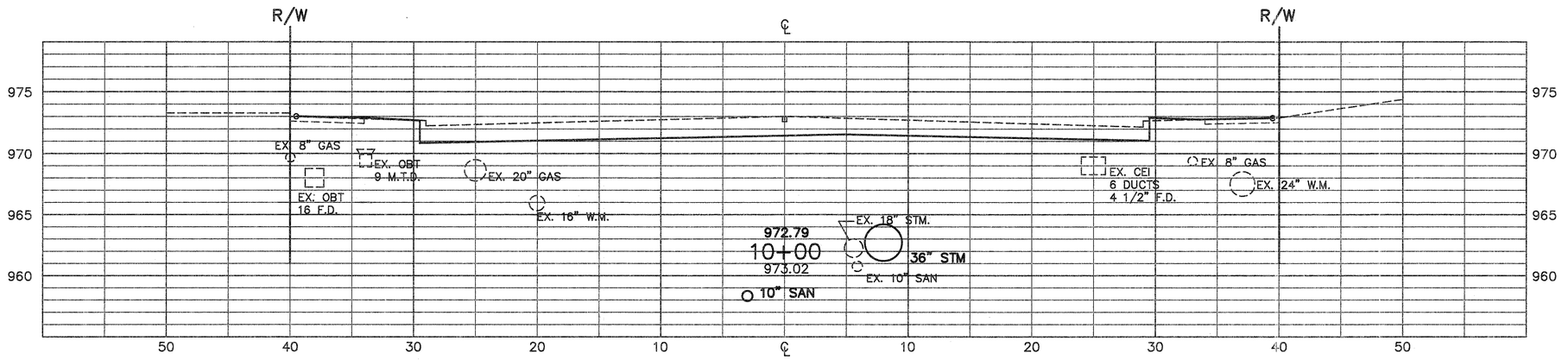
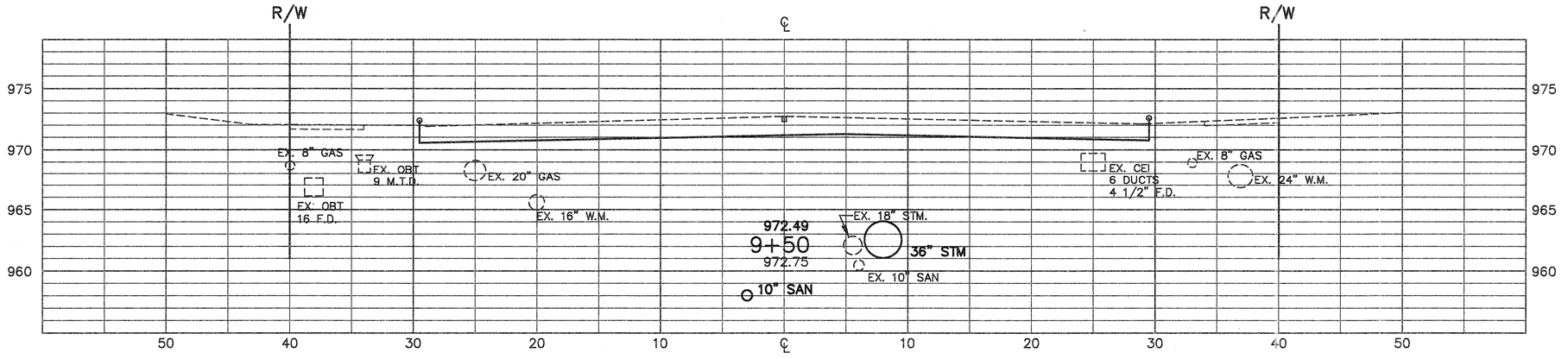
CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	79			
			146	
	79			
			149	
	82			
STA. 9+00	90		159	
TOTAL			454	

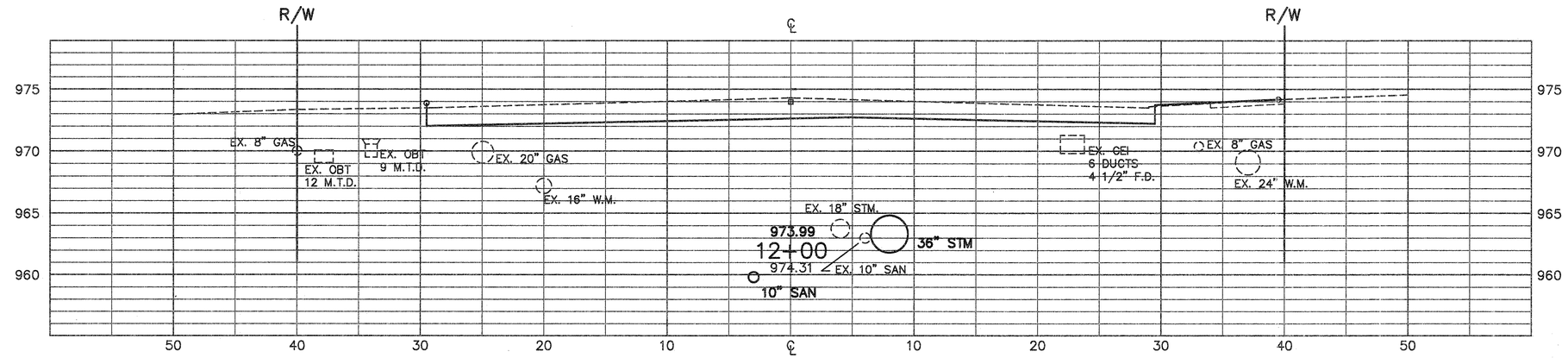
MAYFIELD ROAD

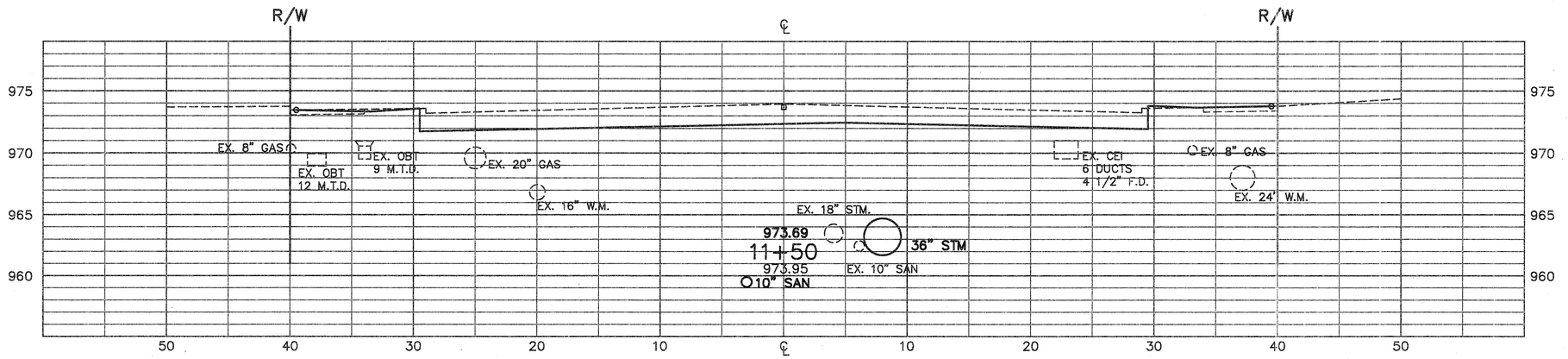
STEPHEN HOVANCSEK & ASSOC., INC.

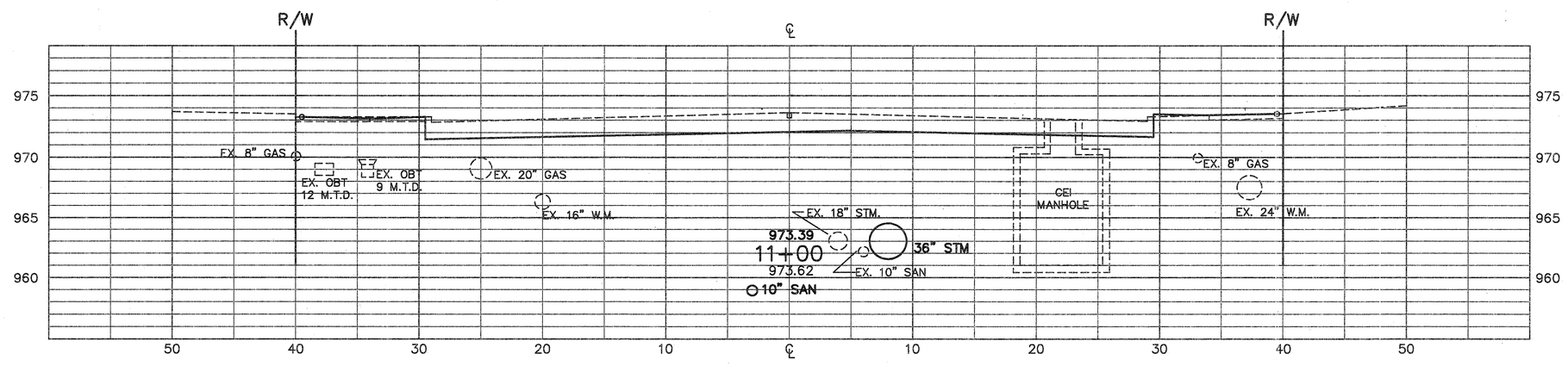
CROSS SECTIONS STA. 9+50 TO STA. 10+50

		OHIO	125 426
		F.H.W.A. REGION 5	

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	84			
			154	
	82			
			148	
	78			
STA. 10+50	79		145	
TOTAL			447	

MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

CROSS SECTIONS STA. 11+00 TO STA. 12+00

OHIO
F.H.W.A. REGION 5

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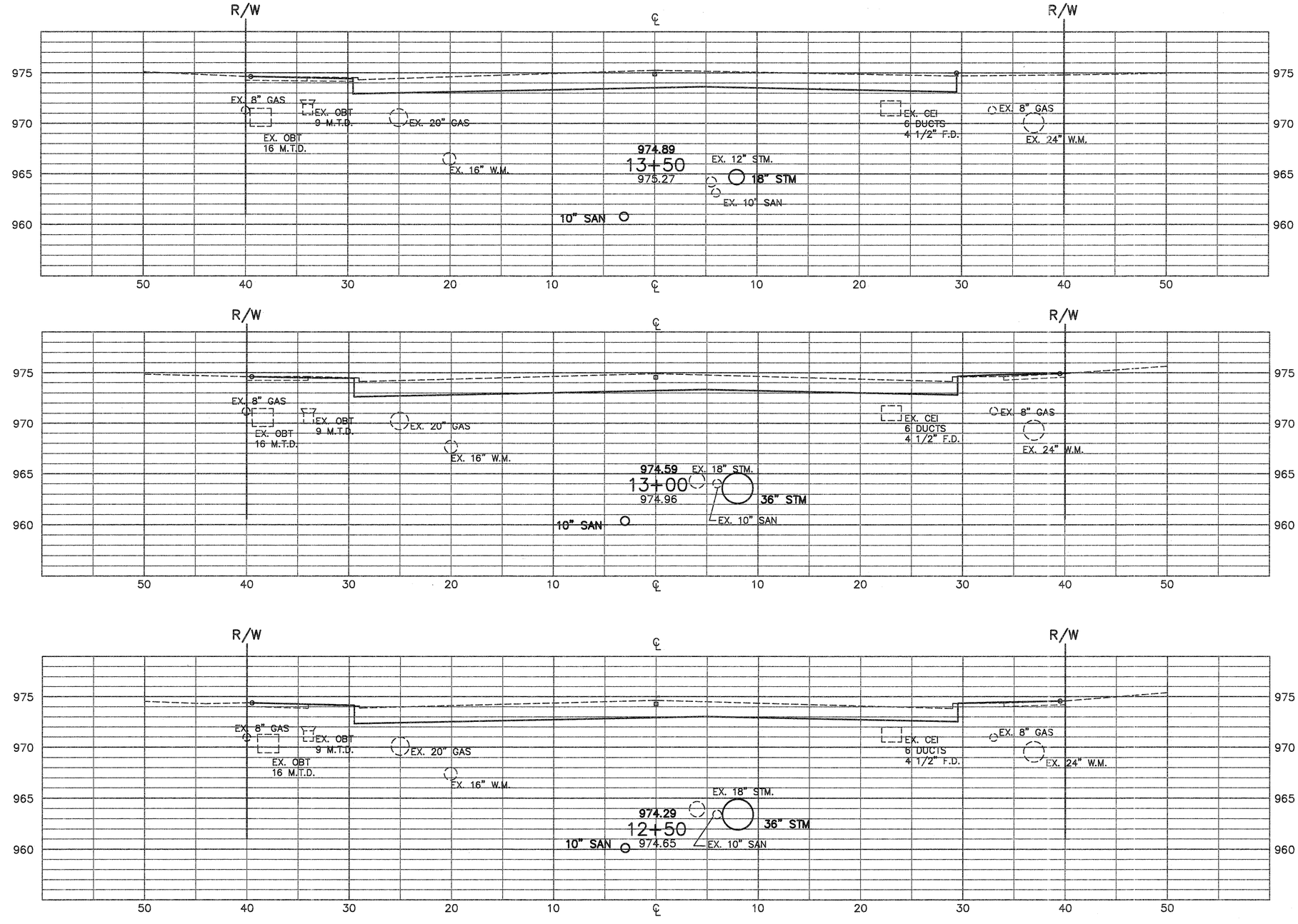
CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	88			
			157	
	82			
			157	
	88			
STA. 12+00	84		159	
TOTAL			473	

MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

CROSS SECTIONS STA. 12+50 TO STA. 13+50

OHIO
F.H.W.A. REGION 5

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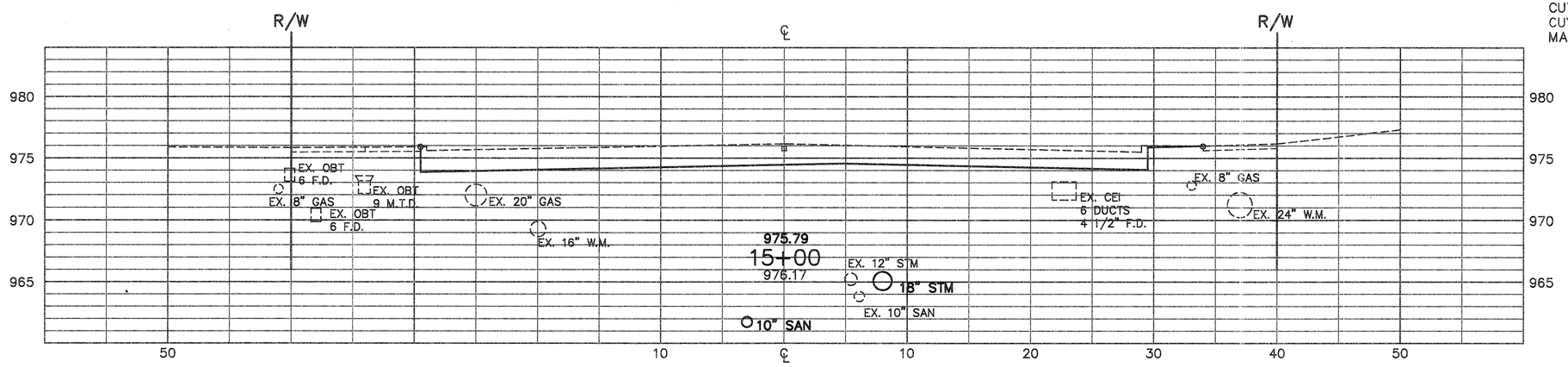
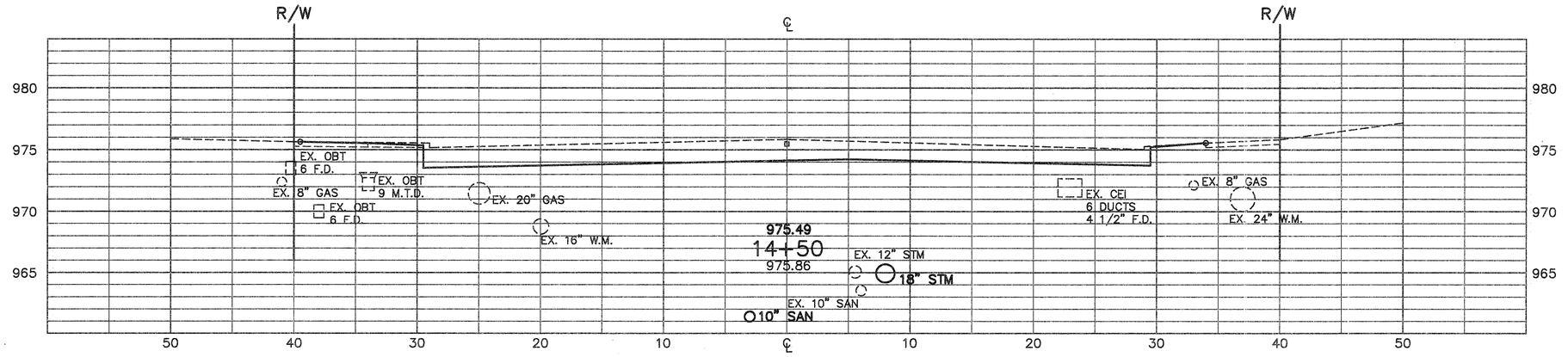
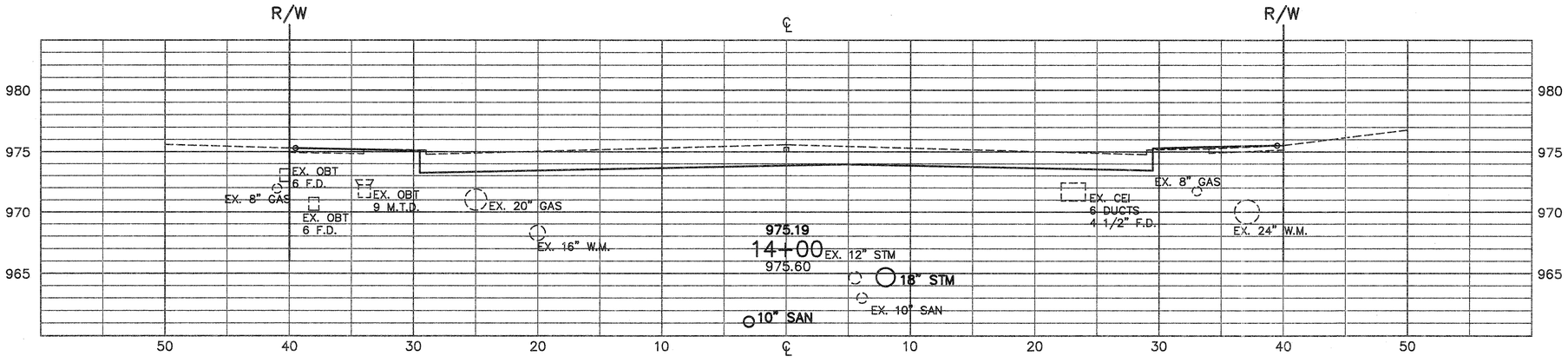
CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	88			
			163	
	88			
			161	
	86			
STA. 13+50	88		161	
TOTAL			485	

MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

CROSS SECTIONS STA. 14+00 TO STA. 15+00

		OHIO
		F.H.W.A. REGION 5

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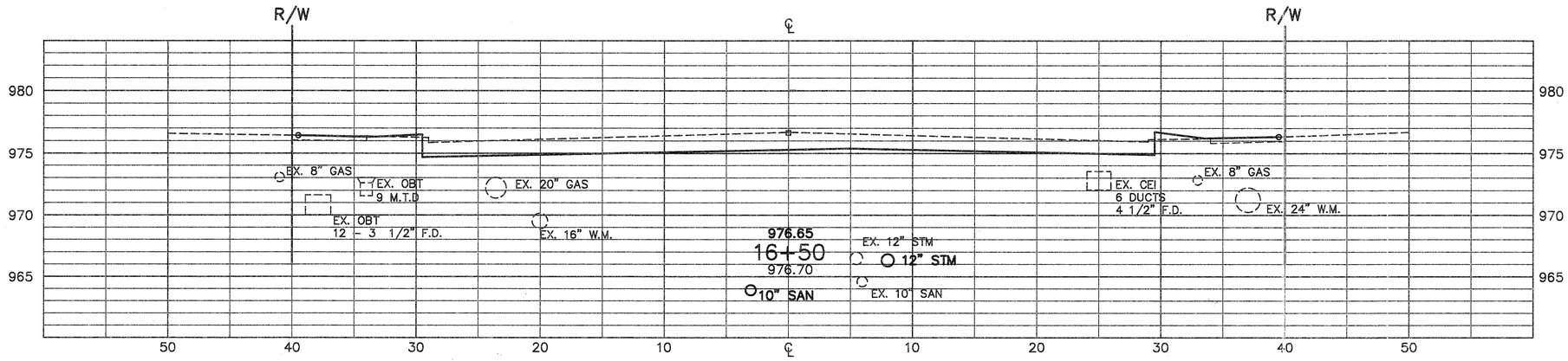
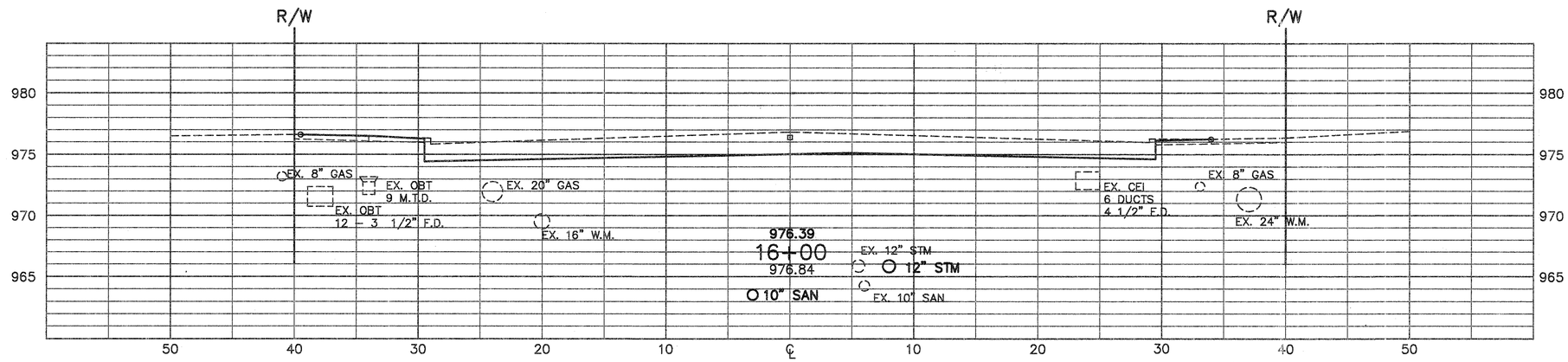
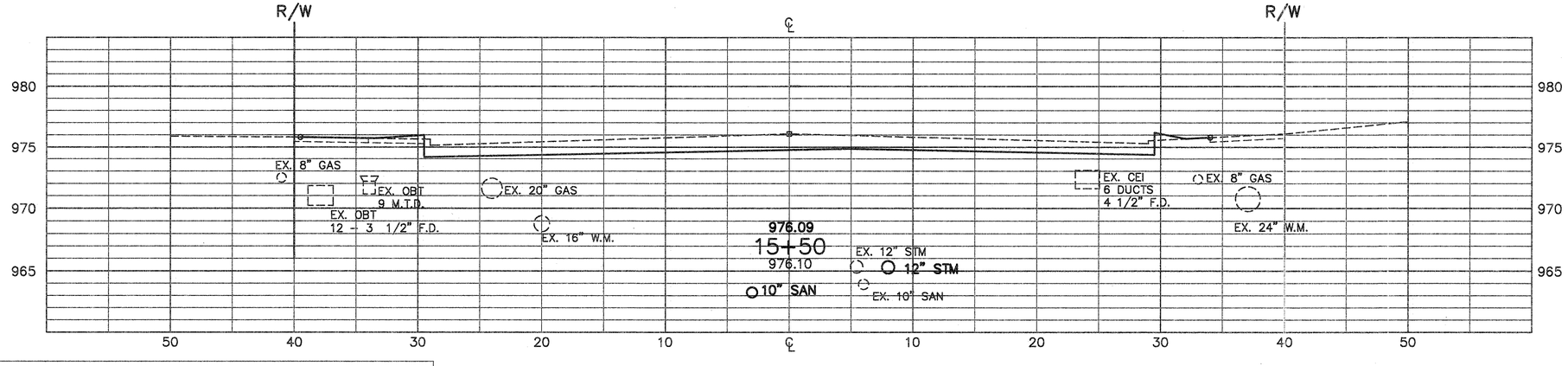
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	73			
			150	
	89			
			145	
	68			
STA. 15+00	88		144	
TOTAL			439	

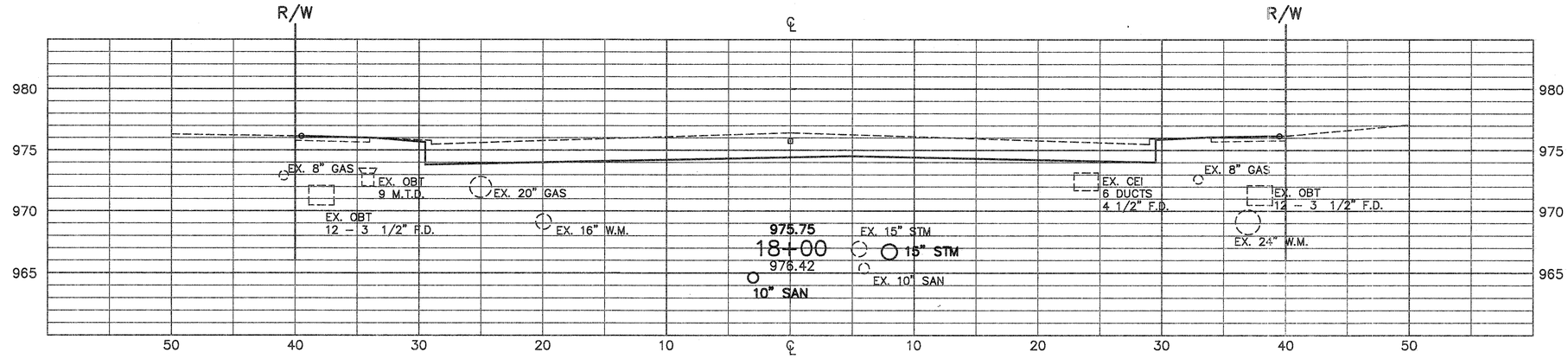
MAYFIELD ROAD

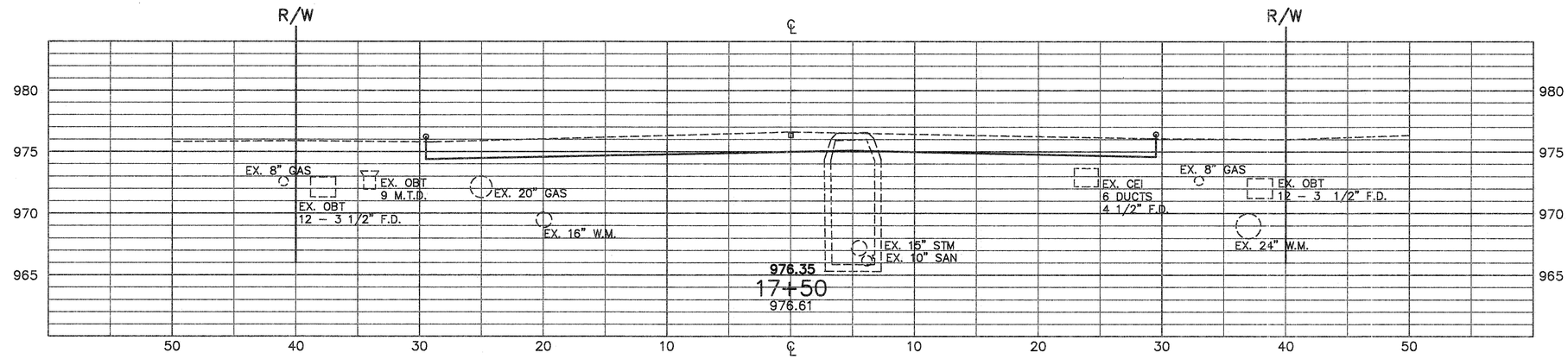
STEPHEN HOVANCSEK & ASSOC., INC.

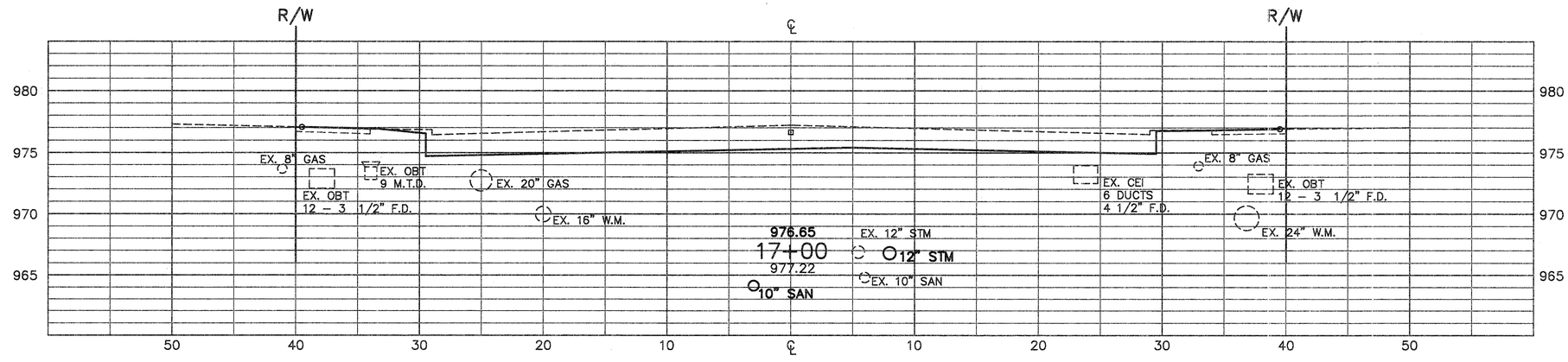
CROSS SECTIONS STA. 15+50 TO STA. 16+50

CHKD. BY. DATE		OHIO	129/426
CHKD. BY. DATE		F.H.W.A. REGION 5	

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	97			
			169	
	86			
			170	
	98			
STA. 16+50	73		158	
TOTAL			497	

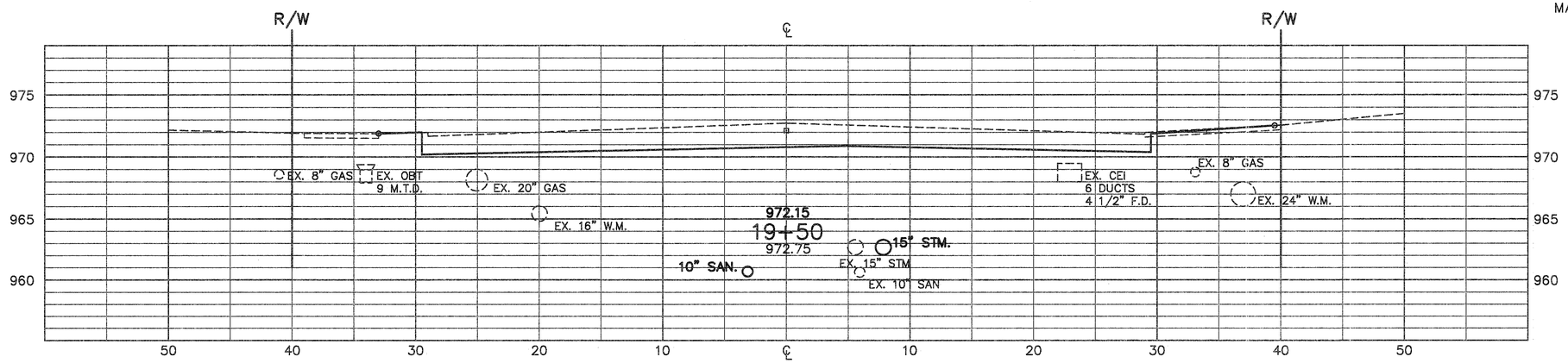
MAYFIELD ROAD

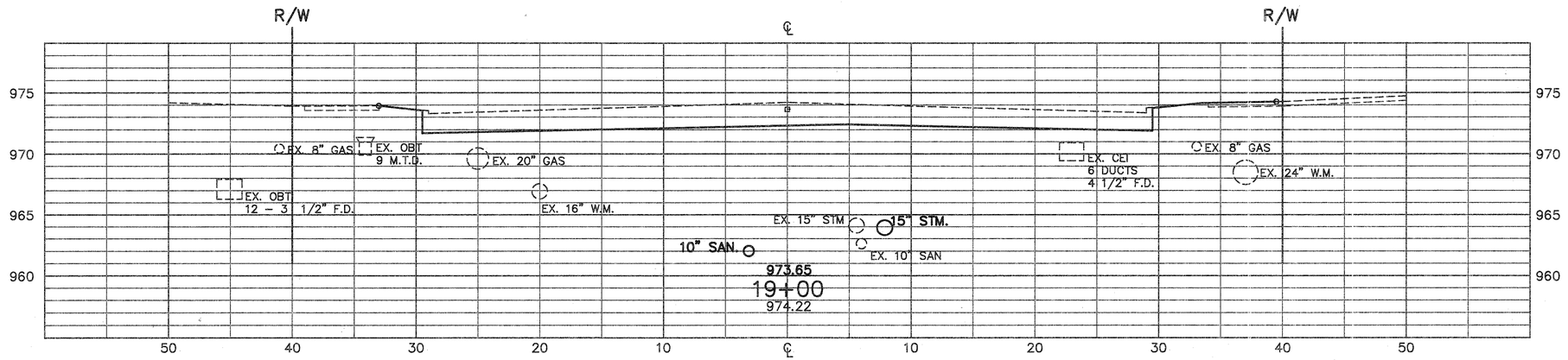
STEPHEN HOVANCSEK & ASSOC., INC.

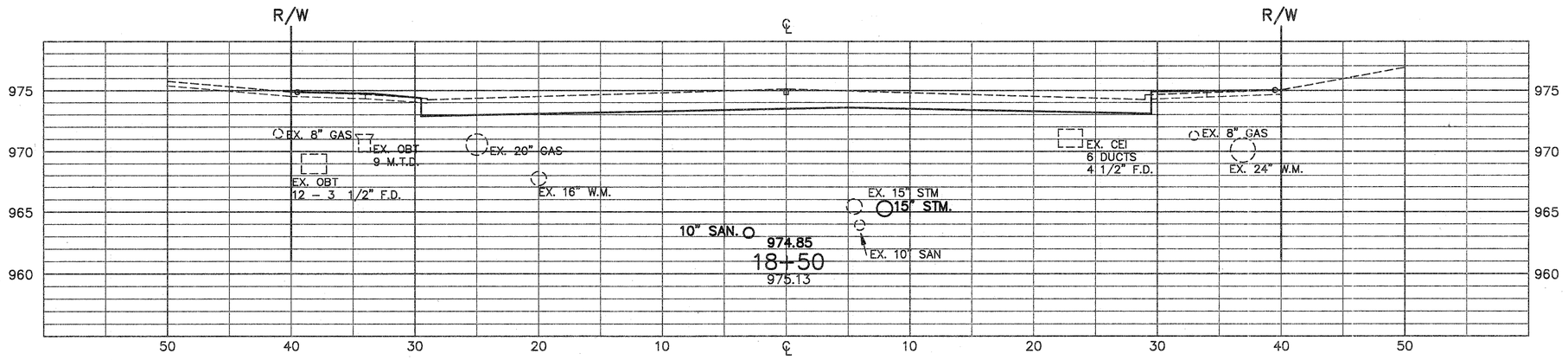
CROSS SECTIONS STA. 17+00 TO STA. 18+00

OHIO
F.H.W.A. REGION 5
130
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	95			
			174	
	93			
			161	
	81			
STA. 18+00	97		165	
TOTAL			500	

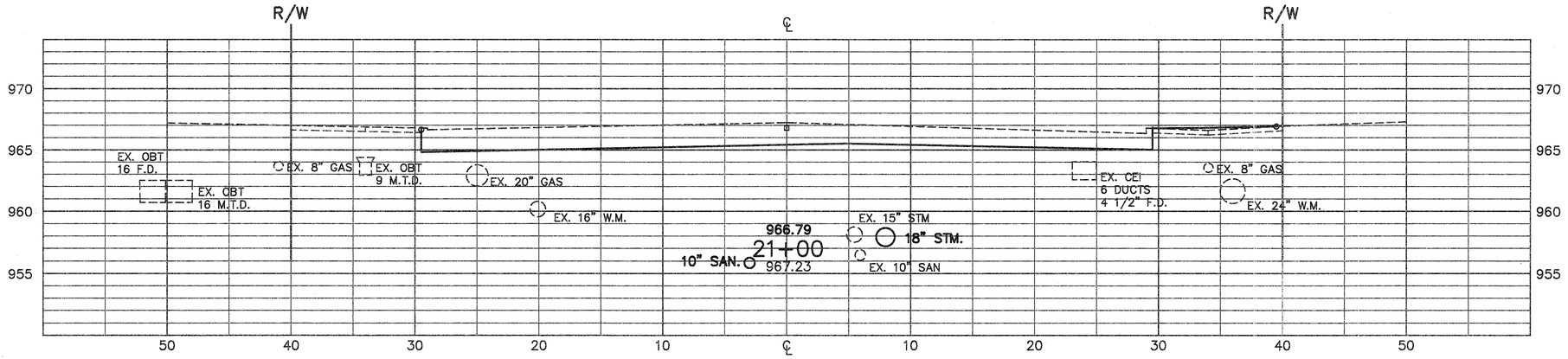
MAYFIELD ROAD

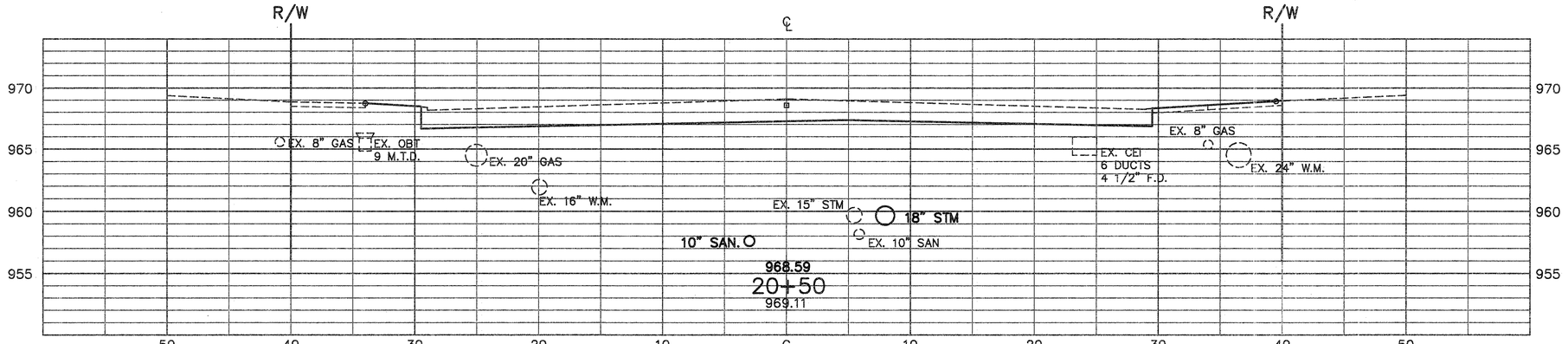
STEPHEN HOVANCSEK & ASSOC., INC.

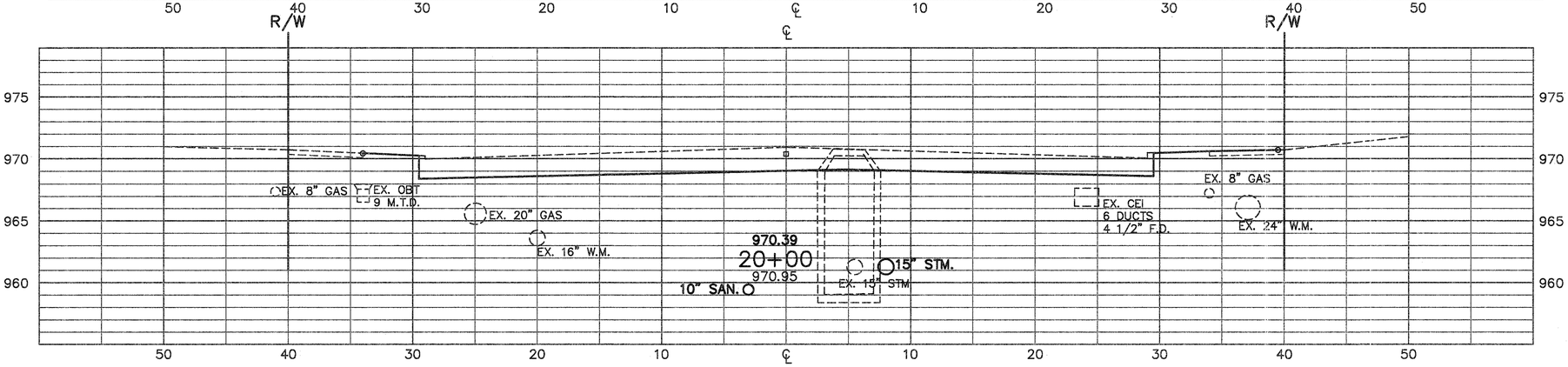
CROSS SECTIONS STA. 18+50 TO STA. 19+50

		OHIO	131
		F.H.W.A. REGION 5	426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	91		166	
	88		168	
	93			
STA. 19+50	95		174	
TOTAL			508	

MAYFIELD ROAD

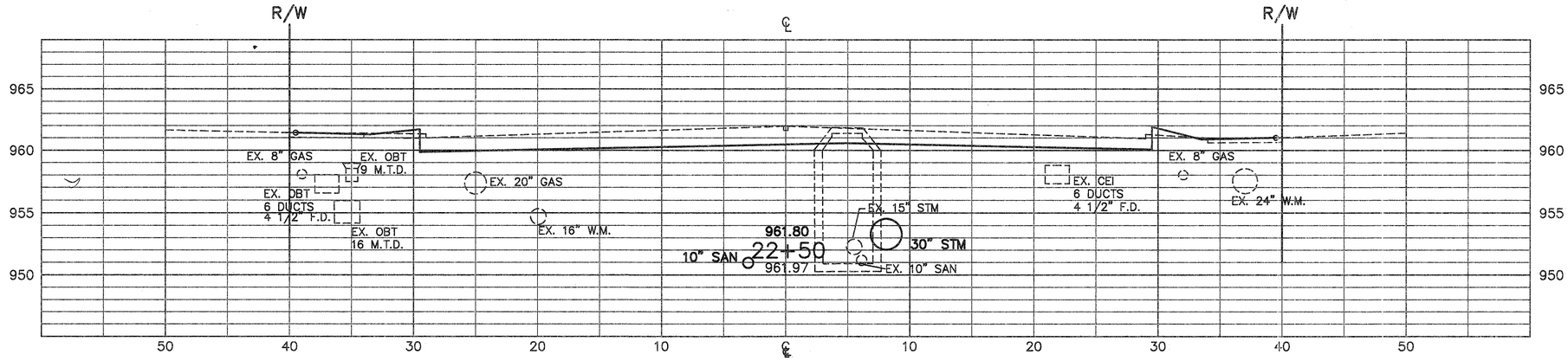
STEPHEN HOVANCSEK & ASSOC., INC.

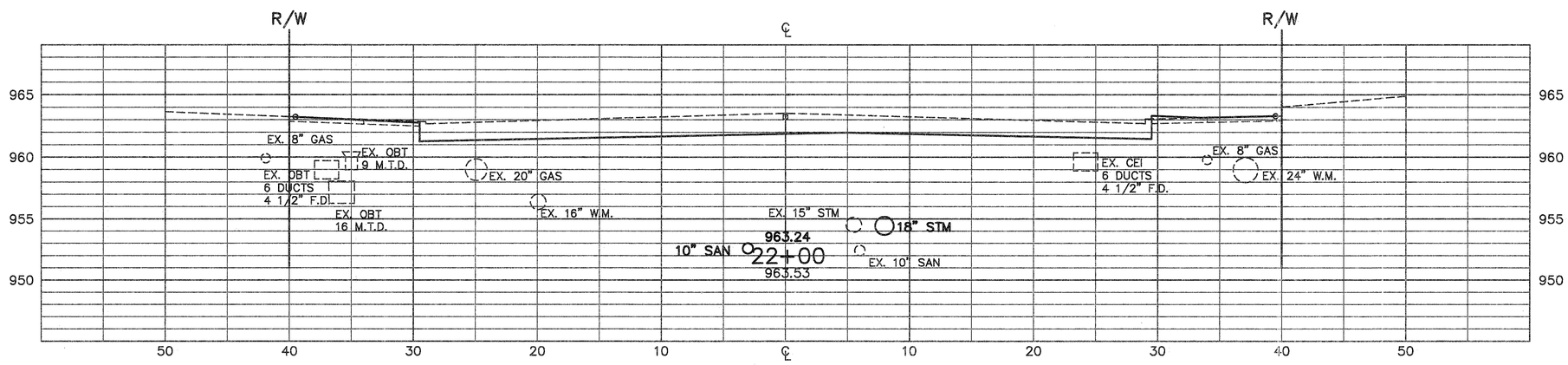
CROSS SECTIONS STA. 20+00 TO STA. 21+00

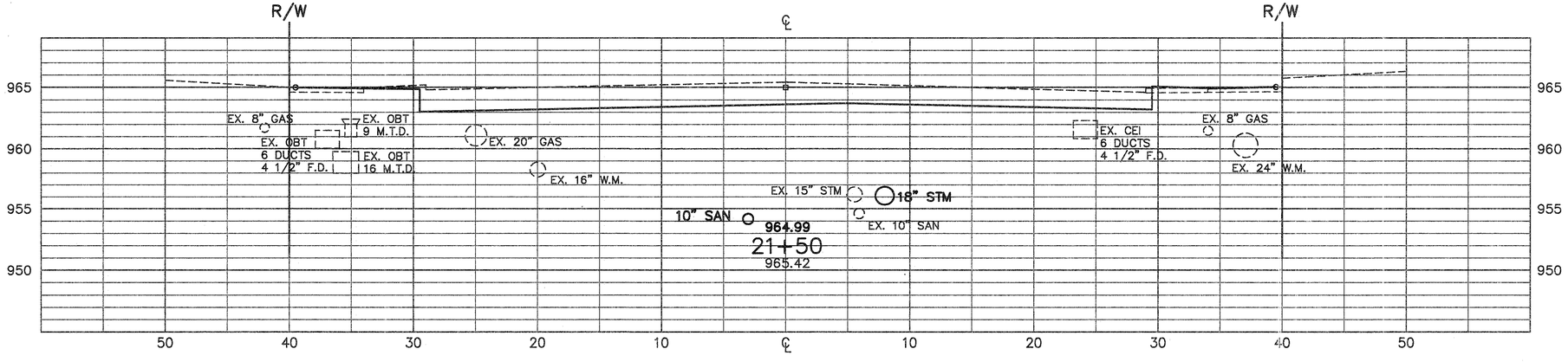
OHIO
F.H.W.A. REGION 5

132
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	67			
			137	
	81			
			160	
	92			
STA. 21+00	91		169	
TOTAL			466	

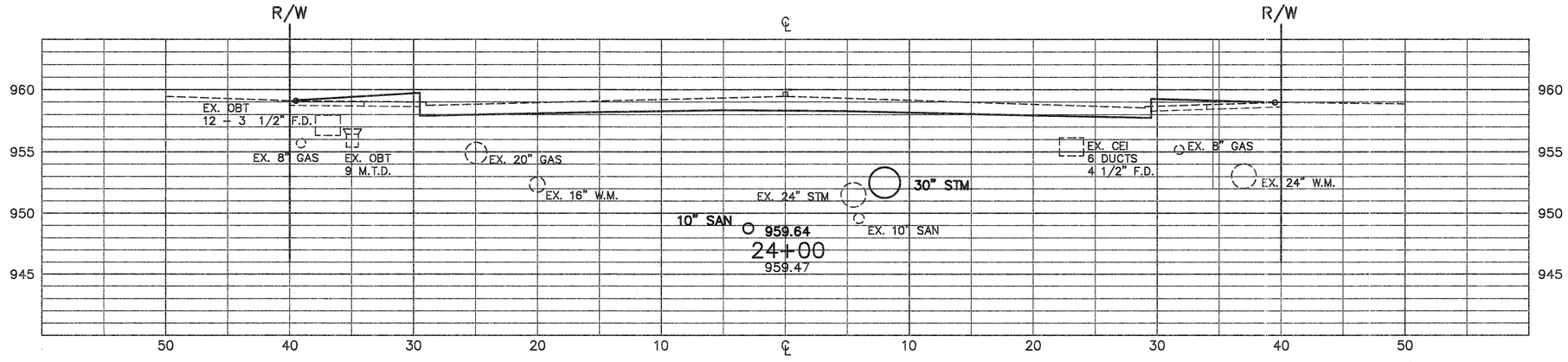
MAYFIELD ROAD

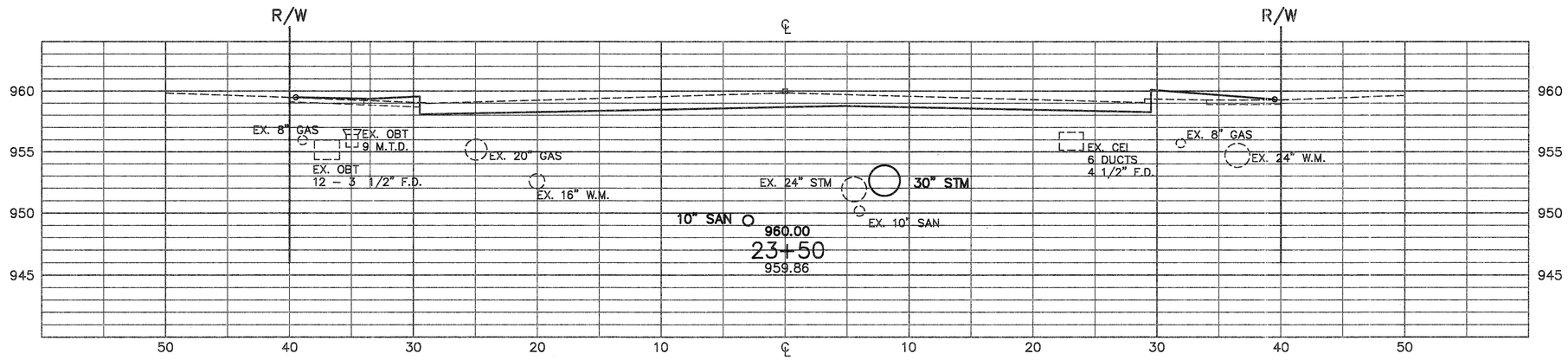
STEPHEN HOVANCSEK & ASSOC., INC.

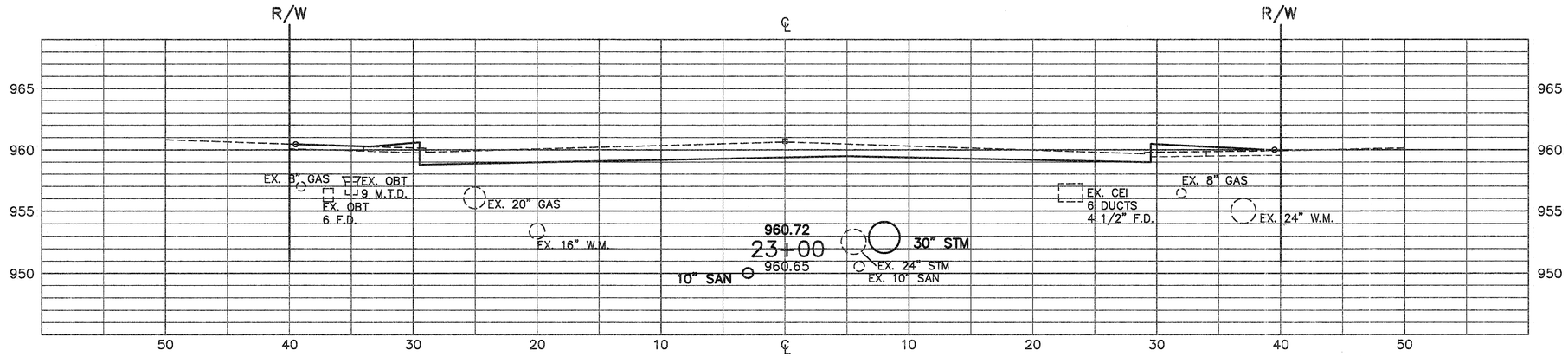
CROSS SECTIONS STA. 21+50 TO STA. 22+50

		OHIO	133
		F.H.W.A. REGION 5	426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	49			
			94	
	53			
			102	
	57			
STA. 22+50	67		115	
TOTAL			311	

MAYFIELD ROAD

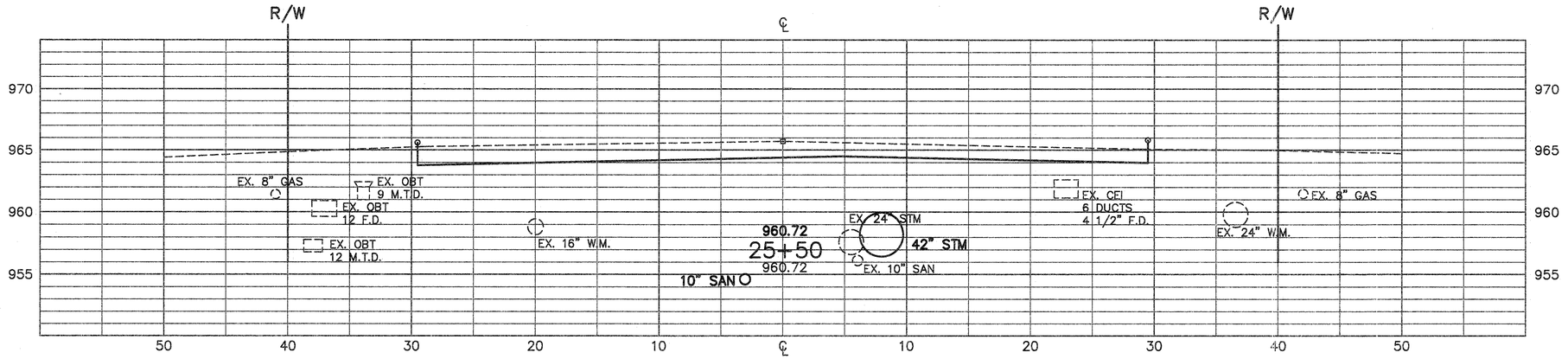
STEPHEN HOVANCSEK & ASSOC., INC.

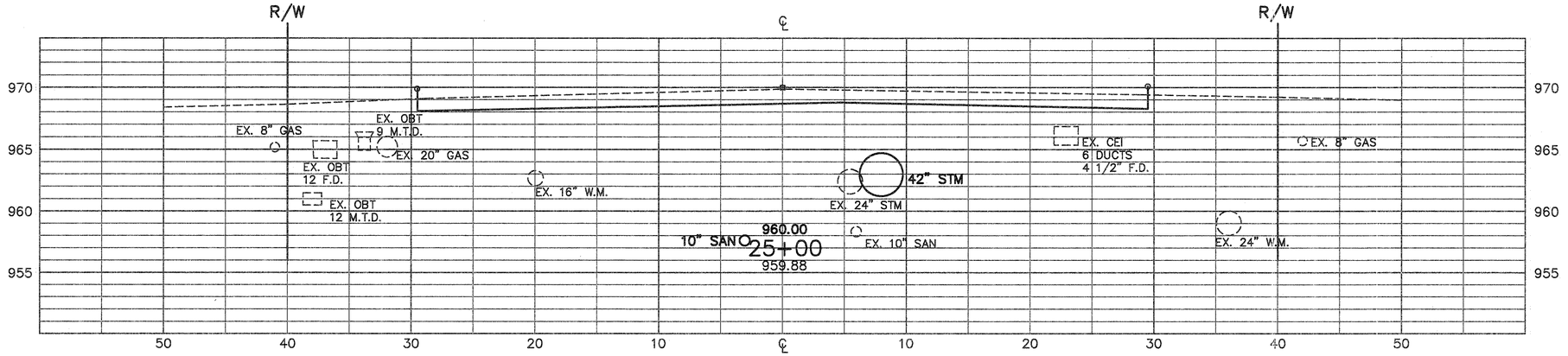
CROSS SECTIONS STA. 23+00 TO STA. 24+00

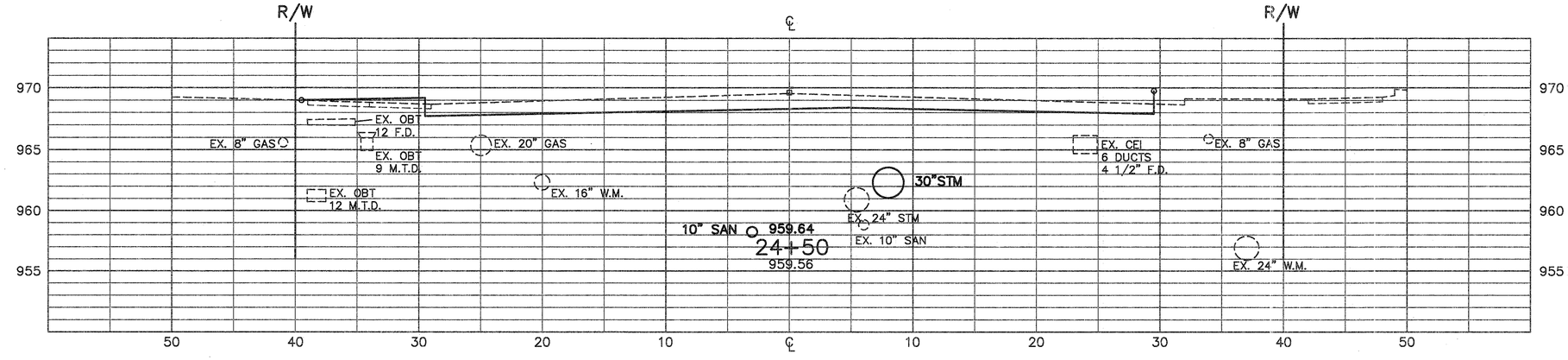
OHIO
F.H.W.A. REGION 5

134
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	73			
			127	
	64			
			111	
	56			
STA. 24+00	49		97	
TOTAL			335	

MAYFIELD ROAD

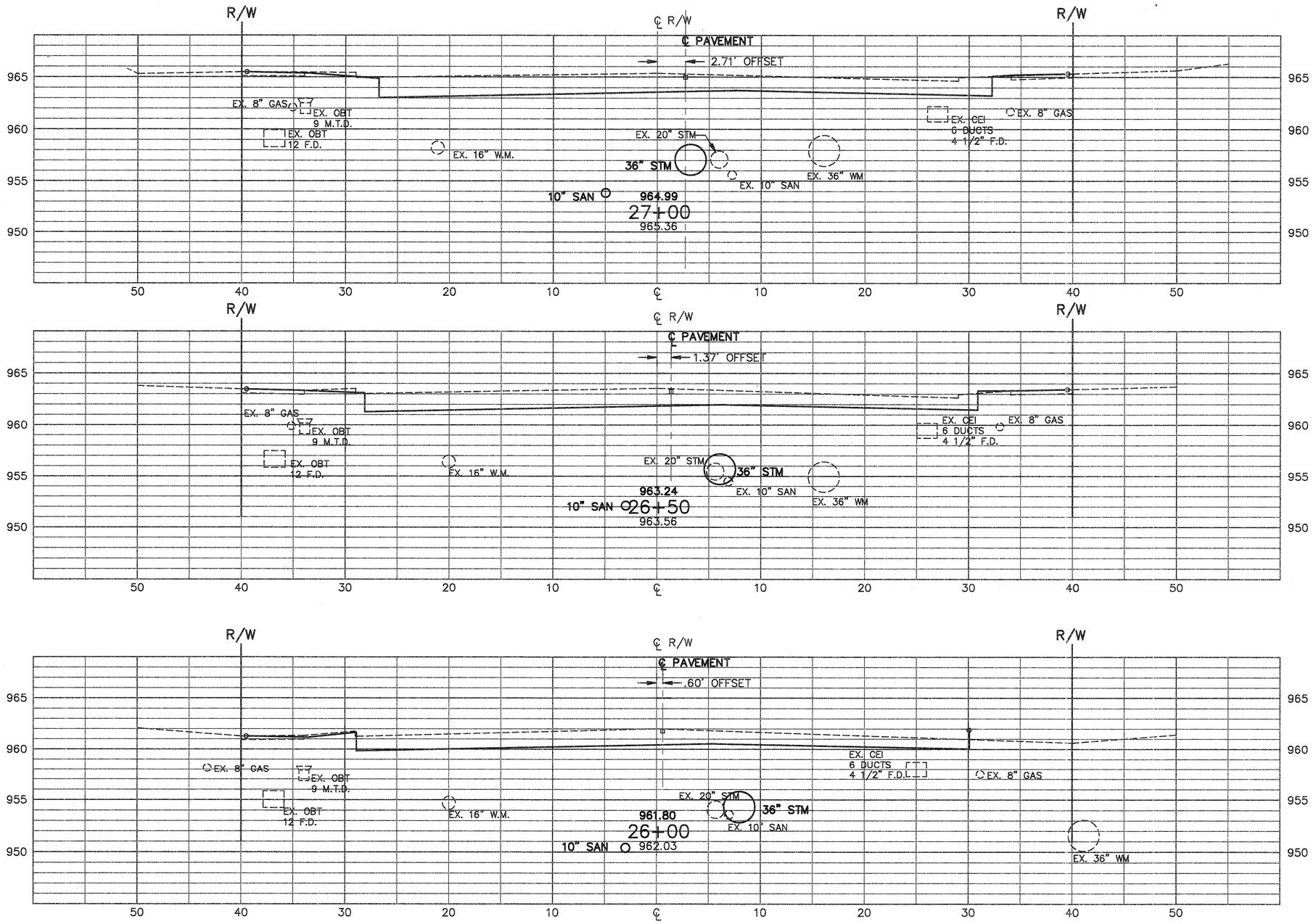
STEPHEN HOVANCSEK & ASSOC., INC.

CROSS SECTIONS STA. 24+50 TO STA. 25+50

OHIO
F.H.W.A. REGION 5

135
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	93			
			167	
	87			
			154	
	79			
STA. 25+50	73		141	
TOTAL			462	

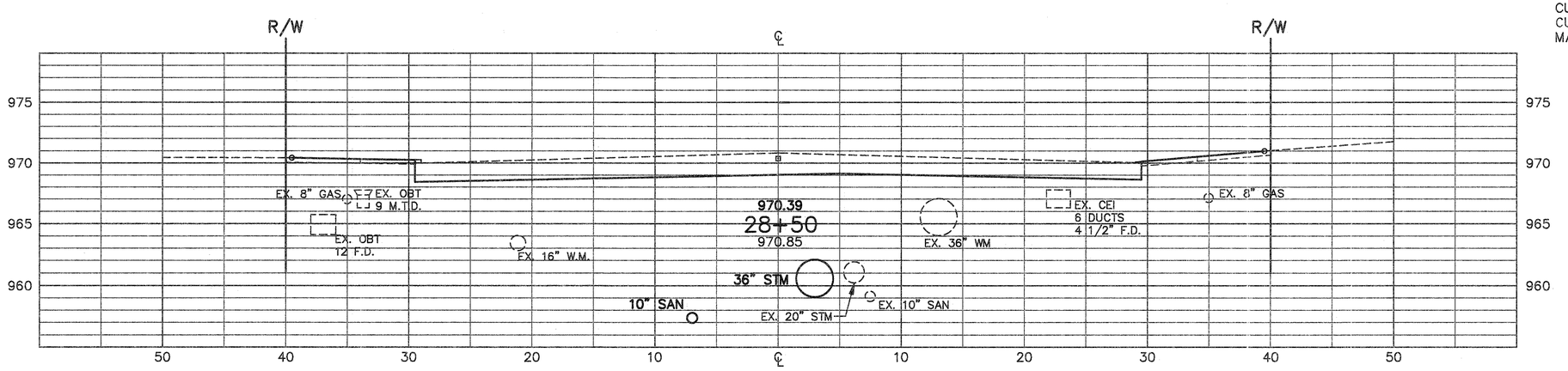
MAYFIELD ROAD

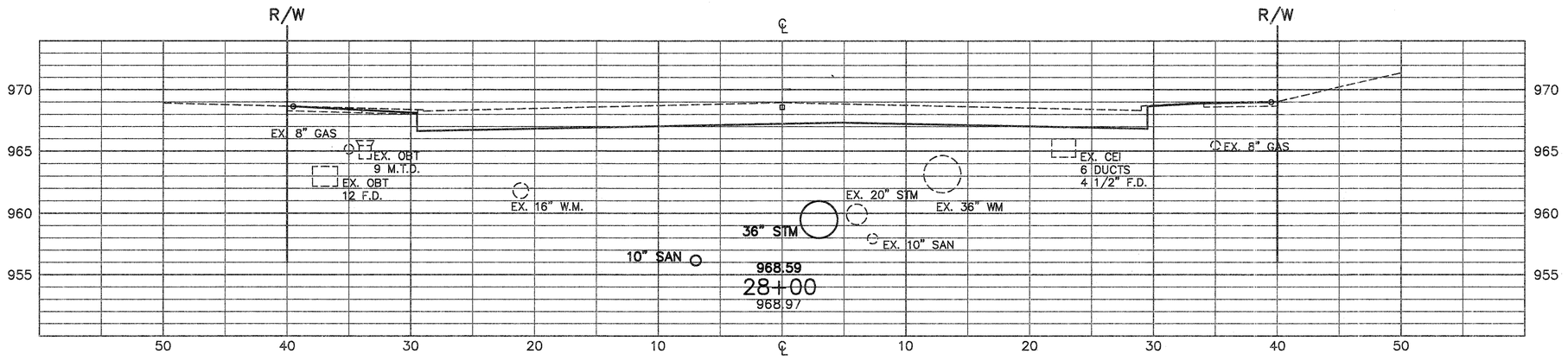
STEPHEN HOVANCSEK & ASSOC., INC.

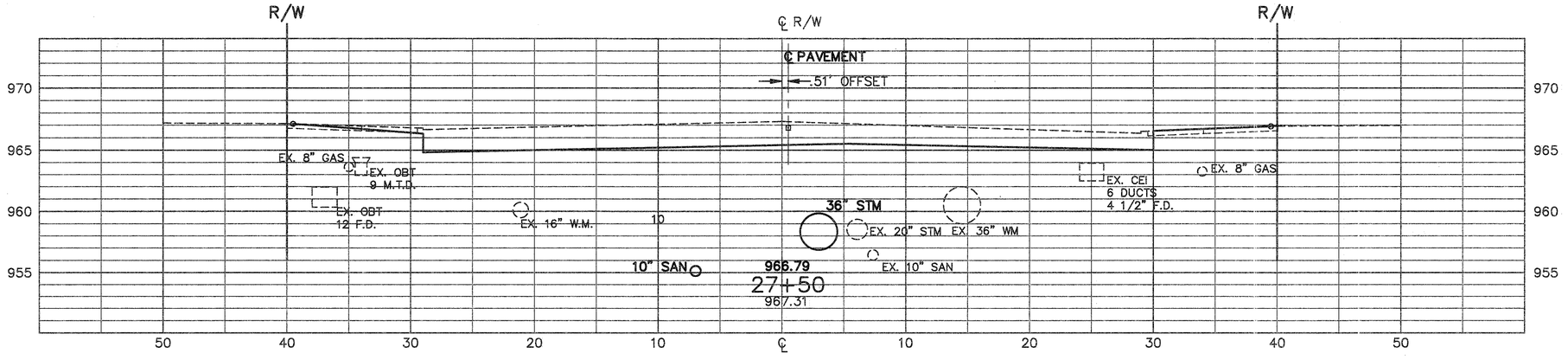
CROSS SECTIONS STA. 26+00 TO STA. 27+00

OHIO
F.H.W.A. REGION 5
136
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	91			
			169	
	92			
			172	
	94			
STA. 27+00	93		173	
TOTAL			514	

MAYFIELD ROAD

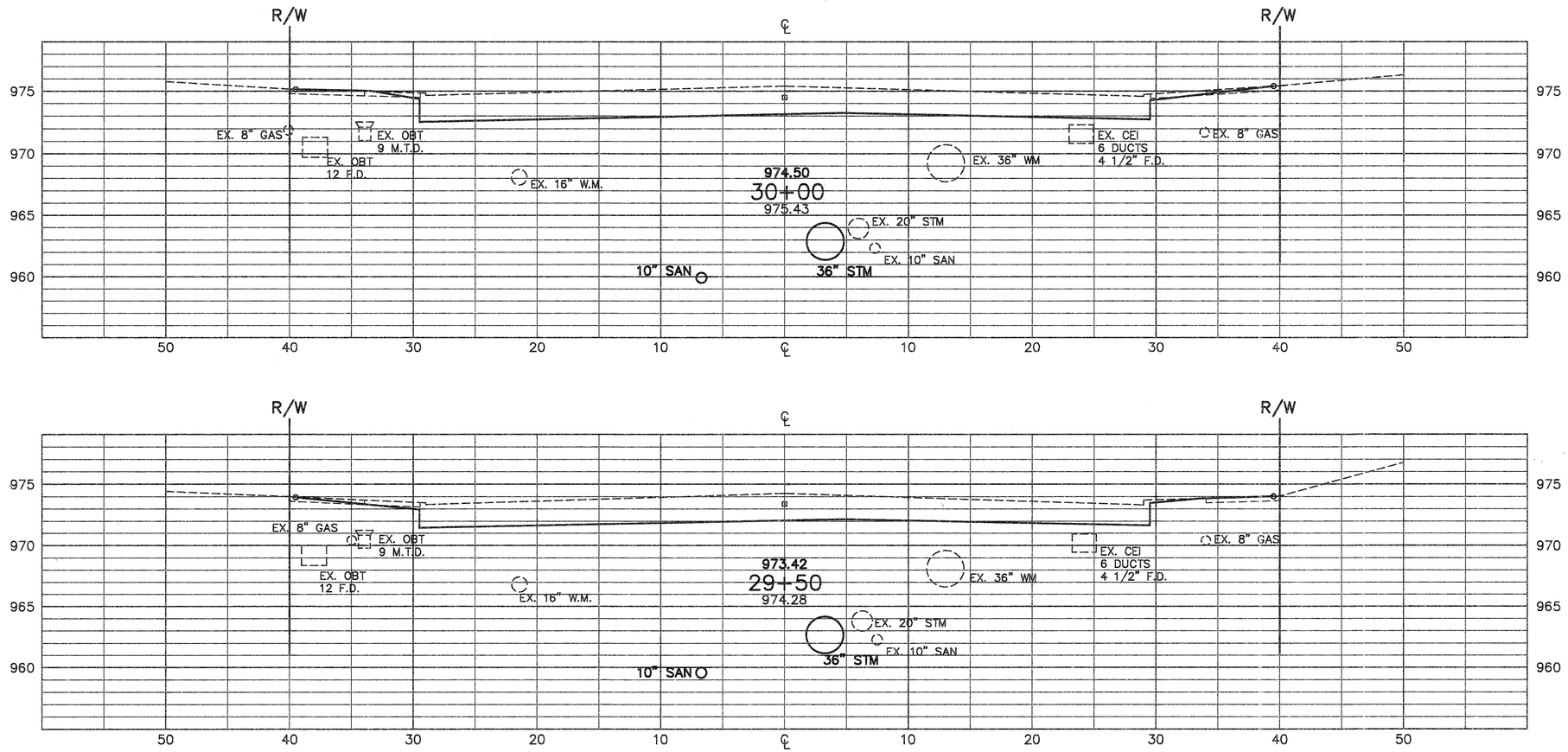
STEPHEN HOVANCSEK & ASSOC., INC.

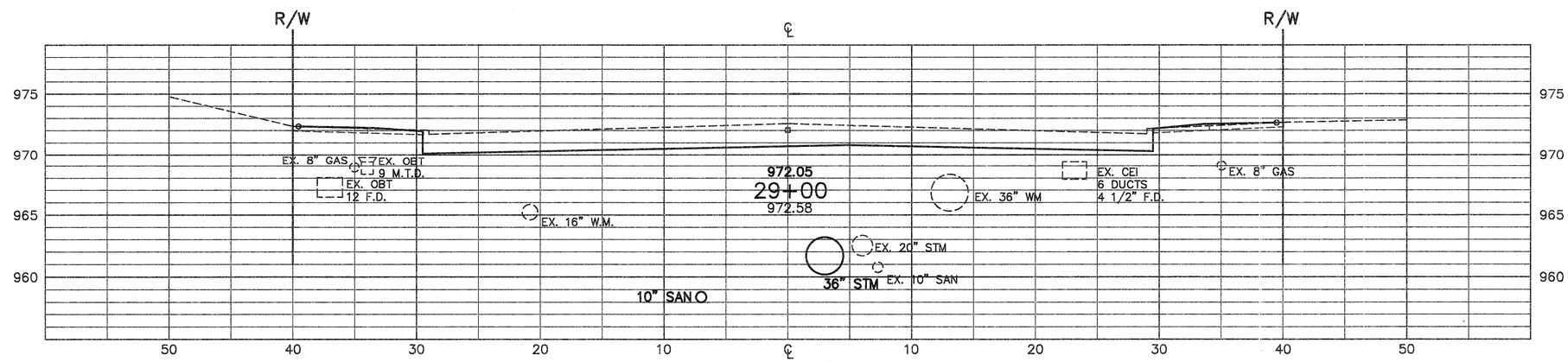
CROSS SECTIONS STA. 27+50 TO STA. 28+50

OHIO
F.H.W.A. REGION 5

137
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD





	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	119			
			214	
	112			
			191	
	94			
STA. 28+50	91		171	
TOTAL			576	

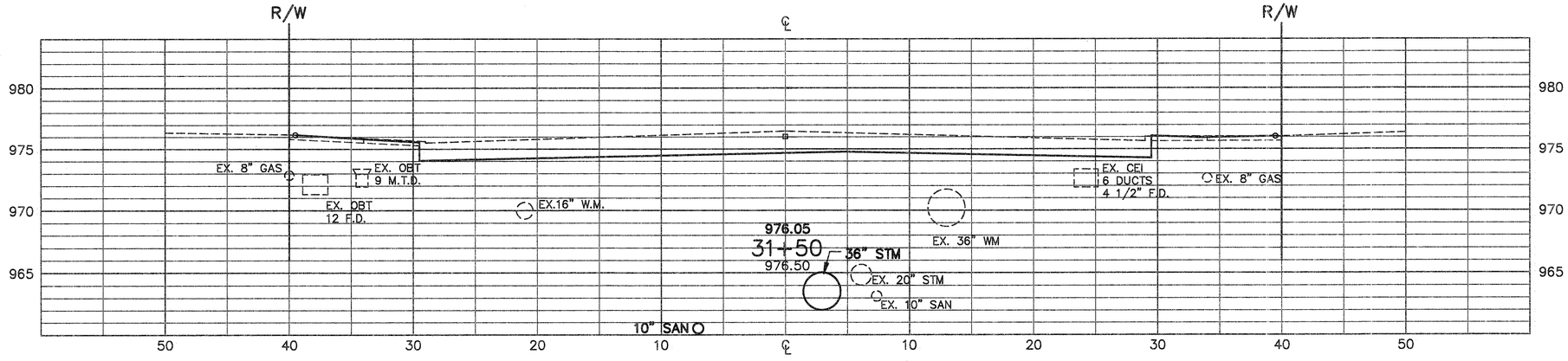
MAYFIELD ROAD

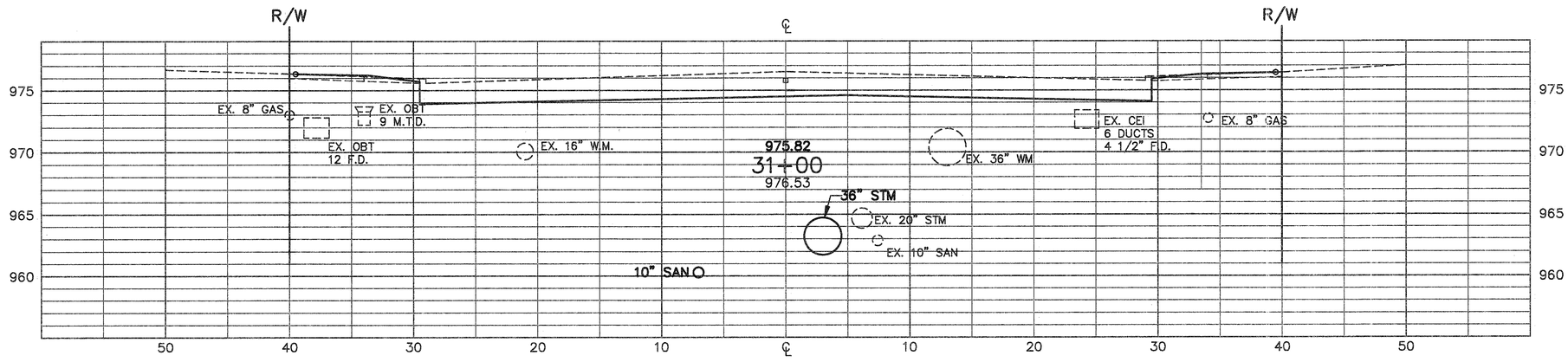
STEPHEN HOVANCSEK & ASSOC., INC.

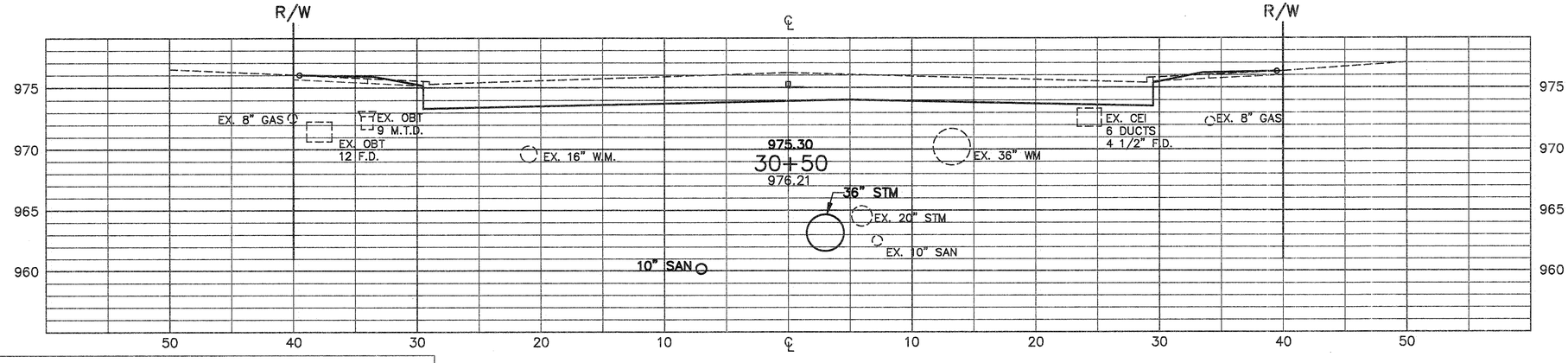
CROSS SECTIONS STA. 29+00 TO STA. 30+00

		OHIO	138/426
		F.H.W.A. REGION 5	

CUYAHOGA COUNTY
CUY-322-8,66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	92			
			182	
	105			
			206	
	117			
STA. 30+00	119		219	
TOTAL			607	

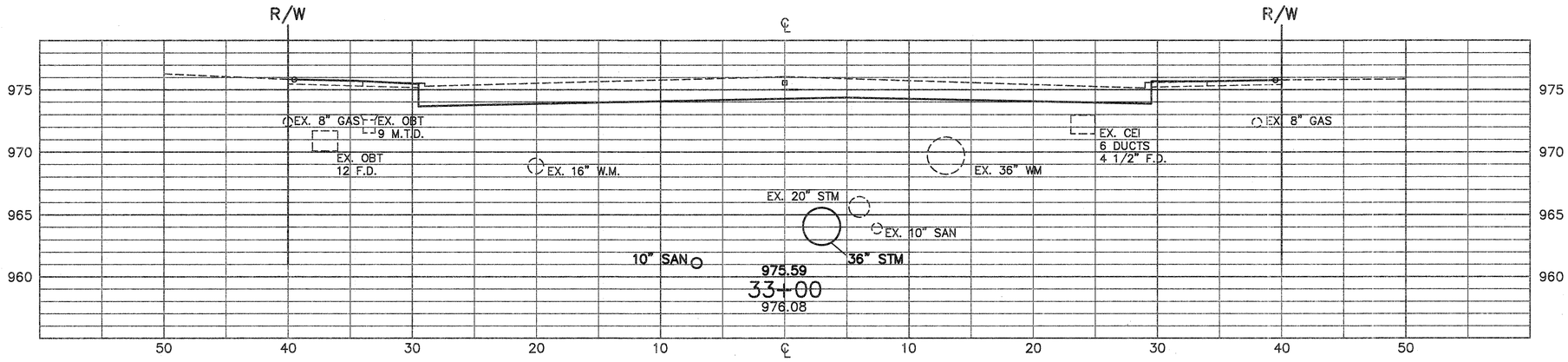
MAYFIELD ROAD

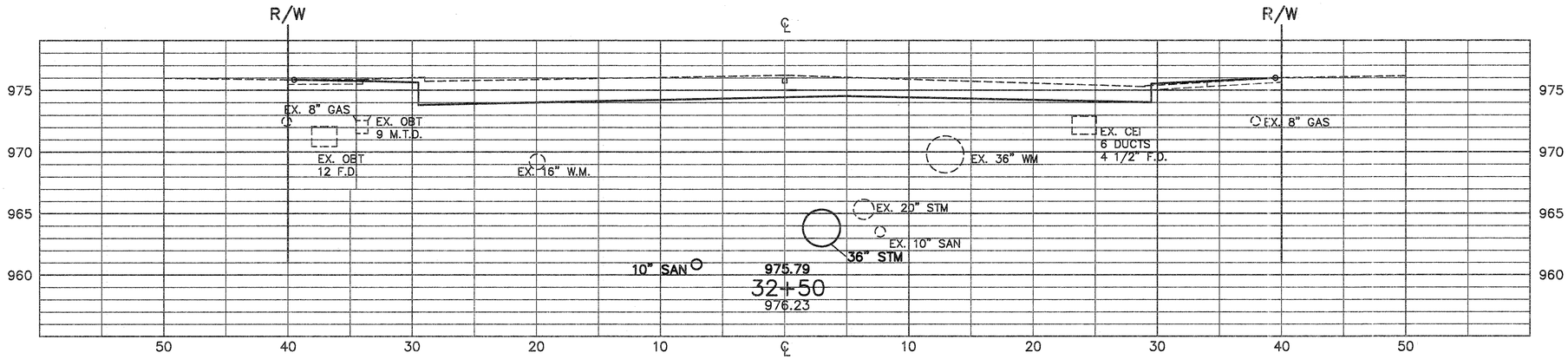
STEPHEN HOVANCSEK & ASSOC., INC.

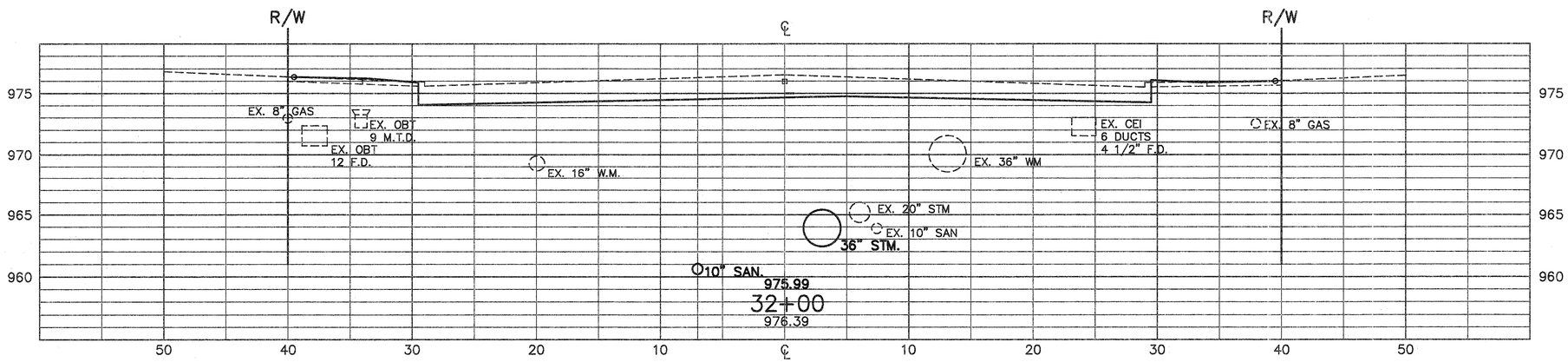
CROSS SECTIONS STA. 30+50 TO STA. 31+50

OHIO
F.H.W.A. REGION 5
139
426

CUYAHOGA COUNTY
CUY-322-8,66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	91			
			171	
	94			
			170	
	90			
STA. 31+50	92		169	
TOTAL			510	

MAYFIELD ROAD

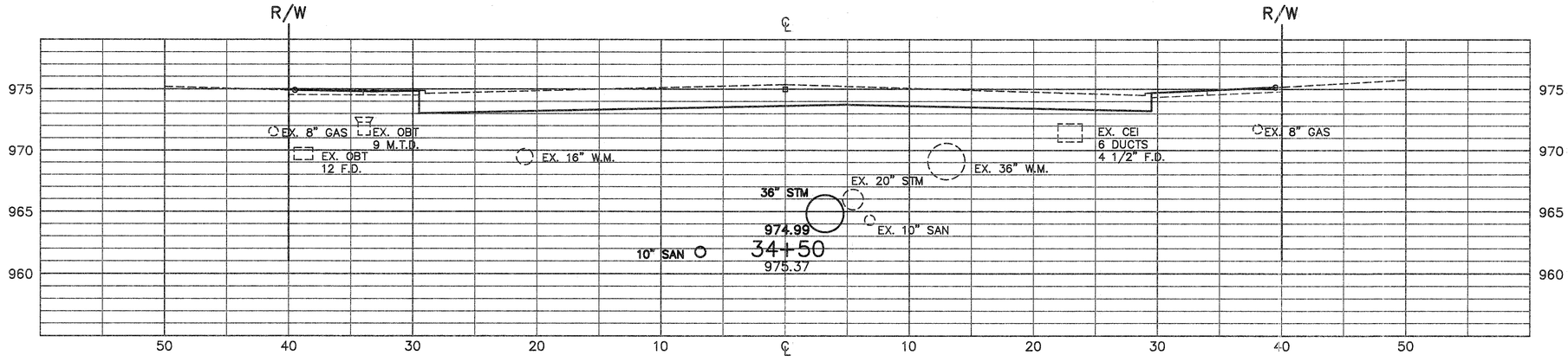
STEPHEN HOVANCSEK & ASSOC., INC.

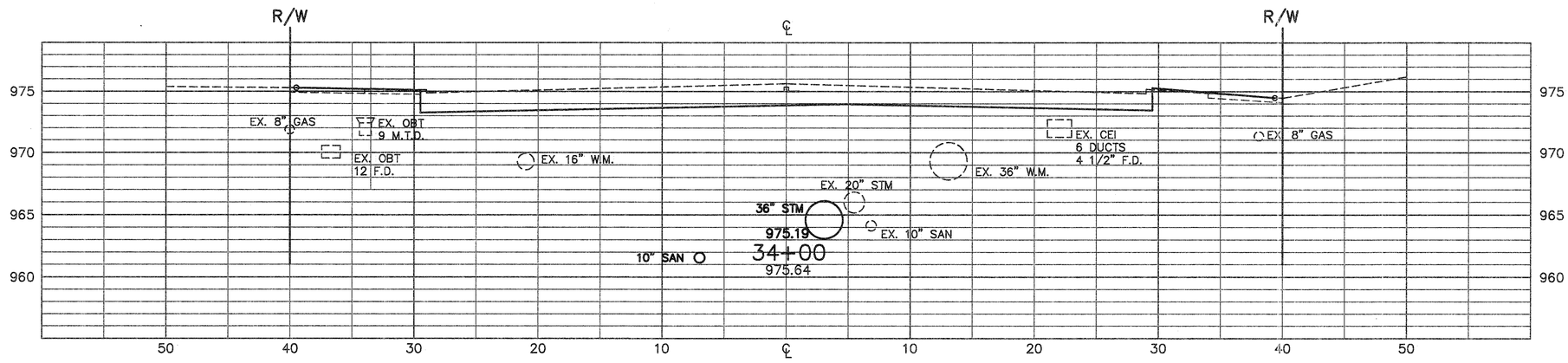
CROSS SECTIONS STA. 32+00 TO STA. 33+00

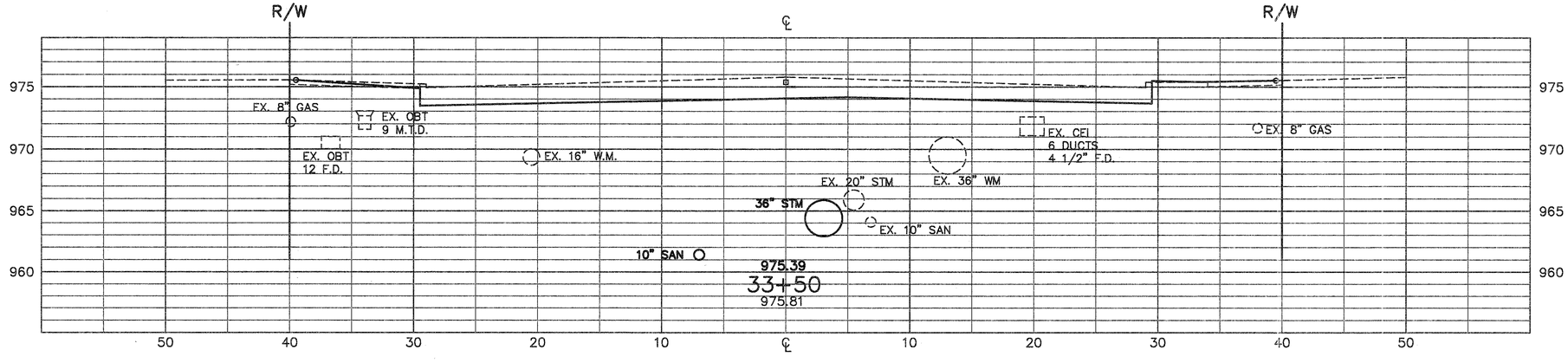
OHIO
F.H.W.A. REGION 5

140
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	88			
			169	
	94			
			169	
	88			
STA 33+00	91		166	
TOTAL			504	

MAYFIELD ROAD

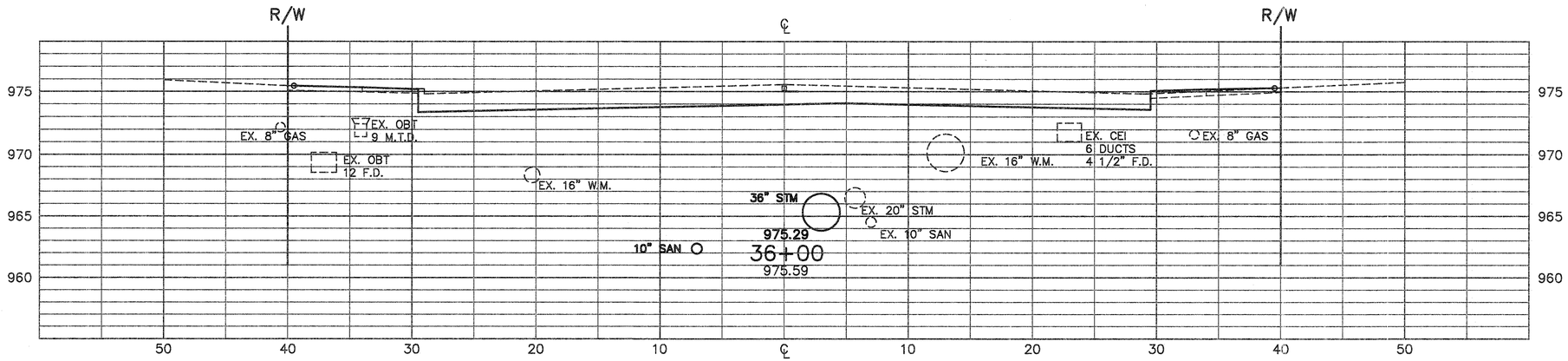
STEPHEN HOVANCSEK & ASSOC., INC.

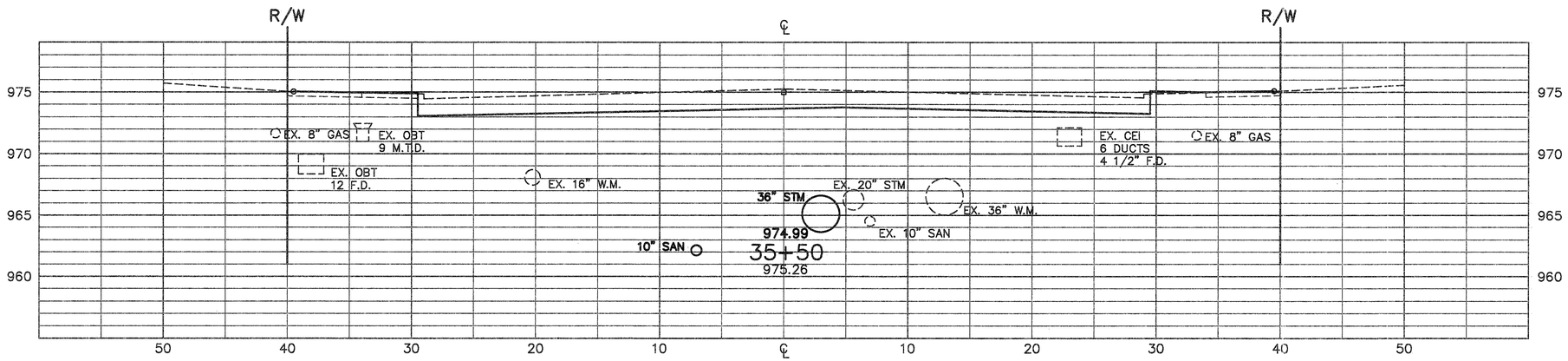
CROSS SECTIONS STA. 33+50 TO STA. 34+50

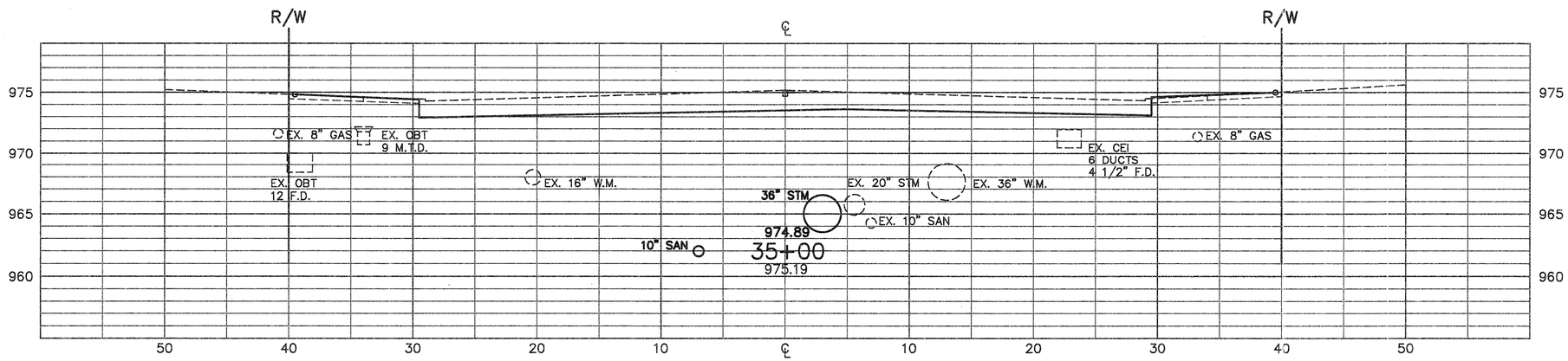
OHIO
F.H.W.A. REGION 5

141
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	84			
			156	
	84			
			156	
	84			
STA. 34+50	88		159	
TOTAL			471	

MAYFIELD ROAD

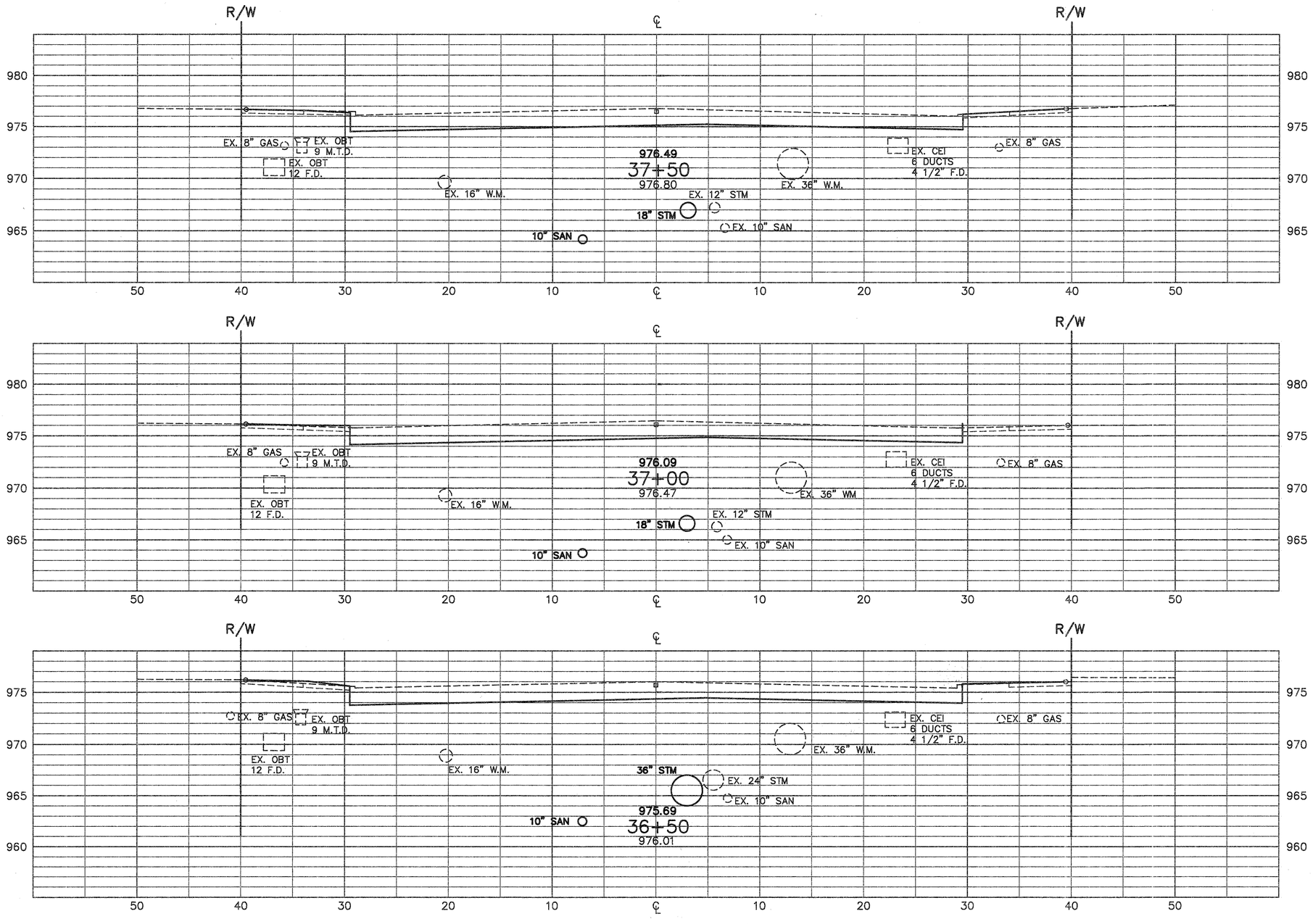
STEPHEN HOVANCSEK & ASSOC., INC.

CROSS SECTIONS STA. 35+00 TO STA. 36+00

OHIO
F.H.W.A. REGION 5

142
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	85			
			160	
	88			
			164	
	89			
STA. 36+00	84		160	
TOTAL			484	

MAYFIELD ROAD

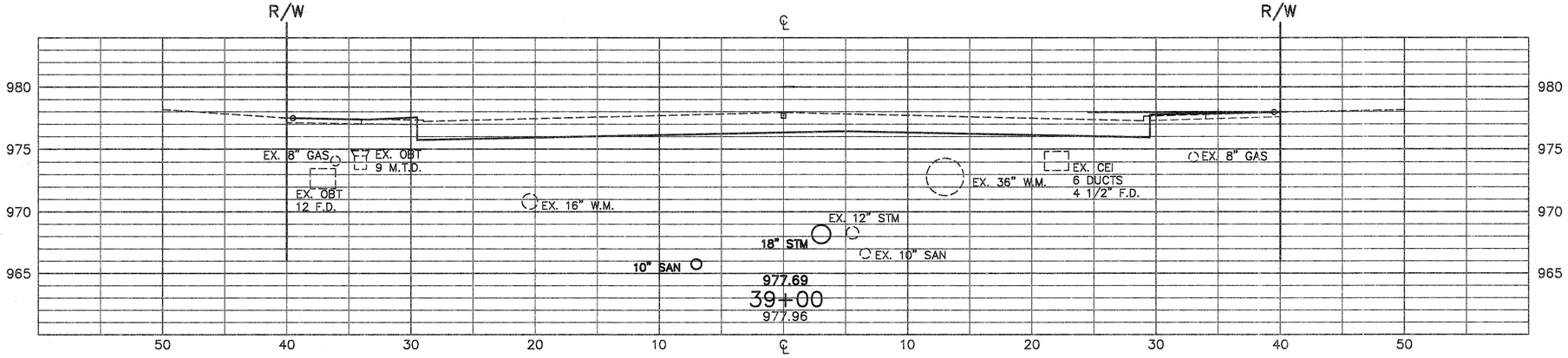
STEPHEN HOVANCSEK & ASSOC., INC.

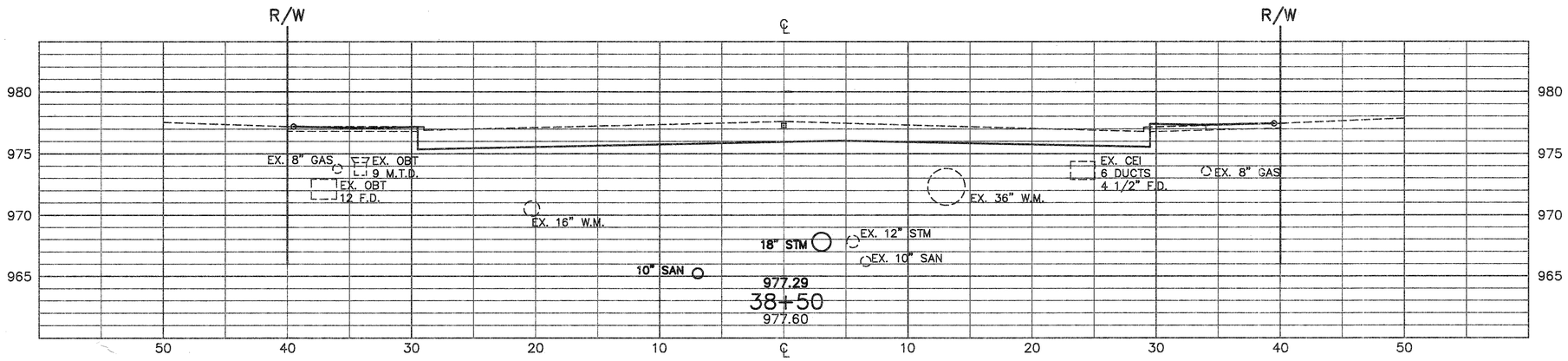
CROSS SECTIONS STA. 36+50 TO STA. 37+50

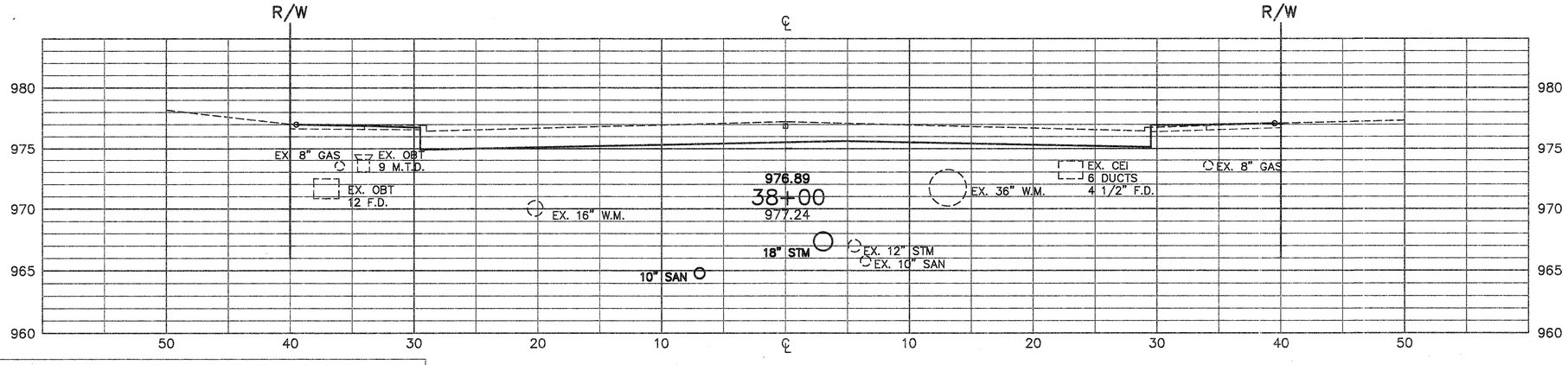
OHIO
F.H.W.A. REGION 5

143
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	87			
			160	
	86			
			166	
	93			
STA. 37+50	85		165	
TOTAL			491	

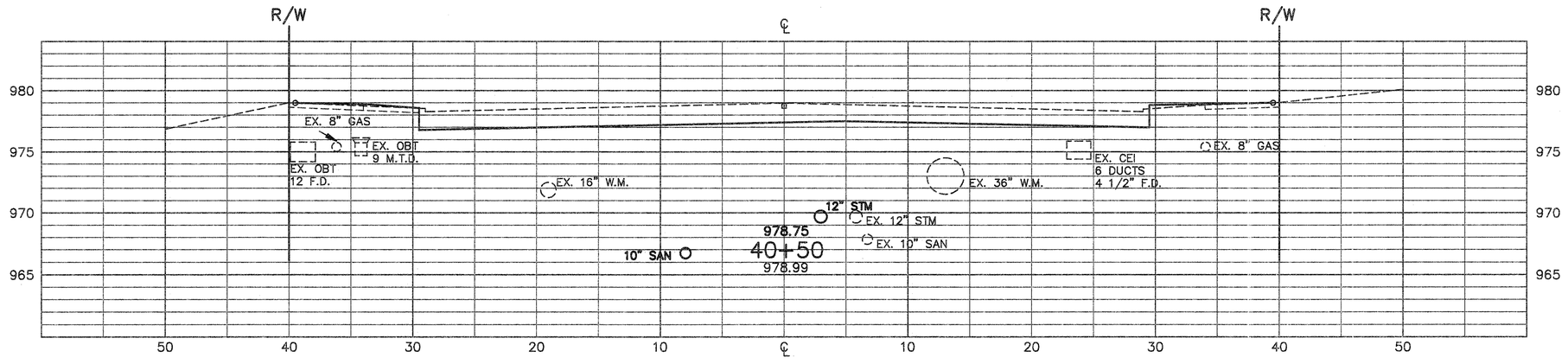
MAYFIELD ROAD

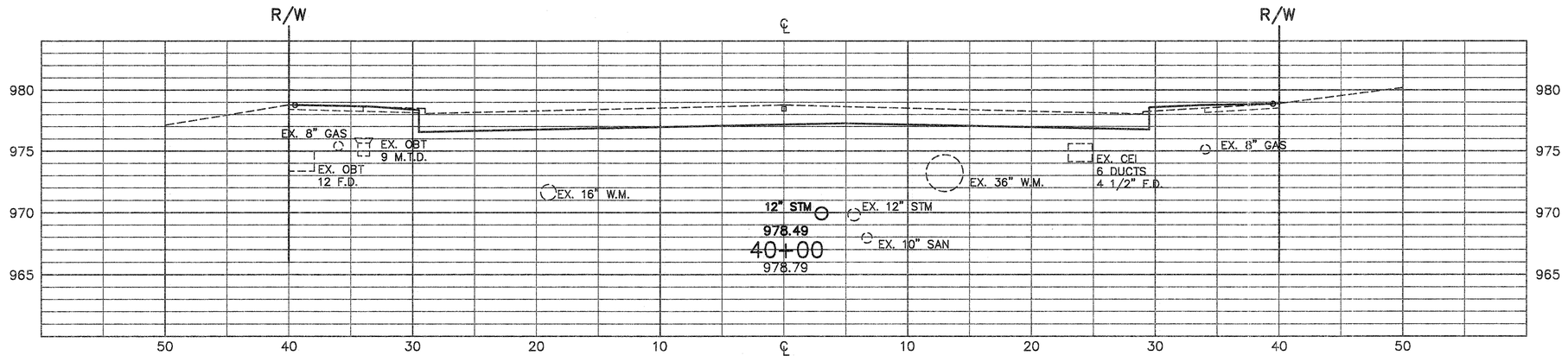
STEPHEN HOVANCSEK & ASSOC., INC.

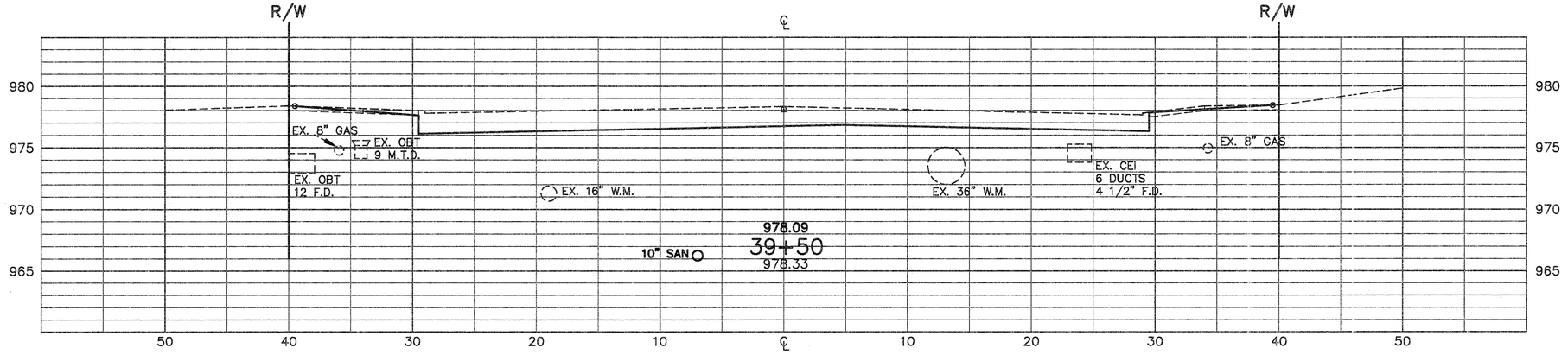
CROSS SECTIONS STA. 38+00 TO STA. 39+00

OHIO
F.H.W.A. REGION 5
144
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	85			
			160	
	88			
			165	
	90			
STA. 39+00	87		164	
TOTAL			489	

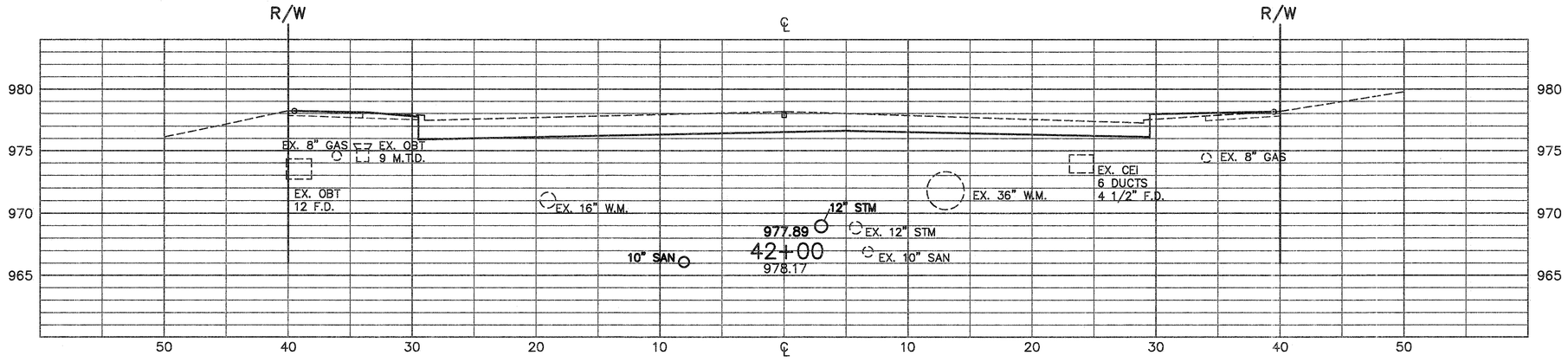
MAYFIELD ROAD

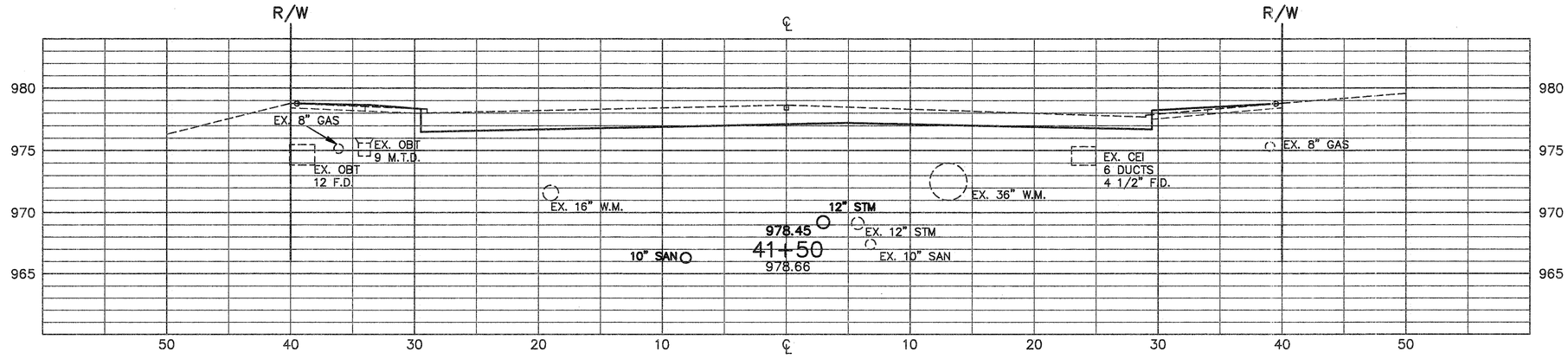
STEPHEN HOVANCSEK & ASSOC., INC.

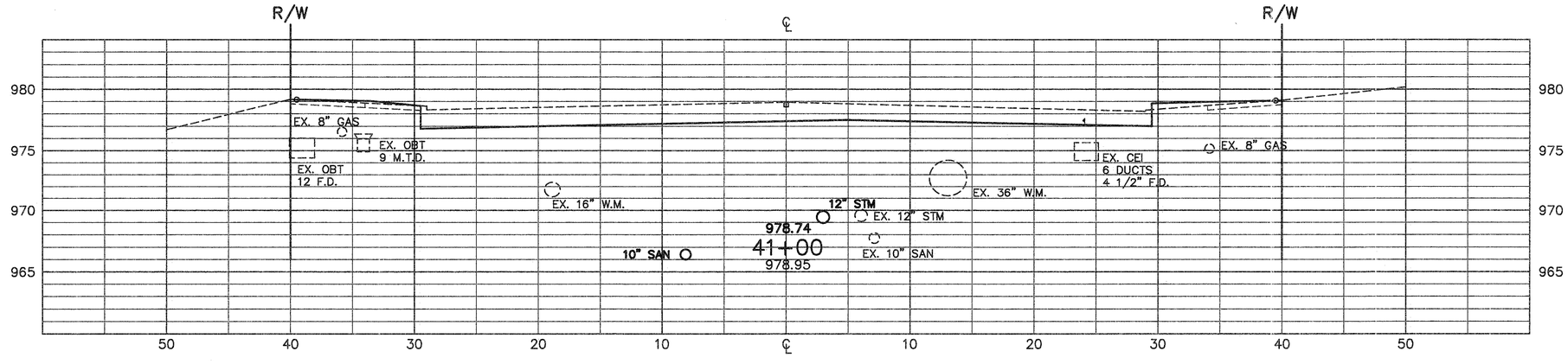
CROSS SECTIONS STA. 39+50 TO STA. 40+50

OHIO
F.H.W.A. REGION 5
145
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	85			
			154	
	81			
			152	
	83			
STA. 40+50	85		156	
TOTAL			462	

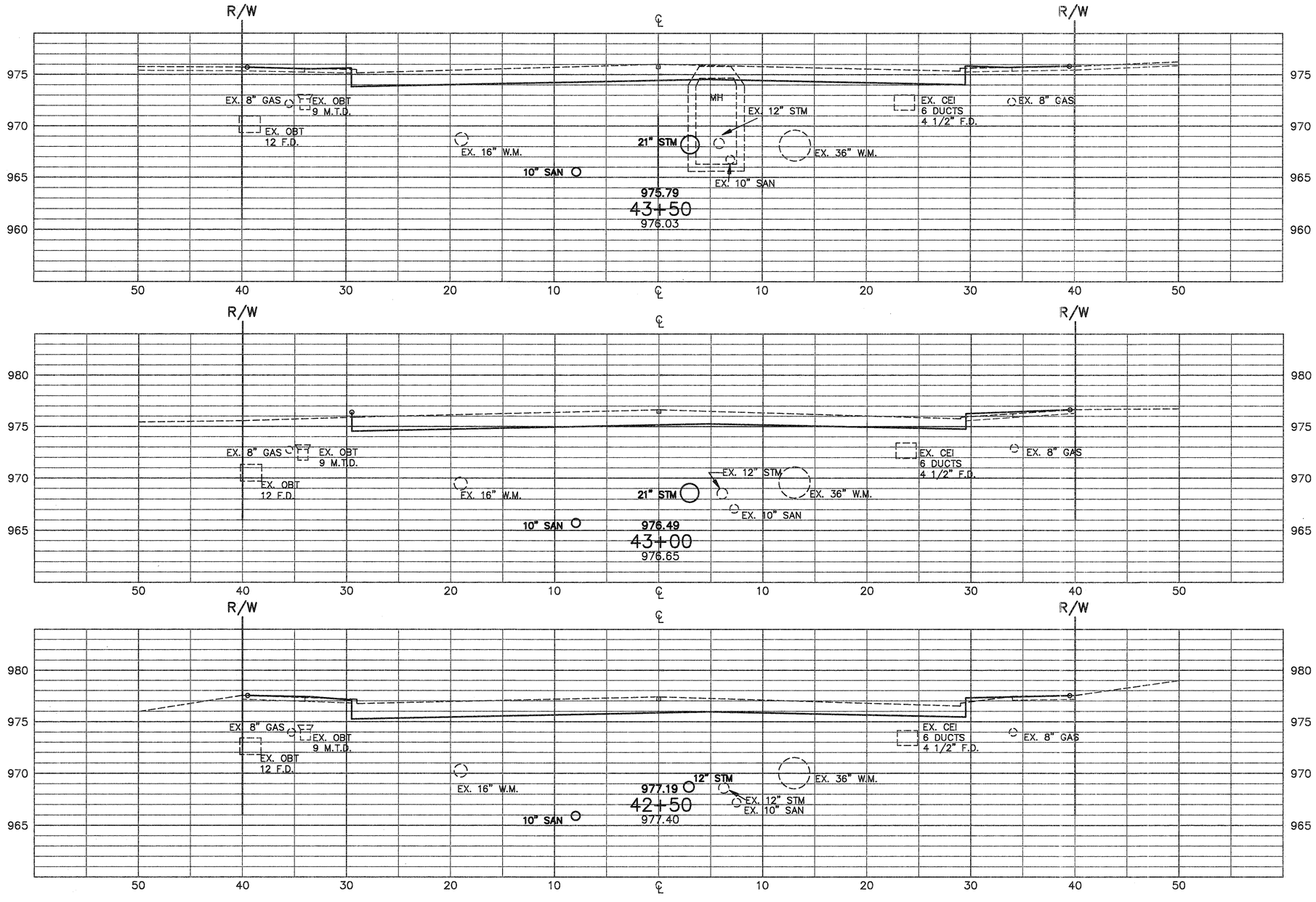
MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

CROSS SECTIONS STA. 41+00 TO STA. 42+00

		OHIO	146
		F.H.W.A. REGION 5	426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	85			
			151	
	78			
			147	
	81			
STA. 42+00	85		154	
TOTAL			452	

MAYFIELD ROAD

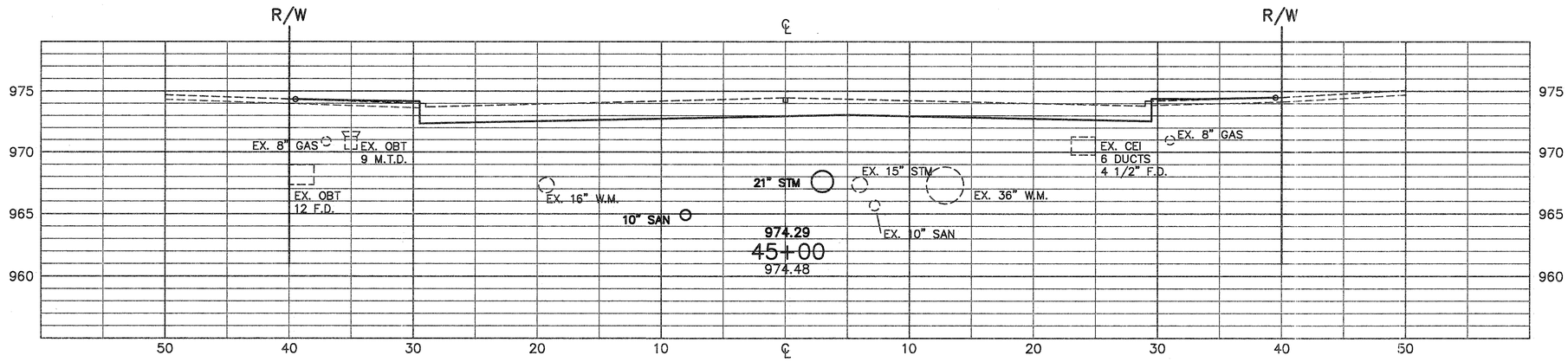
STEPHEN HOVANCSEK & ASSOC., INC.

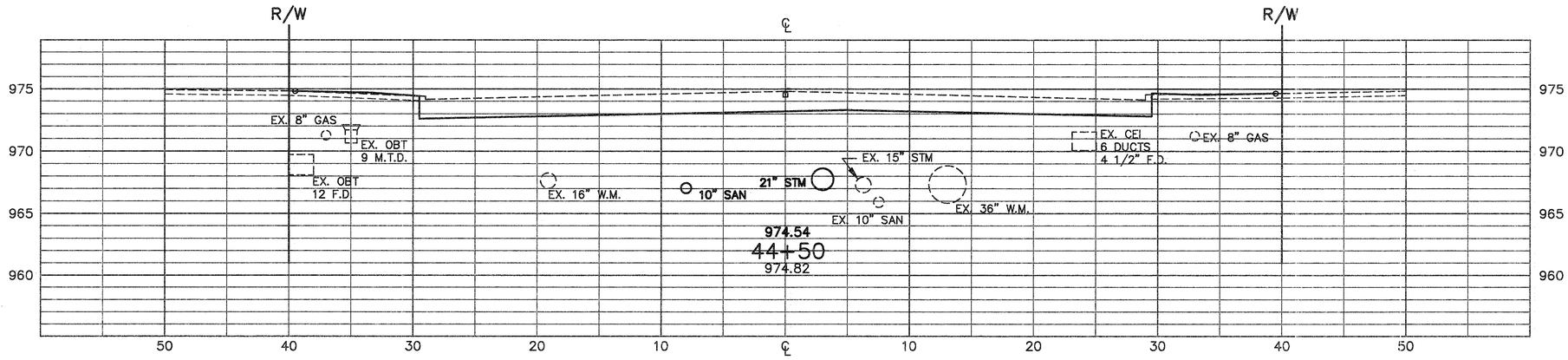
CROSS SECTIONS STA. 42+50 TO STA. 43+50

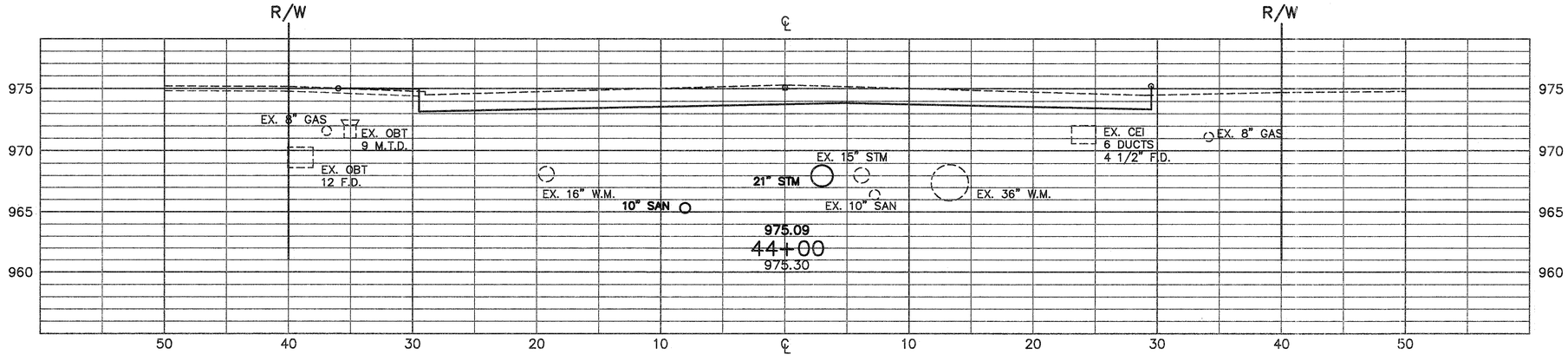
		OHIO
		F.H.W.A. REGION 5

147
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	83			
			156	
	86			
			156	
	83			
STA. 43+50	85		156	
TOTAL			468	

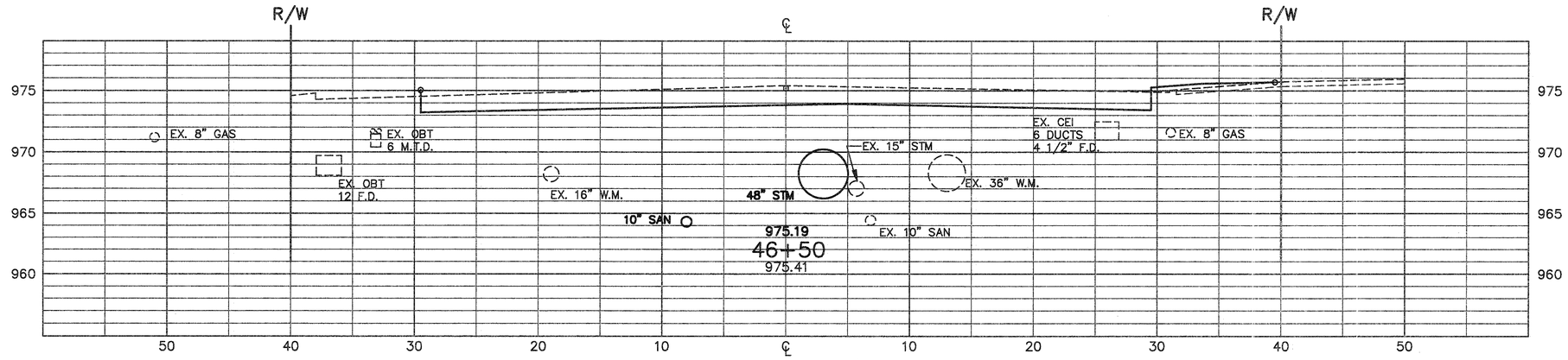
MAYFIELD ROAD

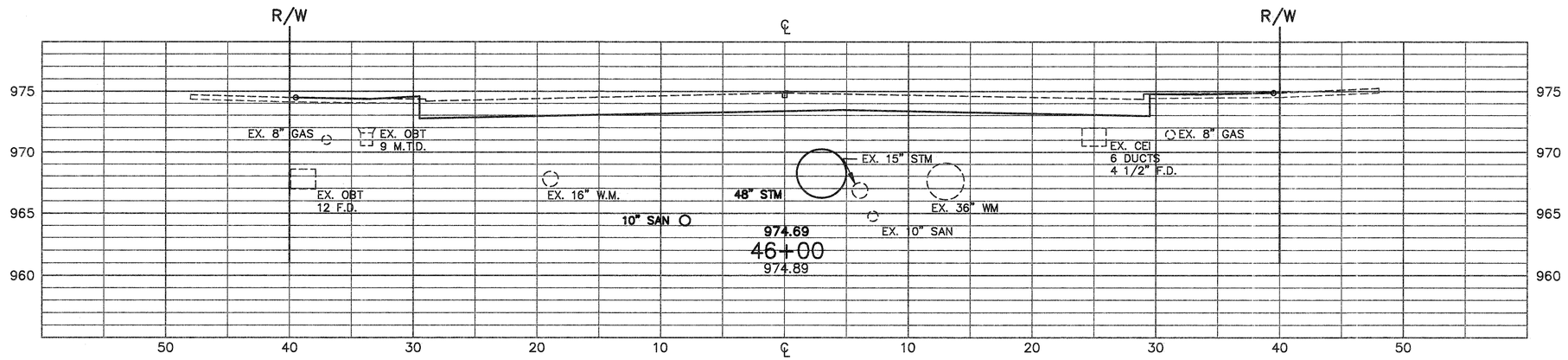
STEPHEN HOVANCSEK & ASSOC., INC.

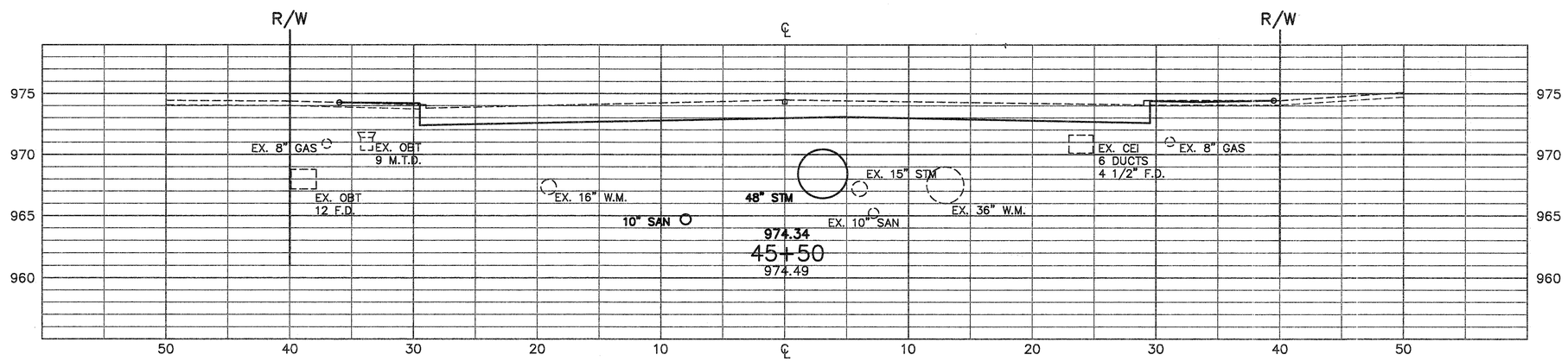
CROSS SECTIONS STA. 44+00 TO STA. 45+00

OHIO
F.H.W.A. REGION 5
148
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	87			
			159	
	85			
			159	
	87			
STA. 45+00	83		157	
TOTAL			475	

MAYFIELD ROAD

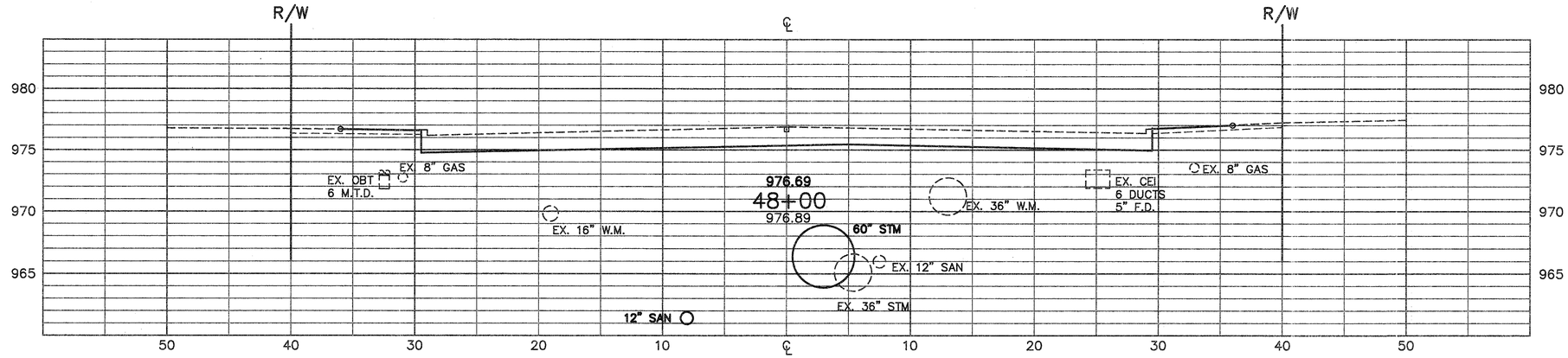
STEPHEN HOVANCSEK & ASSOC., INC.

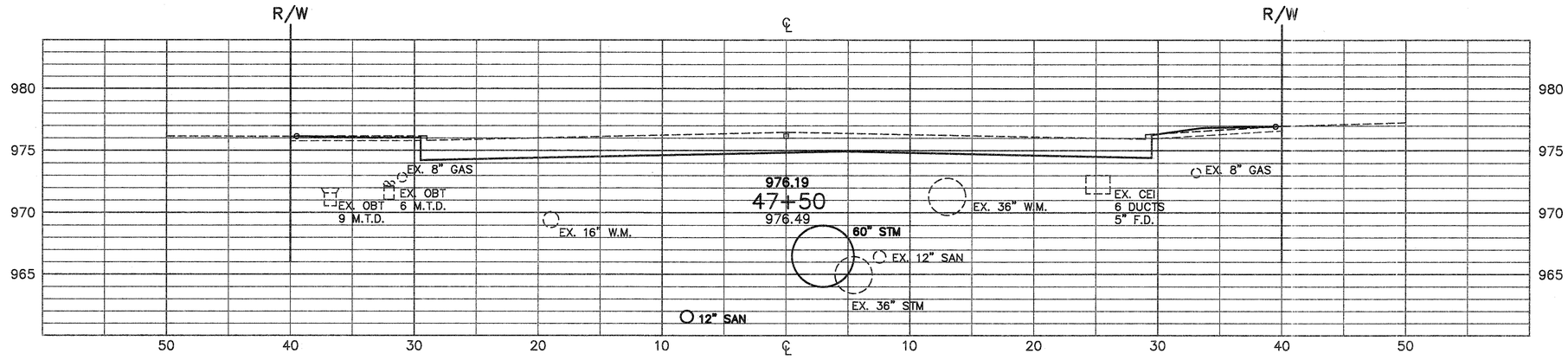
CROSS SECTIONS STA. 45+50 TO STA. 46+50

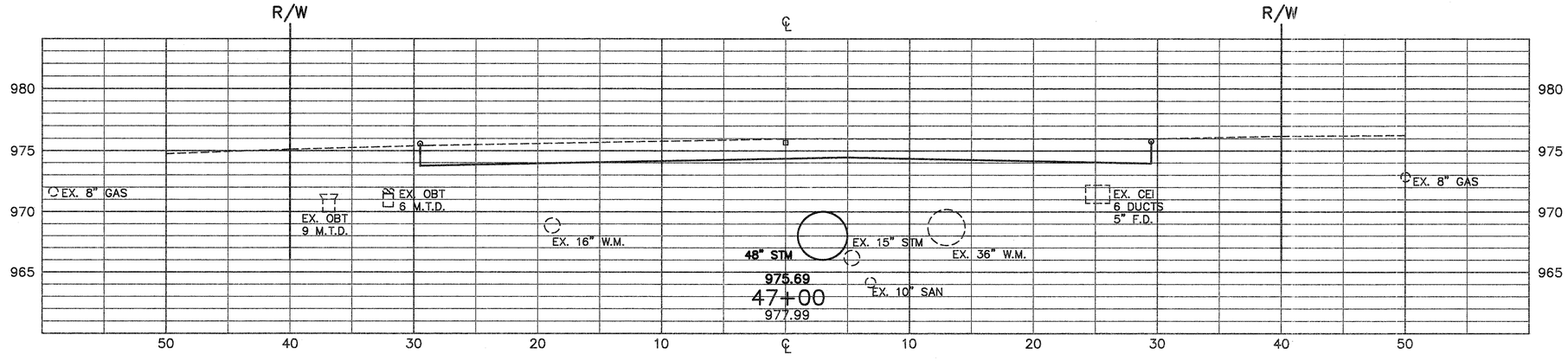
OHIO
F.H.W.A. REGION 5

149
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	85			
			162	
	90			
			174	
	98			
STA. 46+50	87		171	
TOTAL			507	

MAYFIELD ROAD

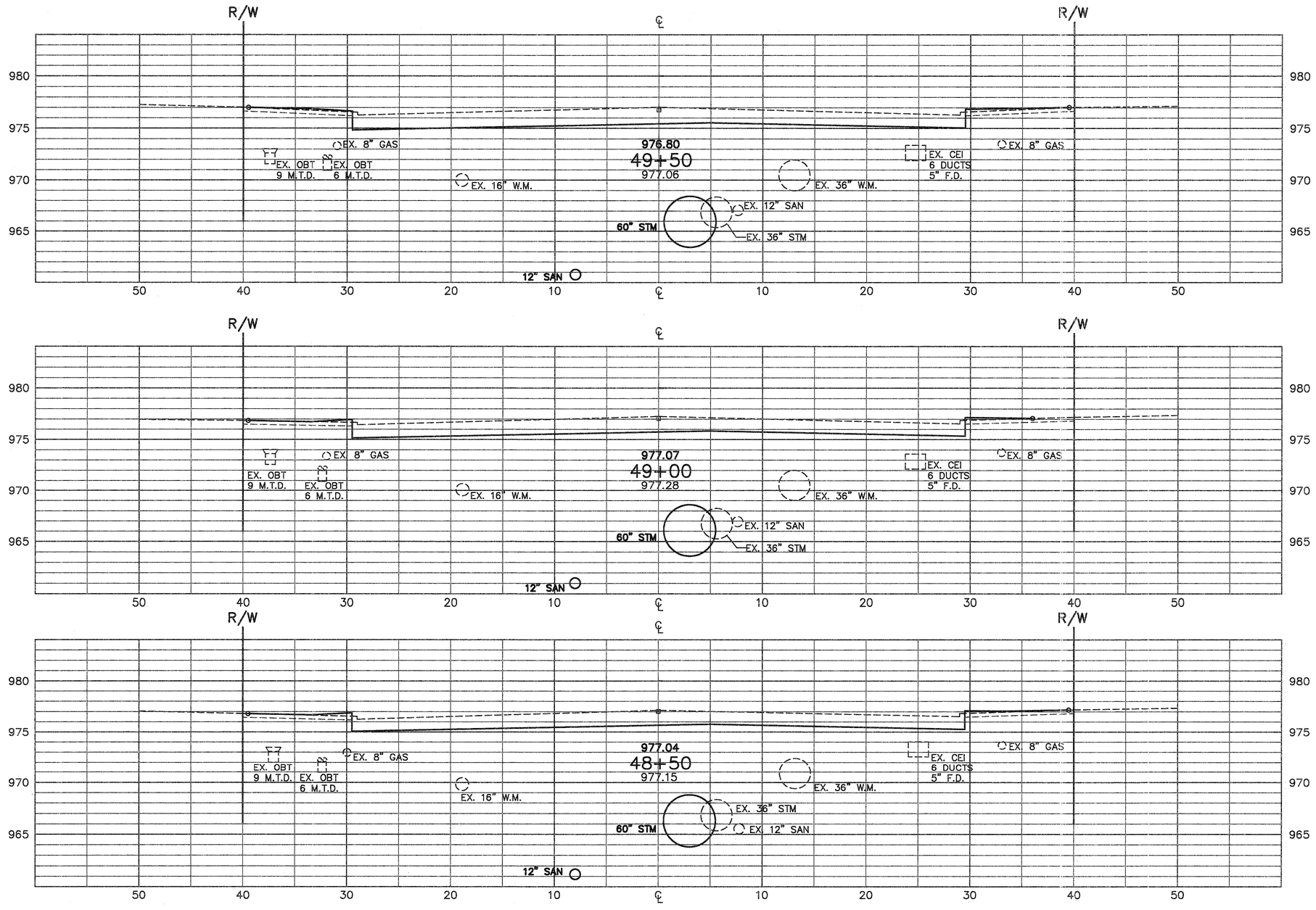
STEPHEN HOVANCSEK & ASSOC., INC.

CROSS SECTIONS STA. 47+00 TO STA. 48+00

OHIO
F.H.W.A. REGION 5

150
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	85			
			153	
	80			
			145	
	77			
STA. 48+00	85		150	
TOTAL			448	

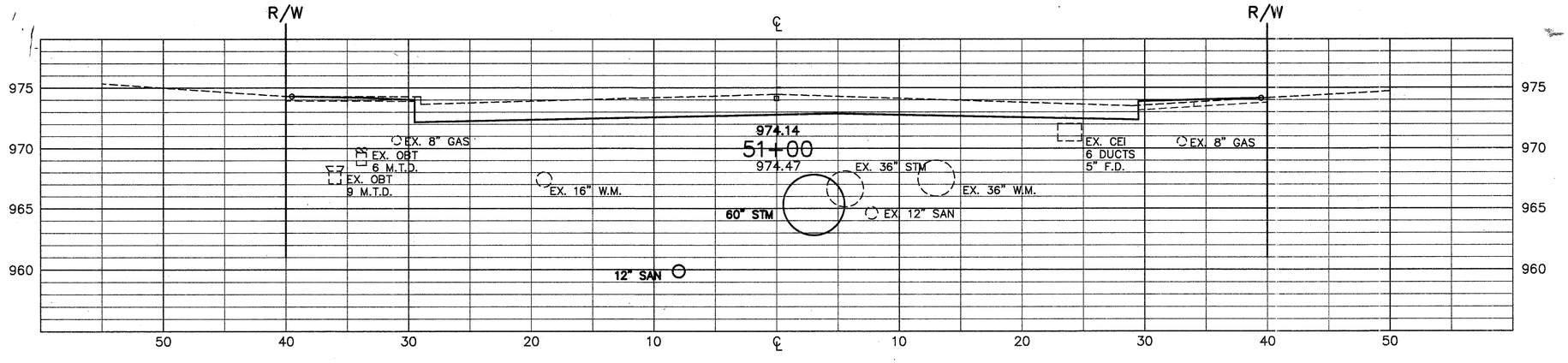
MAYFIELD ROAD

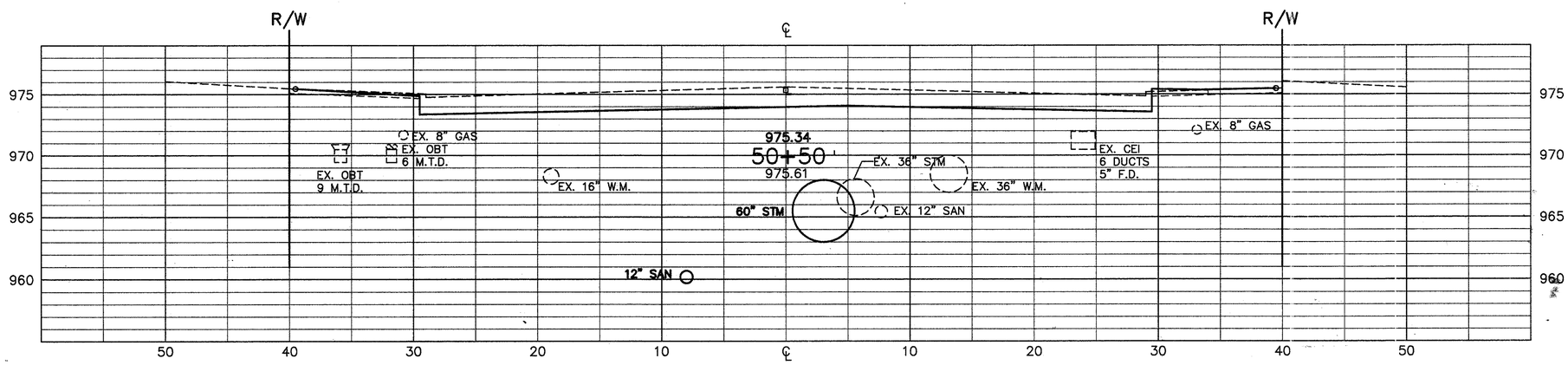
STEPHEN HOVANCSEK & ASSOC., INC.

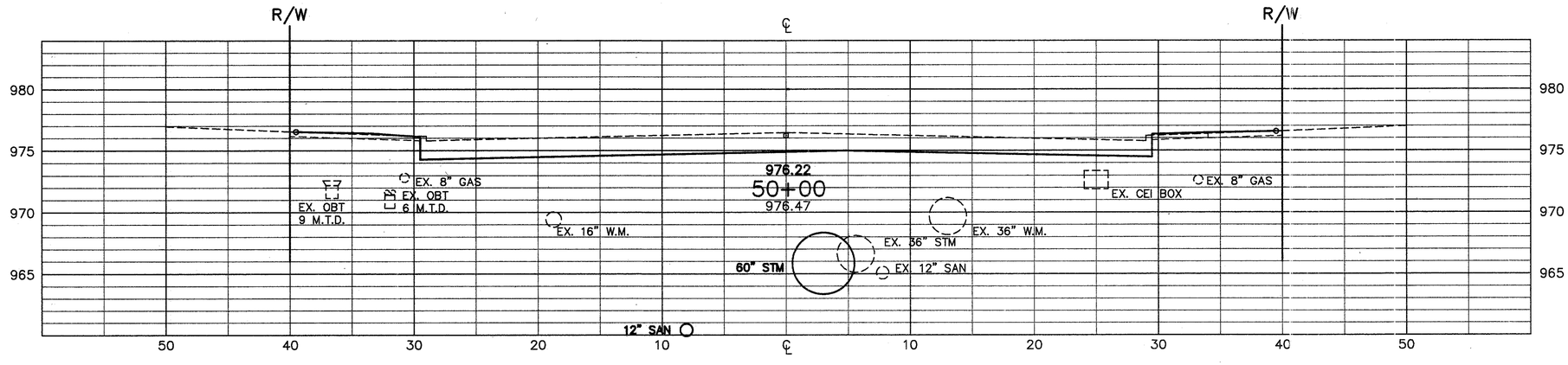
CROSS SECTIONS STA. 48+50 TO STA. 49+50

OHIO
F.H.W.A. REGION 5
151
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	86			
			160	
	87			
			160	
	86			
STA. 49+50	85		158	
TOTAL			478	

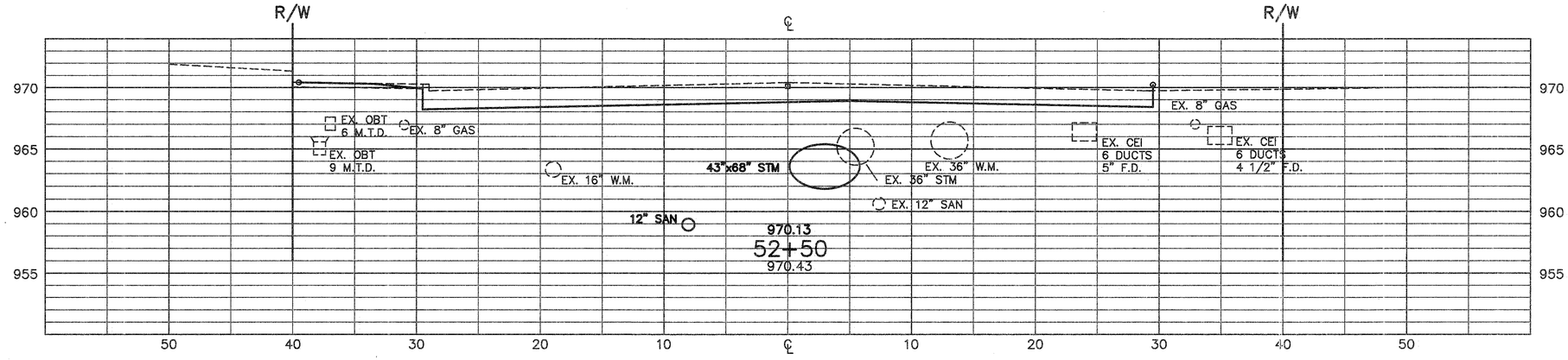
MAYFIELD ROAD

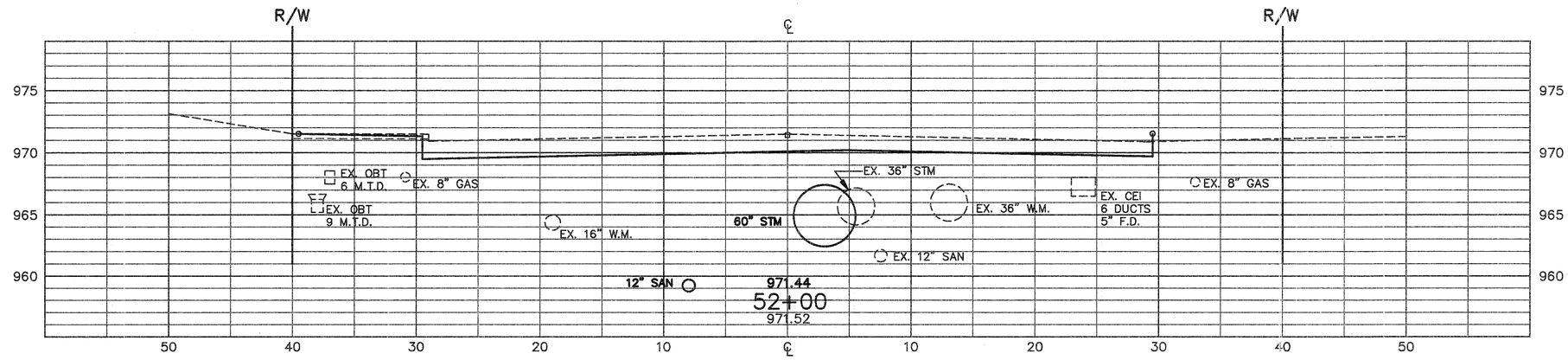
STEPHEN HOVANCSEK & ASSOC., INC.

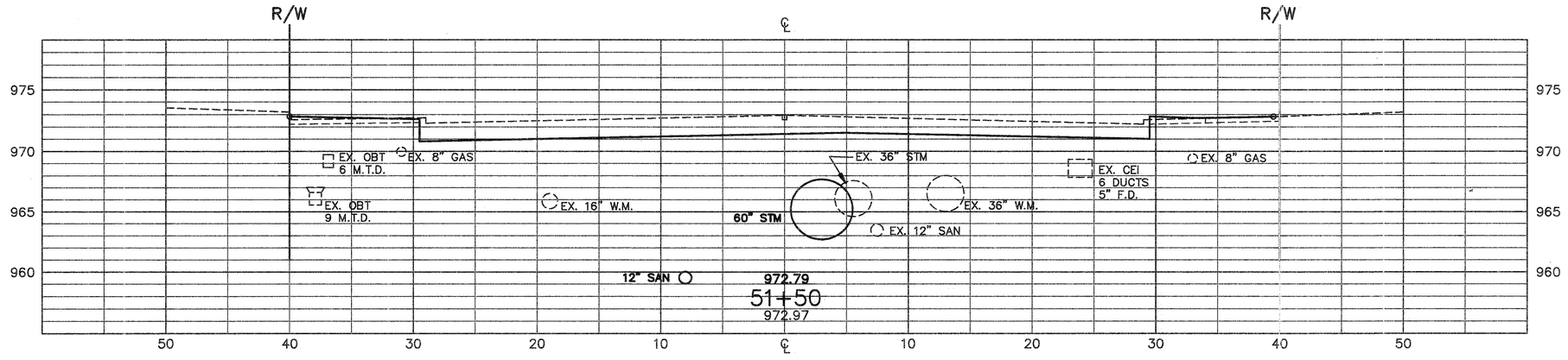
CROSS SECTIONS STA. 50+00 TO STA. 51+00

		OHIO	152 / 426
		F.H.W.A. REGION 5	

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	90			
			157	
	80			
			151	
	83			
STA. 51+00	86		156	
TOTAL			464	

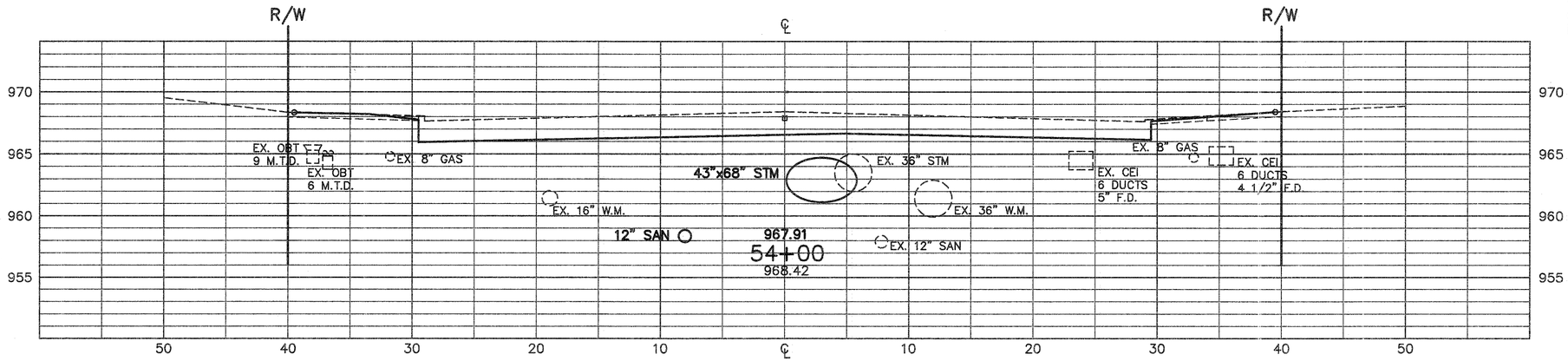
MAYFIELD ROAD

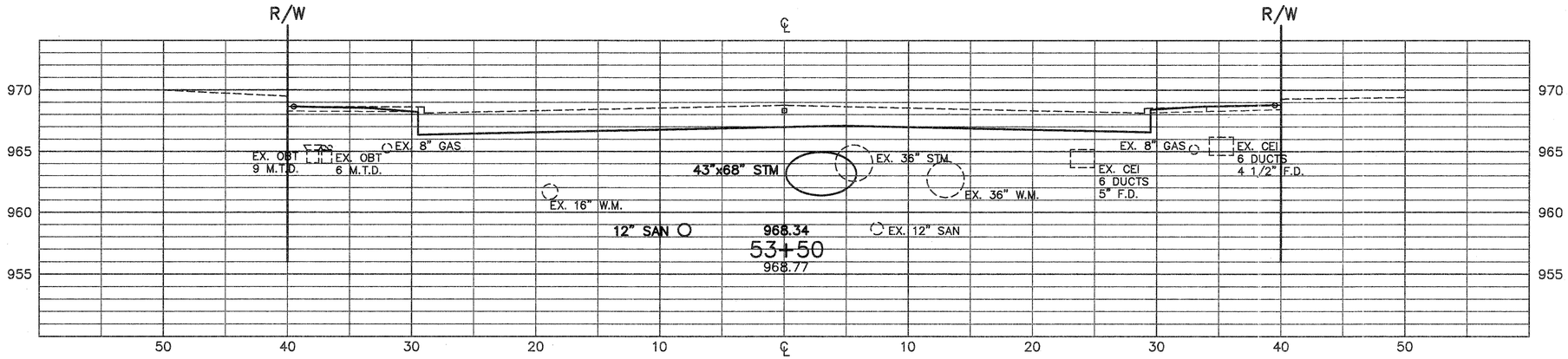
STEPHEN HOVANCSEK & ASSOC., INC.

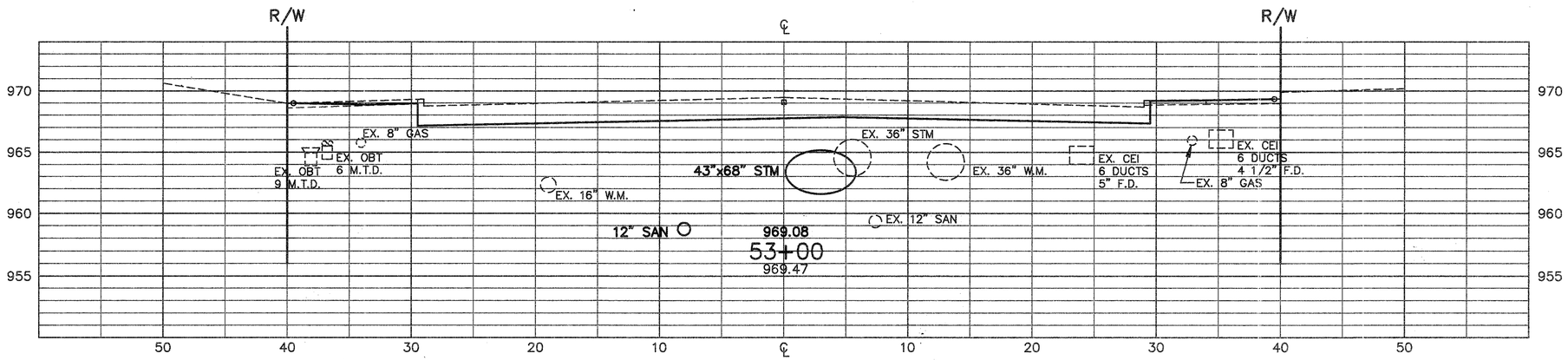
CROSS SECTIONS STA. 51+50 TO STA. 52+50

OHIO
F.H.W.A. REGION 5
153
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







END AREA		VOLUME	
CUT	FILL	CUT	FILL
100			
		183	
98			
		175	
91			
STA.52+50 90		168	
TOTAL		526	

MAYFIELD ROAD

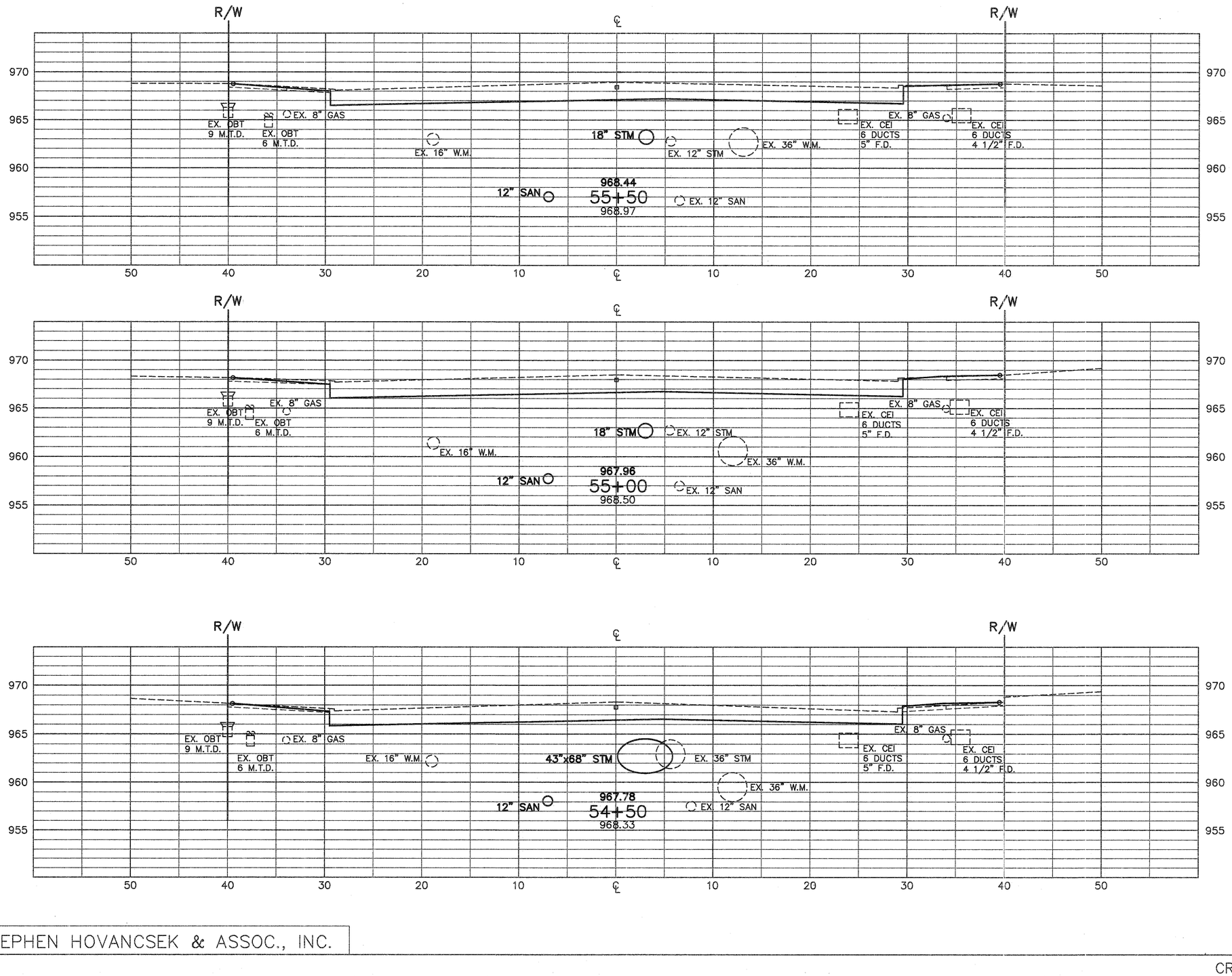
STEPHEN HOVANCSEK & ASSOC., INC.

CROSS SECTIONS STA. 53+00 TO STA. 54+00

OHIO
F.H.W.A. REGION 5

154
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	100			
			185	
	100			
			180	
	94			
STA. 54+00	100		180	
TOTAL			545	

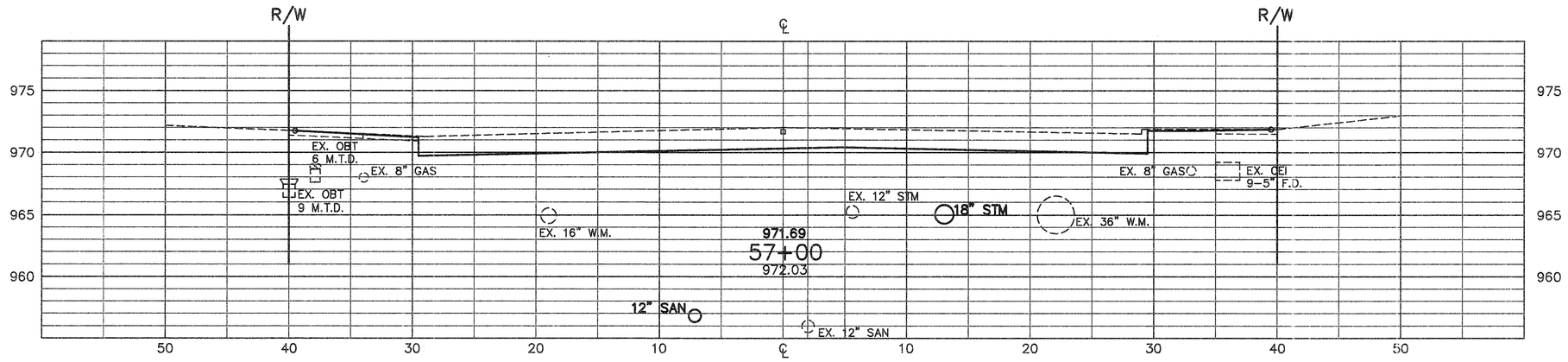
MAYFIELD ROAD

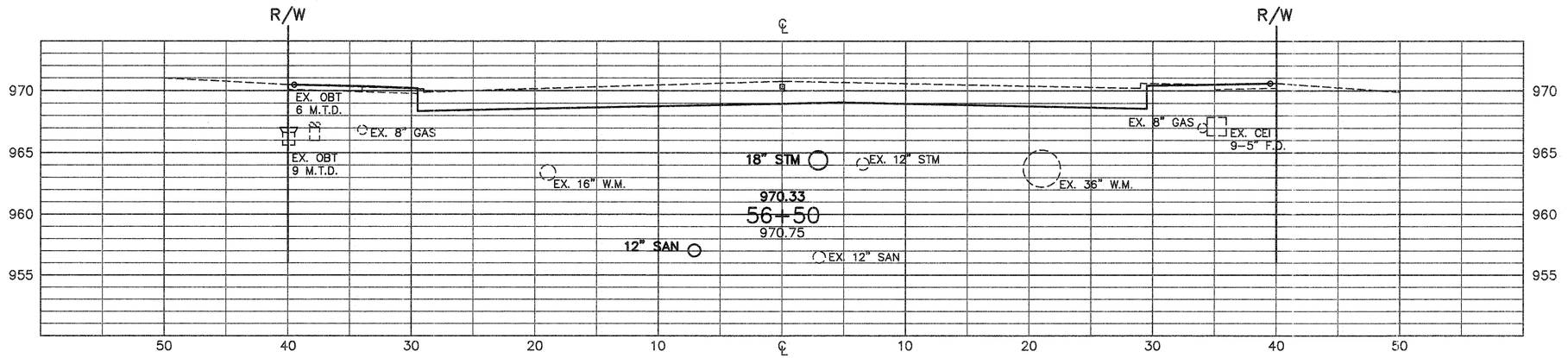
STEPHEN HOVANCSEK & ASSOC., INC.

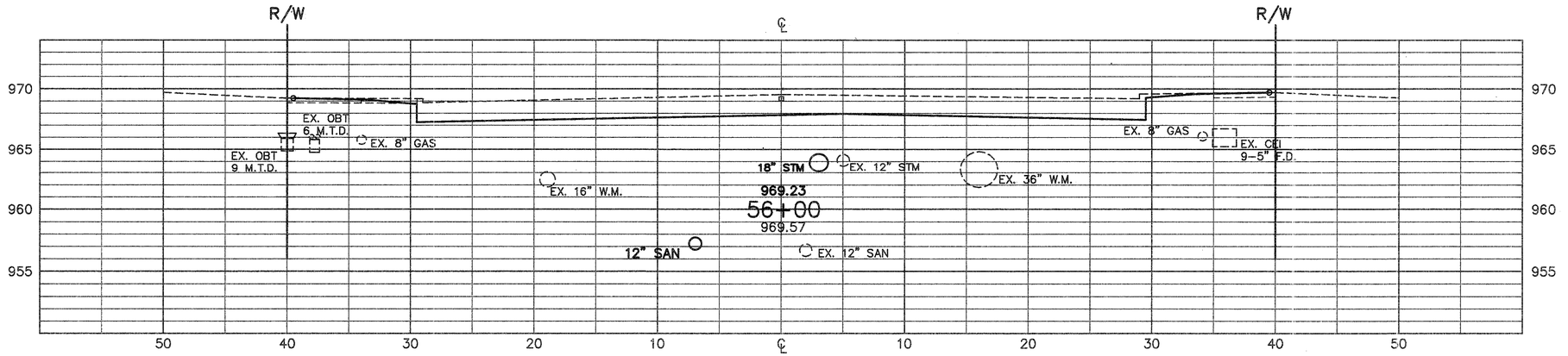
CROSS SECTIONS STA. 54+50 TO STA. 55+50

OHIO
F.H.W.A. REGION 5
155
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	90			
			168	
	91			
			174	
	97			
STA. 55+50	100		182	
TOTAL			524	

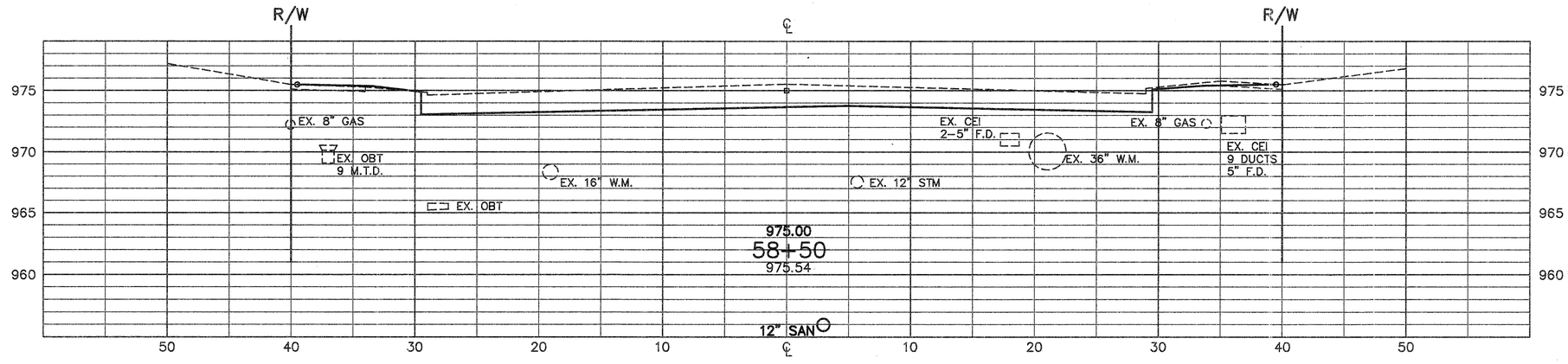
MAYFIELD ROAD

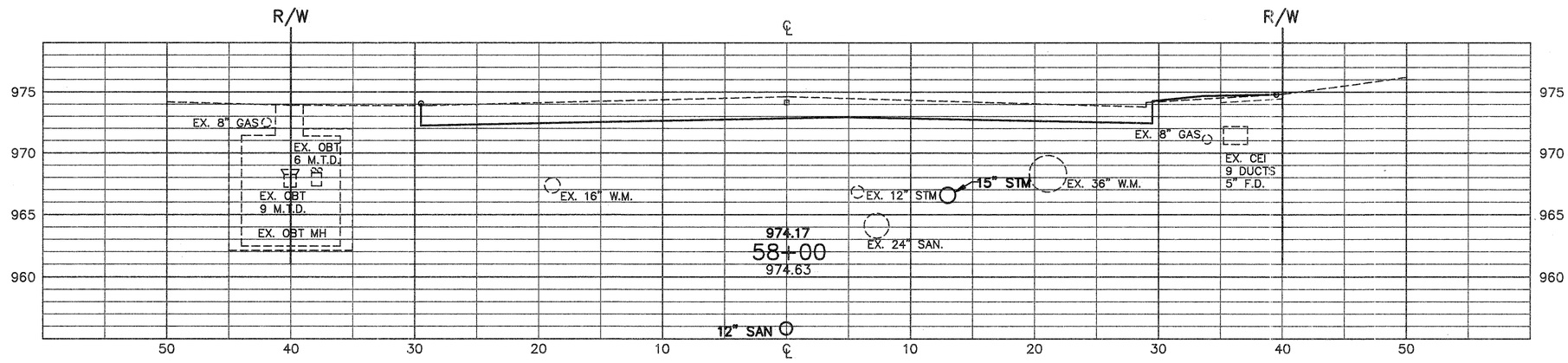
STEPHEN HOVANCSEK & ASSOC., INC.

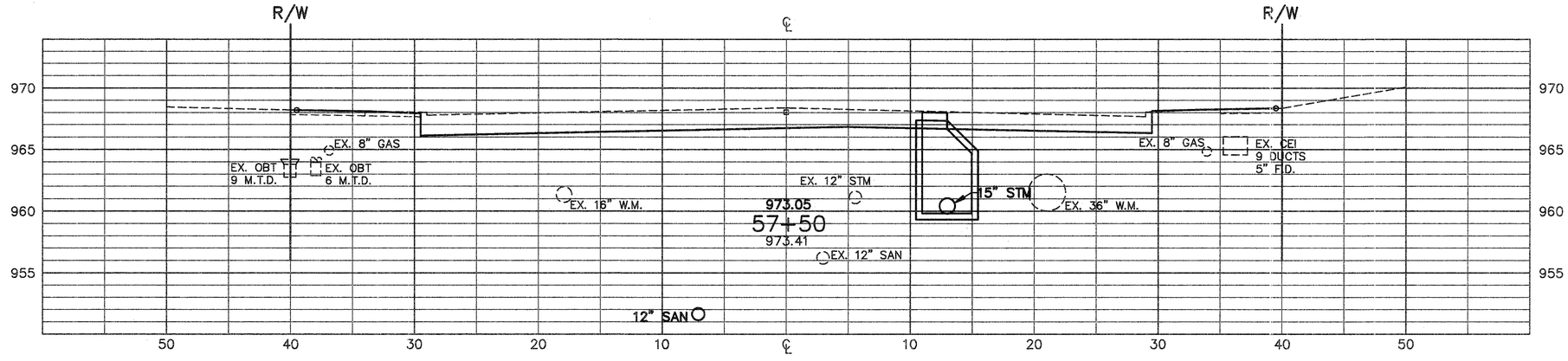
CROSS SECTIONS STA. 56+00 TO STA. 57+00

		OHIO	156 / 426
		F.H.W.A. REGION 5	

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	96			
			178	
	96			
			174	
	92			
STA. 57+00	90		169	
TOTAL			521	

MAYFIELD ROAD

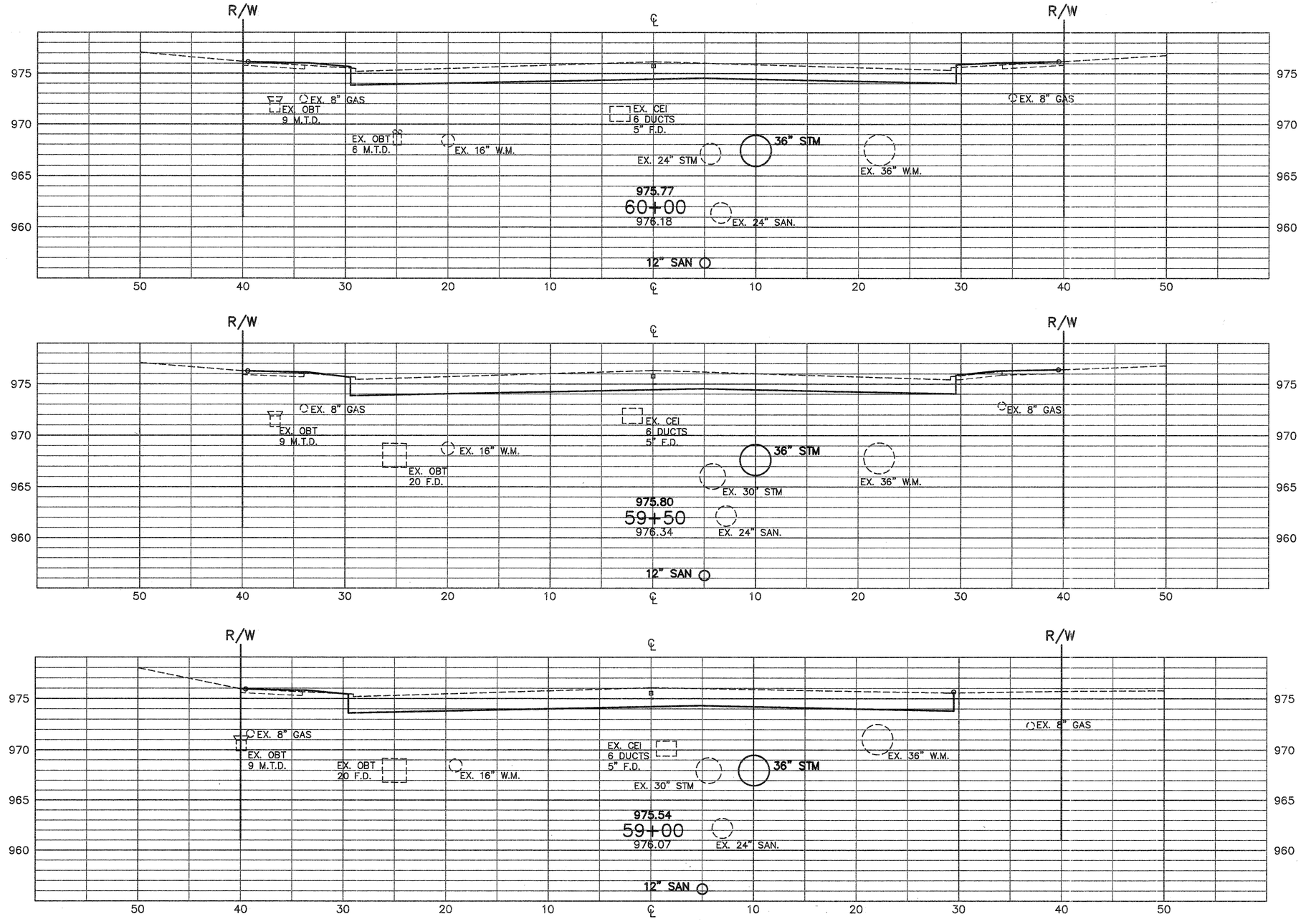
STEPHEN HOVANCSEK & ASSOC., INC.

CROSS SECTIONS STA. 57+50 TO STA. 58+50

OHIO
F.H.W.A. REGION 5

157
426

CUYAHOGA COUNTY
CUY-322-8,66
MAYFIELD ROAD



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	89			
			173	
	98			
			184	
	101			
STA. 58+50	96		182	
TOTAL			539	

MAYFIELD ROAD

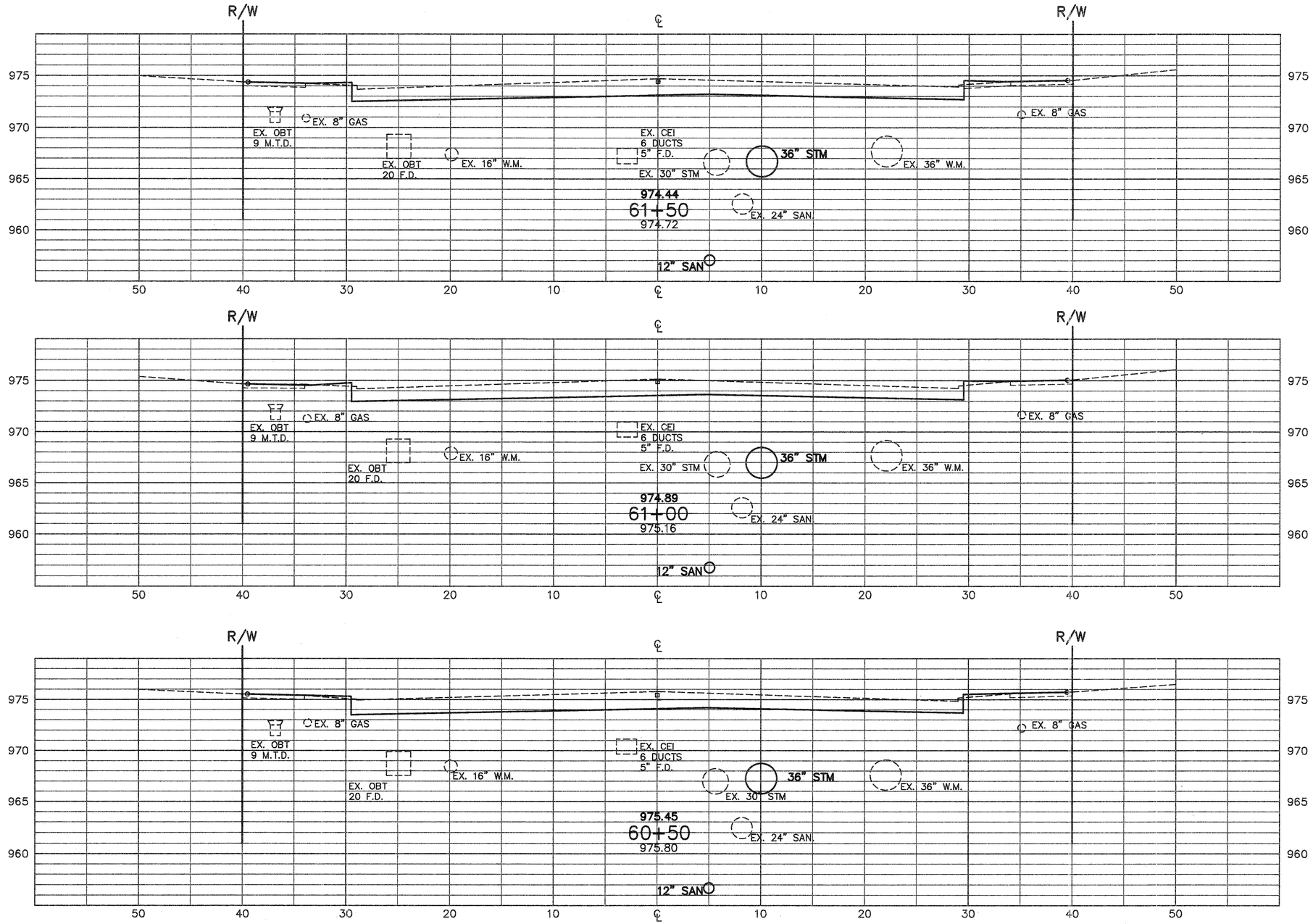
STEPHEN HOVANCSEK & ASSOC., INC.

CROSS SECTIONS STA. 59+00 TO STA. 60+00

OHIO
F.H.W.A. REGION 5

158
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	80			
			148	
	80			
			157	
	89			
STA. 60+00	89		165	
TOTAL			470	

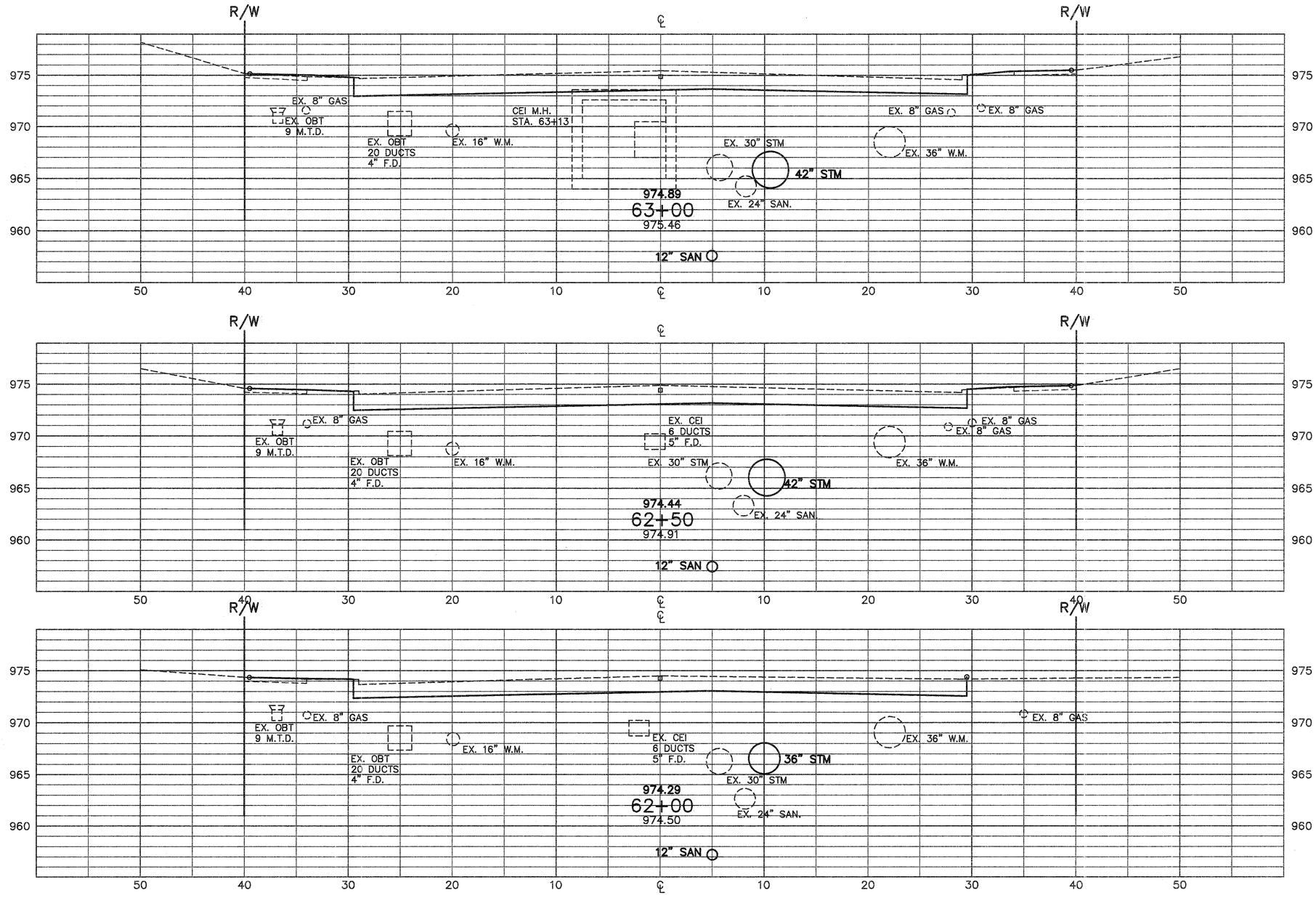
MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

CROSS SECTIONS STA. 60+50 TO STA. 61+50

OHIO
F.H.W.A. REGION 5
159
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	99			
			180	
	95			
			168	
	86			
STA. 61+50	80		154	
TOTAL			502	

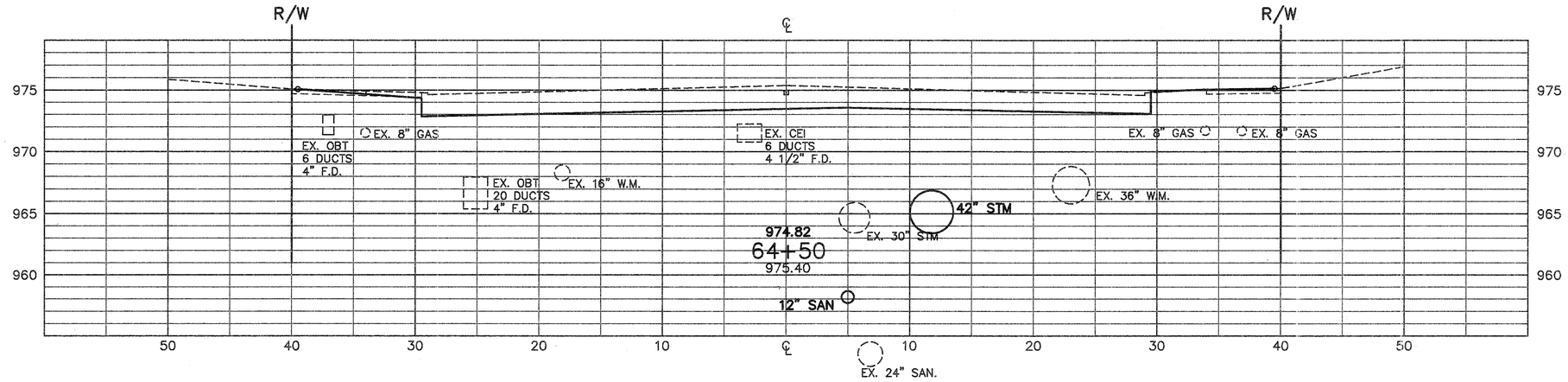
MAYFIELD ROAD

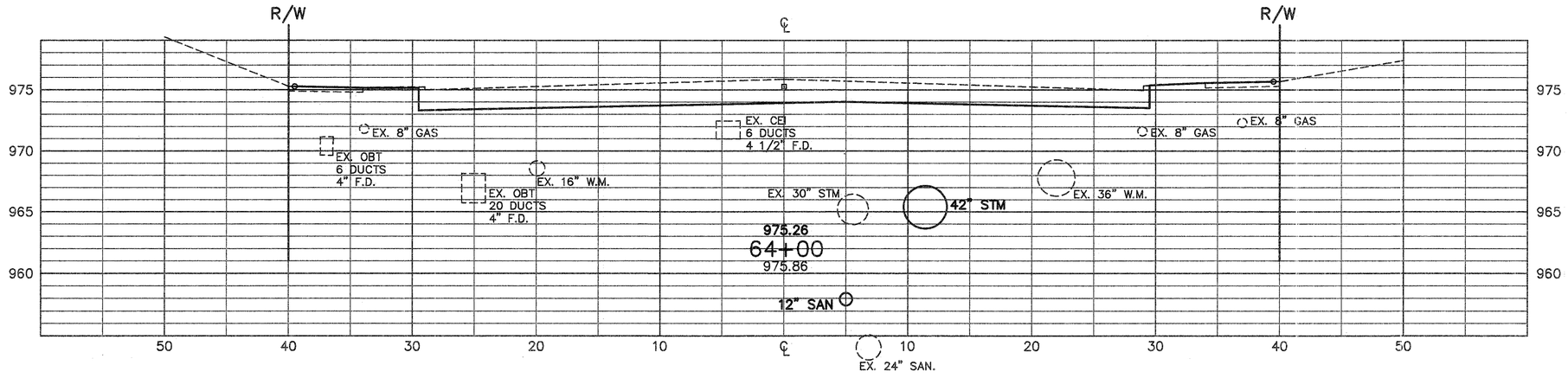
STEPHEN HOVANCSEK & ASSOC., INC.

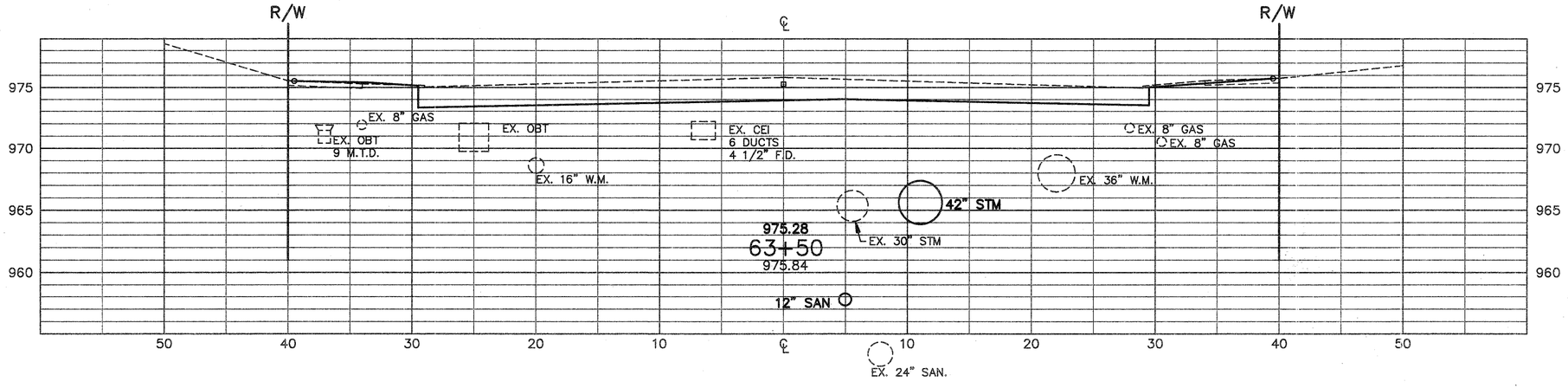
CROSS SECTIONS STA. 62+00 TO STA. 63+00

OHIO
F.H.W.A. REGION 5
160
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







END AREA		VOLUME	
CUT	FILL	CUT	FILL
103			
		186	
98			
		183	
100			
STA. 63+00	99		184	
TOTAL			553	

MAYFIELD ROAD

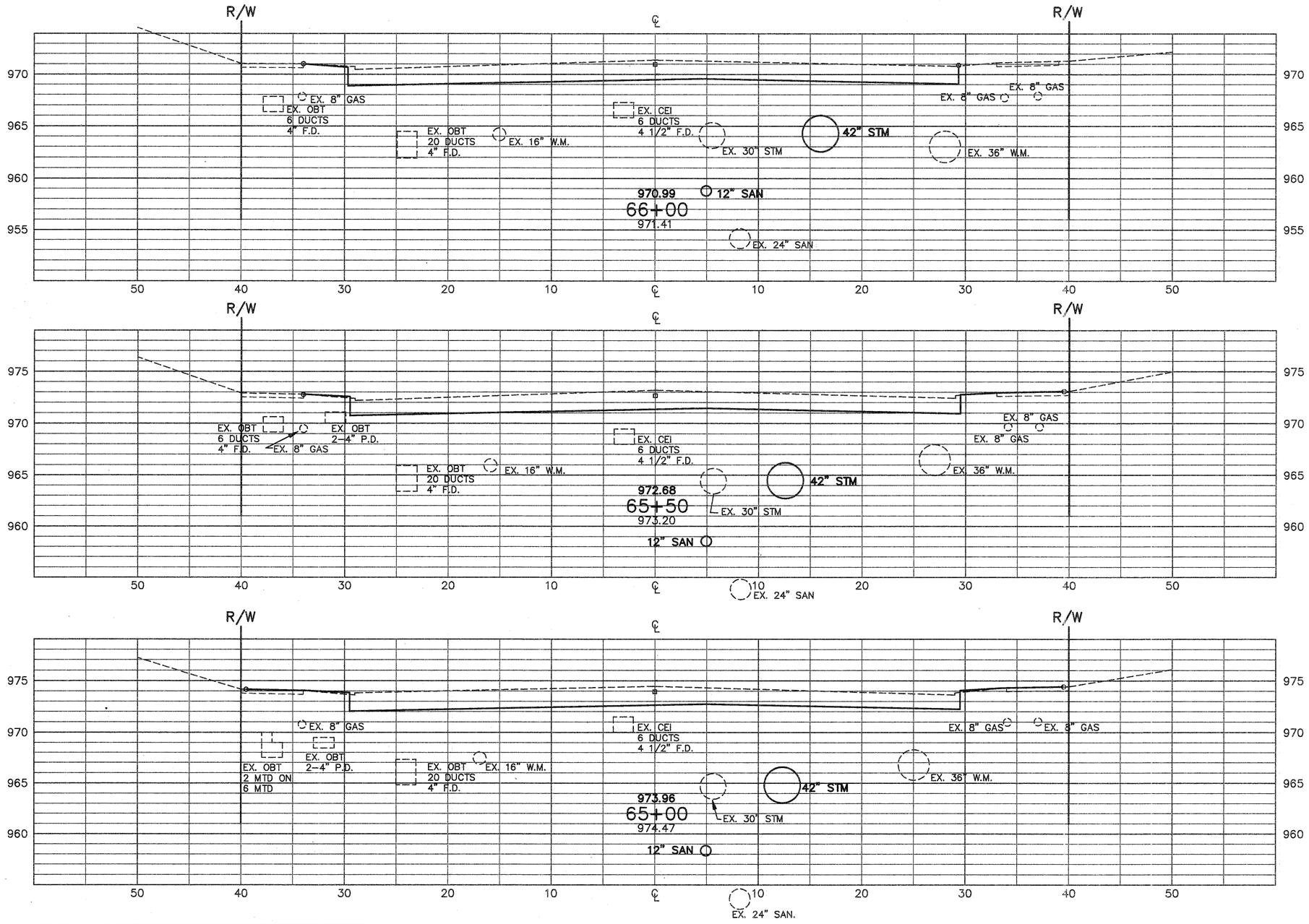
STEPHEN HOVANCSEK & ASSOC., INC.

CROSS SECTIONS STA. 63+50 TO STA. 64+50

OHIO
F.H.W.A. REGION 5

161
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	104			
			184	
	95			
			180	
	99			
STA. 64+50	103		187	
TOTAL			551	

MAYFIELD ROAD

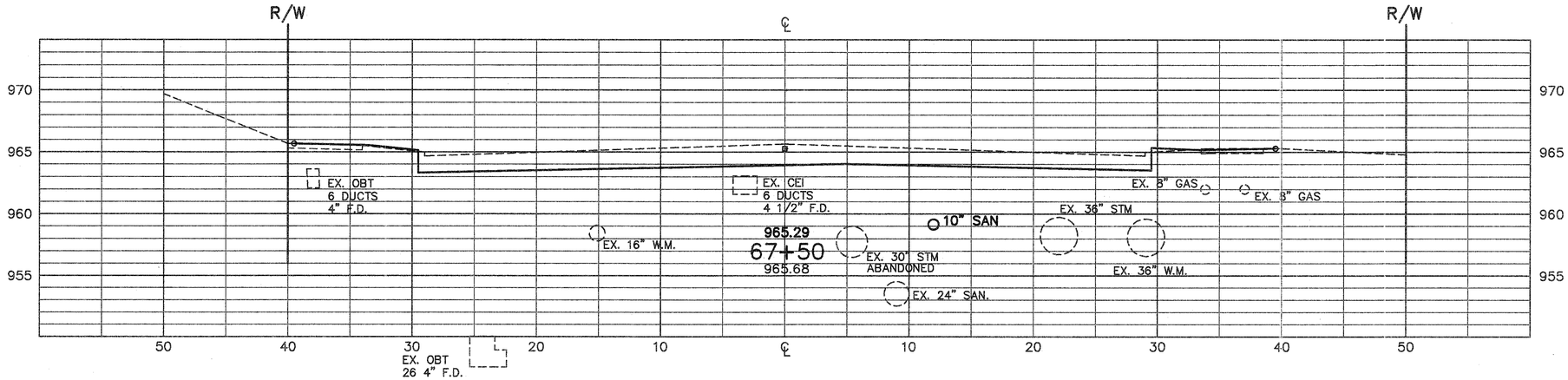
STEPHEN HOVANCSEK & ASSOC., INC.

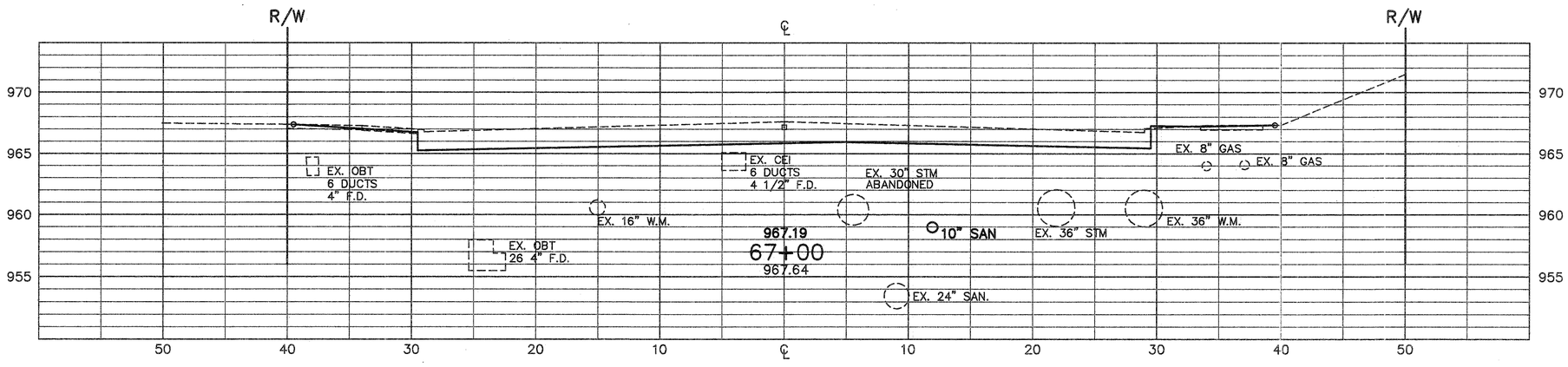
CROSS SECTIONS STA. 65+00 TO STA. 66+00

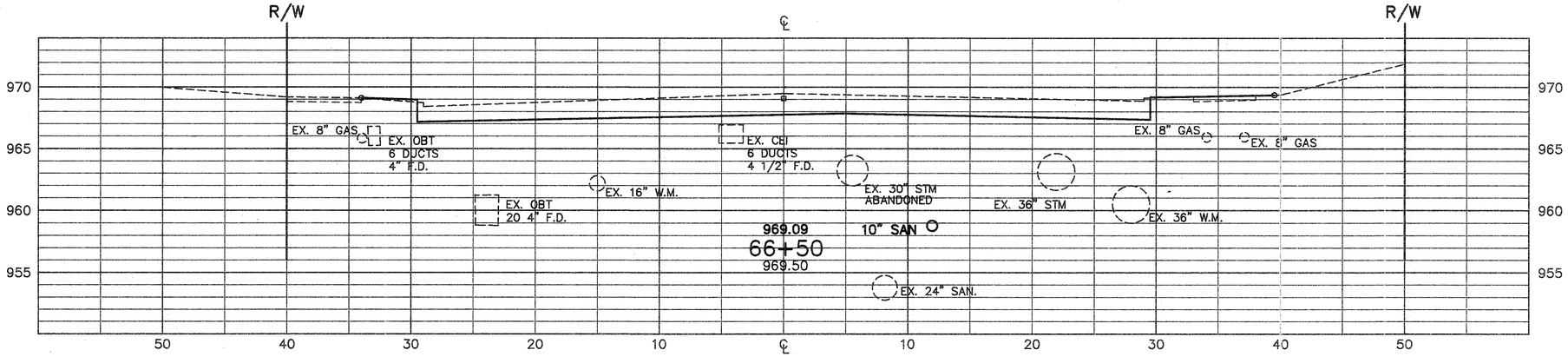
OHIO
F.H.W.A. REGION 5

162
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	81			
			157	
	88			
			165	
	90			
STA. 66+00	104		180	
TOTAL			502	

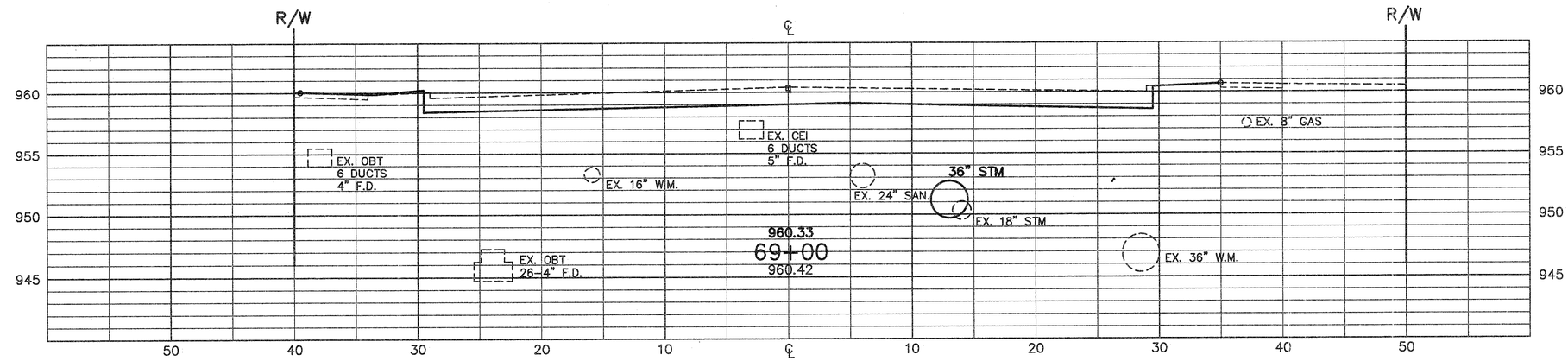
MAYFIELD ROAD

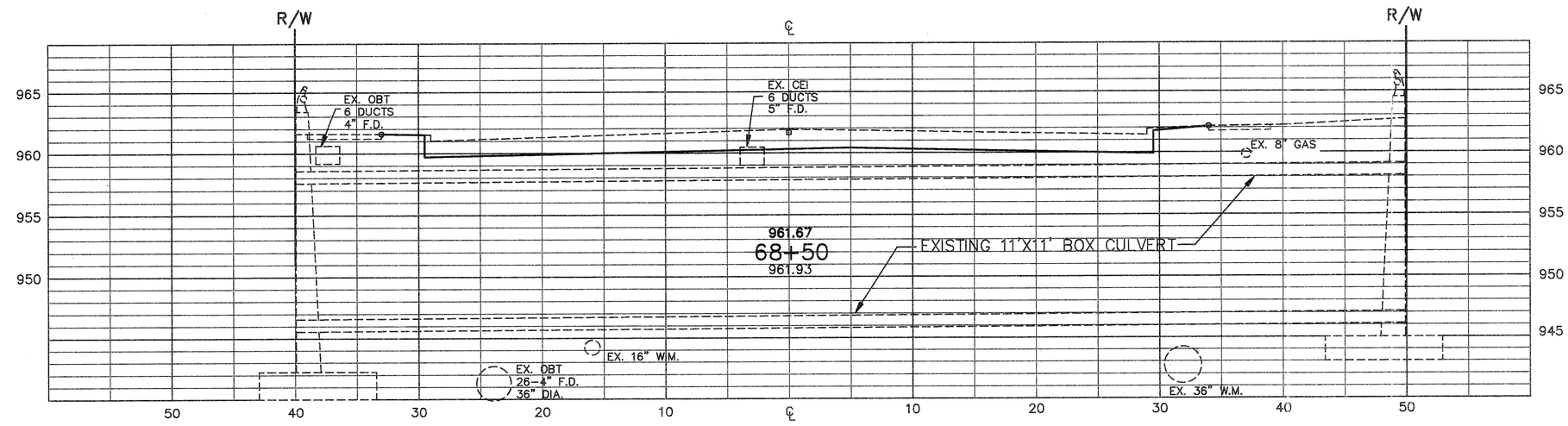
STEPHEN HOVANCSEK & ASSOC., INC.

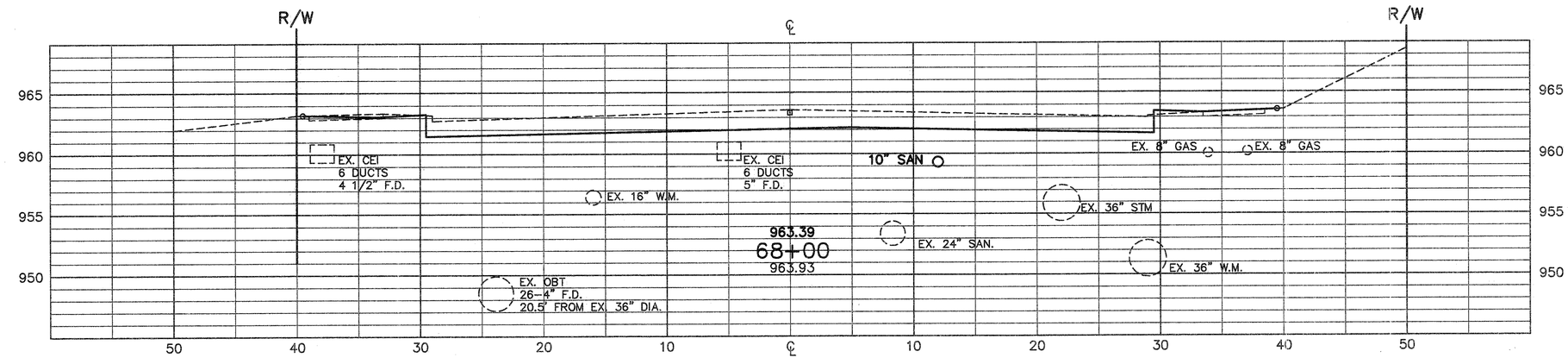
CROSS SECTIONS STA. 66+50 TO STA. 67+50

OHIO
F.H.W.A. REGION 5
163
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD







	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	78			
			153	
	87			
			157	
	82			
STA. 67+50	81		151	
TOTAL			461	

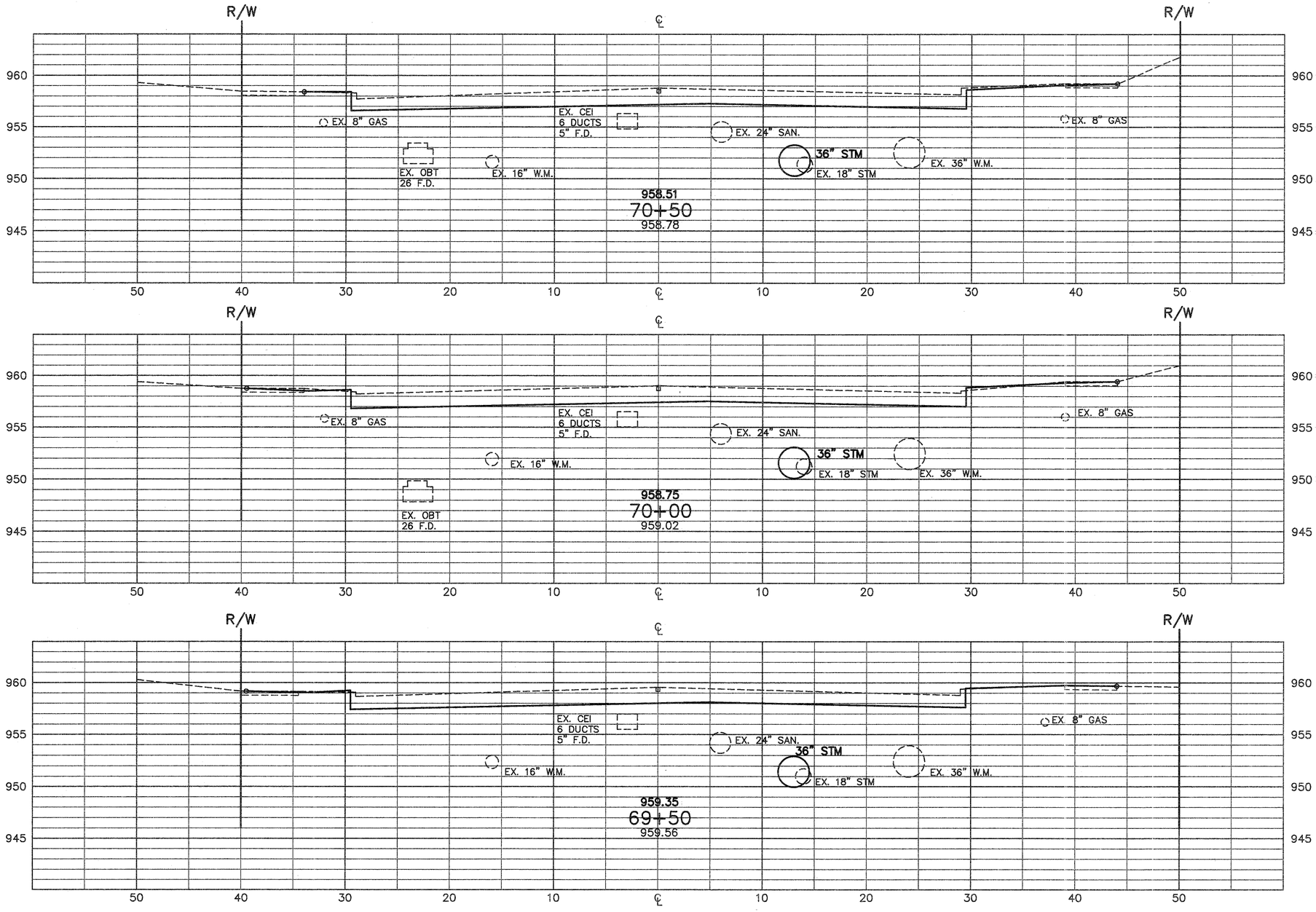
MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

CROSS SECTIONS STA. 68+00 TO STA. 69+00

OHIO
F.H.W.A. REGION 5
164
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	81			
			155	
	86			
			152	
	78			
STA. 69+00	78		144	
TOTAL			451	

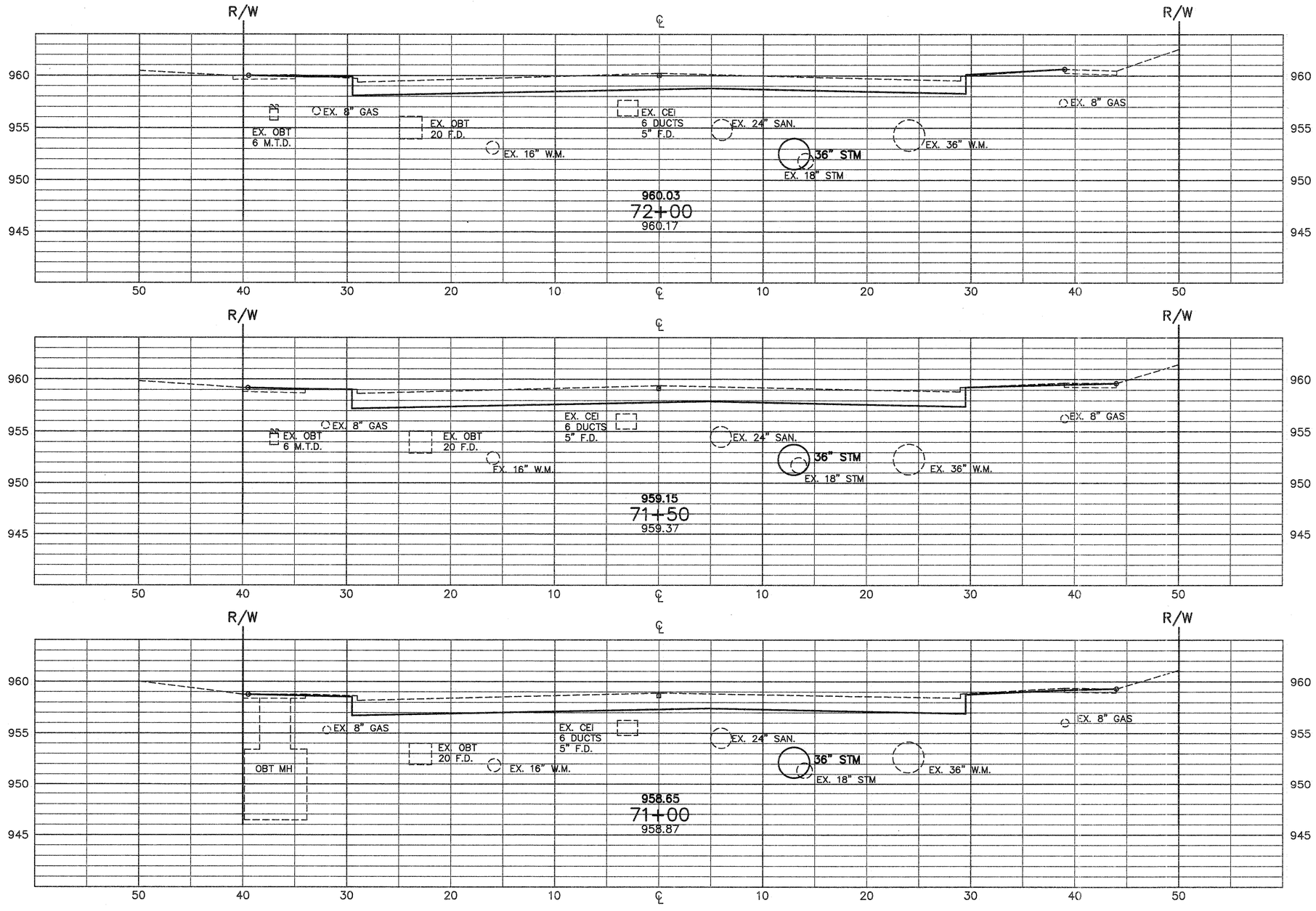
MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

CROSS SECTIONS STA. 69+50 TO STA. 70+50

OHIO
F.H.W.A. REGION 5
165
426

CUYAHOGA COUNTY
CUY-322-8,66
MAYFIELD ROAD



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
			84	
			159	
			88	
			165	
			90	
STA. 70+50	81		158	
TOTAL			482	

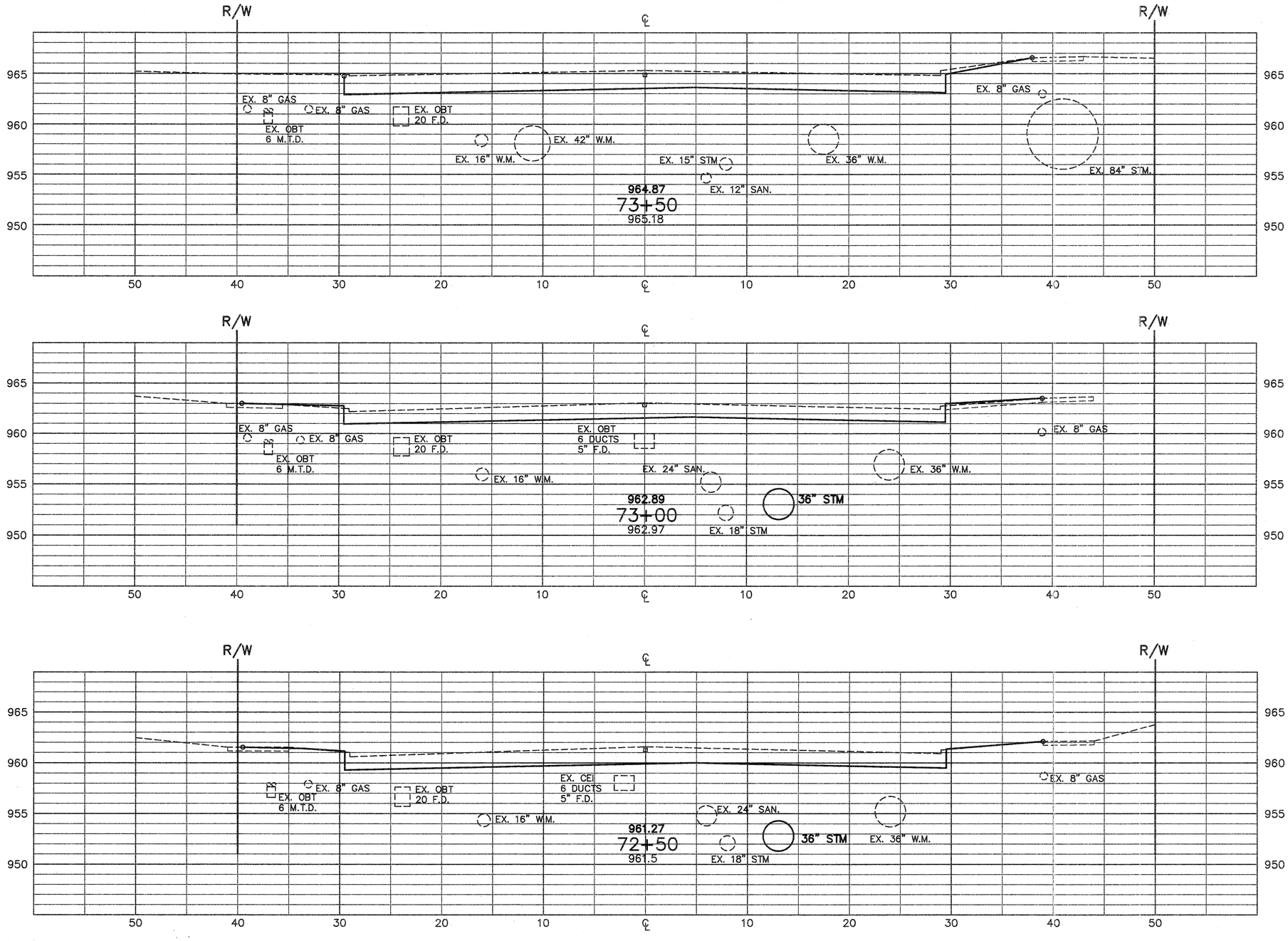
MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

CROSS SECTIONS STA. 71+00 TO STA. 72+00

OHIO
F.H.W.A. REGION 5
166
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	103			
			169	
	79			
			156	
	89			
STA. 72+00	84		160	
TOTAL			485	

MAYFIELD ROAD

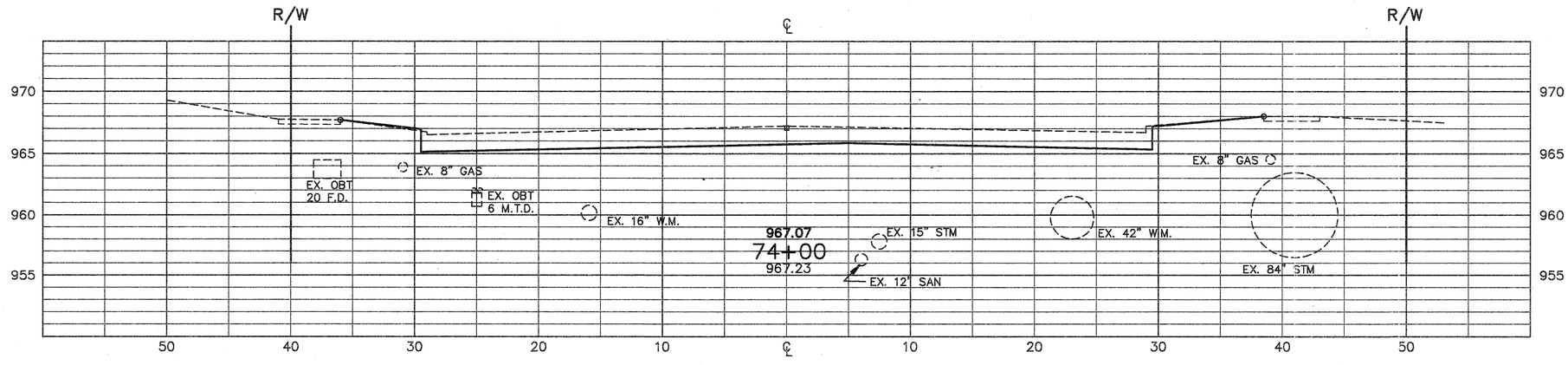
STEPHEN HOVANCSEK & ASSOC., INC.

CROSS SECTIONS STA. 72+50 TO STA. 73+50

		OHIO
		F.H.W.A. REGION 5

167
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	81			
STA. 73+50	103		170	
TOTAL			170	

MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

CROSS SECTIONS STA. 74+00

FEDERAL NUMBER	STATE	PROJECT	
5	OHIO		

168
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL
82	0		
		304	4
82	2		
		300	3
80	1		

50 40 30 20 10 0 10 20 30 40 50 60

980 975 970 965

17 189

R/W

8" Gas

O.B.T.

12" BEND

41'-12" TYPE B @ 16.51%

977.07
76+00
977.50

16" W.M.

O.B.T.

967.2 ±

36" W.M.

15" Strm.

12" San.

90° Strm.
Elev. 957.70

Sta. 76+32, 24.0' Lt.
CATCH BASIN No. 3
GRATE EL. 978.47
I.E. 12" S. 973.97

975 970 965

17 178

R/W

8" Gas

O.B.T.

16" W.M.

O.B.T.

972.07
75+00
972.33

36" W.M.

15" Strm.

12" San.

90° Strm.
Elev. 956.51

Sta 75+00, 13.0' Rt.
Ex. Dual Manhole (ADJUST TO GRADE A.P.P.)
Ex. Rim EL. - 972.15
PROP. RIM EL. - 972.11
I.E. 15" Strm. E&W - 960.85
I.E. 12" San. E&W - 959.45

970 965 960

15

R/W

8" Gas

O.B.T.

16" W.M.

O.B.T.

967.23
74+00
967.23

15" Strm.

12" San.

36" W.M.

90° Strm.
Elev. 955.32

DEDUCT FOR DRIVE APRONS - 19.8 S.Y.

TOTAL 347

60 50 40 30 20 10 0 10 20 30 40 50 60

MAYFIELD ROAD

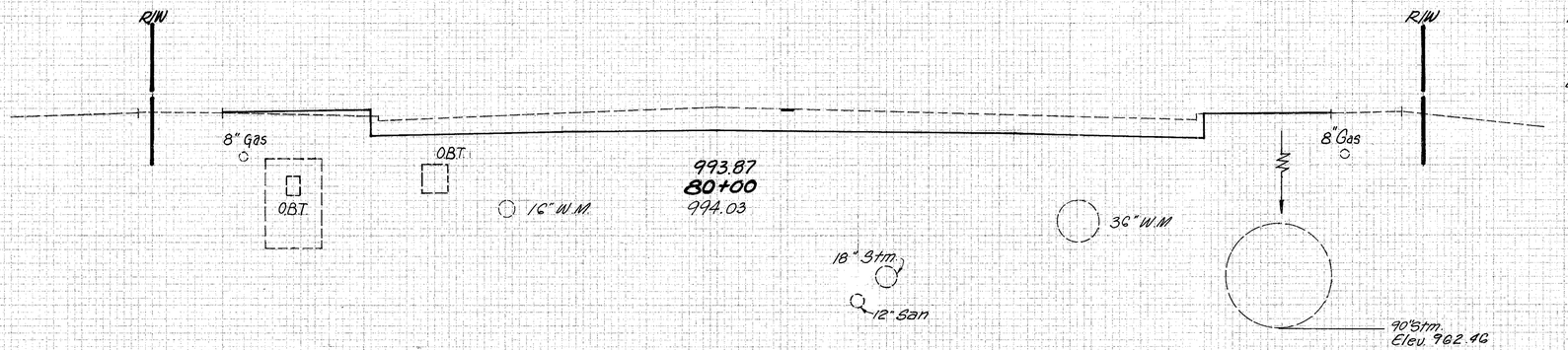
CROSS SECTION STA. 74+00 STA. 76+00

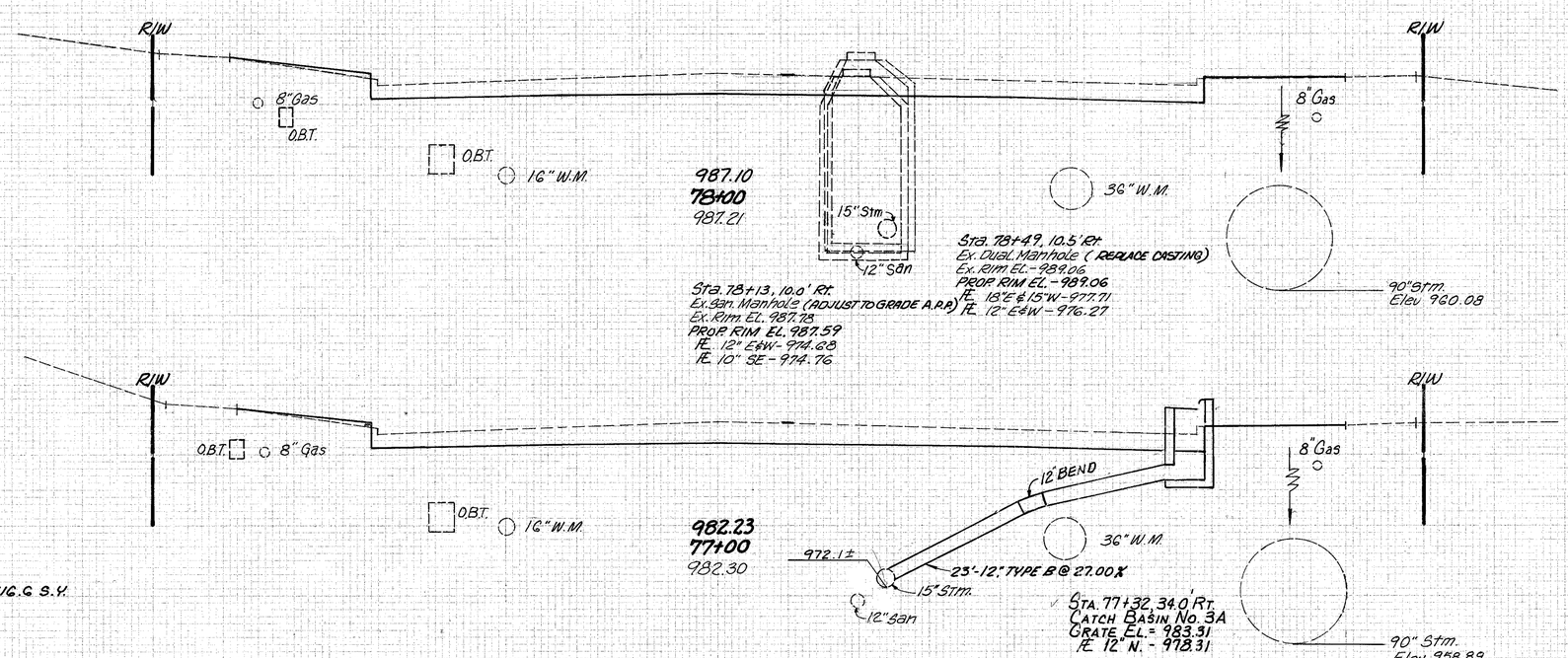
STATE	PROJECT
OHIO	

169
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SECTIONS LAND MEASURE	SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
19	211	76	3	278	13
19	211	74	4	274	13
19	211	74	3	278	9
19	200	76	2	292	4
TOTAL 716					





MAYFIELD ROAD

CROSS SECTION STA. 77+00 TO 80+00

SEEDING

END AREA		SQ. FOS.
CUT	FILL	
19		
	156	
9		
	161	
20		
	217	
19		
	211	
TOTAL	745	

FHWA REGION	STATE	PROJECT	
5	OHIO		

170
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL
74	4		
		280	13
77	3		
		287	15
78	5		
		281	13
74	5		
		278	15

60 50 40 30 20 10 0 10 20 30 40 50 60

1000
995
990

R/W

Ex. 8" Gas
Ex. O.B.T.
Ex. 16" W.M.
997.88
84+00
997.88
20" Strm.
12" San.
Ex. 36" W.M.
EL. 967.00
90" Strm.
Ex. 8" Gas

12'-8" TYPE C @ 1.00%
995.18
36'-12" TYPE B @ 16.67%
997.18
83+00
997.19
20" Strm.
986.9±
12" San.
Ex. 16" W.M.
Ex. 36" W.M.
EL. 965.99
90" Strm.

STA. 83+81, 24.0' LT.
CATCH BASIN No. 3A
GRATE EL. = 997.39
I.E. 12"S. - 992.89

STA. 83+68, 28.0' LT.
INLET NO. I-1
GRATE EL. - 997.30
I.E. 8"S - 995.30

996.48
82+00
996.43
20" Strm.
12" San.

STA. 82+00, 10' RT.
EX. DUAL MANHOLE (ADJUST TO GRADE A.P.P.)
EX. RIM EL. - 996.55
PROP. RIM EL. 996.40
I.E. 12" E&W - 984.45
I.E. 18" W & 20" E - 985.75

EL. 964.97
90" Strm.

12" BEND
37'-12" TYPE B @ 19.19%
995.65
81+00
995.66
23'-12" TYPE B @ 23.91%
12" BEND
18" Strm.
985.4±
12" San.

DEDUCT FOR DRIVE APRONS - 13.0 S.Y.

STA. 81+84, 24.0' LT.
CATCH BASIN No. 3A
GRATE EL. = 996.01
I.E. 12"S. - 992.51

STA. 81+87.34.0' RT.
CATCH BASIN No. 3A
GRATE EL. = 995.87
I.E. 12"N. - 990.87

EL. 963.65
90" Strm.

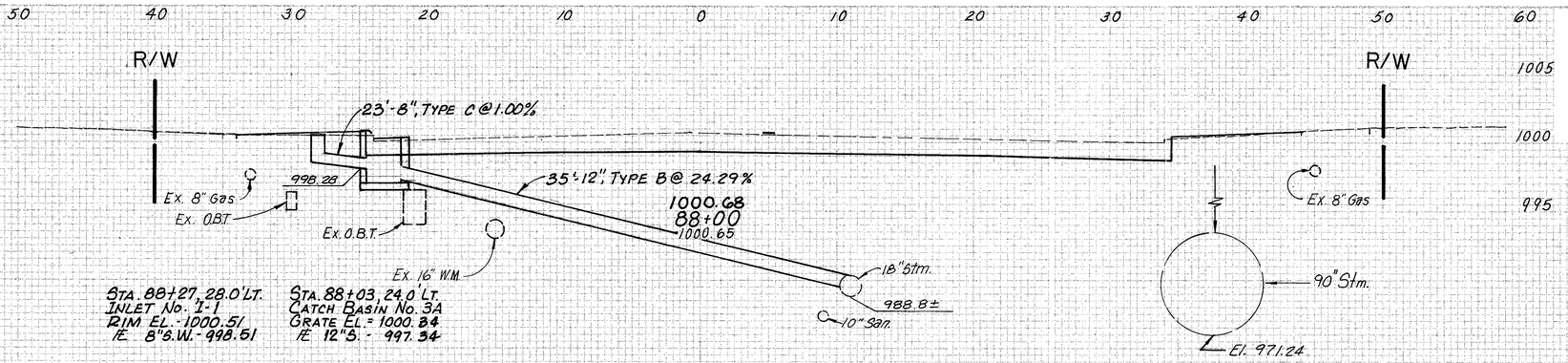
MAYFIELD RD.

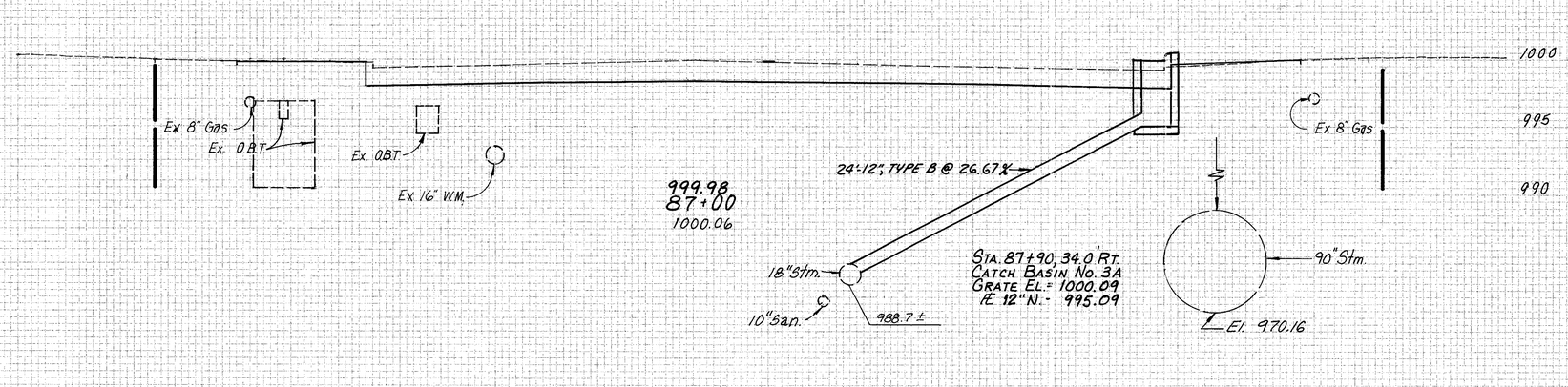
CROSS SECTIONS STA. 81+00 TO 84+00

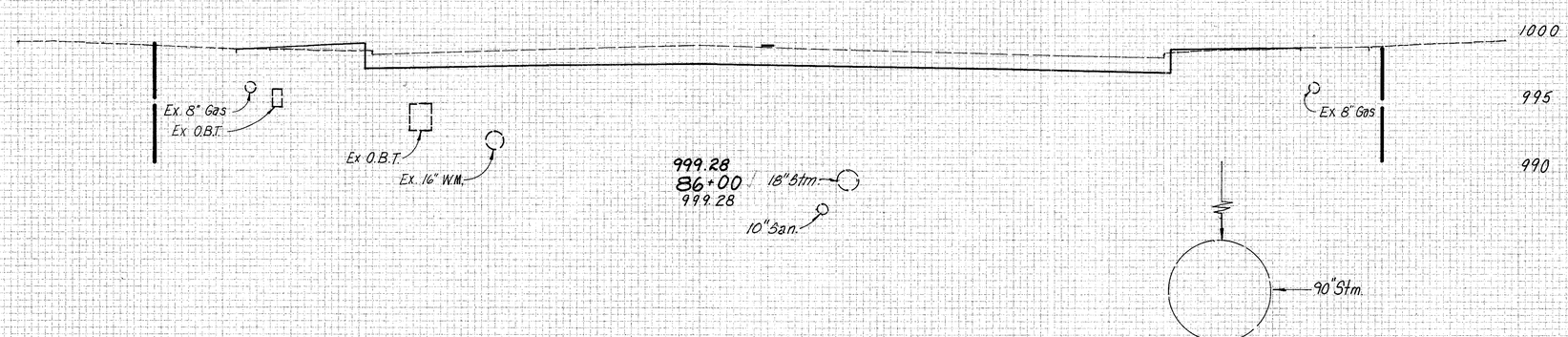
SEEDING

END WIDTH	SQ YDS
18	200
18	200
18	150
9	150

TOTAL 662







DEDUCT FOR DRIVE APRONS - 44.3 S.Y.

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
79	2		
		302	6
84	1		
		293	7
74	3		
		287	13
81	4		
		287	15

THIS SHEET	STATE	PROJECT	
5	OHIO		

171
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

MAYFIELD RD.

CROSS SECTIONS STA. 85+00 TO 88+00

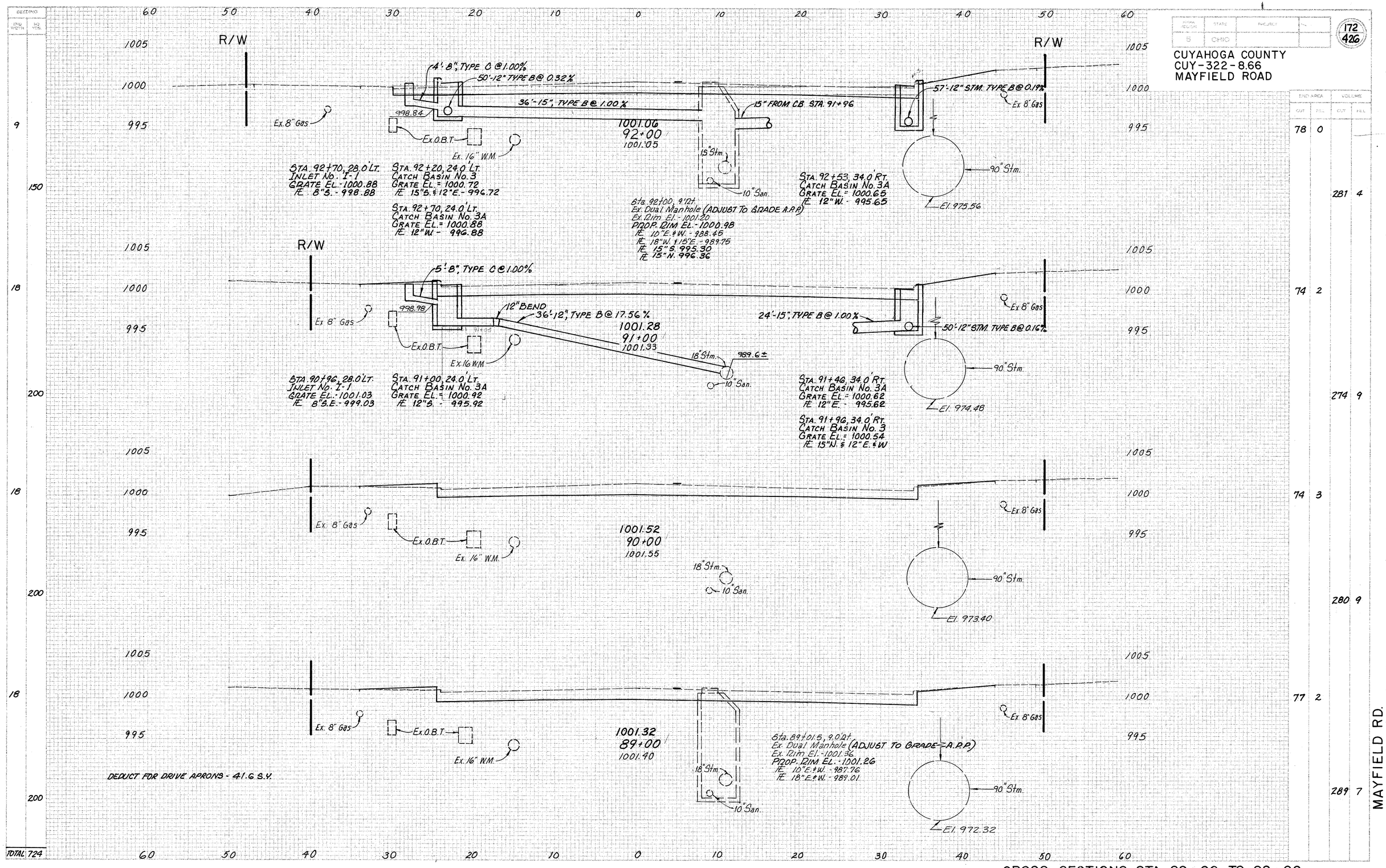
SPACING	
LONG WIDTH	SQ. FEET
9	150
18	200
18	200
18	200
TOTAL	724

NUMA REGION	STATE	PROJECT	No.
5	OHIO		

172
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL
78	0		
		281	4
74	2		
		274	9
74	3		
		280	9
77	2		
		289	7



MAYFIELD RD.

CROSS SECTIONS STA. 89+00 TO 92+00

GREASING

END WATT | NO TOE

60 50 40 30 20 10 0 10 20 30 40 50 60

1010 / 1005 / 1000

R/W

Ex. 8" Gas

Ex. OBT

Ex. OBT

Ex 16" W.M.

1006.43
96+00
1006.55

15" Stm.

10" San.

90" Stm.

El. 979.89

Ex. 8 Gas

R/W

18

200

5'-8", Type C @ 1.00%

1002.75

1004.12
95+00
1004.14

37'-12", Type B @ 1.00%

Sta. 95+47, 27.0' Lt.
Inlet No. I-1
Rim El. = 1004.80
℄ 8" S.E. 1002.80

Sta. 95+51, 24.0' Lt.
Catch Basin No. 3A
Grate El. = 1004.89
℄ 12"S. - 1000.89

Sta. 95+51, 11.0' Rt.
Ex. Dual Manhole
Ex. Rim El. = 1005.41
Prop. Rim El. = 1005.15
℄ 10" E. & W. 992.46
℄ 15" E. & W. 993.81
℄ 12" N. - 1000.52

Ex. 8" Gas

Ex. 8" Gas

Ex. O.B.T.

Ex. O.B.T.

Ex. 16" W.M.

15" Stm.

10" San.

90" Stm.

El. 978.81

18

200

Ex. 8" Gas

Ex. O.B.T.

Ex. O.B.T.

Ex. 16" W.M.

1002.42
94+00
1002.43

15" Stm.

10" San.

90" Stm.

El. 977.73

Ex. 8" Gas

18

150

Ex. 8" Gas

Ex. O.B.T.

Ex. O.B.T.

Ex. 16" W.M.

1001.41
93+00
1001.50

24'-12", Type B @ 20.08 %

992.0±

15" Stm.

10" San.

Sta. 93+94, 34.0' Rt.
Catch Basin No. 3A
Grate El. = 1001.82
℄ 12" N. - 996.82

90" Stm.

El. 976.65

Ex. 8" Gas

DEDUCT FOR DRIVE APRONS - 61.3 S.Y.

TOTAL 689

STATE	PROJECT
OHIO	

173
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

ROADWAY CU.	ROADWAY FILL	VOLUME CUT	VOLUME FILL
79	1		
			283 6
74	2		
			274 13
74	5		
			285 13
80	2		
			292 4

MAYFIELD RD.

CROSS SECTIONS STA. 93+00 TO 96+00

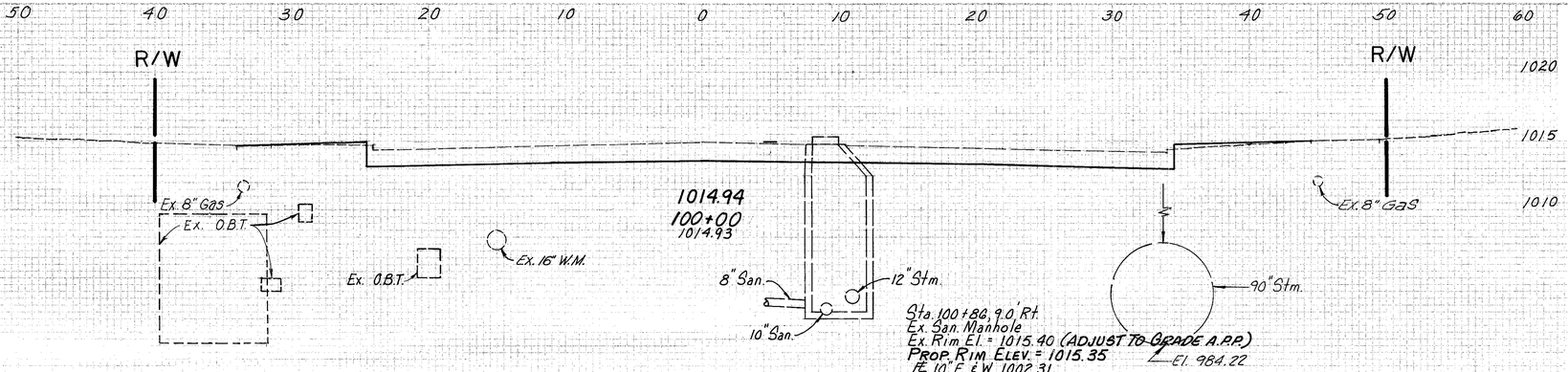
STATE REGION	STATE	PROJECT	
5	OHIO		

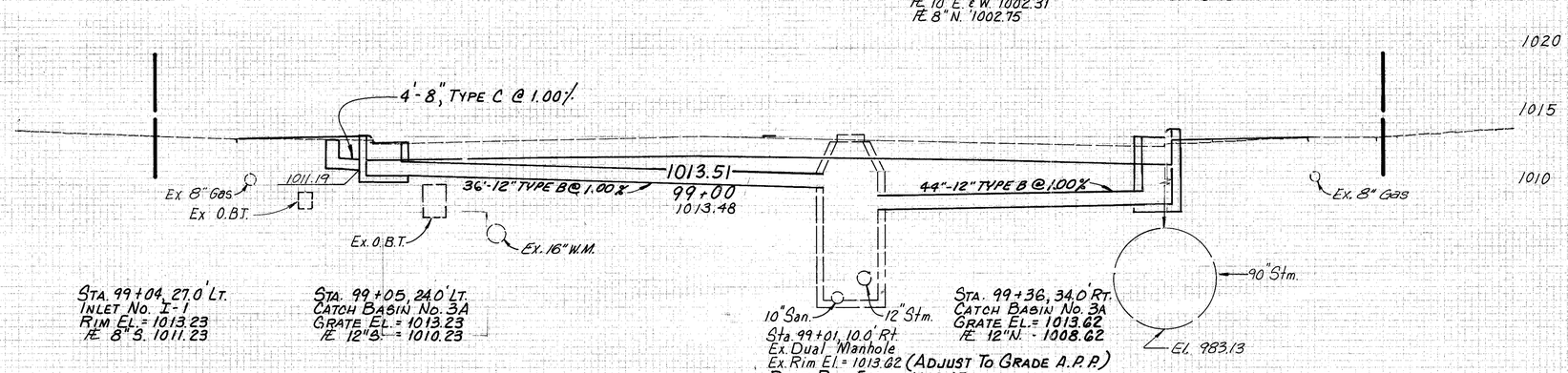
174
426

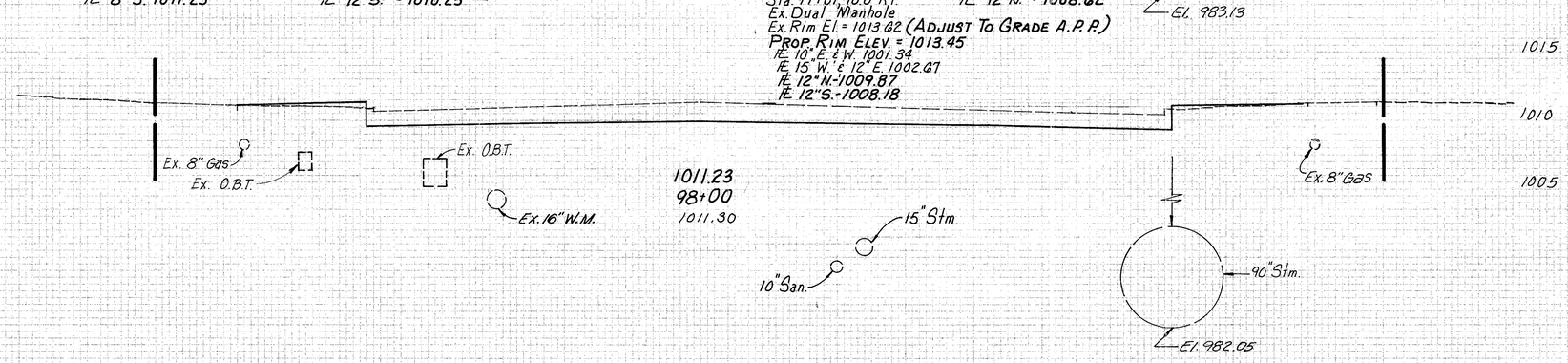
CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

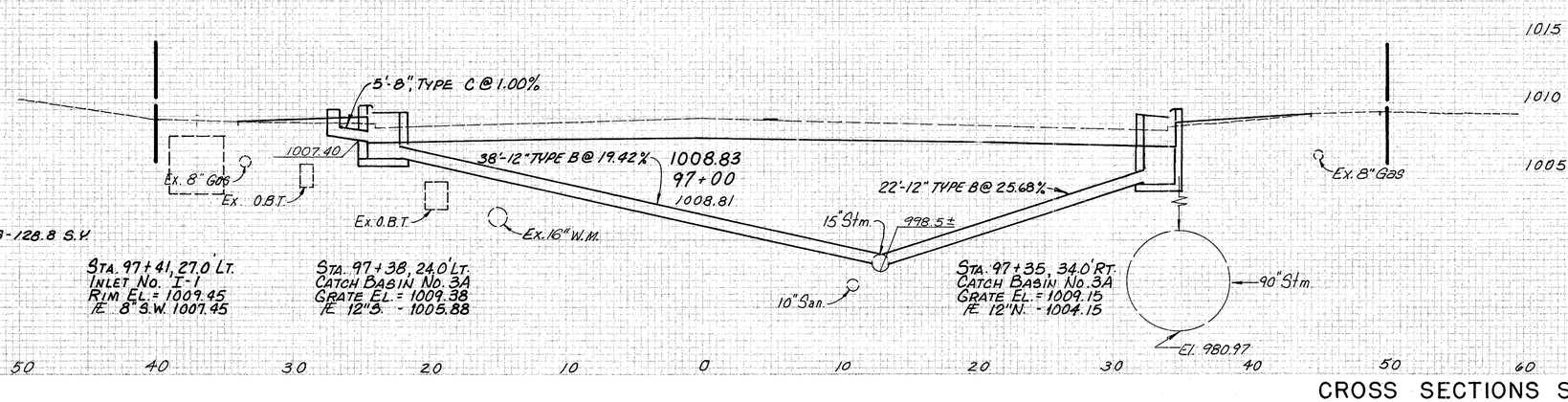
SPEEDING END WIDTH	SPEEDING SIDE TIDE	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
18	200	74	1	274	6
18	200	74	2	274	7
18	200	74	2	274	11
18	200	74	4	283	9

TOTAL 671









MAYFIELD RD.

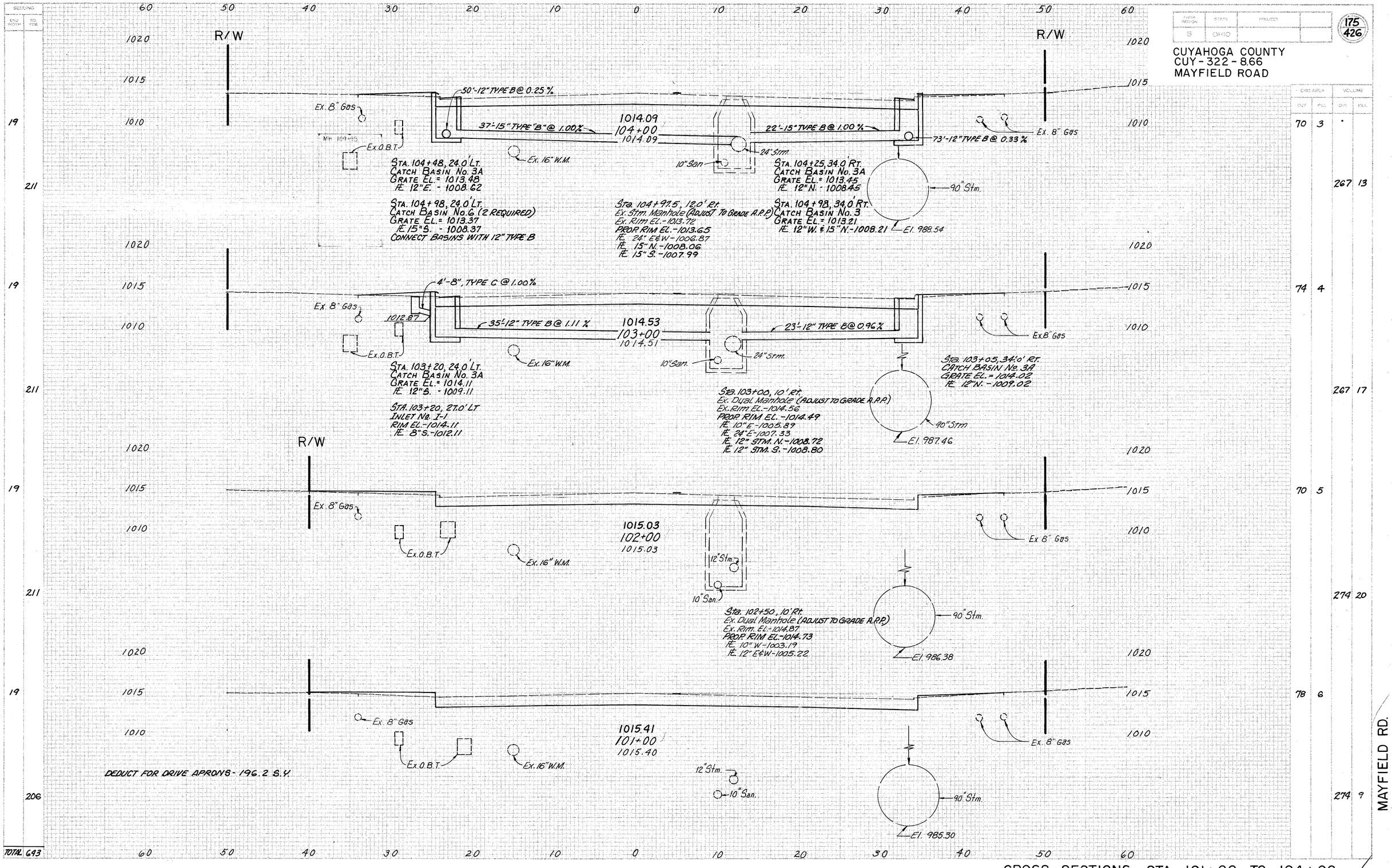
CROSS SECTIONS STA. 97+00 TO 100+00

STATE HIGHWAY	STATE	PROJECT	
53	OHIO		

175
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

CHG AREA		VOLUME	
CUT	FILL	CUT	FILL
70	3		
		267	13
74	4		
		267	17
70	5		
		274	20
78	6		
		274	9
TOTAL	693		



MAYFIELD RD.

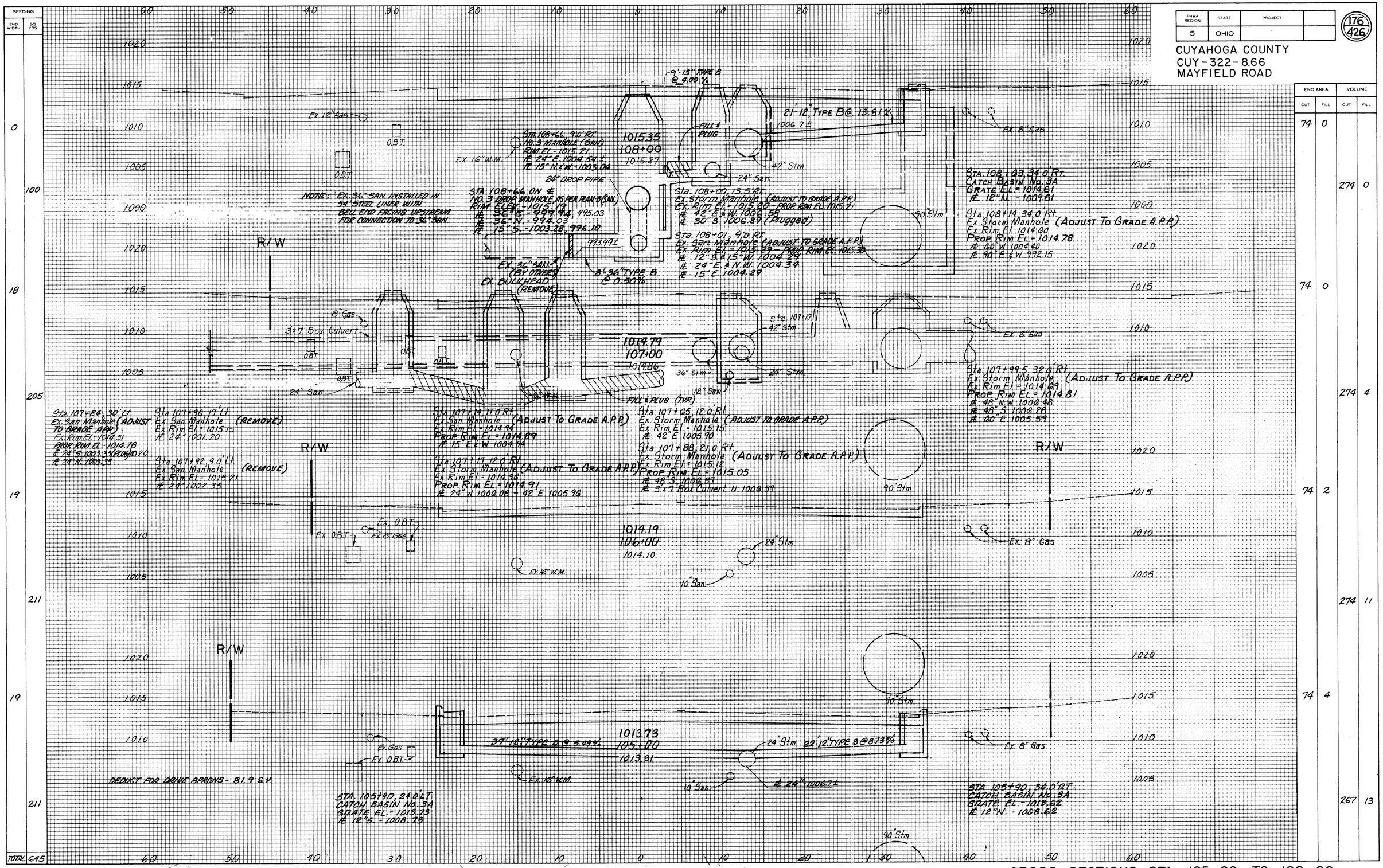
CROSS SECTIONS STA. 101+00 TO 104+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

176
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SEEDING		END AREA		VOLUME	
END WIDTH	SQ YDS	CUT	FILL	CUT	FILL
0	0	74	0		
100	18			274	0
205	74	0			
19	211			274	4
19	211	74	2	274	11
		74	4		
TOTAL	645			267	13



CROSS SECTIONS STA. 105+00 TO 108+00

SEEDING	
END WIDTH	SEE PLAN

FHWA REGION	STATE	PROJECT	
5	OHIO		

177
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
18	76	8		
200			278	17
18	74	1		
200			274	9
18	74	4		
206			274	15
19	74	4		
106			274	7

TOTAL 473

60 50 40 30 20 10 0 10 20 30 40 50 60

1020 1015 1010

R/W

Ex. 8" Gas

Ex. O.B.T.

Ex. 12" W.M.

Sta. 112+18, 24.0' Lt.
Catch Basin No. 3A
Grate El.= 1015.21
℄ 12" S. - 1010.21.

38'-12" Type B @ 6.84%

1015.33
112+00
1015.29

1007.6±

42" Stm.

24" San.

36" San.

90" Stm.

Ex. 8" Gas

Sta. 111+56, 9.0' Rt.
Ex. San. Manhole (Adjust To Grade A.P.P.)
Ex. Rim El. = 1014.89
Prop. Rim El. = 1014.82
℄ 24" E. & W. 1005.44

Sta. 111+53, 34.0' Rt.
Catch Basin No. 3A
Grate El.= 1014.33
℄ 12" N. 1009.33

Ex. 8" Gas

Ex. O.B.T.

Ex. 12" W.M.

Sta. 111+10 on ℄
No. 3 Manhole (San.)
Rim Elev.-1014.59
℄ 36" E. & W. - 1000.86

1014.43
111+00
1014.43

1007.4±

22'-12 Type B @ 7.73%

42" Stm.

24" San.

36" San.

90" Stm.

Sta. 111+60, 13.0' Rt.
Ex. Storm Manhole (Adjust To Grade A.P.P.)
Ex. Rim El. 1014.94
Prop. Rim El. = 1014.77
℄ 42" E. & W. 1007.44
℄ 6" N. 1008.33
℄ 12" S. - 1009.13

45'-12" Type B @ 0.24%

Ex 8" Gas

Ex. O.B.T.

Ex. 12" W.M.

Sta. 110+44, 24.0' Lt.
Catch Basin No. 3
Grate El.= 1013.84
℄ 12' E. & S. 1008.84

Sta. 110+82, 24.0' Lt.
Catch Basin No. 3A
Grate El.= 1013.95
℄ 12" W. - 1008.95

1014.33
110+00
1014.35

1007.2±

36'-15" Type B @ 4.72%

21'-12" Type B @ 7.14%

42" Stm.

24" San.

36" San.

90" Stm.

Ex. 8" Gas

Sta. 110+43, 34.0' Rt.
Catch Basin No. 3
Grate El.= 1013.68
℄ 12" N. - 1008.68

Ex. 8" Gas

Ex. O.B.T.

Ex. 12" W.M.

Sta. 109+60, 24.0' Lt.
Catch Basin No. 3A
Grate El.= 1014.20
℄ 12" S. - 1009.20

1014.90
109+00
1015.02

1007.0±

38'-12" Type B @ 5.79%

21'-12" Type B @ 9.76%

42" Stm.

24" San.

36" San.

90" Stm.

Ex. 8" Gas

Sta. 109+58, 34.0' Rt.
Catch Basin No. 3A
Grate El.= 1014.05
℄ 12" N. - 1009.05

DEDUCT FOR DRIVE APRONS - 239.1 S.Y.

MAYFIELD ROAD

CROSS SECTIONS STA. 109+00 TO 112+00

SECTIONS

SND WIDTH	SD YDS
13	144
13	167
17	189
17	194

TOTAL 556

HWY REGION	STATE	PROJECT	
5	OHIO		

178
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL
74	2		
		274	7
74	2		
		274	9
74	3		
		274	7
74	1		
		274	17

60 50 40 30 20 10 0 10 20 30 40 50 60

R/W

1030 1025 1020 1015 1010

Ex. 8" Gas
Ex. O.B.T.
Ex. 12" W.M.
Ex. C.E.T.

38'-12" TYPE B @ 21.05%
116+00
1025.89
1013.6
20" Stm.
15" San.
30" SAN

STA. 116+15 ON ℄
NO. 3 MANHOLE (SAN.)
RIM ELEV. - 1026.49
Æ 30" E. & W. - 1008.73

STA. 110+00, 24.0' LT.
CATCH BASIN No. 3
GRATE EL = 1025.57
Æ 12" S. - 1021.57

21'-12", TYPE B @ 32.38%
115+00
1022.66
1013.3±
20" Stm.
15" San.
30" SAN.

STA. 115+90, 34.0' RT.
CATCH BASIN No. 3A
GRATE EL. = 1025.08
Æ 12" N. - 1020.08

24'-15" TYPE B @ 2.76%
1019.43
114+00
1019.26
12" Stm.
1009.5±
21'-12", TYPE B @ 32.66%
15" Stm.
24" San.
42" San.
12" San (ABANDONED)
36" SAN.
90" Stm.

STA. 114+18, ℄
No. 3 DI/OP MANHOLE A.P.P-A(SM.)
RIM EL. - 1020.04
Æ 15" S.E. - 1011.87
1009.97
Æ 30" E. - 1003.14
Æ 36" W. - 1002.64

STA. 114+78, 34.0' RT.
CATCH BASIN No. 3
GRATE EL. = 1021.38
Æ 12" N. - 1018.38

STA. 114+50, 27.0' RT.
Ex. Stm. Manhole
(ADJUST TO GRADE A.P.P.)
Ex. Rim El. - 1020.88
PROP. RIM EL. - 1020.51
Æ 4'x5' S. - 1008.28
Æ 90" W. - 997.13

Sta. 114+32, 21' Rt.
Ex. San. Manhole
(ADJUST TO GRADE A.P.P.)
Ex. Rim El. - 1019.78
PROP. RIM EL. - 1020.15
Æ 15" S. - 1013.79
Æ 15" N. - 1013.74 (TO BE PLUGGED BY OTHERS)
Æ 15" N.W. - 1013.74 (INSTALL TEMPORARY BULKHEAD)

4'x5' Culvert

Sta. 114+30, 10' Rt.
Ex. San. Manhole (ADJUST TO GRADE A.P.P.)
Ex. Rim El. - 1020.21
PROP. RIM EL. - 1020.31
Æ 24" W. - 1006.16
Æ 15" E. - 1006.22
Æ 12" S. - 1006.37
Æ 15" S. - 1013.70

Sta. 114+33.5, 14.0' Rt.
Ex. Stm. Manhole (ADJUST TO GRADE A.P.P.)
Ex. Rim El. - 1020.33
PROP. RIM EL. - 1020.29
Æ 42" W. - 1008.01
Æ 24" E. - 1008.02
Æ 12" N. - 1013.38

38'-12", TYPE B @ 16.32%
1016.97
113+00
1016.97
1007.8±
42" Stm.
24" San.
36" SAN.
48" Stm.
90" Stm.

STA. 113+98, 24.0' LT.
CATCH BASIN No. 3
GRATE EL. = 1019.02
Æ 12" S. - 1014.02

STA. 113+00, 34.0' RT.
CATCH BASIN No. 3
GRATE EL. = 1016.45
Æ 12" N. - 1011.45

DEDUCT FOR DRIVE APRONS - 137.7 S.Y.

MAYFIELD RD.

CROSS SECTIONS STA. 113+00 TO 116+00

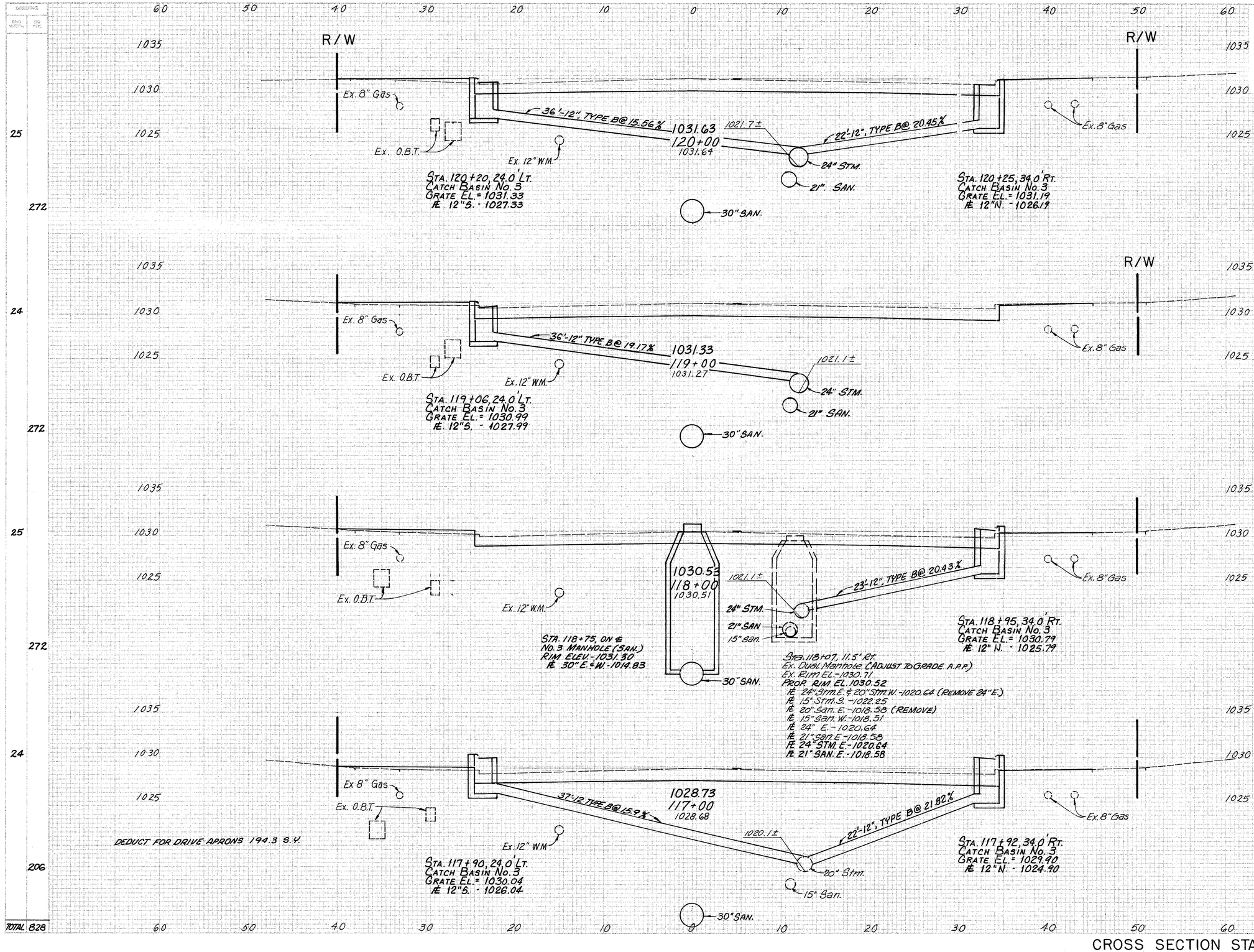
DESIGNING	
ENG. WITH	SQ. YDS.
25	272
24	272
25	272
24	206
TOTAL	828

FHWA REGION	STATE	PROJECT	
15	OHIO		

179
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL
74	4		
		287	19
81	6		
		287	22
74	6		
		278	22
77	6		
		278	15



MAYFIELD RD.

CROSS SECTION STA. 117+00 TO 120+00

SHEET NO.	STATE	PROJECT	
5	OHIO		

180
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SECTIONS		END AREA		VOLUME	
END AREA	ISO VOL	CUT	FILL	CUT	FILL
25		74	6		
278				285	24
25		80	7		
194				291	15
10		77	1		
194				291	13
25		80	6		
278				285	19
TOTAL 803					

60 50 40 30 20 10 0 10 20 30 40 50 60

R/W

1040
1035
1030
1025

Ex. 8" Gas
Ex. O.B.T.
Ex 12" W.M.
1033.83
124+00
1033.86
36'-12", Type B@19.72%
1023.0±
24" Stm.
20" San.
30" S.A.N.
Ex. 8" Gas

Sta. 124+15, 24.0' Lt.
Catch Basin No. 3
Grate El. = 1033.59
Æ 12" S. - 1030.09

1033.03
123+00
1033.13
23'-12", Type B@ 23.04%
24" Stm.
1023.0±
20" San.
30" S.A.N.
Ex. 8" Gas

Sta. 123+94, 34.0' Rt.
Catch Basin No. 3
Grate El. = 1033.26
Æ 12" N. - 1028.26

O.B.T.
Ex. 8" Gas
Ex. 12" W.M.
36'-12", Type B@15.56%
1032.36
122+00
1032.40
22'-12", Type B@ 20.00%
1022.6±
24" Stm.
20" San.
30" SAN.
Ex. 8" Gas

Sta. 122+34, 24.0' Lt.
Catch Basin No. 3
Grate El. = 1032.20
Æ 12" S. - 1028.20

Sta. 122+75 ℄
No. 3 Manhole (San.)
Rim Elev. - 1032.92
Æ 30" E. & W. - 1016.35

Sta. 122+23, 34.0' Rt.
Catch Basin No. 3
Grate El. = 1031.97
Æ 12" N. - 1026.97

Ex. 8" Gas
Ex. O.B.T.
Ex. 12" W.M.
36'-12", Type B@ 15.00%
1031.93
121+00
1032.05
22'-12", Type B@ 18.70%
1022.2±
24" Stm.
21" San.
30" San.
Ex. 8" Gas

DEDUCT FOR DRIVE APRONS - 140.6 S.Y.

Sta. 121+20, 24.0' Lt.
Catch Basin No. 3
Grate El. = 1031.64
Æ 12" S. - 1027.64

Sta. 121+82, 11.0' Rt.
Ex. Dual Manhole (Adjust to Grade A.P.P.)
Ex. Rim El. = 1032.40
Prop. Rim El. = 1032.17
Æ 24" E. & W. 1022.52 (Remove 24" W.)
Æ 20" E. & W. 1020.40 (Remove 20" W.)
Æ 12" N. 1022.86 (Plugged)
Æ 12" N. 1021.36 (Plugged)
Æ 24" Stm. W. 1022.52
Æ 21" San. W. 1020.40

Sta. 121+23, 34.0' Rt.
Catch Basin No. 3
Grate El. = 1031.49
Æ 12" N. 1026.49

MAYFIELD RD.

CROSS SECTION STA. 121+00 TO 124+00

SEEDING | END AREA | SQ YDS

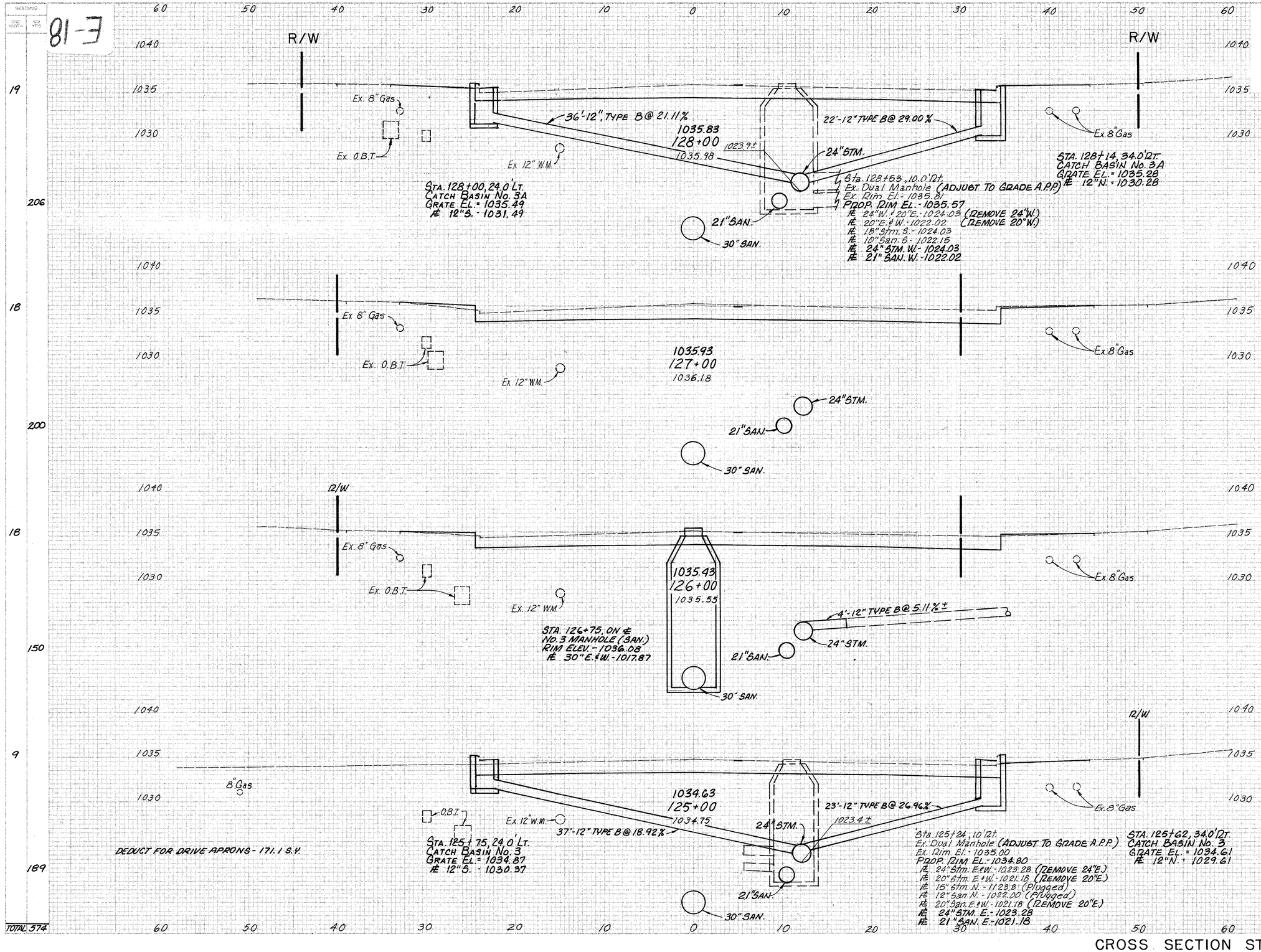
81-3

STATE PROJECT REVISION	STATE	PROJECT	
5	OHIO		

181
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL
74	0		
		289	4
82	3		
		300	11
80	3		
		302	4
83	0		
		291	11



TOTAL 574

MAYFIELD RD.

CROSS SECTION STA. 125+00 TO 128+00

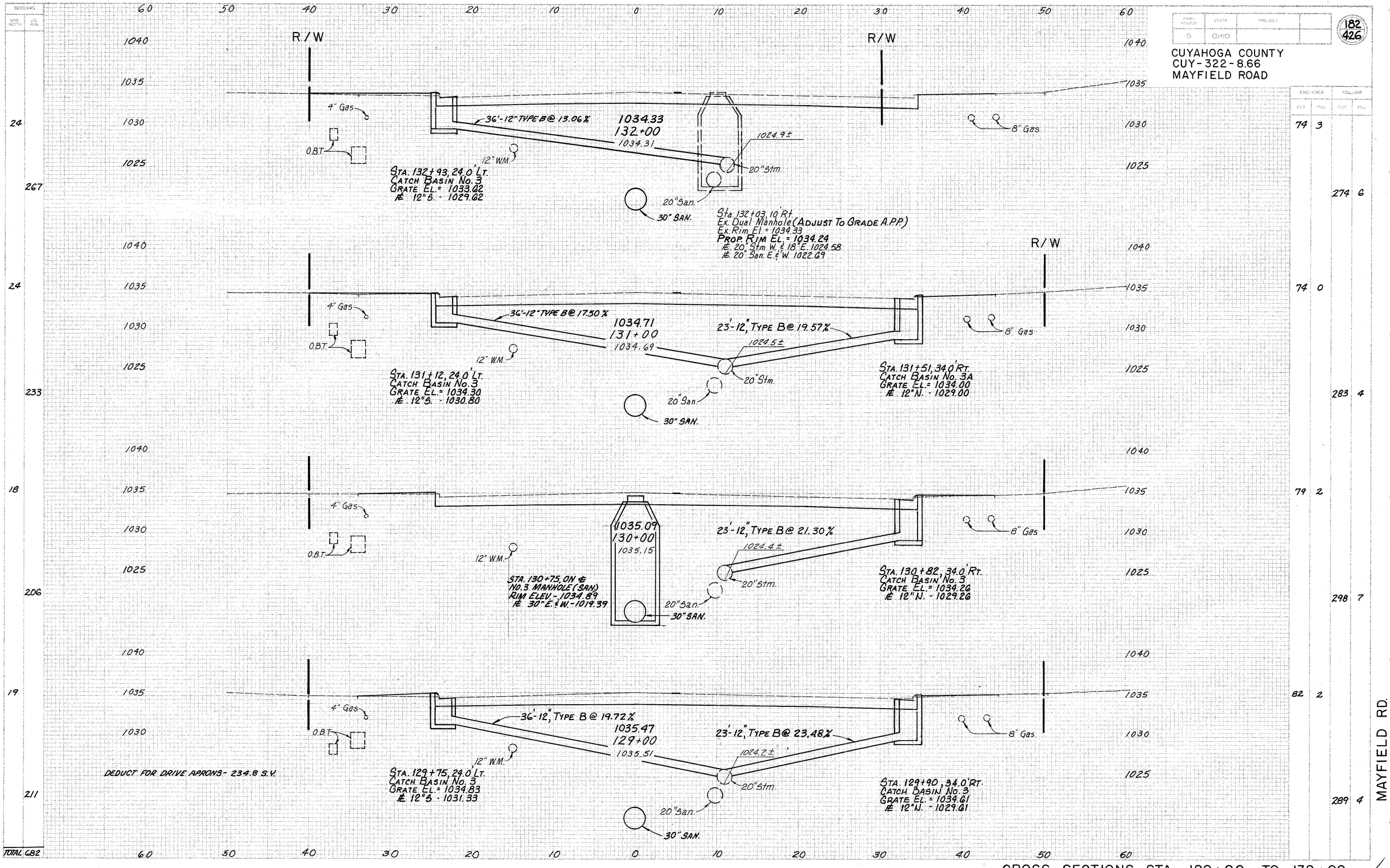
SEEDING	
END WIDTH	SQ. YDS.
24	267
24	233
18	206
19	211
TOTAL	682

PHWL REGION	STATE	PROJECT	
5	OHIO		

182
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL
74	3		
		274	6
74	0		
		283	4
79	2		
		298	7
82	2		
		289	4



MAYFIELD RD.

CROSS SECTIONS STA. 129+00 TO 132+00

SEEDING	
SYM.	NO. LBS.

FHWA REGION	STATE	PROJECT	
5	OHIO		

183
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL
82	7		
		302	31
81	10		
		287	33
74	8		
		274	26
74	6		
		274	17

60 50 40 30 20 10 0 10 20 30 40 50 60

R/W

50'-12" TYPE B @ 0.50%
O.B.T.
8" Gas
12" W.M.
O.B.T.
40'-15" TYPE B @ 3.85 %
1033.09
136+00
1033.21
18" San.
27" SAN.
15" Stm.
35'-15" TYPE B @ 1.09 %
8" Gas
50'-12" TYPE B @ 0.50%

STA. 136+01, 24.0' LT.
CATCH BASIN No. 3
GRATE EL.= 1032.73
Æ 12" E. - 1028.73

STA. 136+51, 24.0' LT.
CATCH BASIN No. 3
GRATE EL.= 1032.88
Æ 12" W. - 1028.48
Æ 15" S. - 1028.48

Sta. 136+80, 10.0' Rt.
Ex. Dual Manhole (ADJUST TO GRADE A.P.P.)
Ex. Rim El.= 1033.75
PROP. RIM EL.= 1033.45
Æ 15" Stm. W. 1026.40
Æ 18" San. E. & W. 1024.00
Æ 15" Stm. N. & S. 1026.94

STA. 136+02, 34.0' Rt.
CATCH BASIN No. 3
GRATE EL.= 1032.57
Æ 12" E. - 1027.57

STA. 136+52, 34.0' Rt.
CATCH BASIN No. 3
GRATE EL.= 1032.73
Æ 15" NE - 1027.32
Æ 12" W. 1027.32

R/W

37'-12" TYPE B @ 1.00%
O.B.T.
8" Gas
1025.9 ±
1033.34
135+00
1033.28
15" Stm.
1025.8 ±
24'-12", TYPE B @ 7.92%
8" Gas
4" Gas
36'-12" TYPE B @ 7.22%
O.B.T.
12" W.M.
20" San.
15" Stm.
20" San.
27" SAN.

STA. 135+05, 25.0' LT.
CATCH BASIN No. 3
GRATE EL.= 1033.06
Æ 12" S. - 1028.56

STA. 135+83, 24.0' LT.
CATCH BASIN No. 3A
GRATE EL.= 1032.85
Æ 12" S. - 1028.35

Sta. 135+17, 10.5' Rt.
Ex. Dual Manhole (ADJUST TO GRADE A.P.P.)
Ex. Rim El.= 1033.32
PROP. RIM EL.= 1033.20
Æ 15" Stm. E. & S. 1025.62
Æ 18" Stm. W. 1025.52
Æ 12" Stm. N. - 1028.19
Æ 20" San. S. & 18" San. E. 1023.72
Æ 20" San. W. 1023.52

STA. 135+57, 34.0' Rt.
CATCH BASIN No. 3A
GRATE EL.= 1032.66
Æ 12" N. - 1027.66

8" Gas
1033.62
134+00
1033.59
1025.9 ±
20'-12" TYPE B @ 0.85 %
20" San.
20" San.
18" Stm.
20'-12" TYPE B @ 11.70 %
30" SAN
8'-18" TYPE B @ 1.69%

STA. 134+84, ℄
NO. 3 MANHOLE (SAN)
RIM EL. - 1033.46
Æ 18" S. - 1023.38
Æ 27" E. - 1021.16
Æ 30" W. - 1020.91

STA. 134+80, 13.0' Rt.
Ex. Storm Manhole
(ADJUST TO GRADE A.P.P.)
Ex. Rim El. - 1033.29
PROP. RIM EL. - 1033.27
Æ 18" E., W. & S.E. 1025.71
Æ 12" S. 1027.66

STA. 134+84, ON ℄
NO. 3 MANHOLE (SAN)
RIM ELEV. - 1033.46
Æ 27" E - 1021.16
Æ 30" W. - 1020.94
Æ 18" S. - 1023.38

Sta. 134+85.5, 9.5' Rt.
Ex. San. Manhole (ADJUST TO GRADE A.P.P.)
Ex. Rim El. - 1033.39
PROP. RIM EL. - 1033.31
Æ 20" E., W. & S.E. 1023.52
Æ 18" N. - 1023.52

STA. 134+84, 34.0' Rt.
CATCH BASIN No. 3A
GRATE EL.= 1032.86
Æ 12" N. - 1027.86

STA. 134+02, 34.0' Rt.
CATCH BASIN No. 3
GRATE EL.= 1033.09
Æ 12" N. - 1028.09

R/W

DEDUCT FOR DRIVE APRONS - 181 S.Y.
O.B.T.
35'-12" TYPE B @ 11.14%
1033.95
133+00
1033.87
1025.4 ±
24'-12" TYPE B @ 14.17%
8" Gas
12" W.M.
18" Stm.
30" SAN.

STA. 133+91, 24.0' LT.
CATCH BASIN No. 3
GRATE EL.= 1033.29
Æ 12" S. - 1029.29

STA. 133+00, 34.0' Rt.
CATCH BASIN No. 3
GRATE EL.= 1033.43
Æ 12" N. - 1028.43

MAYFIELD RD.

TOTAL 1130

CROSS SECTIONS STA. 133+00 TO 136+00

STATE	PROJECT
OHIO	

184
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SETTING		END AREA		VOLUME	
STA. INCR.	SQ. YDS.	CUT	FILL	CUT	FILL
24		78	5		
211				285	11
14		76	1		
156				306	4
14		89	1		
156				324	2
14		86	0		
267				311	13
TOTAL 637					

60 50 40 30 20 10 0 10 20 30 40 50 60

1050 R/W
1045
1040
8"Gas
O.B.T.
12"W.M.
O.B.T.
1030.8±
24'-12" TYPE B @ 21.25%
60" STORM
24" Stm.
12" San.
27" SANITARY
1043.21
140+00
1043.14
8"Gas
GAS LINE TO BE RELOCATED AROUND BASIN, (BY OTHERS)
STA. 140+13, 34.0' RT.
CATCH BASIN No. 3
GRATE EL. = 1043.36
Æ 12"N. - 1038.36
R/W 1050
1045
1040

STA. 139+64, ℄
MANHOLE No. 3 (SAN.)
RIM EL. = 1041.54
Æ 27" E. & W. - 1024.92

1045
1040
1035
8"Gas
O.B.T.
36'-12" TYPE B @ 19.17%
12"W.M.
O.B.T.
STA. 139+09.24.0' LT.
CATCH BASIN No. 3
GRATE EL. = 1038.75
Æ 12"S. - 1034.75
1025.4±
12" Stm.
48"×76" ELLIPTICAL STORM
10" Stm.
30" Stm.
18" San.
27" SANITARY
1038.79
139+00
1038.79
8"Gas
1045
1040
1035
Sta. 139+85.5, 10.5' Rt.
Ex. Dual Manhole
Rim El. = 1042.55
Æ 10" Stm. S. 1029.82
Æ 12" Stm. S. 1032.52
Æ 24" Stm. E. 1028.50
Æ 30" Stm. W. 1028.55
Æ 12" San. E. 1026.87
Æ 18" San. W. 1026.92
(REMOVE)
STA. 139+86, 11.0' RT.
MANHOLE No. 5 (STM.)
RIM EL. = 1042.49
Æ Ex. 10" S. 1029.82
Æ Ex. 12" S. 1032.52
Æ 60" E. 1029.50
Æ 48"×72" W. 1029.50

1040 R/W
1035
1030
8"Gas
O.B.T.
12"W.M.
O.B.T.
27" SANITARY
48"×76" ELLIPTICAL STORM
30" Stm.
18" San.
1035.59
138+00
1035.82
8"Gas
1040
1035
1030
Sta. 138+58, 10.0' Rt.
Ex. Dual Manhole
Rim El. 1037.44
Æ 18" Stm. N. 1028.44
Æ 30" Stm. E. & W. 1028.04
Æ 18" San. E. 1024.99
Æ 18" San. W. 1024.34
(REMOVE)
STA. 138+58, 11.0' RT.
MANHOLE No. 5 (STM.)
RIM EL. = 1037.19
Æ 48"×72" E. & W. 1028.80

1040
1035
1030
O.B.T.
8"Gas
5.5'×8.0' Conc. Box Culvert
30'-48"×76" TYPE B @ 1.90%
30" Stm.
O.B.T.
27" SANITARY
12"W.M.
18" San.
24'-12" TYPE B @ 1.00%
48"×76" ELLIPTICAL STORM
30" Stm.
25'-18" TYPE B @ 1.12%
1033.70
137+00
1033.95
8"Gas
5.5'×8.0' Conc. Box Culvert
STA. 137+91, 34.0' RT.
CATCH BASIN No. 3
GRATE EL. = 1034.85
Æ 12"N. - 1029.85
1040
1035
1030
Sta. 137+28.5, 10.5' Rt.
Ex. Manhole
Rim El. 1034.34
Æ 30" Stm. E. & W. 1027.87
(REMOVE)
STA. 137+30, 11.0' RT.
MANHOLE No. 5 (STM.)
RIM EL. = 1034.05
Æ 48"×72" E. & W. 1028.07
STA. 137+17, 9.5' RT.
MANHOLE No. 3 (SAN.)
RIM EL. = 1033.93
Æ 18" N.E. & W. 1024.00±

STA. 137+41, 1.21' RT.
JUNCTION CHAMBER (SAN.)
RIM EL. - 1034.40
Æ 27" E. 1024.36
Æ 27" W. 1023.15
Æ 18" S.W. 1024.28
STA. 137+29 ℄
No. 3 MANHOLE (SAN.)
RIM EL. - 1034.33
Æ 27" E. 1023.02
Æ 27" W. 1021.77

DEDUCT FOR DRIVE APRONS 152.6 S.Y.

MAYFIELD RD.

CROSS SECTIONS STA. 137+00 TO 140+00

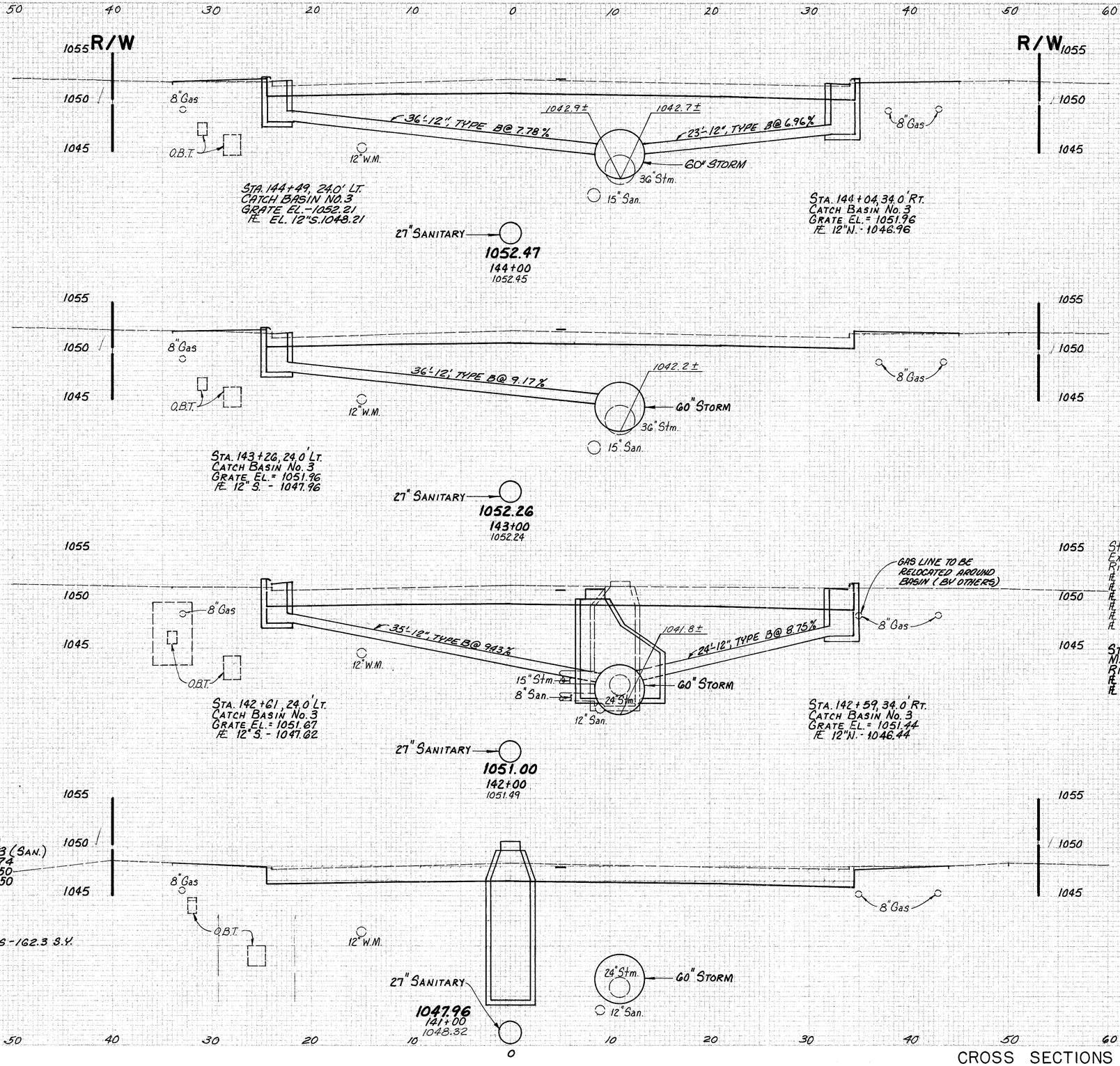
GRADING	
END WIDTH	SQ YDS
19	
211	
19	
106	
0	
100	
18	
233	
TOTAL 988	

FOLIO SECTION	STATE	PROJECT	
5	OHIO		

185
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL
74	1		
		274	4
74	1		
		346	2
113	0		
		394	0
100	0		
		330	9



MAYFIELD RD.

CROSS SECTIONS STA. 141+00 TO 144+00

SECSING

END WIDTH	SQ. YDS.
18	200
18	200
18	200
18	206

TOTAL 611

60 50 40 30 20 10 0 10 20 30 40 50 60

10GO R/W

1055

1050

8"Gas

O.B.T.

O.B.T.

O.B.T.

12" W.M.

12" Stm.

30" Stm.

60" STORM

15" San.

27" SANITARY

1057.47

148+00

1057.66

R/W 10GO

8"Gas

Sta. 148+55, 11.0' Rt.
Ex. Stm. Manhole
Rim El. - 1058.05
Æ 12" N. 1048.76
(CONNECT TO 60" STM.)
Æ 30" E. 1074.14
Æ 30" W. 1074.08
(REMOVE)

Sta. 148+96, 9.0' Rt.
Ex. Dual Manhole
Rim El. - 1058.21
Æ 30" Stm. E. & W. 1047.36
Æ 15" San. E. & W. 1046.56
(REMOVE)

STA. 148+96, 11.0' RT.
MANHOLE No. 4 (STM.)
RIM EL. - 1057.91
Æ 60" E. & W. 1044.81

10GO

1055

1050

8"Gas

O.B.T.

O.B.T.

12" W.M.

10447±

23'-12" TYPE B@ 19.13%

30" Stm.

60" STORM

15" San.

8"Gas

STA. 147+70, 34.0' RT.
CATCH BASIN No. 3
GRATE EL. = 1056.59
Æ 12" N. - 1051.59

27" SANITARY

1055.98

147+00

1056.15

10GO

1055

1050

8"Gas

O.B.T.

O.B.T.

12" W.M.

12" BEND

36'-12" TYPE B@ 12.86%

1044.1±

30" Stm.

60" STORM

15" San.

8"Gas

STA. 146+84, 24.0' LT.
CATCH BASIN No. 3
GRATE EL. = 1055.62
Æ 12" S. - 1051.12

27" SANITARY

1054.32

146+00

1054.48

1055

1050

1045

8"Gas

O.B.T.

12" BEND

12" W.M.

35'-12" TYPE B@ 9.43%

1043.0±

1043.5±

30" Stm.

24'-12" TYPE B@ 11.25%

24'-12", TYPE B@ 5.83%

18" Stm.

60" STORM

15" San.

Ex. 8" Gas

STA. 145+81, ℄
MANHOLE No. 3 (SAN.)
RIM EL. - 1053.58
Æ 27" E. & W. 1038.00

DEDUCT FOR DRIVE APRONS - 195.4 S.Y.

STA. 145+90, 24.0' LT.
CATCH BASIN No. 3
GRATE EL. = 1053.80
Æ 12" S. - 1049.30

STA. 145+08, 34.0' RT.
CATCH BASIN No. 3
GRATE EL. = 1052.41
Æ 12" N. - 1047.41

STA. 145+92, 34.0' RT.
CATCH BASIN No. 3
GRATE EL. = 1053.67
Æ 12" N. - 1048.67

27" SANITARY

1052.85

145+00

1052.96

1055

1050

1045

Sta. 145+50, 10.0' Rt.
Ex. Dual Manhole
Rim El. - 1053.69
Æ 18" Stm. N. 1044.08
Æ 30" Stm. E. 1042.39
Æ 36" Stm. W. 1042.14
Æ 15" San. E. & W. 1040.64
(REMOVE)

STA. 145+50, 11.0' RT.
MANHOLE No. 4 (STM.)
RIM EL. - 1053.41
Æ Ex. 18" N. 1044.08
Æ 60" E. & W. 1043.18

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	78	4		
			281	13
	74	3		
			289	7
	82	1		
			302	4
	81	1		
			287	4

FHWA REGION	STATE	PROJECT	
5	OHIO		

186
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

MAYFIELD RD.

CROSS SECTIONS STA. 145+00 TO 148+00

| BEELINING | | |

SHEETING	
EXC. WIDTH	SQ. YDS.
24	
233	
18	
267	
30	
267	
18	
233	
TOTAL 810	

60 50 40 30 20 10 0 10 20 30 40 50 60

R/W 1065 1060 1055

8" Gas
O.B.T.
Ex. 12" W.M.
30" Stm.
15" San.
23'-12", Type B @ 20.43%
1048.8±
60" Storm
Ex. 8" Gas
27" Sanitary
1060.83
15G+00
1060.95

Sta. 15G+78, 34.0' Rt.
Catch Basin No. 3
Grate El. = 1061.01
Æ 12" N. - 1056.01

Sta. 15G+29, 9.0' Rt.
Ex. Dual Manhole
Rim El. - 1061.16
Æ 24" Stm. E. 1050.43
Æ 30" Stm. W. 1050.11
Æ 12" San. E. 1048.36
Æ 15" San. W. 1048.53
(Remove)

Sta. 15G+29, 11.0' Rt.
Manhole No. 3 (Stm.)
Rim El. - 1060.91
Æ 60" E. & W. 1048.00

12" Bend
36'-12", Type B @ 15.28%
1047.8±

Sta. 155+47, 24.0' Lt.
Catch Basin No. 3
Grate El. = 1060.26
Æ 12" S. - 1055.76

27" Sanitary
1060.43
155+00
1060.52

4'-8", Type C
1057.64
36'-12", Type B @ 15.50%
1047.1±
23'-12", Type B @ 20.87%
1047.5±

Sta. 154+03, 27.0' Lt.
Inlet No. I-1
Rim El. = 1059.68
Æ 8" S. - 1057.68

O.B.T. Vault.

Sta. 154+03, 24.0' Lt.
Catch Basin No. 3
Grate El. = 1059.68
Æ 12" S. - 1055.18

Sta. 154+80, 34.0' Rt.
Catch Basin No. 3
Grate El. = 1059.83
Æ 12" N. - 1054.83

Sta. 153+81, ℄
Manhole No. 3 (San.)
Rim El. - 1060.03
Æ 27" E. & W. 1041.00

27" Sanitary
1060.03
154+00
1060.15

DEDUCT FOR DRIVE APRONS - 190 S.Y.

1059.63
153+00
1059.75

23'-12" Type B @ 21.30%
1046.7±

Sta. 153+05.5, 34.0' Rt.
Catch Basin No. 3
Grate El. = 1059.13
Æ 12" N. - 1054.13

ENG. AREA		VOLUME	
CUT	FILL	CUT	FILL
79	5		
		283	17
74	6		
		274	24
74	9		
		285	19
80	1		
		293	13

MAYFIELD RD.

FHWA REGION	STATE	PROJECT	
5	OHIO		

188
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

CROSS SECTIONS STA. 153+00 TO 156+00

SPACING	
END WIDTH	22 FOR

FHWA REGION	STATE	PROJECT	
5	OHIO		

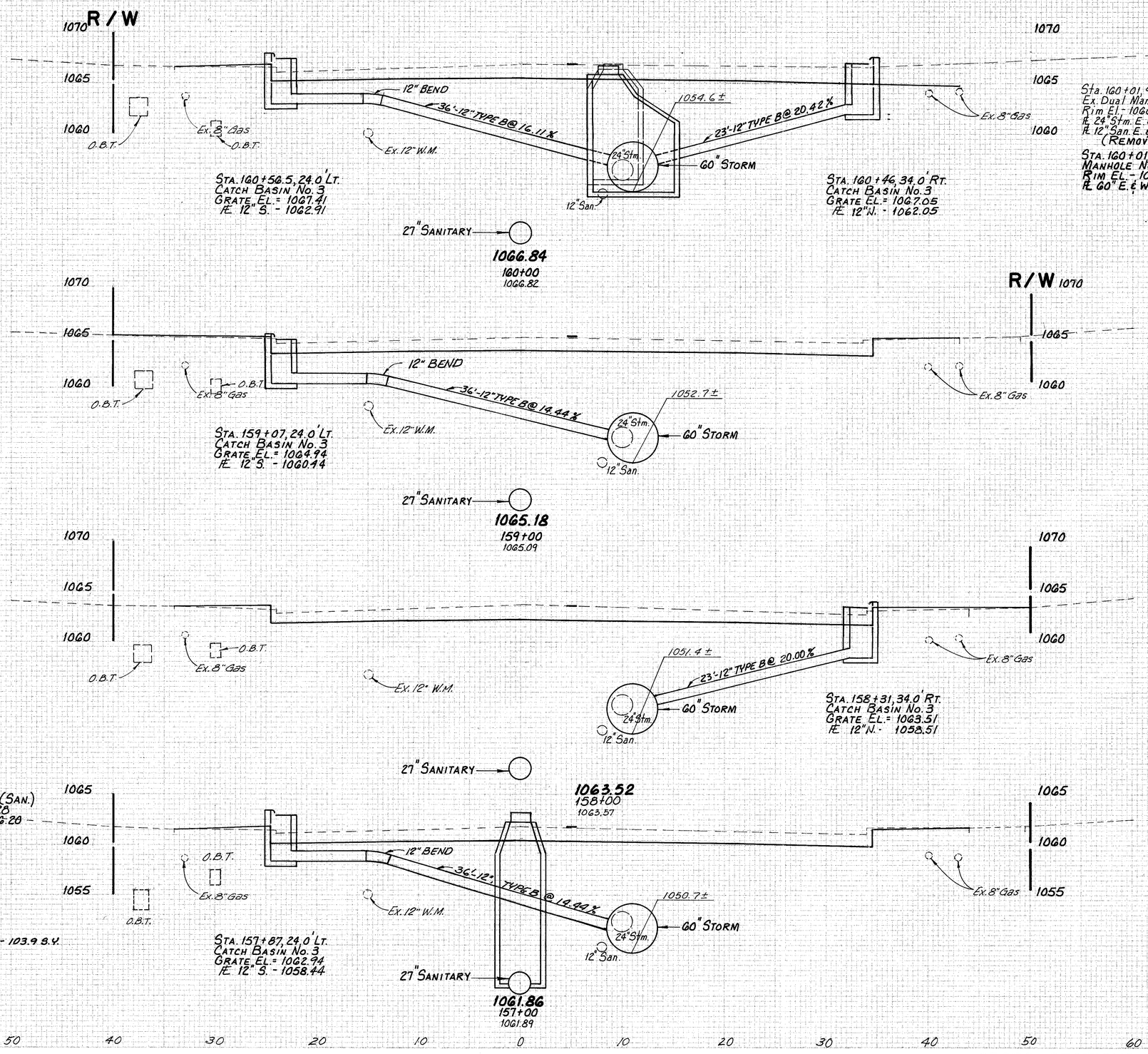
189
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL
78	1		
		281	4
74	1		
		274	15
74	7		
		287	15
81	1		
		296	11

9
233
33
228
18
200
18
233

60 50 40 30 20 10 0 10 20 30 40 50 60



TOTAL 790

CROSS SECTIONS STA. 157+00 TO 160+00

MAYFIELD RD.

| SCREENING | | |

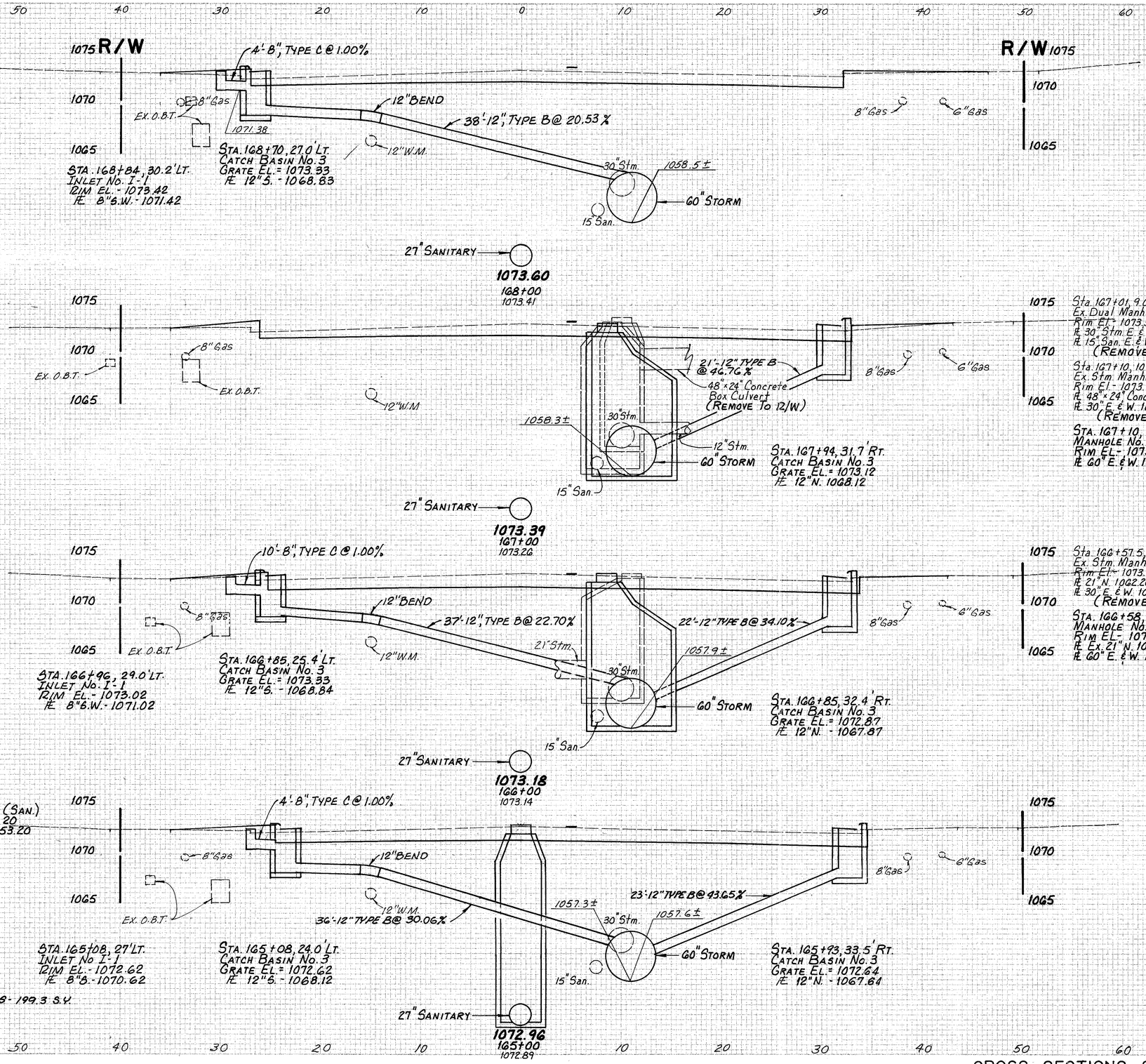
SCRIBING	
END WIDTH	NO. TIES
23	228
18	194
17	150
10	56
TOTAL	629

FHWA REGION	STATE	PROJECT	
5	OHIO		

191
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL
57	7		
		220	22
62	5		
		252	11
		274	9
74	1		
		274	7
74	4		



DEDUCT FOR DRIVE APRONS - 199.3 S.Y.

MAYFIELD RD.

CROSS SECTIONS STA. 165+00 TO 168+00

SEEDING	
END WIDTH	SC YDS
19	
328	
40	
411	
34	
317	
23	
256	
TOTAL 1225	

ITEMS SECTION	STATE	PROJECT	
5	OHIO		

192
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL
55	4		
		220	32
64	13		
		219	41
54	9		
		206	28
57	9		
		211	30

60 50 40 30 20 10 0 10 20 30 40 50 60

1075 R/W
1070
1065
Ex. 8" Gas
O.B.T.
O.B.T.
Sta. 172+00, 30.0' Lt.
Catch Basin No. 3
Grate El.= 1074.00
I.E. 12" S. - 1069.50
12" BEND
41'-12" TYPE B @ 18.54%
Ex. 12" W.M.
1059.4±
30" Stm.
60" Storm
15" San.
27" Sanitary
1074.48
172+00
1074.11
R/W 1075
Ex. 8" Gas

1075
1070
1065
Ex. 8" Gas
O.B.T.
O.B.T.
Ex. 12" W.M.
30" Stm.
1059.4±
17'-12" TYPE B @ 42.35%
60" Storm
15" San.
27" Sanitary
1074.23
171+00
1073.83
Sta. 171+93, 28.0' Rt.
Catch Basin No. 3
Grate El.= 1074.07
I.E. 12" N. - 1069.07
Ex. 8" Gas

1075
1070
1065
6'-8" TYPE C @ 1.00%
Ex. 8" Gas
O.B.T.
1071.53
12" BEND
40'-12" TYPE B @ 19.25%
Ex. 12" W.M.
Sta. 170+08, 28.3' Lt.
Catch Basin No. 3
Grate El.= 1073.59
I.E. 12" S. - 1069.09
Sta. 170+04, 32' Lt.
Inlet No. I-1
Rim El.= 1073.59
I.E. 8" S. - 1071.59
4'-15" TYPE B
19'-12" TYPE B @ 36.84%
30" Stm.
1058.9±
10" Stm.
60" Storm
15" San.
27" Sanitary
1074.02
170+00
1073.69
Sta. 170+13.5, 29.7' Rt.
Catch Basin No. 3
Grate El.= 1073.44
I.E. 12" N. - 1068.44
Ex. 8" Gas
Sta. 170+00, 9.5' Rt.
Ex. Dual Manhole
Rim El.= 1073.61
I.E. 10" Stm. S.E. 1062.09
I.E. 15" Stm. S. 1065.16
I.E. 30" Stm. E. & W. 1061.29
I.E. 15" San. E. & W. 1059.36
(Remove)
Sta. 170+00, 11.0' Rt.
Manhole No. 3 (Stm.)
Rim El.= 1073.91
I.E. Ex. 10" S.E. 1062.09
I.E. Ex. 15" S. 1065.16
I.E. 60" E. & W. 1058.86

Sta. 169+67.4
Manhole No. 3 (San.)
Rim El.= 1074.03
I.E. 27" E. & W. 1054.40
1075 R/W
1070
1065
Ex. 8" Gas.
O.B.T.
O.B.T.
Deduct for drive aprons - 86.7 S.Y.
Ex. 12" W.M.
27" Sanitary
1073.81
169+00
1073.59
1058.7±
30" Stm.
20'-12" TYPE B @ 36.00%
60" Storm
15" San.
Sta. 169+30, 30.4' Rt.
Catch Basin No. 3
Grate El.= 1073.43
I.E. 12" N. - 1068.43
Ex. 8" Gas

MAYFIELD RD.

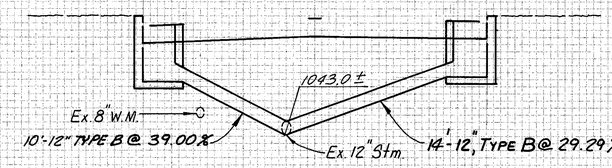
CROSS SECTIONS STA. 169+00 TO 172+00

STATE	PROJECT	
OHIO		

193
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

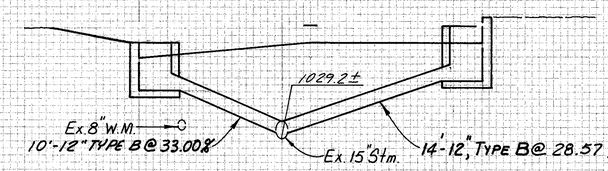
END AREA		VOLUME	
CUT	FILL	CUT	FILL



STA. 142+04, 58.0' LT.
CATCH BASIN No. 3
GRATE EL. = 1050.88
Æ 12" N. 1046.88

STA. 142+14.9, 56.0' LT.
GORDON ROAD

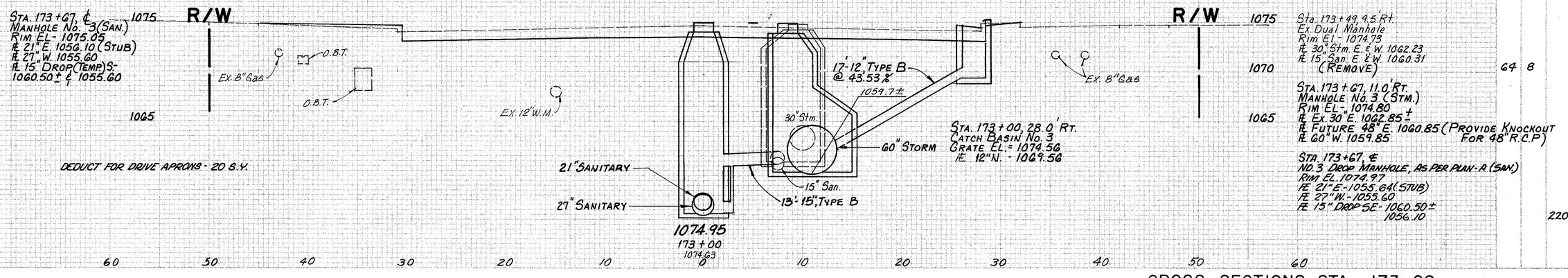
STA. 142+27, 56.0' LT.
CATCH BASIN No. 3A
GRATE EL. = 1051.13
Æ 12" S. - 1047.13



STA. 138+52, 56.0' LT.
CATCH BASIN No. 6
GRATE EL. = 1036.52
Æ 12" N. - 1032.52

STA. 138+63.4, 56.0' LT.
CHURCHILL ROAD

STA. 138+73.5, 56.0' LT.
CATCH BASIN No. 3A
GRATE EL. = 1037.21
Æ 12" S. - 1033.21



STA. 173+67, ℄
MANHOLE No. 3 (SAN.)
RIM EL. - 1075.05
Æ 21" E. 1056.10 (STUB)
Æ 27" W. 1055.60
Æ 15" DROP (TEMP.) S-
1060.50± ℄ 1055.60

DEDUCT FOR DRIVE APRONS - 20 S.Y.

STA. 173+00, 28.0' RT.
CATCH BASIN No. 3
GRATE EL. = 1074.56
Æ 12" N. - 1069.56

Sta. 173+49.5 Rt.
Ex. Dual Manhole
Rim EL. - 1074.73
Æ 30" Stm. E. & W. 1062.23
Æ 15" San. E. & W. 1060.31
(REMOVE)

STA. 173+67, 11.0' RT.
MANHOLE No. 3 (STM.)
RIM EL. - 1074.80
Æ Ex. 30" E. 1062.85±
Æ FUTURE 48" E. 1060.85 (PROVIDE KNOCKOUT FOR 48" R.C.P.)
Æ 60" W. 1059.85

STA. 173+67, ℄
NO. 3 DROP MANHOLE, AS PER PLAN-A (SAN.)
RIM EL. 1074.97
Æ 21" E. - 1055.64 (STUB)
Æ 27" W. - 1055.60
Æ 15" DROP SE - 1060.50±
1056.10

MAYFIELD RD.

CROSS SECTIONS STA. 173+00

M.A.M

CALC BY DATE	NH-83(29)	OHIO	194
CHKD BY DATE		FHWA REGION	426

CUYAHOGA COUNTY
CUY - 322-8.66
MAYFIELD ROAD

FOR EXTRA AREA QUANTITIES, SEE SHEET 33
FOR EXISTING SIDE STREET TYPICAL SECTION, SEE SHEET 223

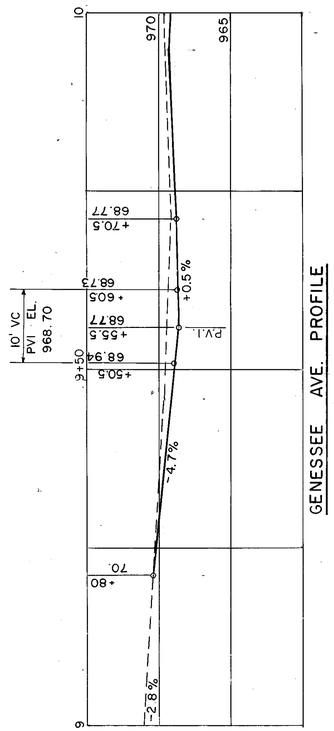
LEGEND

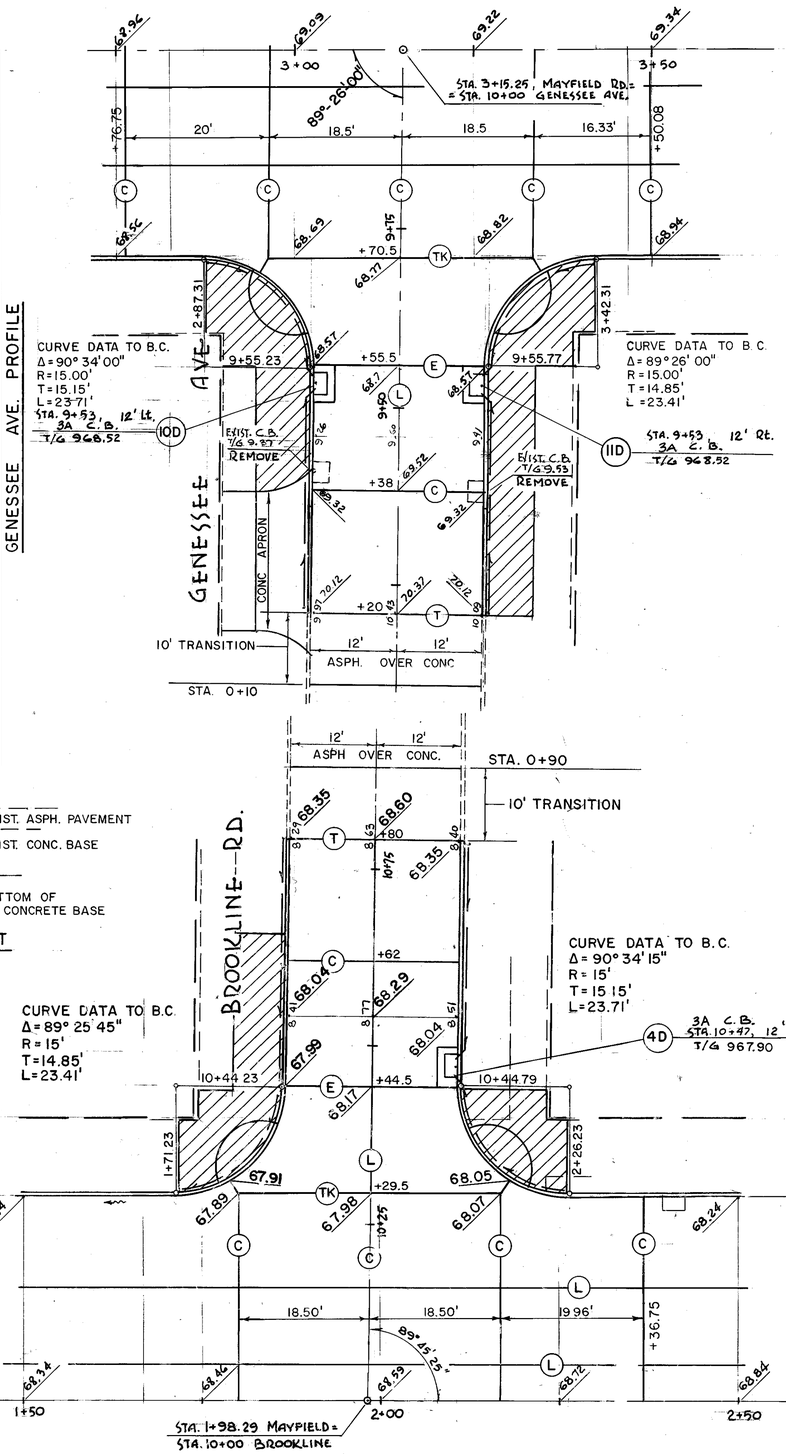
NEW CONCRETE WALK

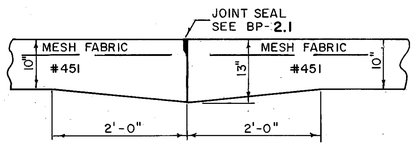
ADD 900.00 TO PLAN ELEVATIONS

JOINT LEGEND

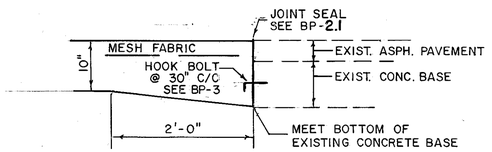
- (E) = EXPANSION JOINT PER BP-2.2
- (C) = CONTRACTION JOINT PER BP-2.2
- (L) = LONGITUDINAL JOINT PER BP-2.1
- (TK) = THICKENED EDGE JOINT (SEE DETAIL THIS SHEET)
- (T) = THICKENED EDGE JOINT (SEE DETAIL THIS SHEET)



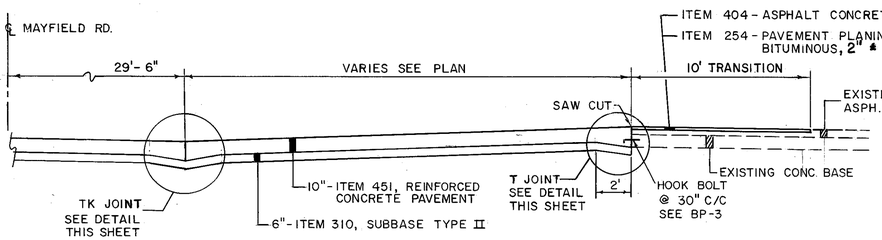




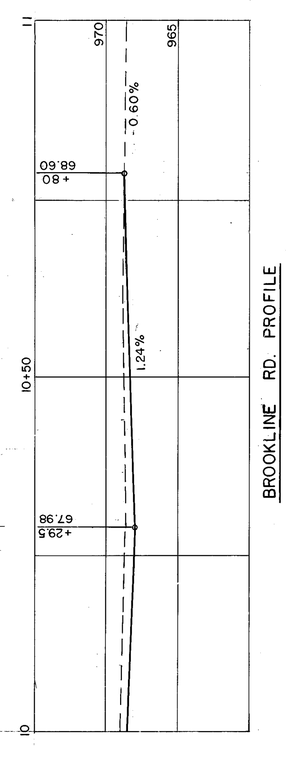
TK - THICKENED EDGE JOINT
(WHERE NEW PAV'T MEETS NEW PAV'T)



T - THICKENED EDGE JOINT



TYPICAL INTERSECTION DETAIL



MAYFIELD ROAD

BROOKLINE RD. — GENESSEE AVE...INTERSECTION DETAILS

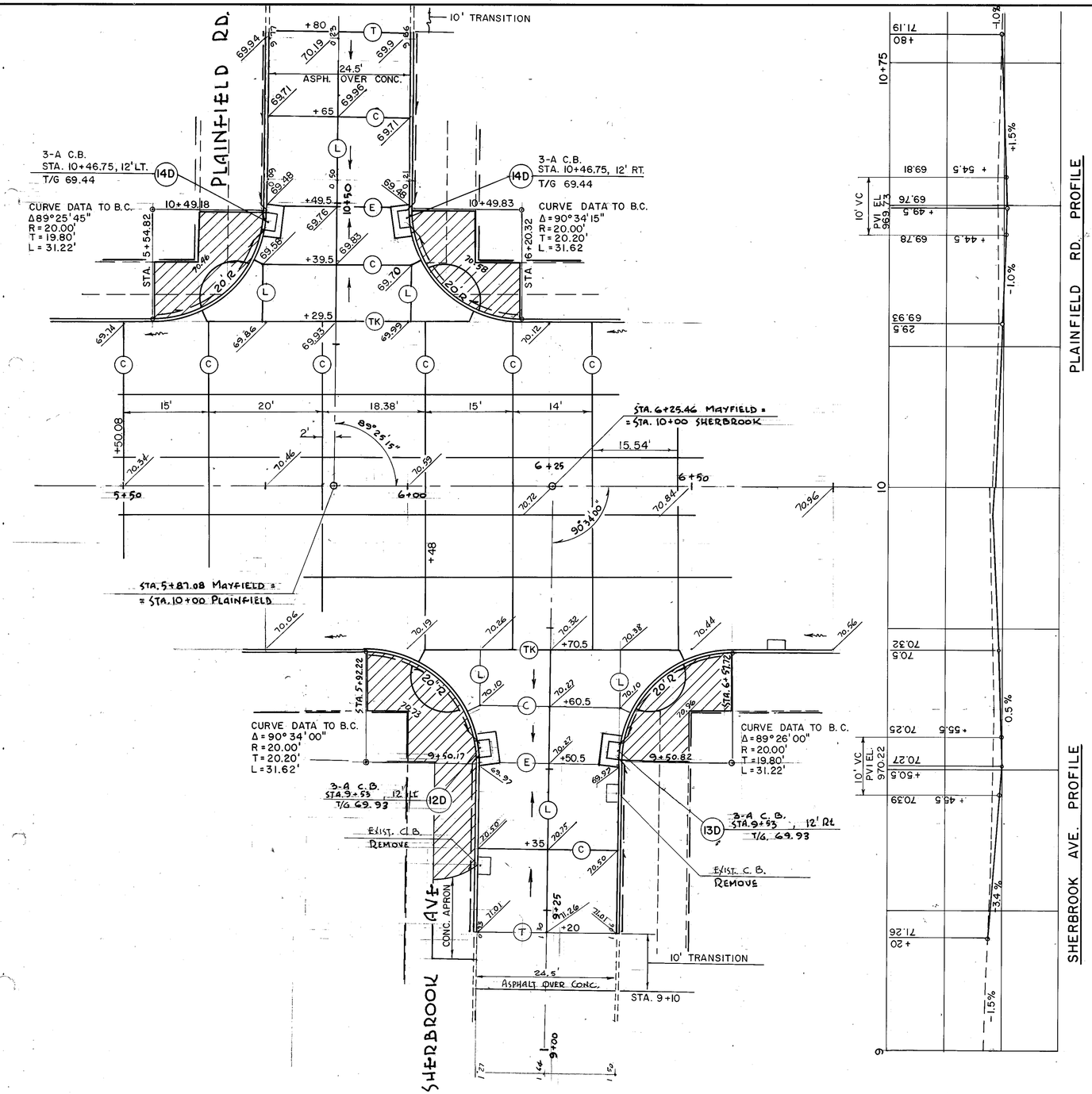
CALC. BY DATE	NH-83(29)	OHIO
CHKD. BY DATE		FHWA REGION

195
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

FOR EXTRA AREA QUANTITIES, SEE SHEET 33.
FOR EXISTING SIDE STREET TYPICAL SECTION, SEE SHEET 223.

ADD 900.00 TO ALL PLAN ELEVATIONS



MAYFIELD ROAD

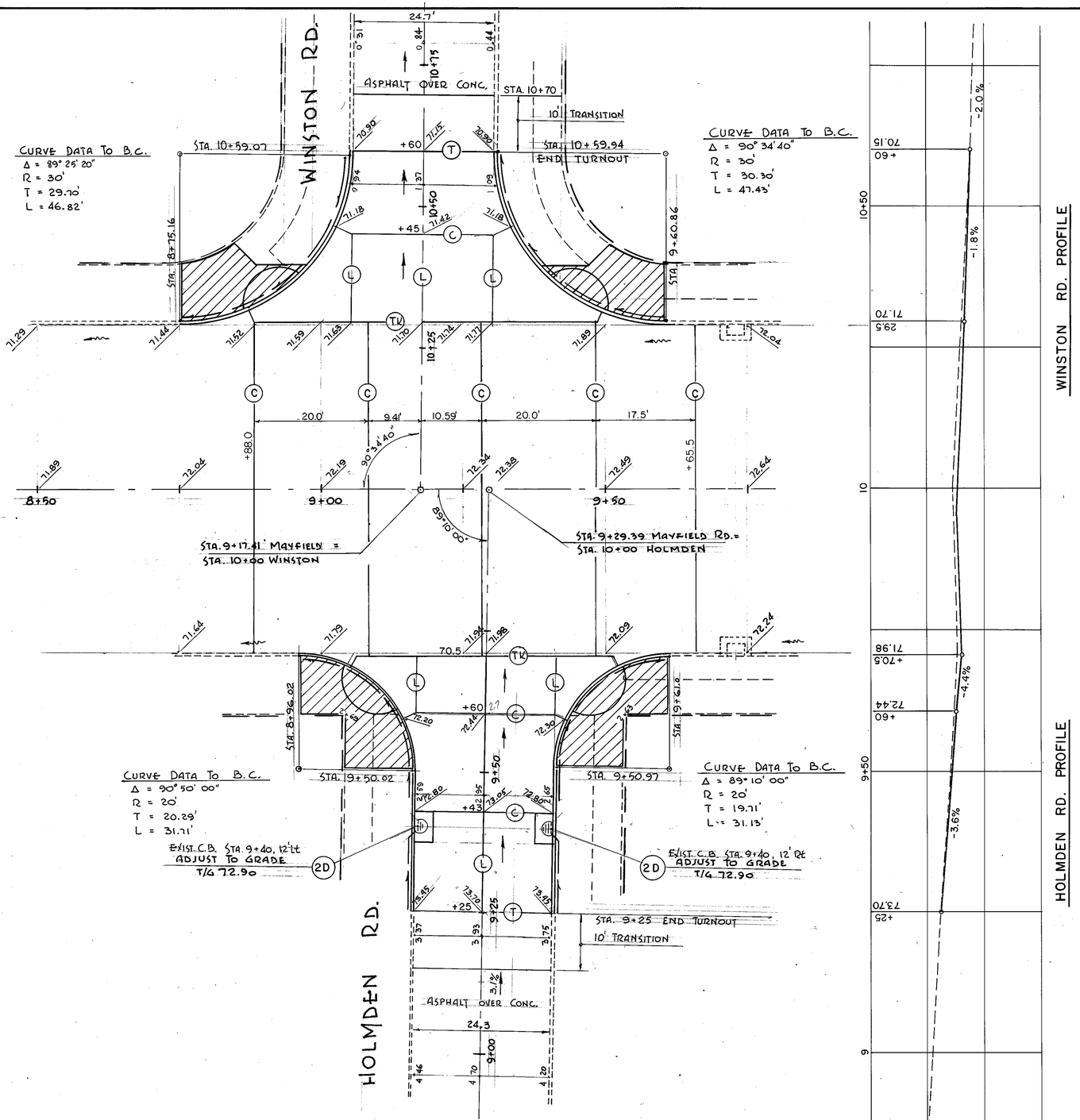
PLAINFIELD RD. — SHERBOOK AVE... INTERSECTION DETAILS

CALC. BY		NH-83(29)	OHIO	196
DATE			FHWA REGION	426
CHKD. BY				
DATE				

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

FOR EXTRA AREA QUANTITIES, SEE SHEET 33.
FOR EXISTING SIDE STREET TYPICAL SECTION, SEE SHEET 223.

ADD 900.00 TO ALL PLAN ELEVATIONS



WINSTON RD. — HOLMDEN RD...INTERSECTION DETAILS

BRUNING 44-132-67199

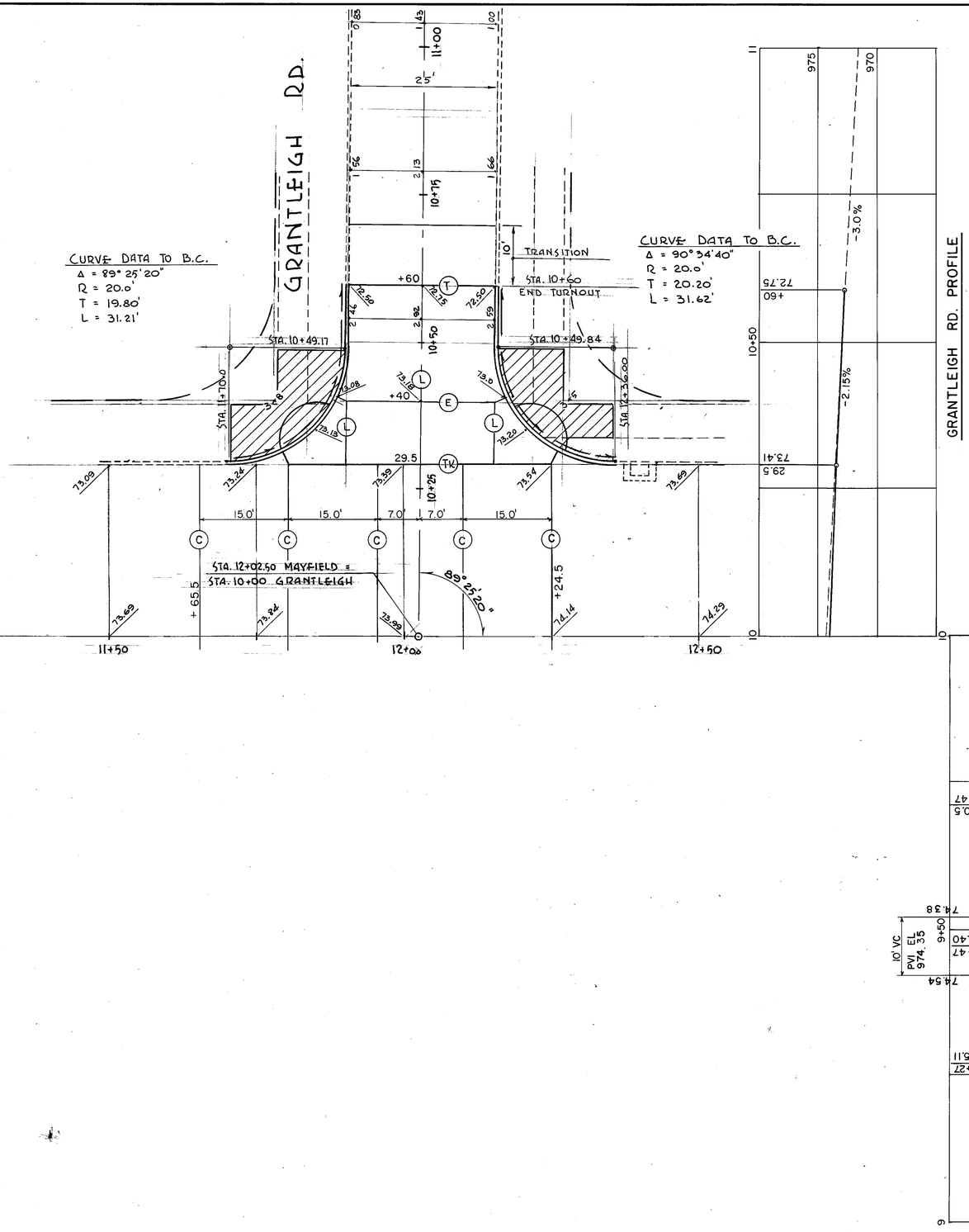
CALC. BY DATE	NH-83(29)	OHIO
CHKD. BY DATE		FHWA REGION

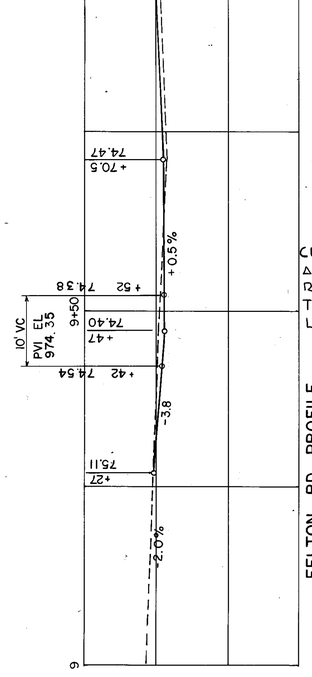
197
426

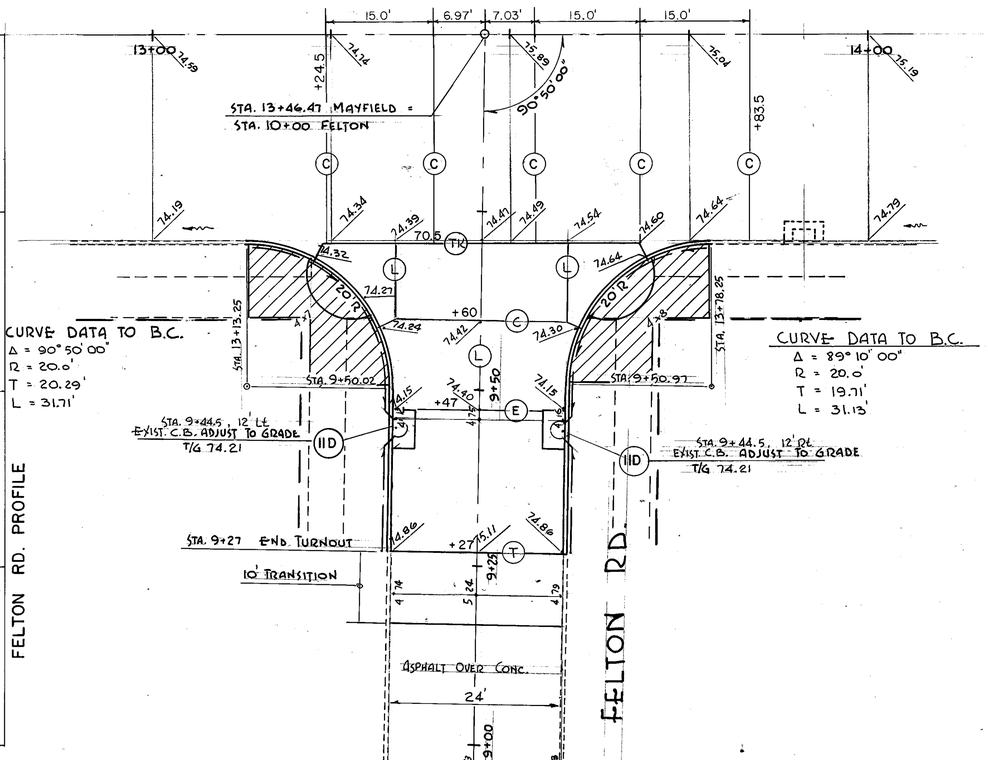
CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

FOR EXTRA AREA QUANTITIES, SEE SHEET 33.
FOR EXISTING SIDE STREET TYPICAL SECTION, SEE SHEET 223.

ADD 900.00 TO ALL PLAN ELEVATIONS



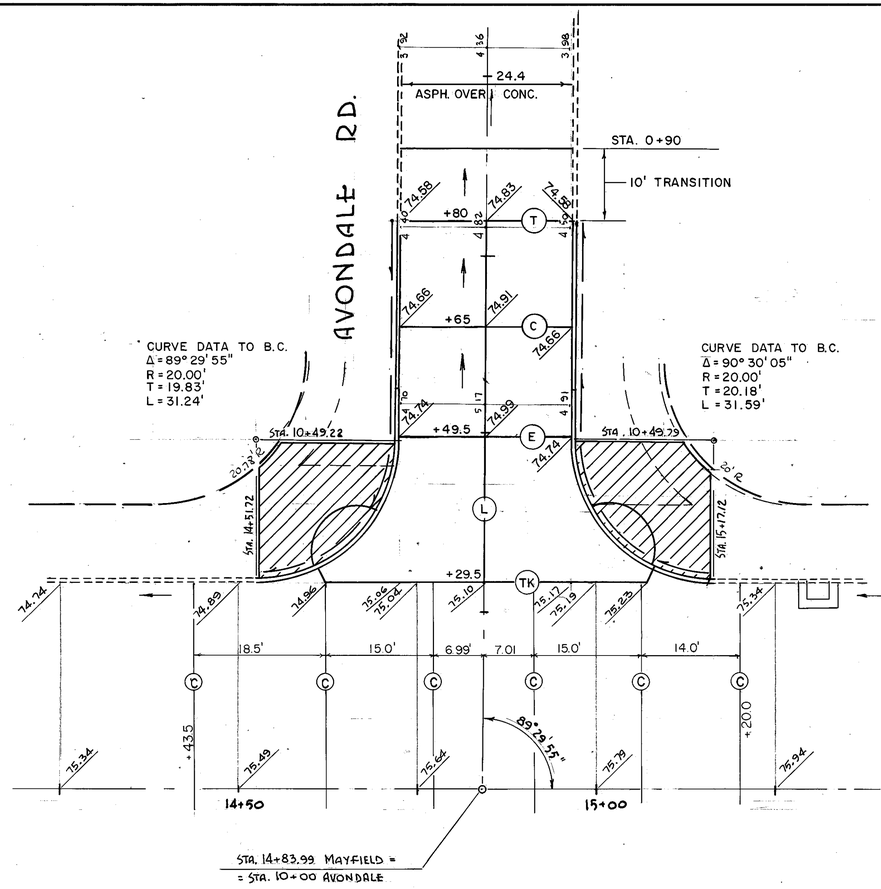


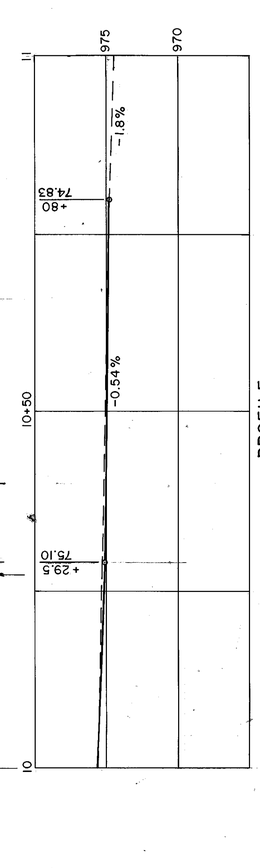


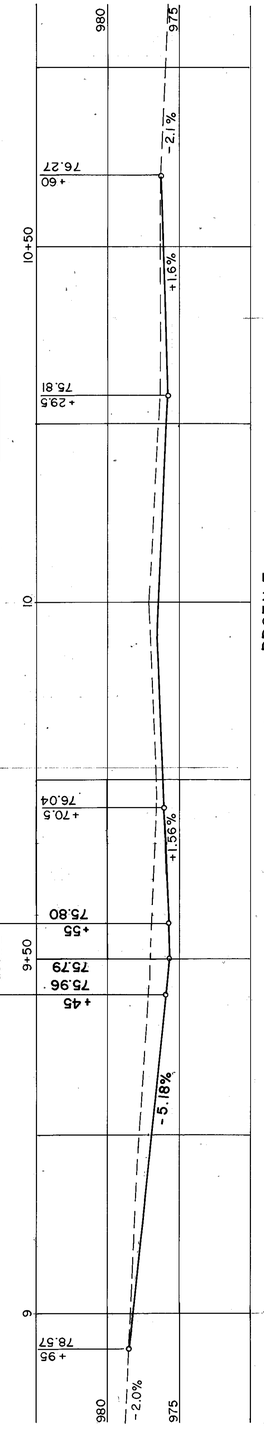
GRANTLEIGH RD. — FELTON RD...INTERSECTION DETAILS

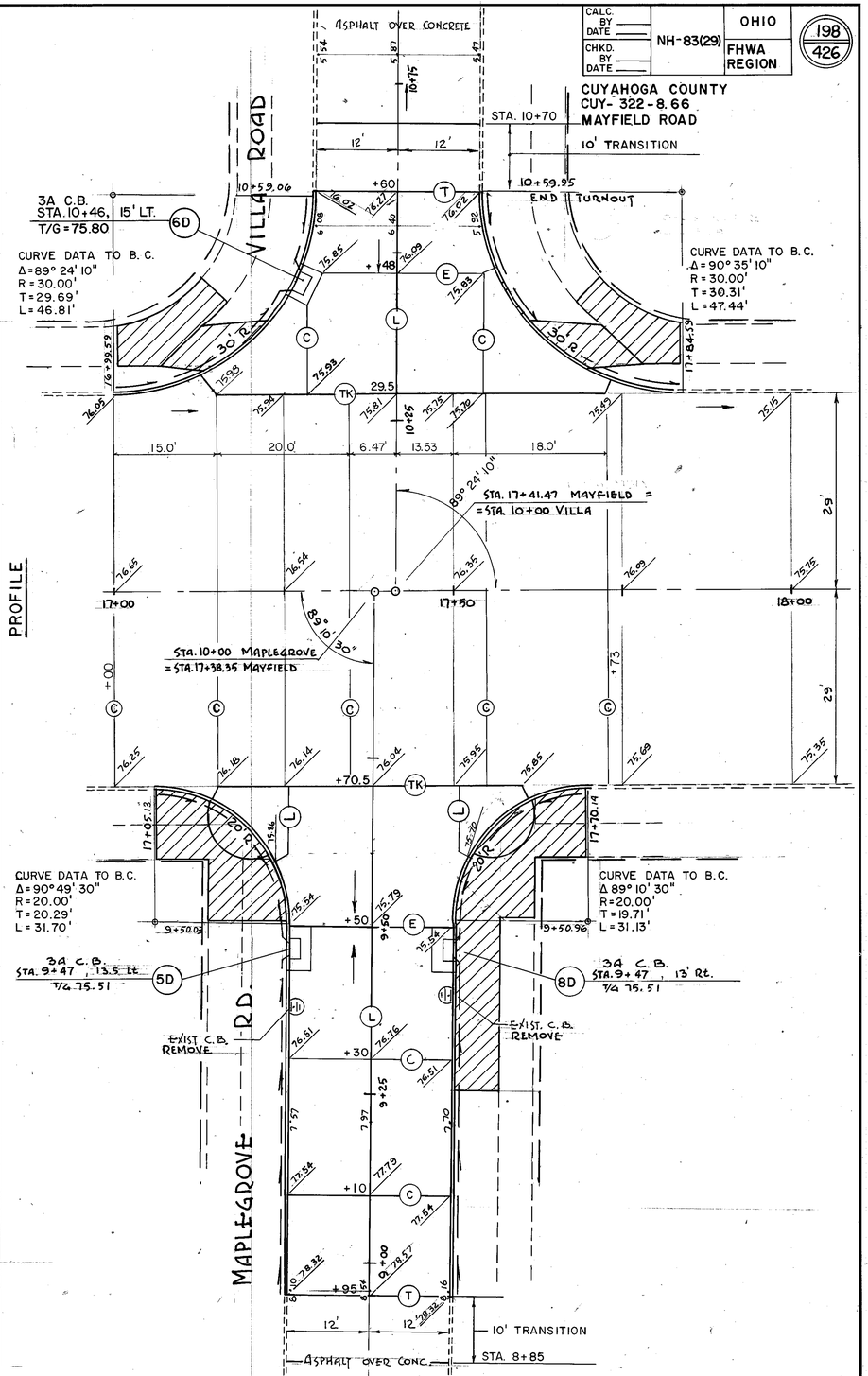
BRUNING 44-132 67199

CUYAHOGA COUNTY
CUY- 322 - 8.66
MAYFIELD ROAD









FOR EXTRA AREA QUANTITIES SEE SHEET 33.

FOR EXISTING SIDE STREET TYPICAL SECTION, SEE SHEET 223.

ADD 900.00 TO ALL PLAN ELEVATIONS

BRUNING 44-132-67199

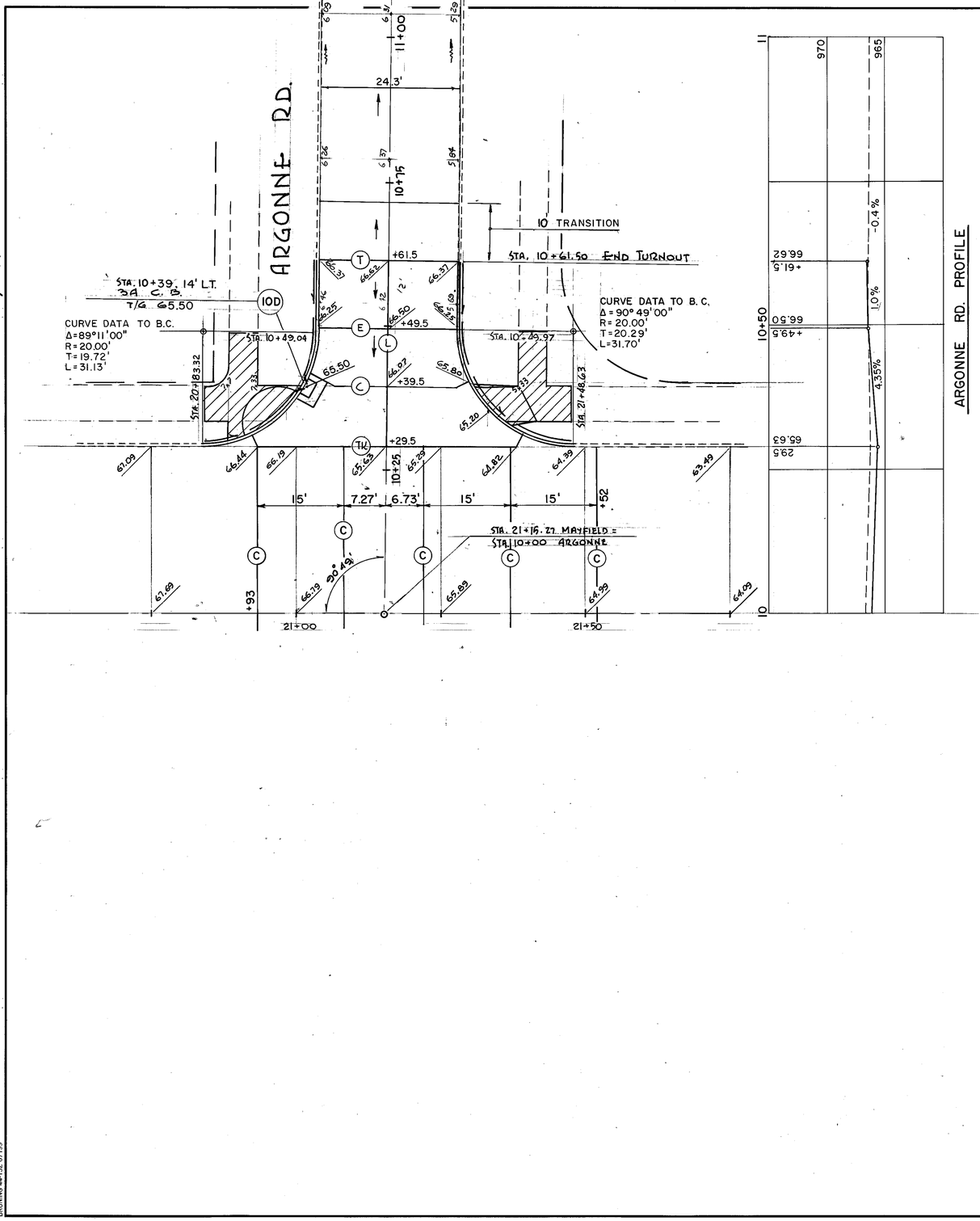
AVONDALE RD. – MAPLEGROVE RD. – VILLA RD.... INTERSECTION DETAILS

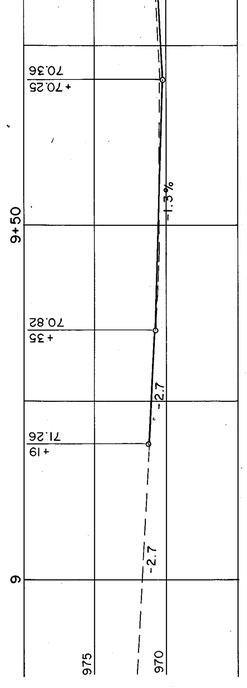
CALC. BY	NH-83(29)	OHIO	199
DATE		FHWA REGION	426
CHKD. BY			
DATE			

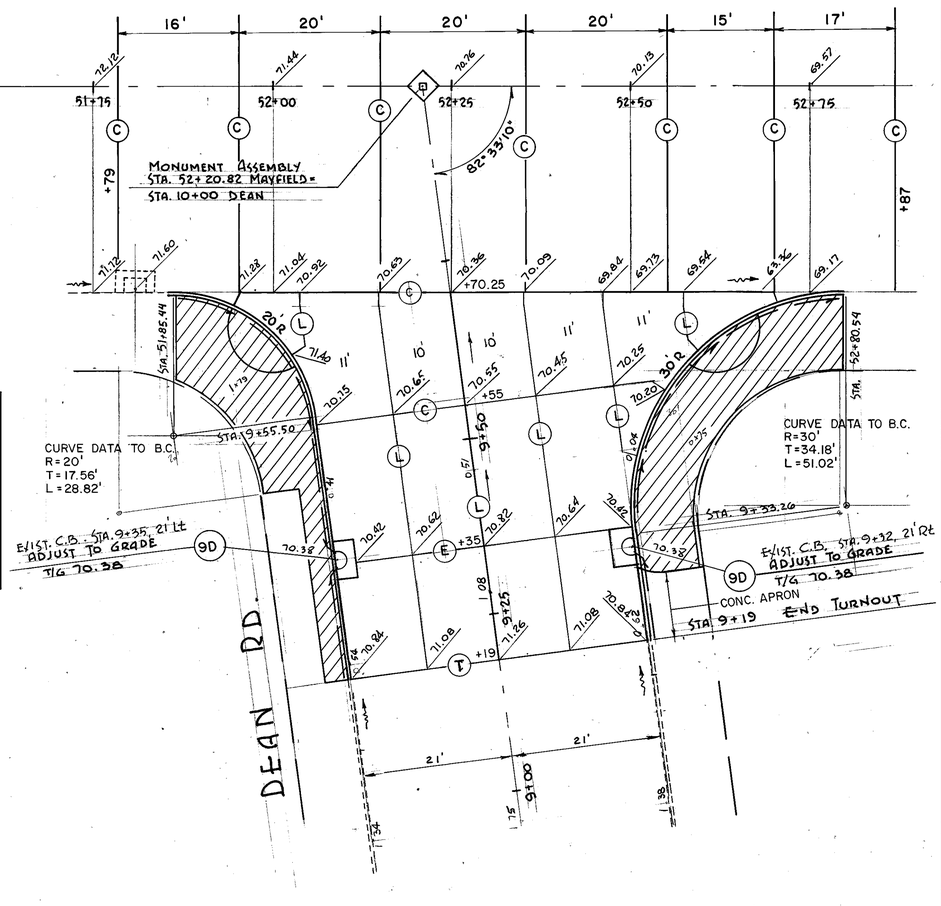
CUYAHOGA COUNTY
CUY.-322-8.66
MAYFIELD ROAD

FOR EXTRA AREA QUANTITIES, SEE SHEET 33.
FOR EXISTING SIDE STREET TYPICAL SECTION, SEE SHEET 223

ADD 900.00 TO ALL PLAN ELEVATIONS







ARGONNE RD.—DEAN RD. ...INTERSECTION DETAILS

BRUNING 44-132 67199

CALC. BY		NH-83(29)	OHIO	200
DATE			FHWA REGION	426
CHKD. BY				
DATE				

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

FOR EXTRA AREA QUANTITIES, SEE SHEET 33.
FOR EXISTING SIDE STREET TYPICAL SECTION, SEE SHEET 223.

ADD 900.00 TO ALL PLAN ELEVATIONS

BELVOIR BLVD.

35' 10' 25'

10' TRANSITION

STA. 10+76 END TURNOUT

STA. 10+54

STA. 10+55

LONGITUDINAL JOINT W/OUT TIE BARS

3A C.B.
STA. 24+75, 29' Lt.
T/G 59.16

3A C.B.
STA. 25+96, 29' Lt.
T/G 61.12

LONGITUDINAL JOINT

LONGITUDINAL JOINT

LONGITUDINAL JOINT W/OUT TIE BARS

LONGITUDINAL JOINT

STA. 25+36.20 MAYFIELD =
STA. 10+00 BELVOIR

89° 24' 35"

90°

24+25

25

26

26+50

20' (TYP)

BEGIN EXTRA AREA STA. 24+32

3A C.B.
STA. 24+75, 43.5' Rt.
T/G 59.12

68'R

60'R

C.B.
STA. 26+30, 29' Rt.
T/G 62.14

END EXTRA AREA STA. 26+39

STA. 9+02.5 END TURNOUT

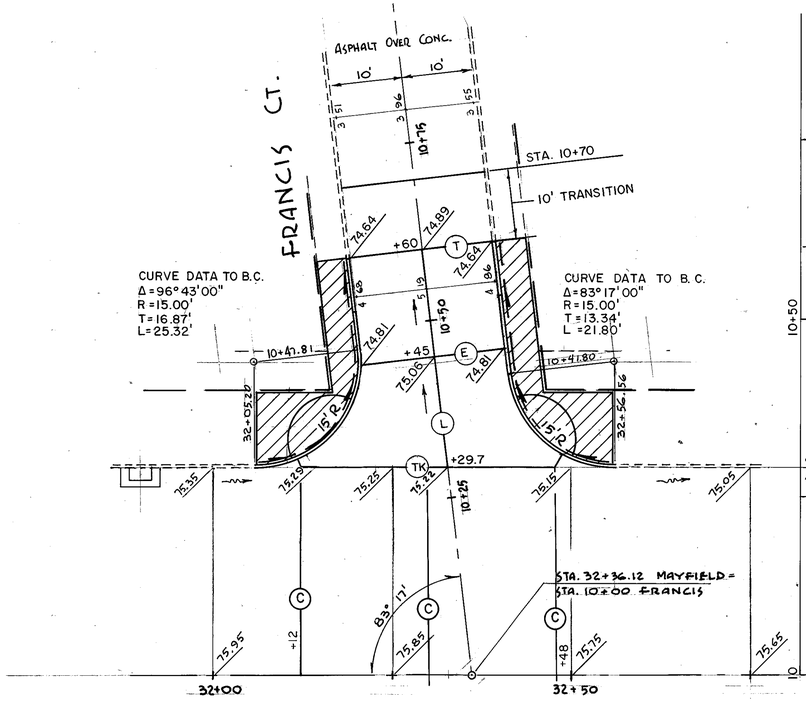
10' TRANSITION

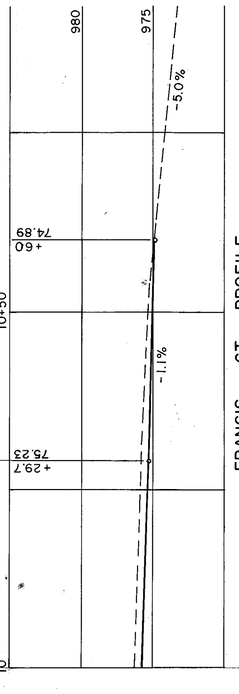
ASPHALT OVER CONCRETE
25' 10' 35'

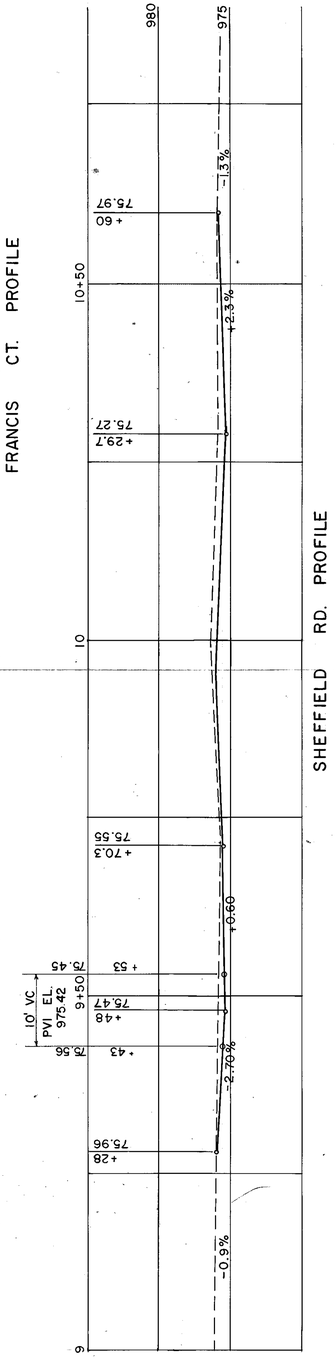
MAYFIELD ROAD

SOUTH BELVOIR BLVD...INTERSECTION DETAILS

BRUNING 44-132-67199

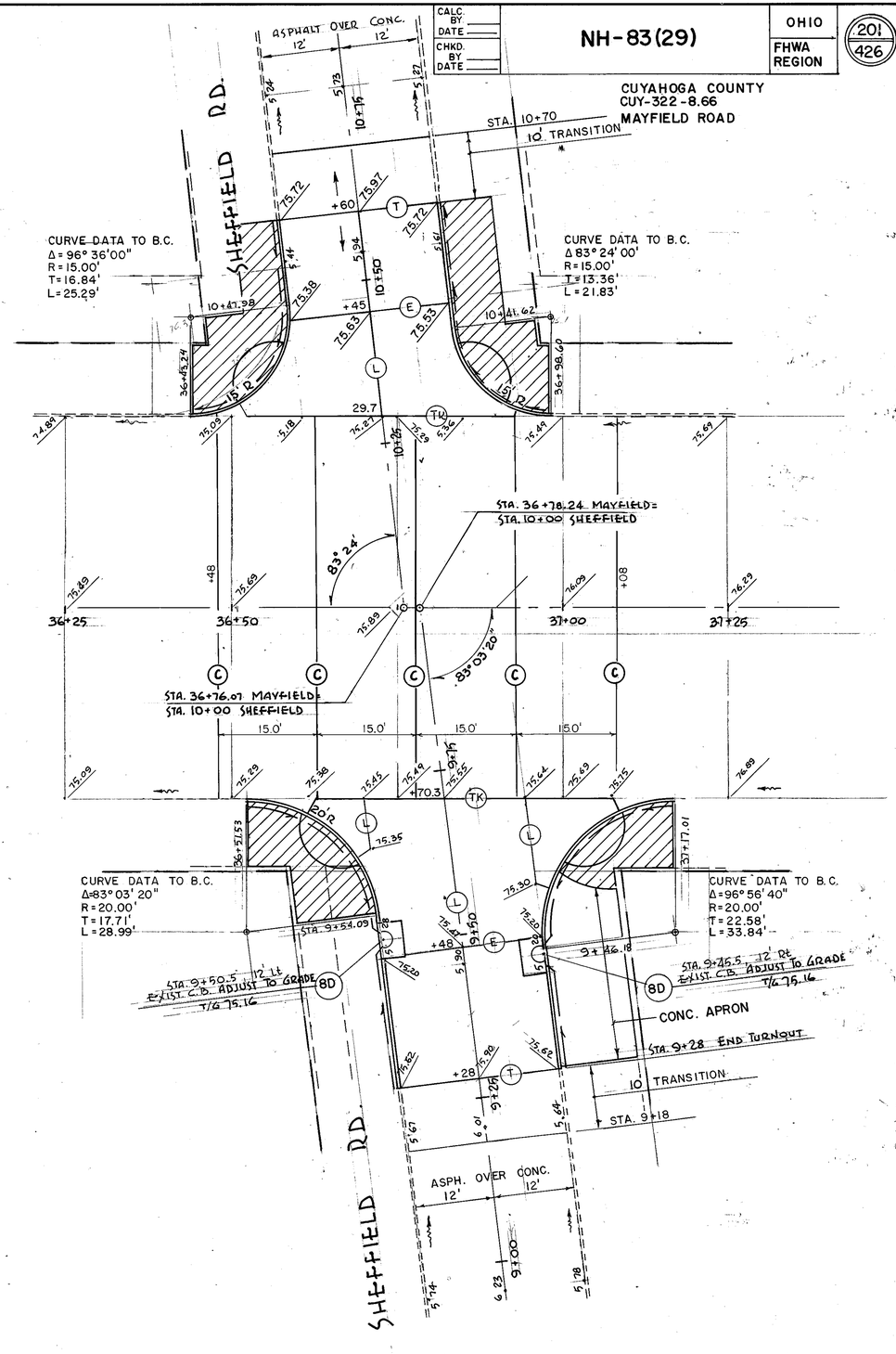






FOR EXTRA AREA QUANTITIES, SEE SHEET 33.
FOR EXISTING SIDE STREET TYPICAL SECTION, SEE SHEET 223.

ADD 900.00 TO ALL PLAN ELEVATIONS



FRANCIS CT.– SHEFFIELD RD...INTERSECTION DETAILS

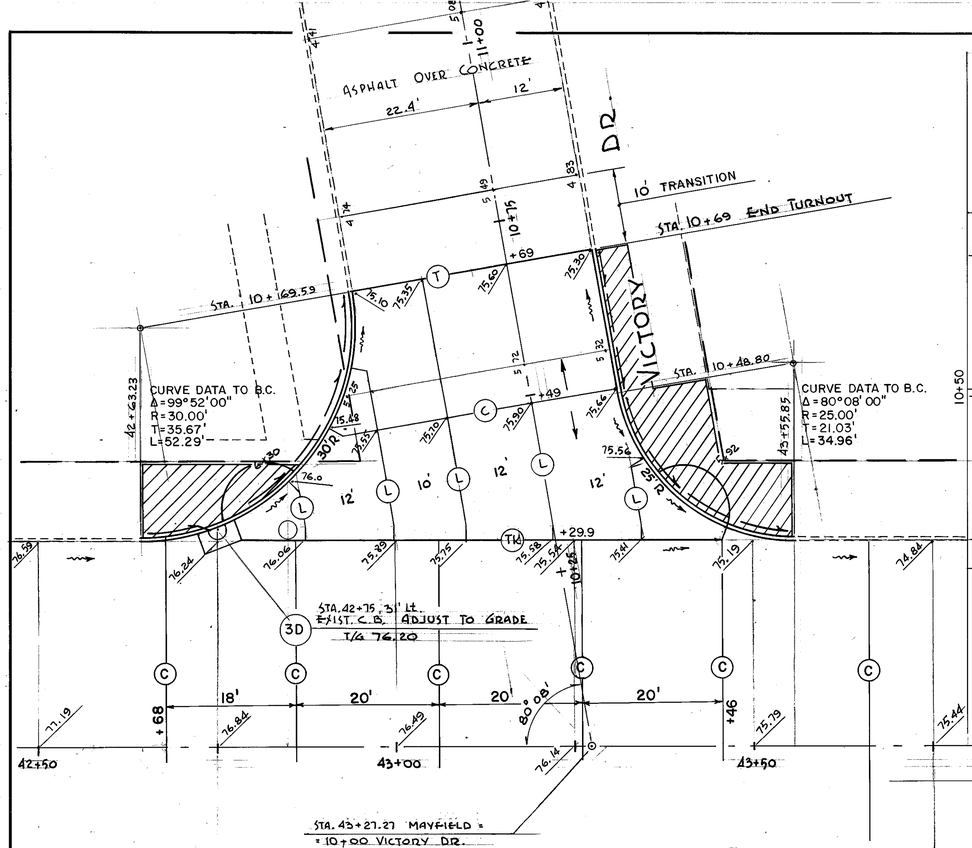
BRUNING 44-132-67199

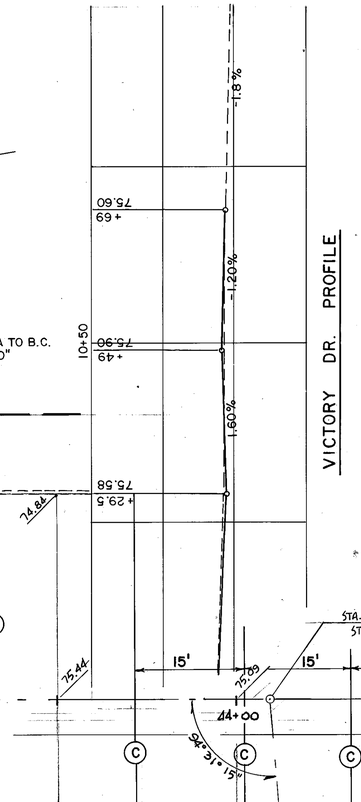
CALC. BY		NH-83(29)	OHIO	202
DATE			FHWA REGION	426
CHKD. BY				
DATE				

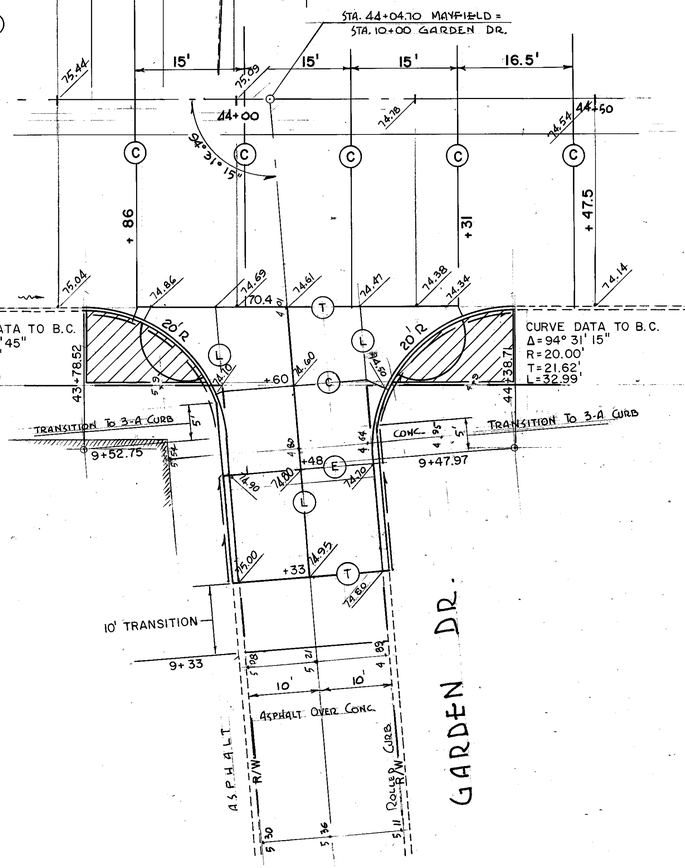
CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

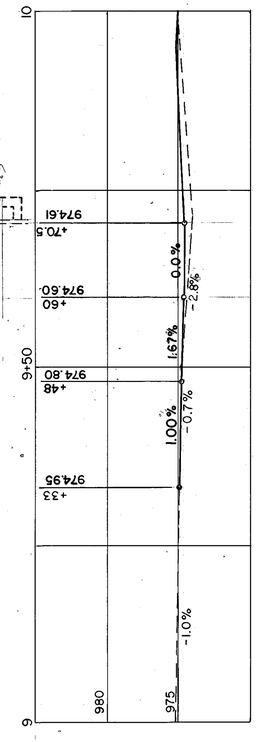
FOR EXTRA AREA QUANTITIES, SEE SHEET 33.
FOR EXISTING SIDE STREET TYPICAL SECTION, SEE SHEET 223.

ADD 900.00 TO ALL PLAN ELEVATIONS









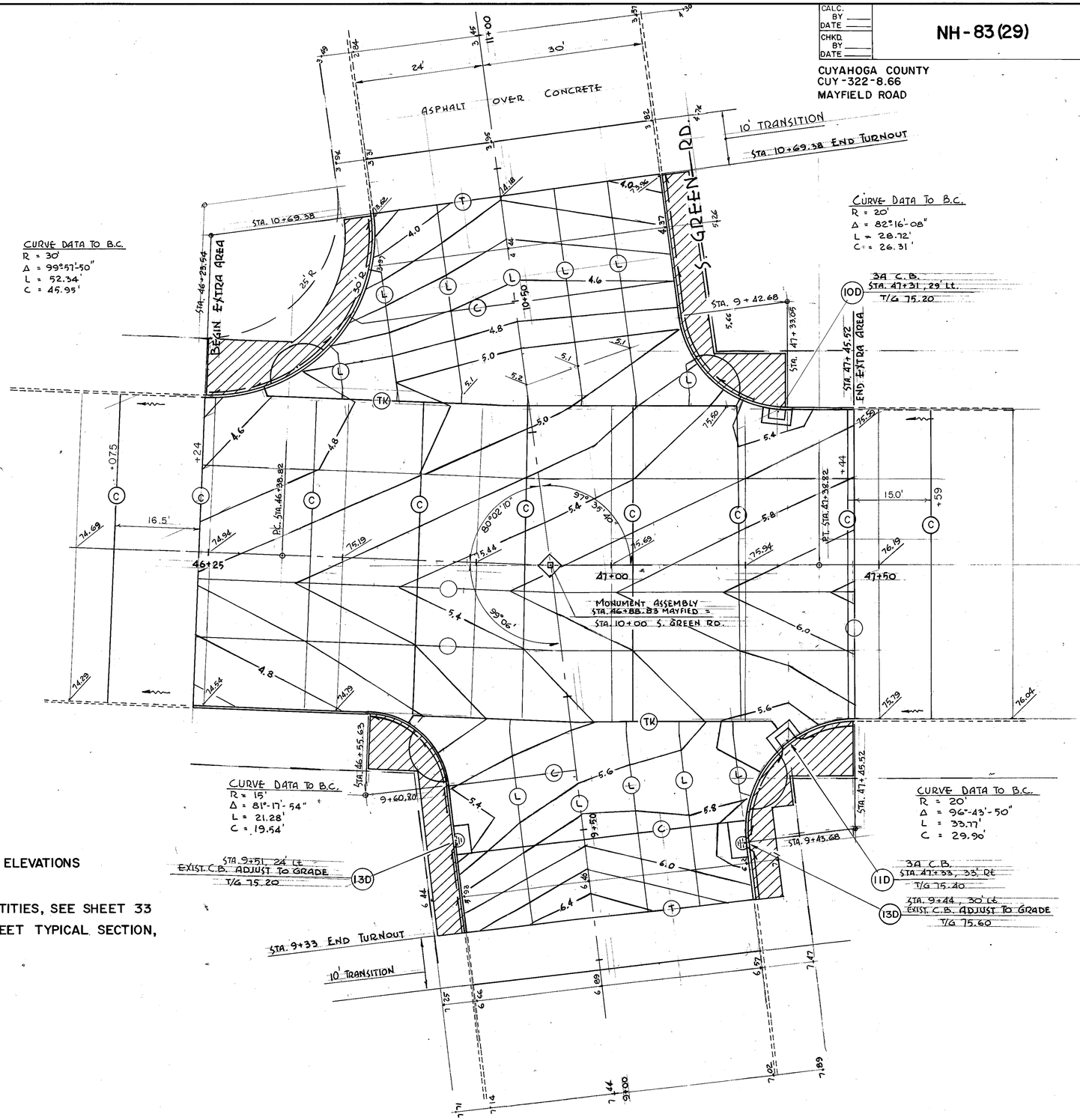
MAYFIELD ROAD

VICTORY DR. - GARDEN DR....INTERSECTION DETAILS

BRUNING 44-132 67199

CALC. BY		NH-83(29)	OHIO	203
DATE				426
CHKD. BY			FHWA REGION	
DATE				

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



ADD 900.00 TO ALL PLAN ELEVATIONS

FOR EXTRA AREA QUANTITIES, SEE SHEET 33

FOR EXISTING SIDE STREET TYPICAL SECTION, SEE SHEET 223

MAYFIELD ROAD

GREEN RD....INTERSECTION DETAILS

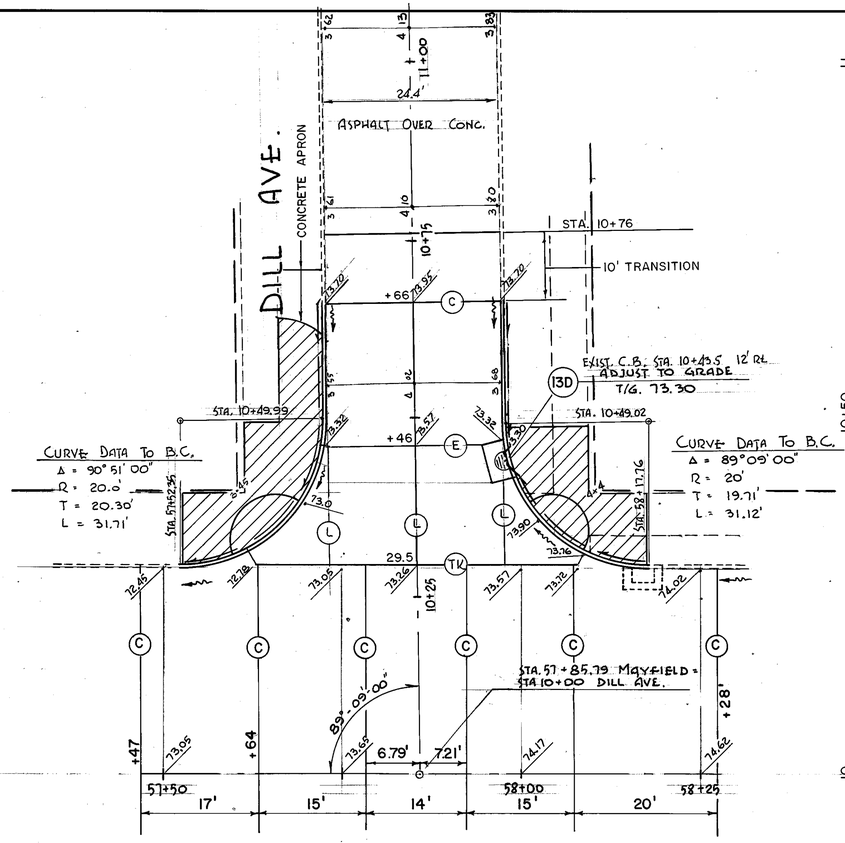
BRUNING 44-132 67199

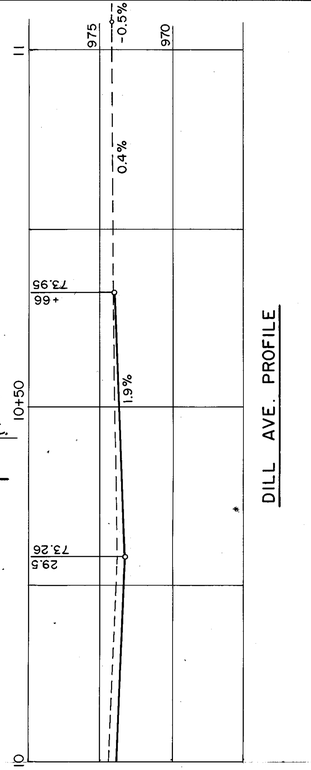
CALC. BY / DATE	NH-83(29)	OHIO	204 / 426
CHKD. BY / DATE		FHWA REGION	

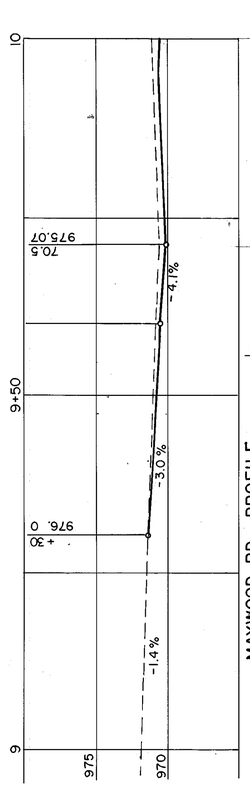
CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

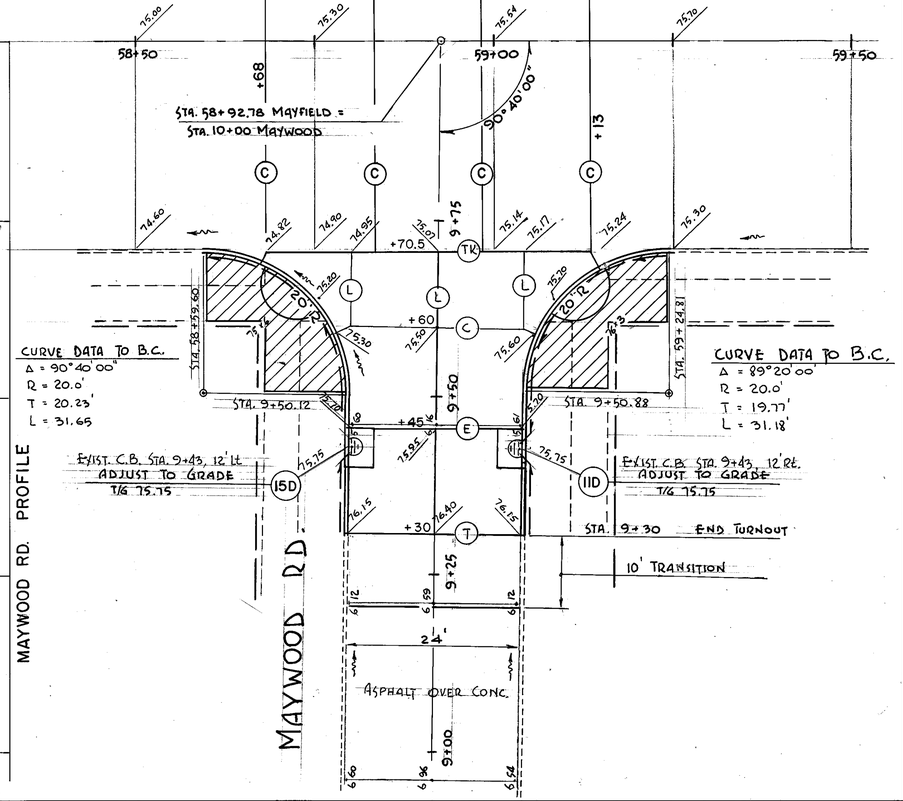
FOR EXTRA AREA QUANTITIES, SEE SHEET 33.
FOR EXISTING SIDE STREET TYPICAL SECTION, SEE SHEET 223.

ADD 900.00 TO ALL PLAN ELEVATIONS







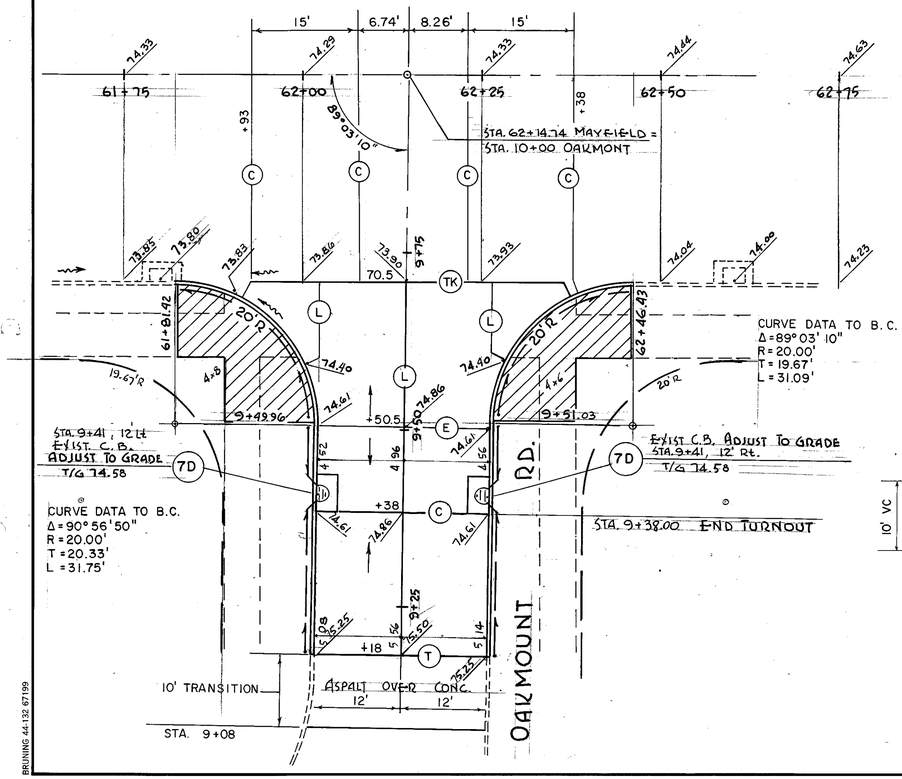


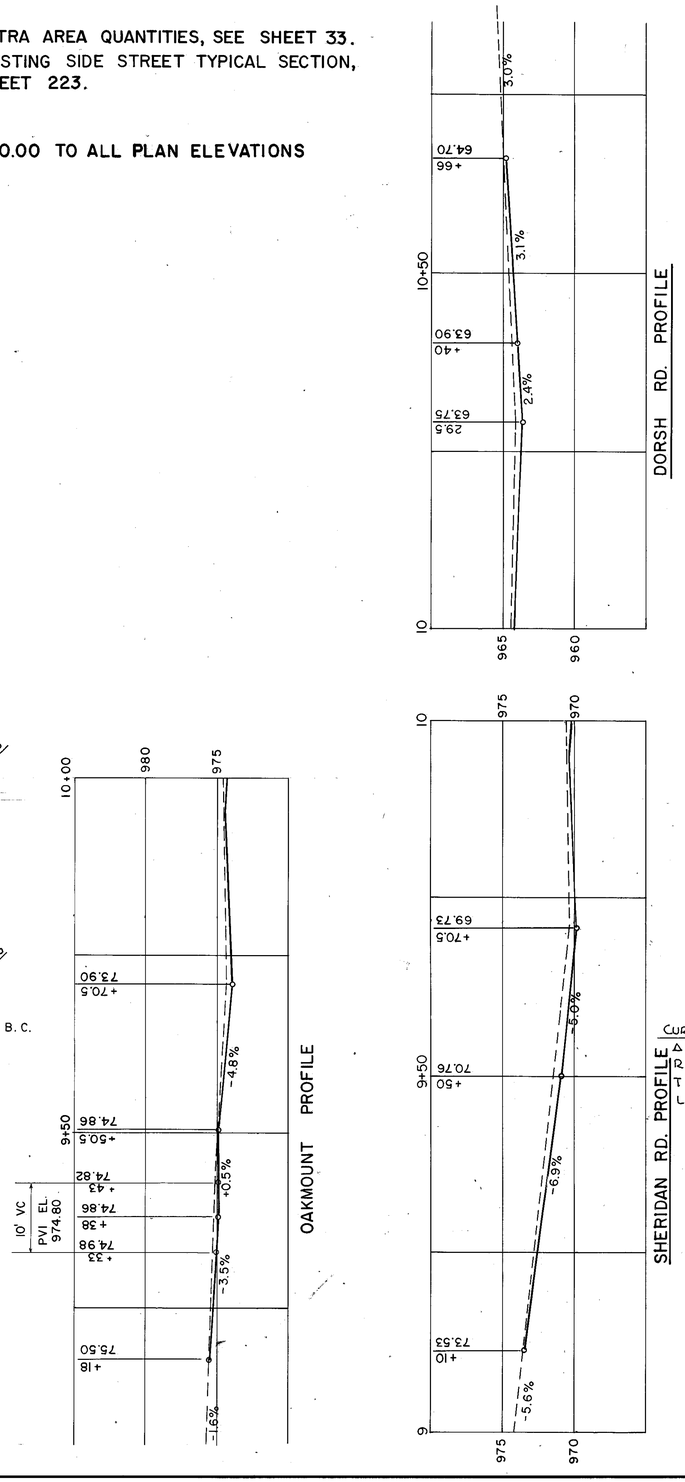
DILL AVE. — MAYWOOD RD. ... INTERSECTION DETAILS

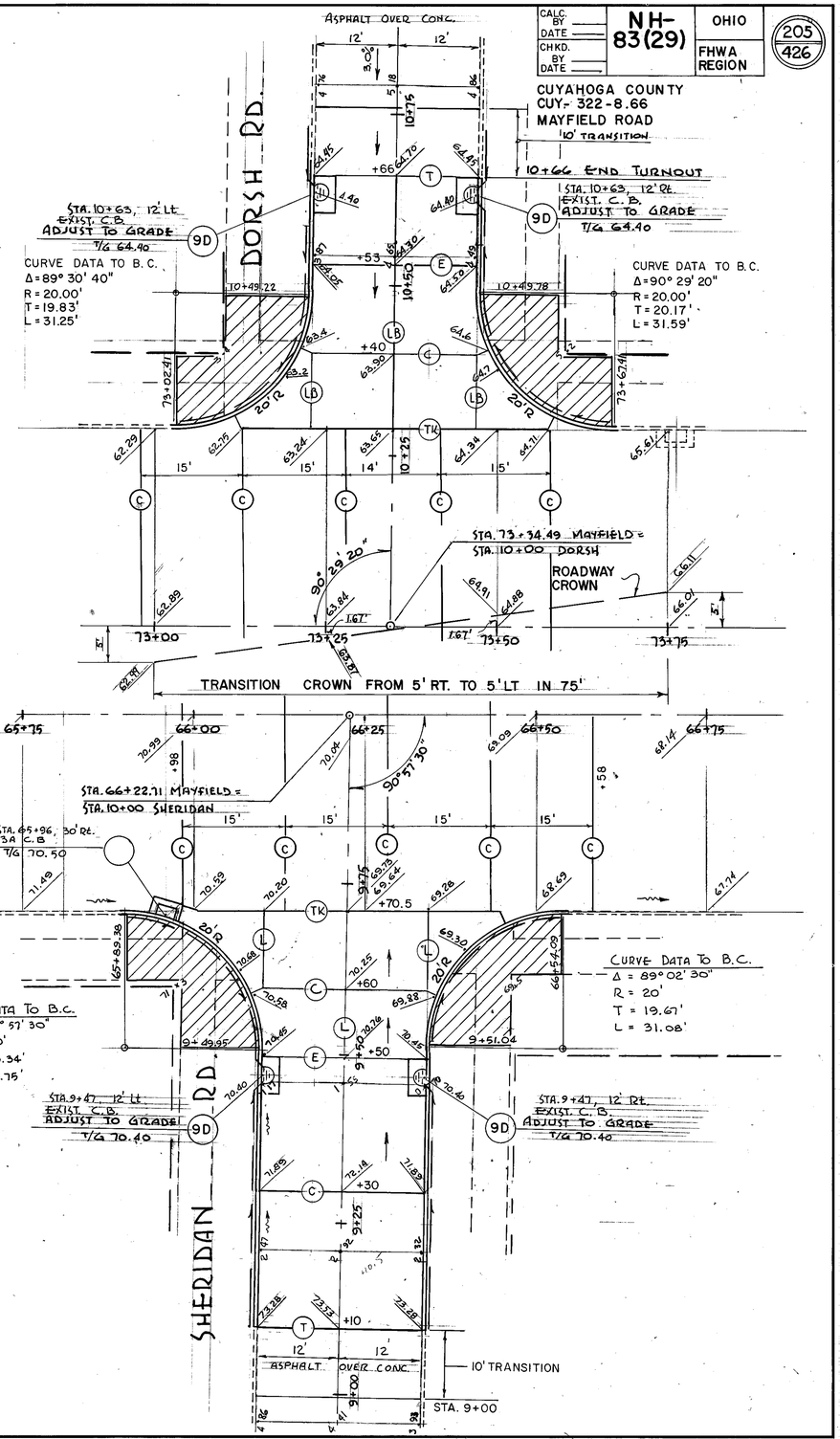
BRUNING 44-132 67199

FOR EXTRA AREA QUANTITIES, SEE SHEET 33.
FOR EXISTING SIDE STREET TYPICAL SECTION, SEE SHEET 223.

ADD 900.00 TO ALL PLAN ELEVATIONS







CALC BY — DATE —
CHKD. BY — DATE —
NH-83(29)
OHIO
FHWA REGION
205
426

CUYAHOGA COUNTY
CUY- 322-8.66
MAYFIELD ROAD

BRUNING 44-132 67199

OAKMOUNT RD. — SHERIDAN RD. — DORSH RD. ... INTERSECTION DETAILS

FHWA REGION	STATE	PROJECT	
5	OHIO		

206
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

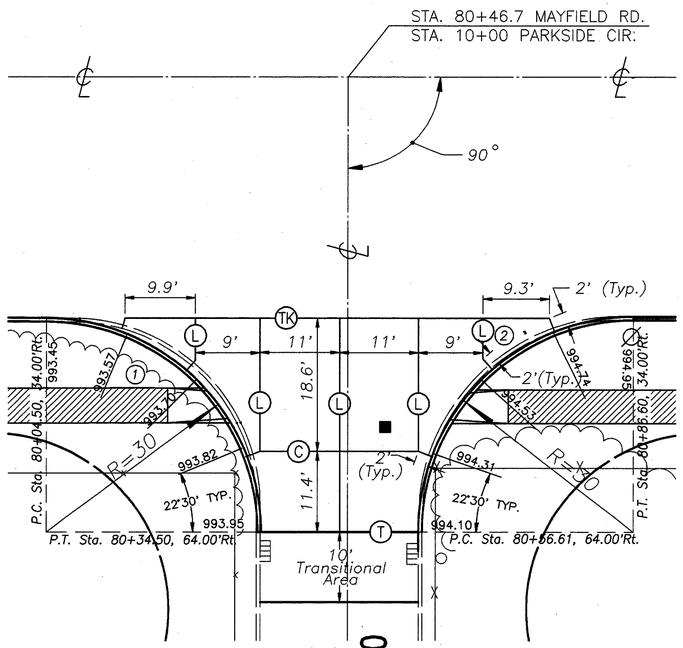
INTERSECTION DETAILS

① △ = 90°00'00"
R = 30.00'
L = 47.12'
C = 42.43'
T = 30.00'

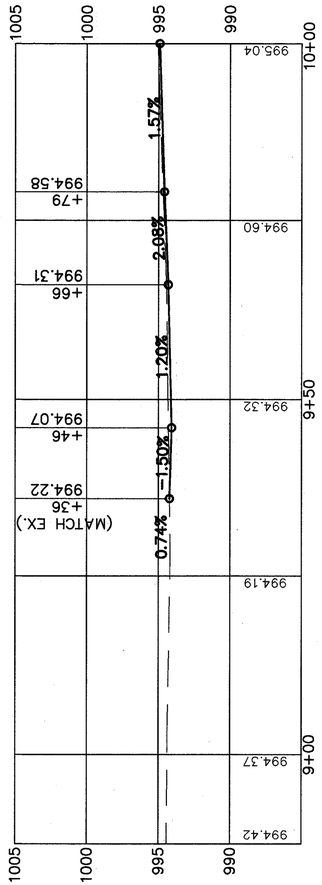
② △ = 90°00'00"
R = 30.00'
L = 47.12'
C = 42.43'
T = 30.00'

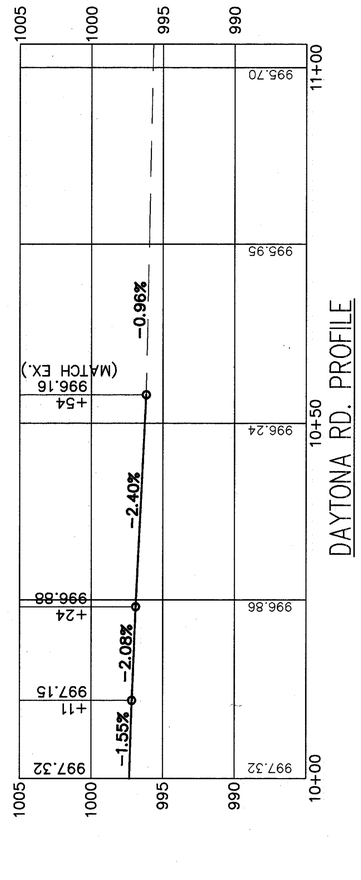
③ △ = 90°00'00"
R = 30.00'
L = 47.12'
C = 42.43'
T = 30.00'

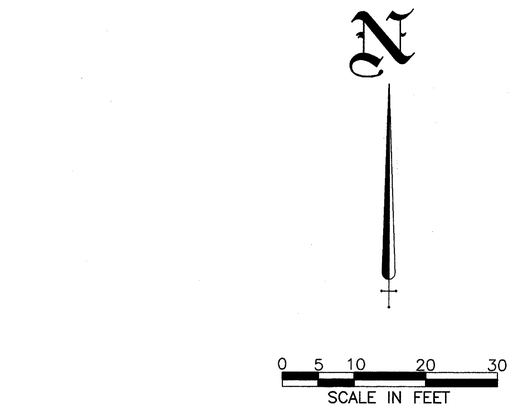
④ △ = 90°00'00"
R = 30.00'
L = 47.12'
C = 42.43'
T = 30.00'

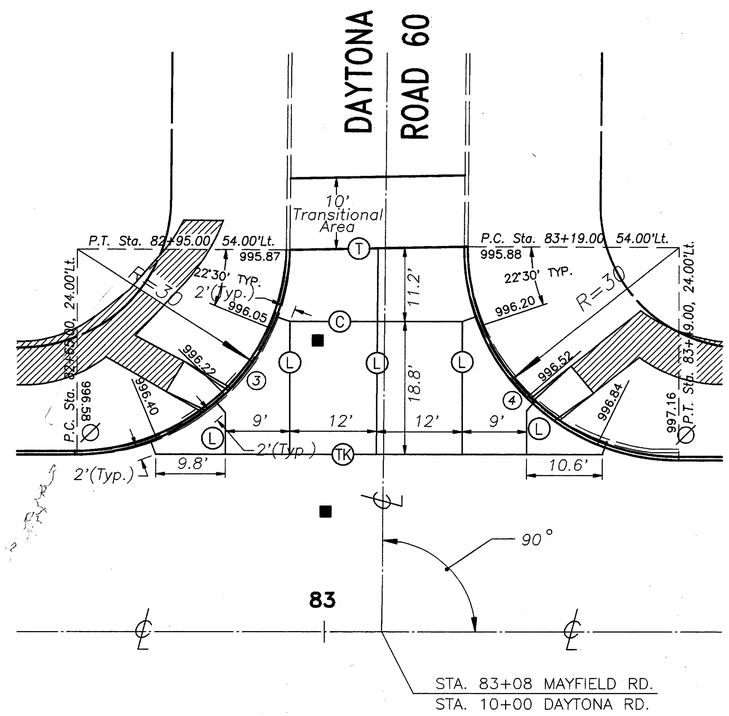


Indicates Existing Concrete Walk To Be Removed And Replaced.









MAYFIELD ROAD

For Intersection Quantities See Sheet No. 34.
For Joint Legend and Typical Intersection Detail See Sheet No. 194.

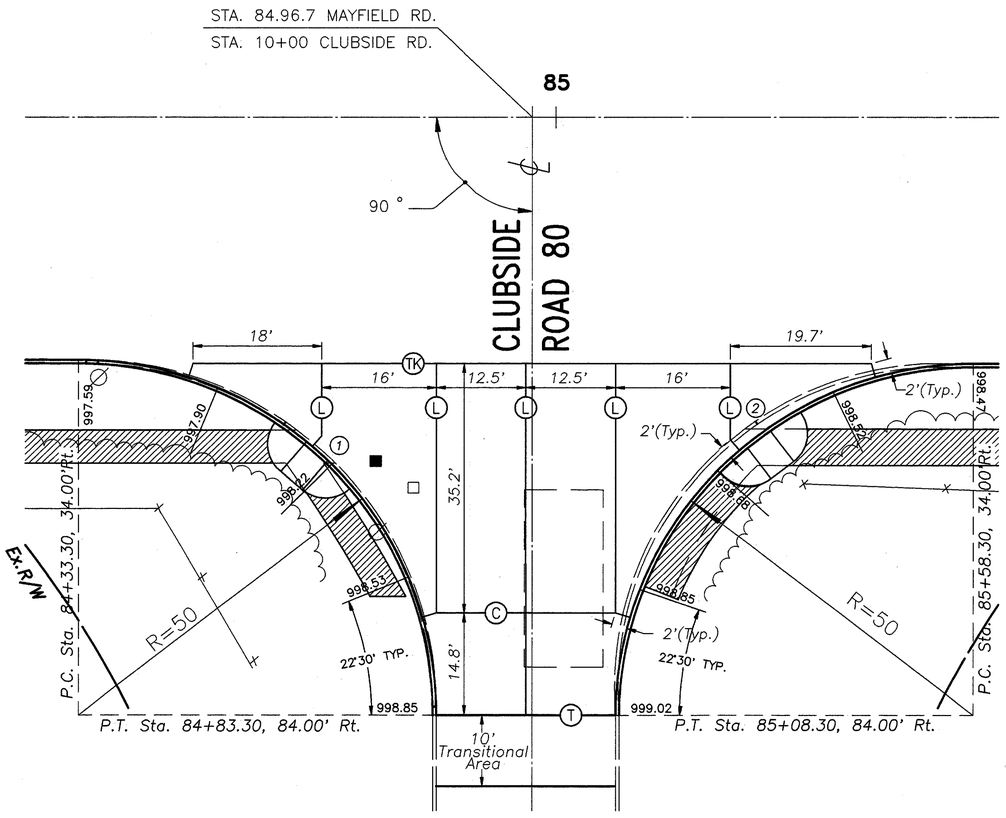
INTERSECTION DETAIL

FHWA REGION	STATE	PROJECT	
5	OHIO		

207
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

INTERSECTION DETAILS


STA. 84.96.7 MAYFIELD RD.
STA. 10+00 CLUBSIDE RD.
85
90 °
CLUBSIDE ROAD 80
18'
19.7'
16'
12.5'
12.5'
16'
TK
2'(Typ.)
2'(Typ.)
997.59
997.90
998.47
998.53
998.85
998.85
998.85

INTERSECTION DETAILS

FHWA REGION	STATE	PROJECT	
5	OHIO		

208
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

0 5 10 20 30
SCALE IN FEET

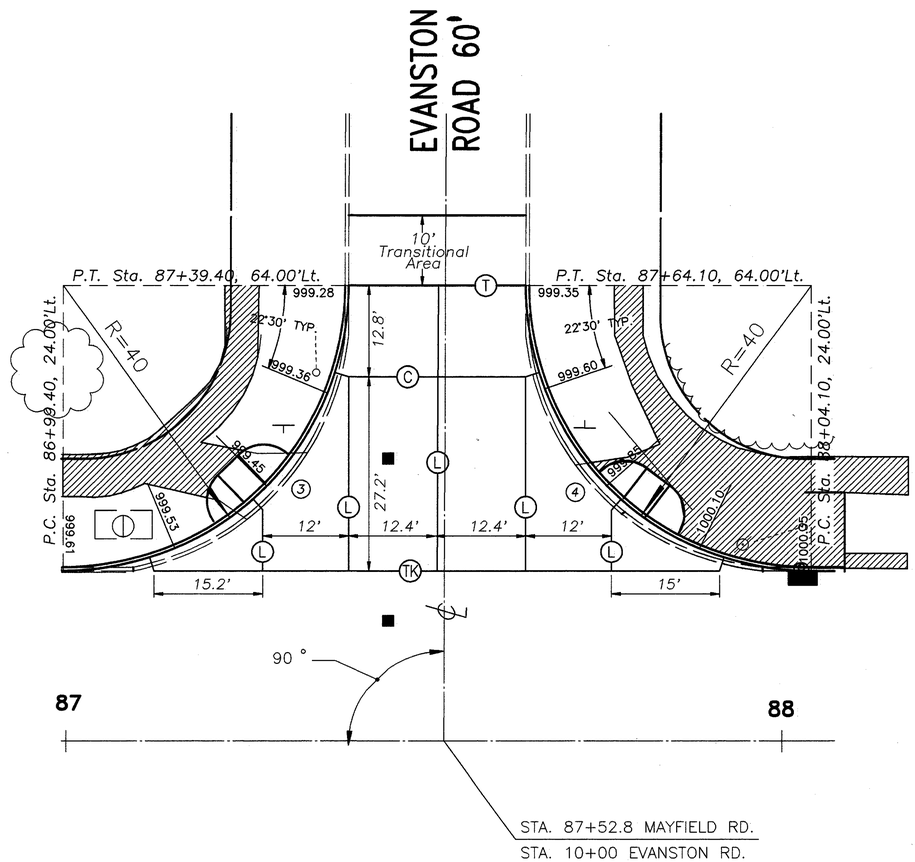
N

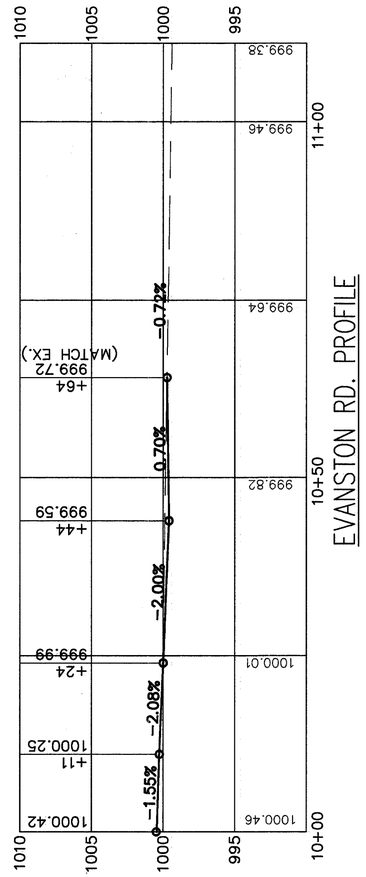
③

△ = 90°00'00"
R = 40.00'
L = 62.83'
C = 56.57'
T = 40.00'

④

△ = 90°00'00"
R = 40.00'
L = 62.83'
C = 56.57'
T = 40.00'





Indicates Existing Concrete Walk To Be Removed And Replaced.

For Intersection Quantities See Sheet No. 34 .
For Joint Legend and Typical Intersection Detail See Sheet No. 194 .

MAYFIELD ROAD

INTERSECTION DETAIL

FHWA REGION	STATE	PROJECT	
5	OHIO		

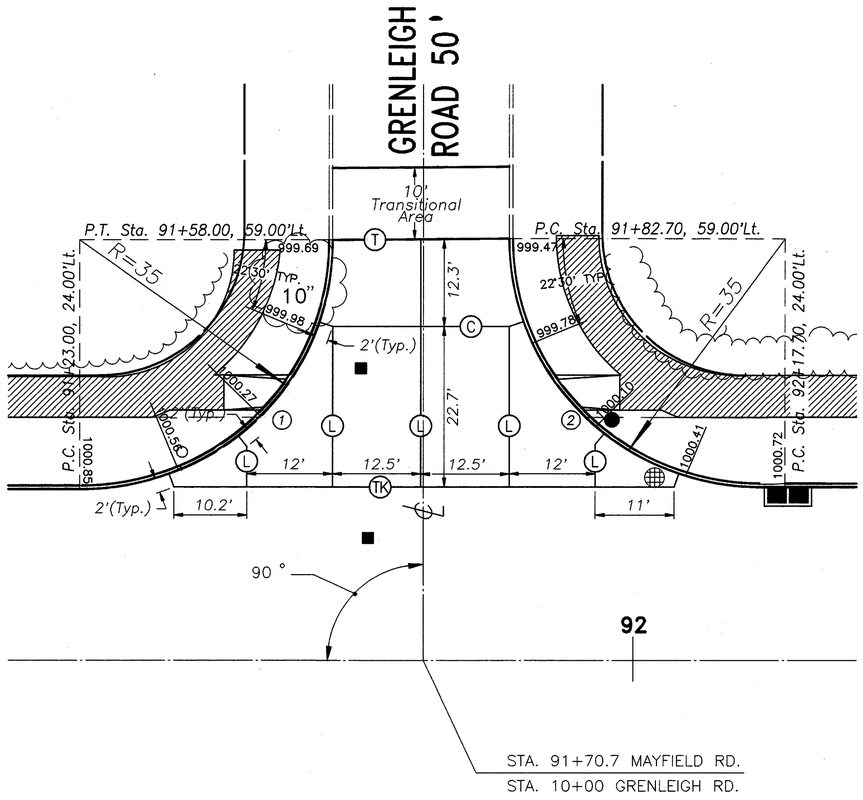
209
426

CUYAHOGA COUNTY
CUY –322–8.66
MAYFIELD ROAD

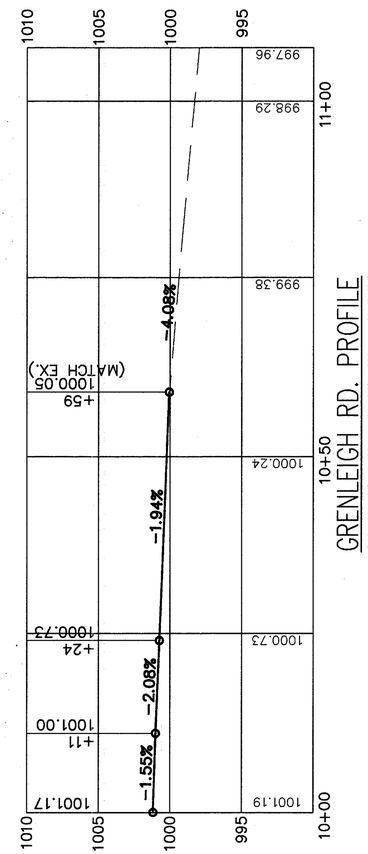
INTERSECTION DETAILS

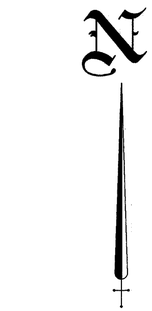
①
△ = 90°00'00"
R = 35.00'
L = 54.98'
C = 49.50'
T = 35.00'

②
△ = 90°00'00"
R = 35.00'
L = 54.98'
C = 49.50'
T = 35.00'



Indicates Existing Concrete Walk To Be Removed And Replaced.





0 5 10 20 30
SCALE IN FEET

For Intersection Quantities See Sheet No. 34 .
For Joint Legend and Typical Intersection Detail See Sheet No. 194 .

MAYFIELD ROAD

INTERSECTION DETAIL

FHWA REGION	STATE	PROJECT	
5	OHIO		

210
426

CUYAHOGA COUNTY
CUY –322–8.66
MAYFIELD ROAD

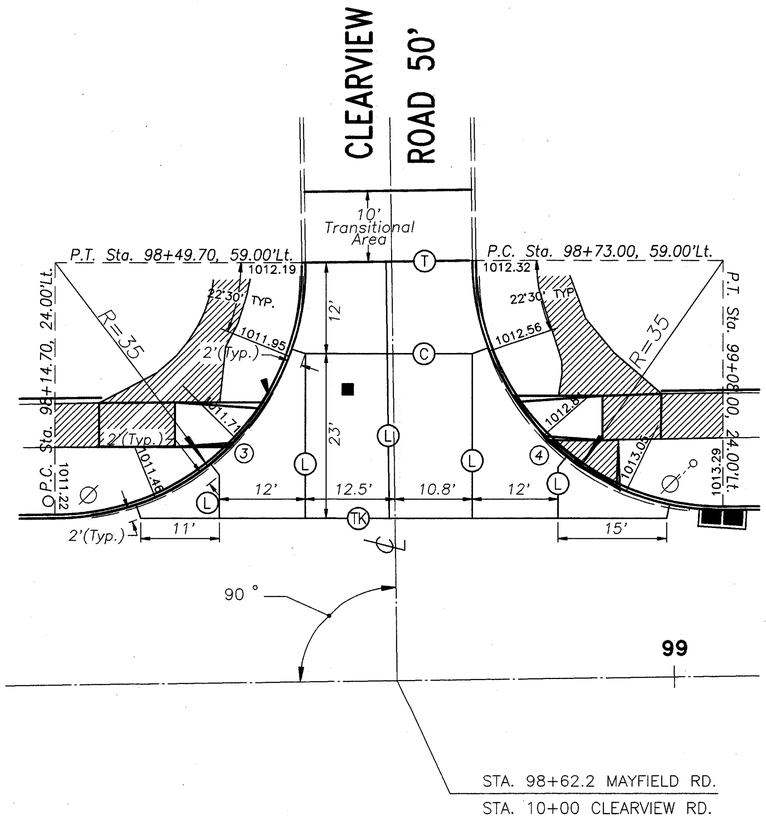
INTERSECTION DETAILS

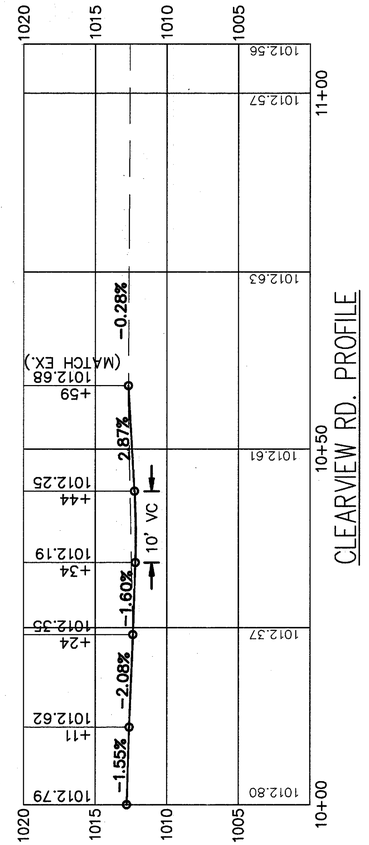
③

$\triangle$ = 90°00'00"
R = 35.00'
L = 54.98'
C = 49.50'
T = 35.00'

④

$\triangle$ = 90°00'00"
R = 35.00'
L = 54.98'
C = 49.50'
T = 35.00'







0 5 10 20 30
SCALE IN FEET

Indicates Existing Concrete Walk To Be Removed And Replaced.

For Intersection Quantities See Sheet No. 34 .
For Joint Legend and Typical Intersection Detail See Sheet No. 194 .

MAYFIELD ROAD

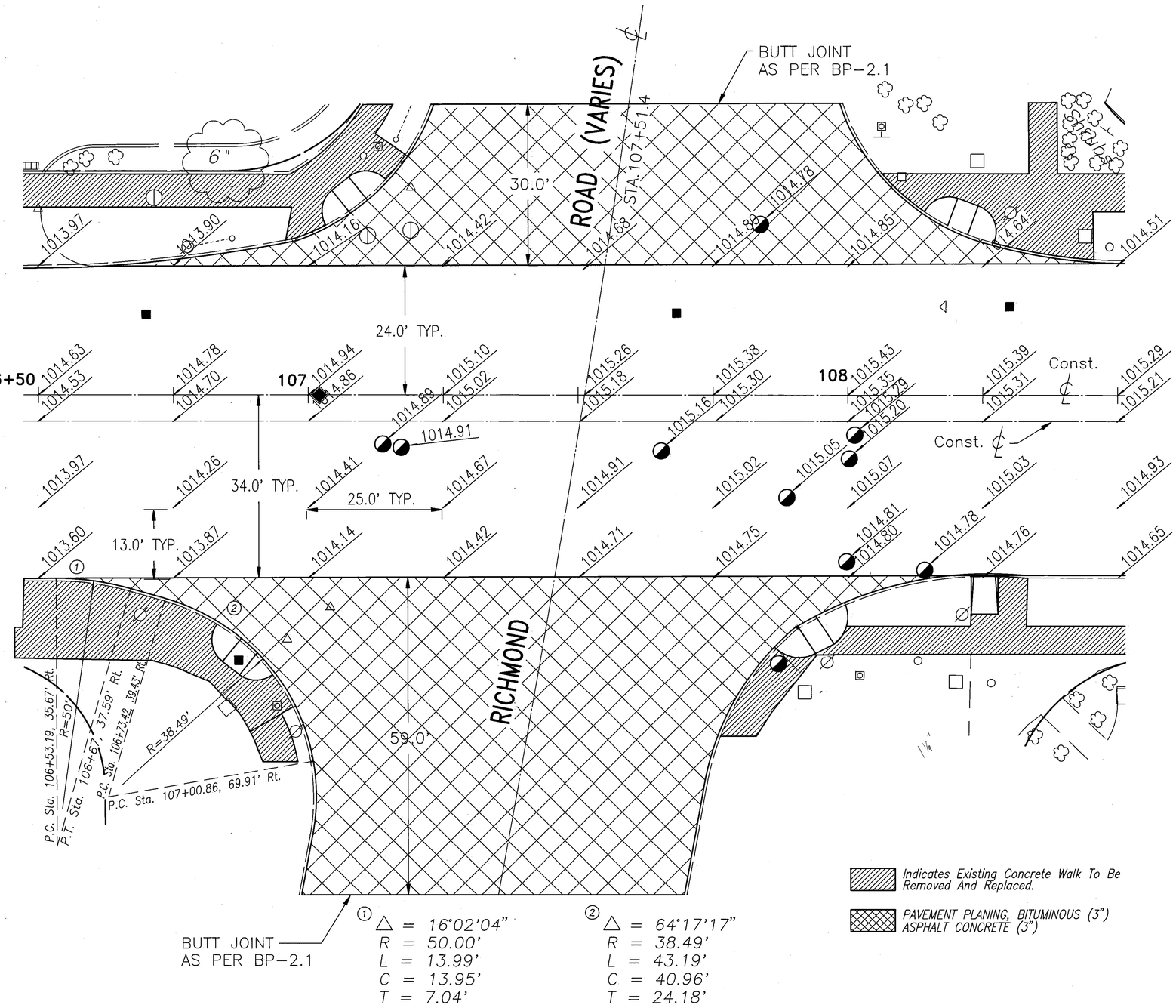
INTERSECTION DETAIL

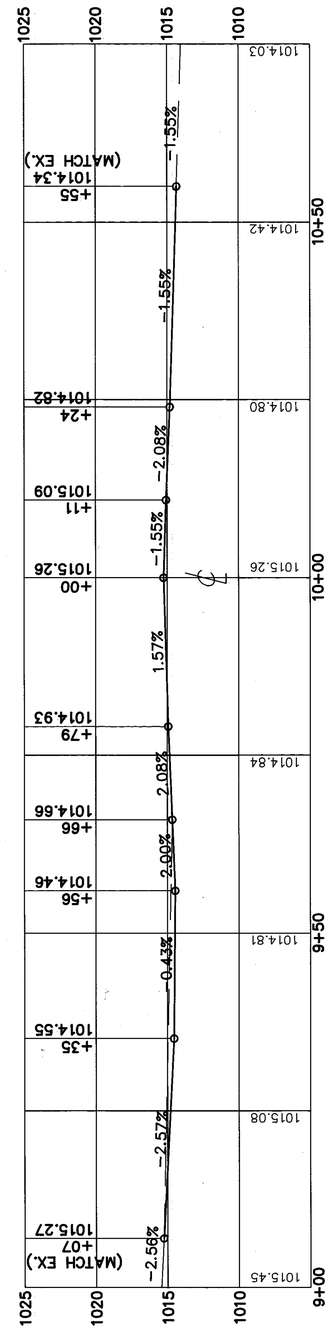
INTERSECTION DETAILS

FHWA REGION	STATE	PROJECT	
5	OHIO		

211/426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD







0 5 10 20 30
SCALE IN FEET

RICHMOND RD. PROFILE

MAYFIELD ROAD

For Intersection Quantities See Sheet No. 34.

INTERSECTION DETAIL

FHWA REGION	STATE	PROJECT	
5	OHIO		

212
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

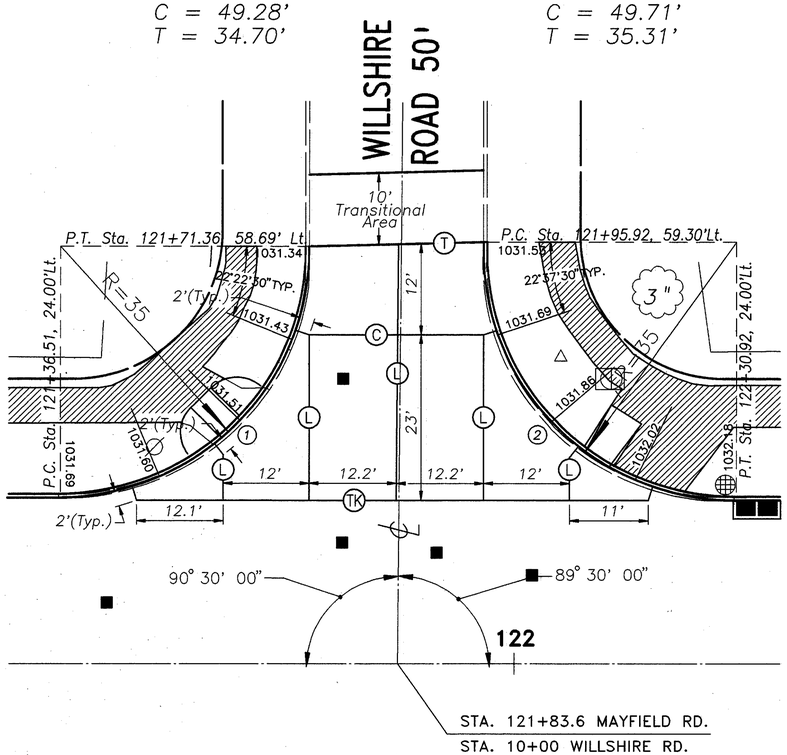
INTERSECTION DETAILS

①

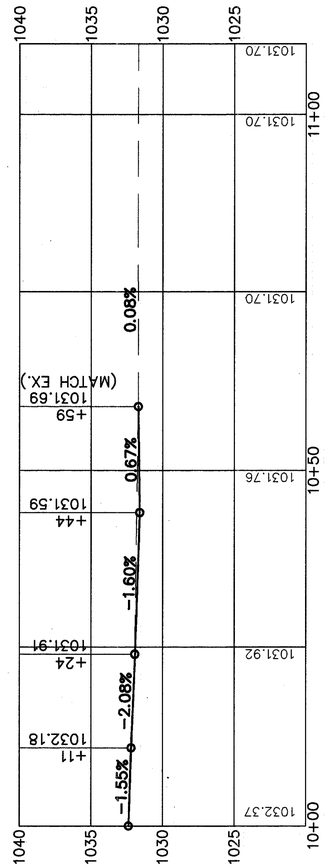
△ = 89°30'00"
R = 35.00'
L = 54.67'
C = 49.28'
T = 34.70'

②

△ = 90°30'00"
R = 35.00'
L = 55.28'
C = 49.71'
T = 35.31'



Indicates Existing Concrete Walk To Be Removed And Replaced.



WILLSHIRE RD. PROFILE



0 5 10 20 30
SCALE IN FEET

MAYFIELD ROAD

For Intersection Quantities See Sheet No. 34.
For Joint Legend and Typical Intersection Detail See Sheet No. 194.

INTERSECTION DETAIL

FHWA REGION	STATE	PROJECT	
5	OHIO		

213
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

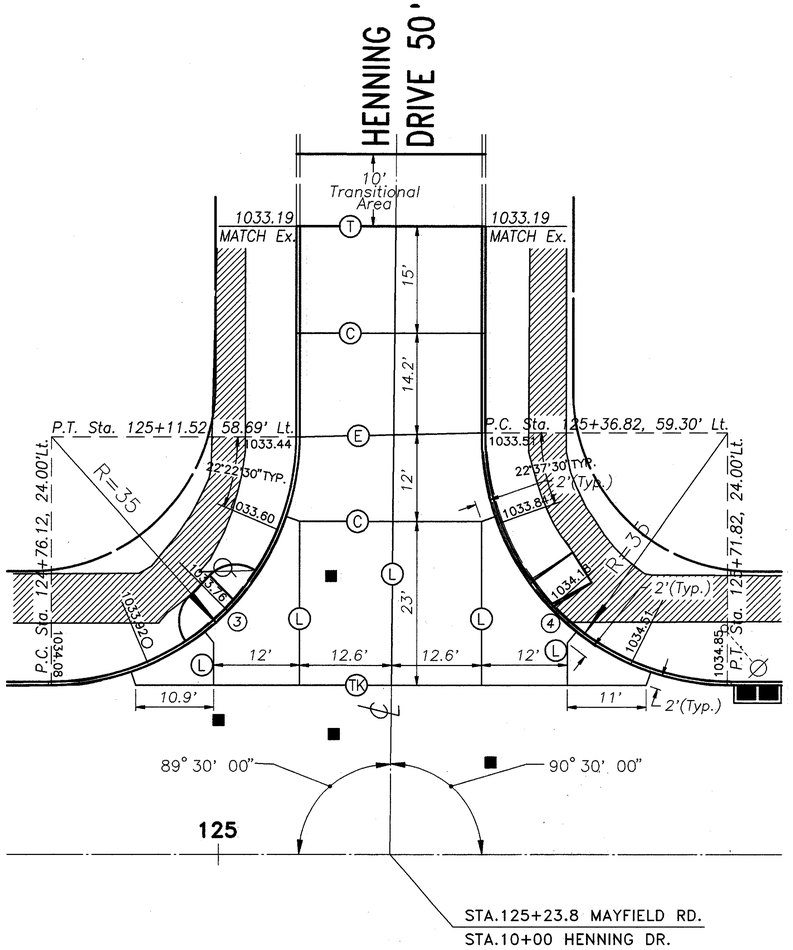
INTERSECTION DETAILS

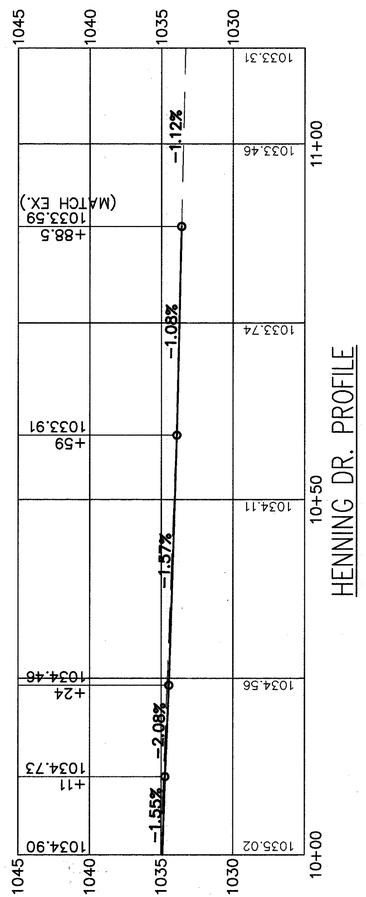
③

△ = 89°30'00"
R = 35.00'
L = 54.67'
C = 49.28'
T = 34.70'

④

△ = 90°30'00"
R = 35.00'
L = 55.28'
C = 49.71'
T = 35.31'







0 5 10 20 30
SCALE IN FEET

Indicates Existing Concrete Walk To Be Removed And Replaced.

For Intersection Quantities See Sheet No. 34.
For Joint Legend and Typical Intersection Detail See Sheet No. 194.

MAYFIELD ROAD

INTERSECTION DETAIL

FHWA REGION	STATE	PROJECT	
5	OHIO		

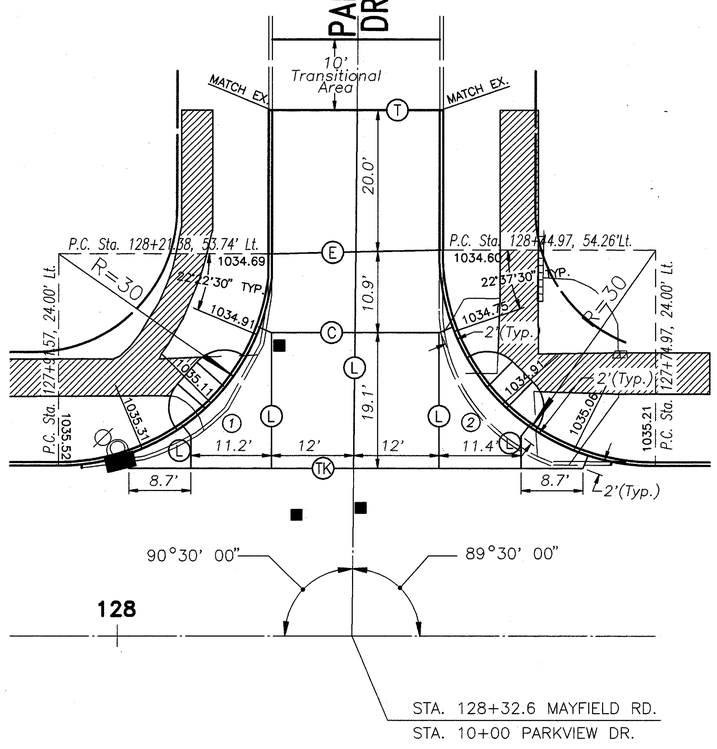
214
426

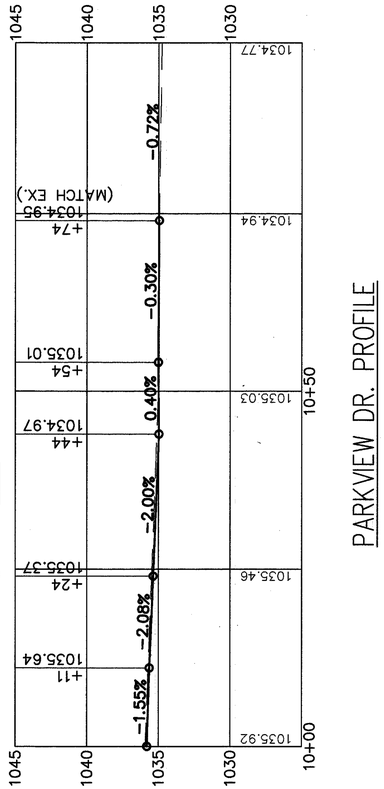
CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

INTERSECTION DETAILS

① △ = 89°30'00"
R = 30.00'
L = 46.86'
C = 42.24'
T = 29.74'

② △ = 90°30'00"
R = 30.00'
L = 47.39'
C = 42.61'
T = 30.26'



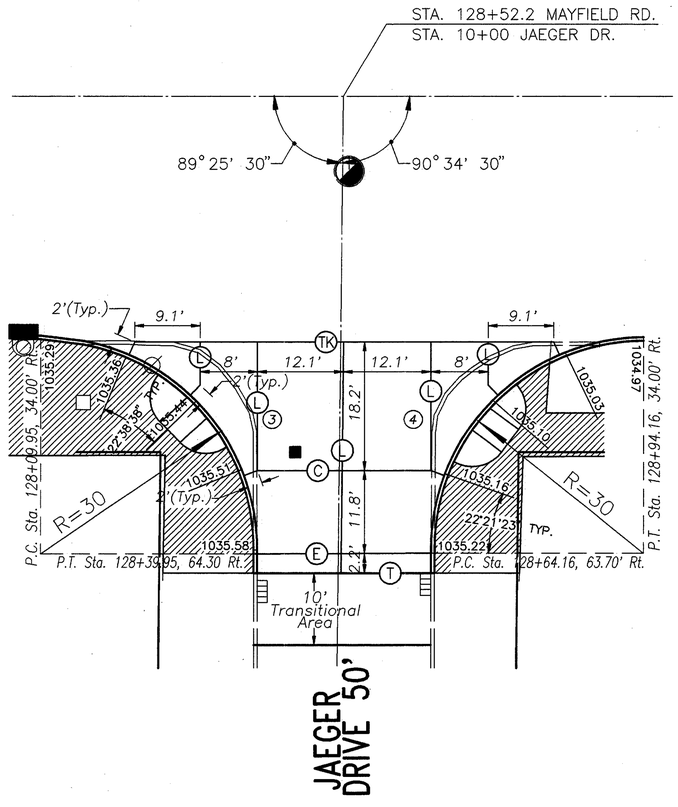


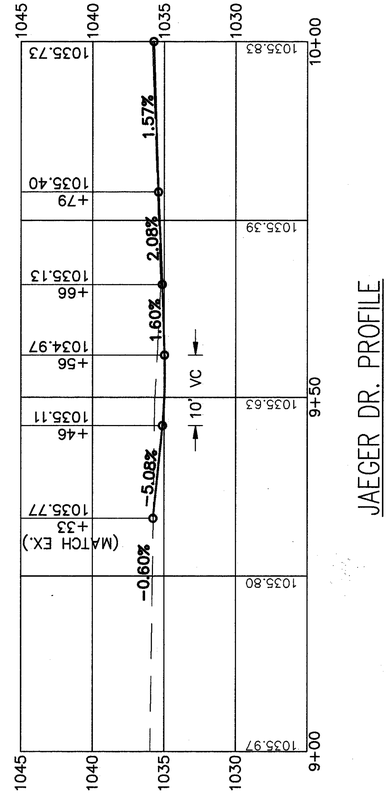
PARKVIEW DR. PROFILE

Indicates Existing Concrete Walk To Be Removed And Replaced.

③ △ = 90°34'30"
R = 30.00'
L = 47.43'
C = 42.64'
T = 30.30'

④ △ = 89°25'30"
R = 30.00'
L = 46.82'
C = 42.21'
T = 29.70'





JAEGER DR. PROFILE

MAYFIELD ROAD

For Intersection Quantities See Sheet No. 34.
For Joint Legend and Typical Intersection Detail See Sheet No. 194.

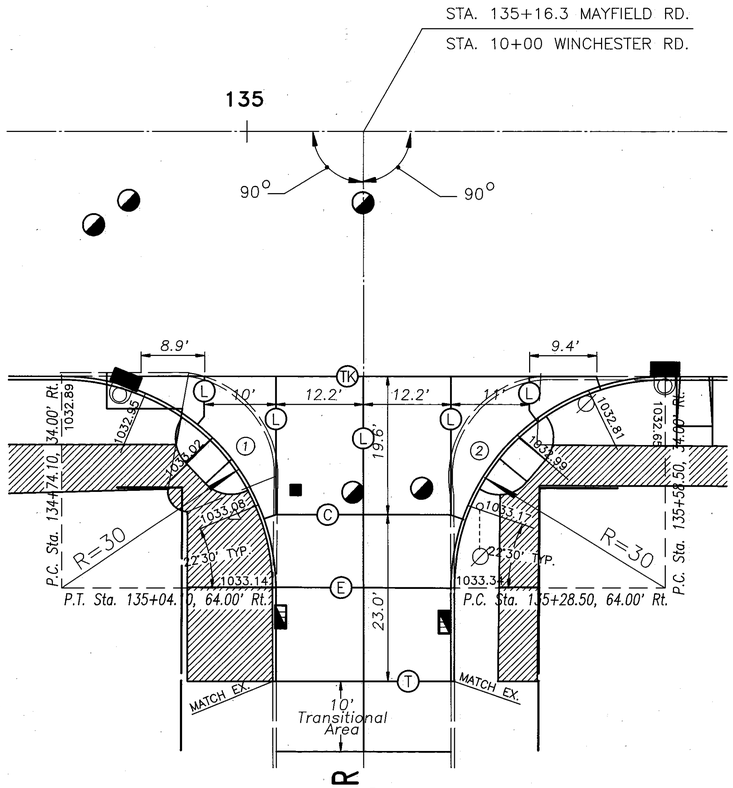
INTERSECTION DETAIL

FHWA REGION	STATE	PROJECT	
5	OHIO		

215
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

INTERSECTION DETAILS

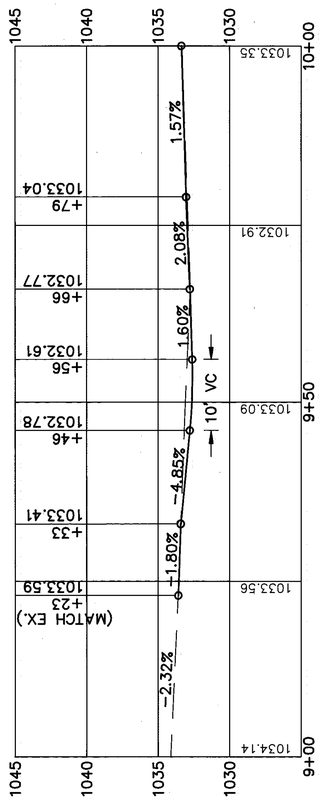


WINCHESTER ROAD 50'

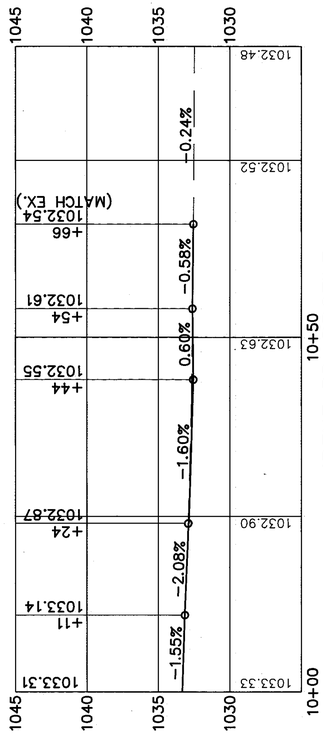
① ② ③ ④

	①	②	③	④
△	90°00'00"	90°00'00"	90°00'00"	90°00'00"
R	30.00'	30.00'	30.00'	30.00'
L	47.12'	47.12'	47.12'	47.12'
C	42.43'	42.43'	42.43'	42.43'
T	30.00'	30.00'	30.00'	30.00'

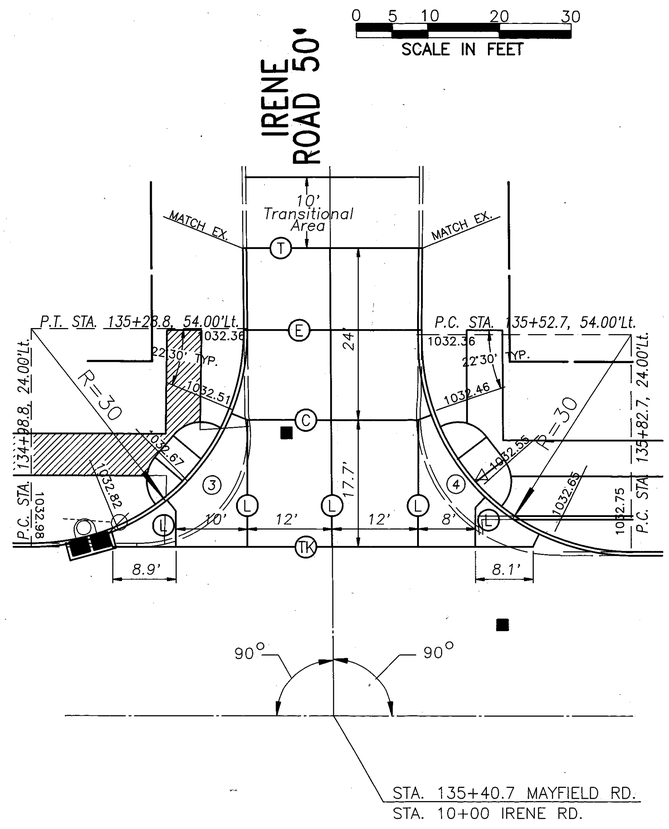
Indicates Existing Concrete Walk To Be Removed And Replaced.



WINCHESTER RD. PROFILE



IRENE RD. PROFILE



For Intersection Quantities See Sheet No. 34.
For Joint Legend and Typical Intersection Detail See Sheet No. 194.

MAYFIELD ROAD

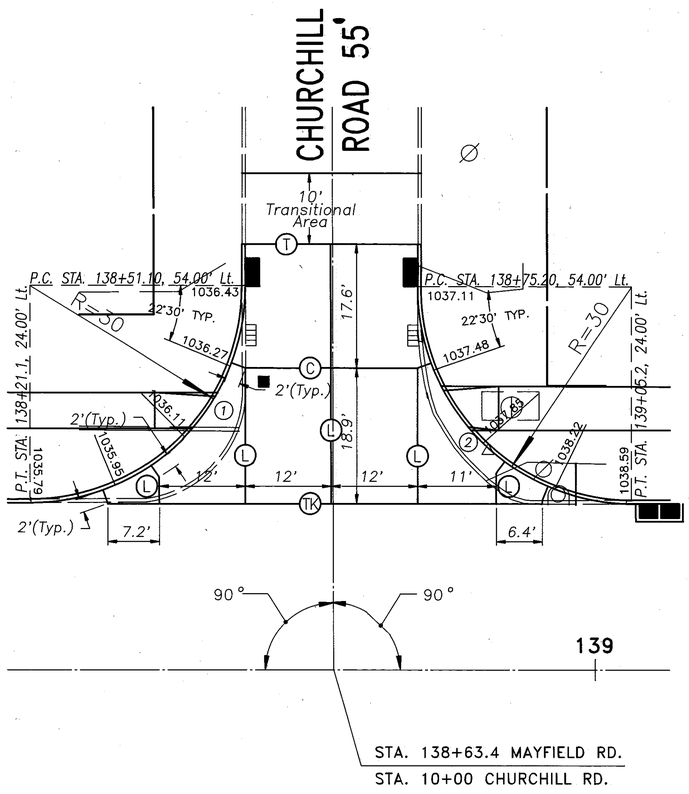
INTERSECTION DETAIL

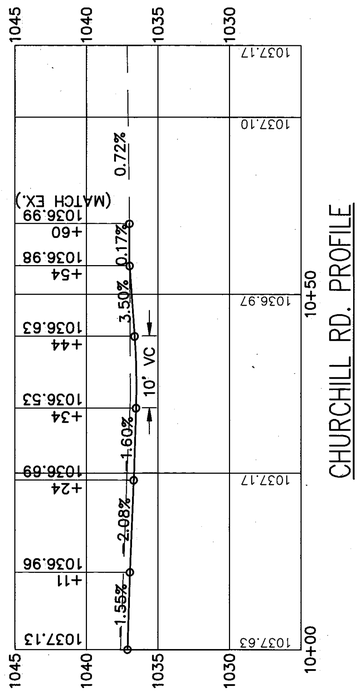
FHWA REGION	STATE	PROJECT	
5	OHIO		

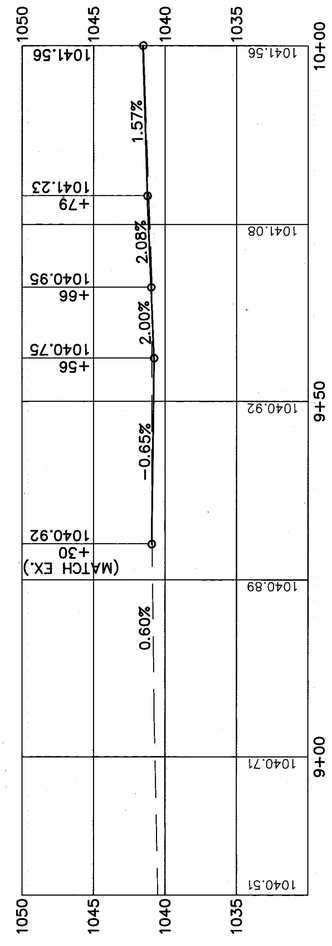
216
426

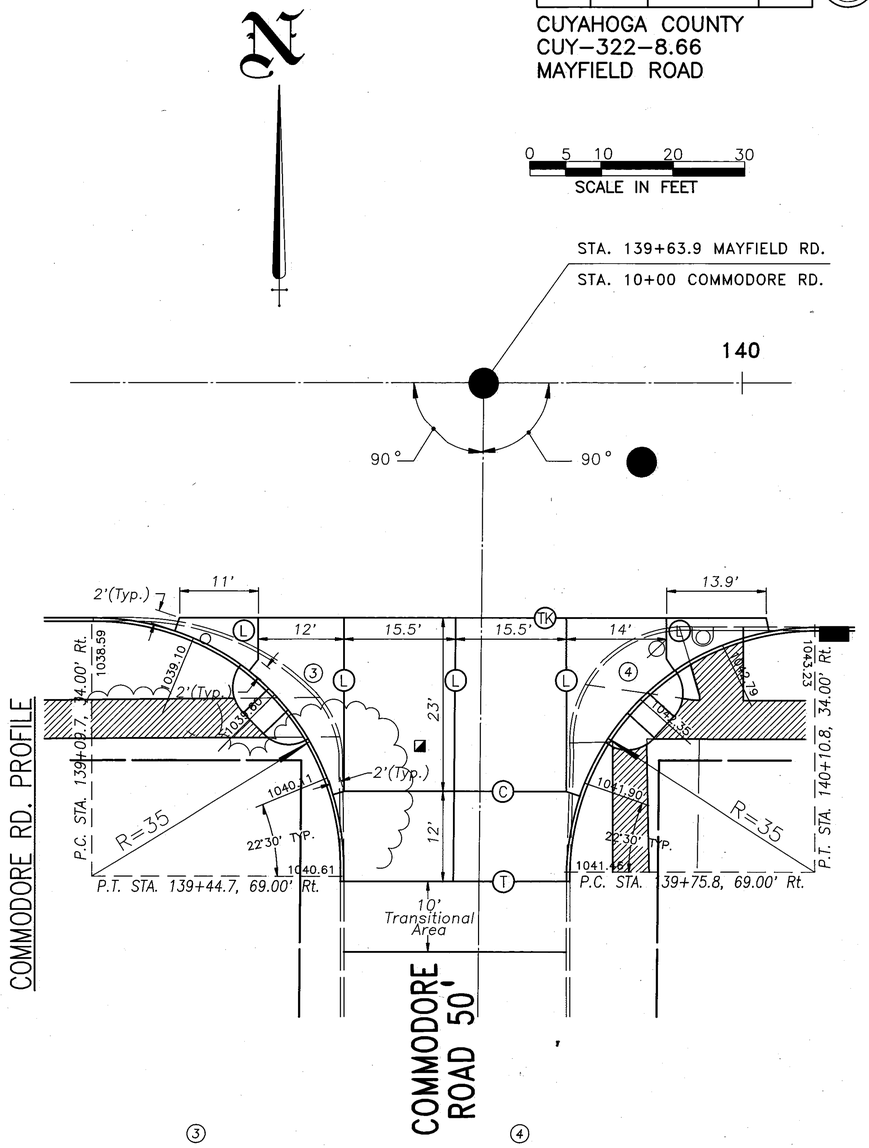
CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

INTERSECTION DETAILS









①

$\triangle = 90°00'00"$
$R = 30.00'$
$L = 47.12'$
$C = 42.43'$
$T = 30.00'$

②

$\triangle = 90°00'00"$
$R = 30.00'$
$L = 47.12'$
$C = 42.43'$
$T = 30.00'$

③

$\triangle = 90°00'00"$
$R = 35.00'$
$L = 54.98'$
$C = 49.50'$
$T = 35.00'$

④

$\triangle = 90°00'00"$
$R = 35.00'$
$L = 54.98'$
$C = 49.50'$
$T = 35.00'$

Indicates Existing Concrete Walk To Be Removed And Replaced.

For Intersection Quantities See Sheet No. 34.
For Joint Legend and Typical Intersection Detail See Sheet No. 194.

MAYFIELD ROAD

FHWA REGION	STATE	PROJECT	
5	OHIO		

217
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

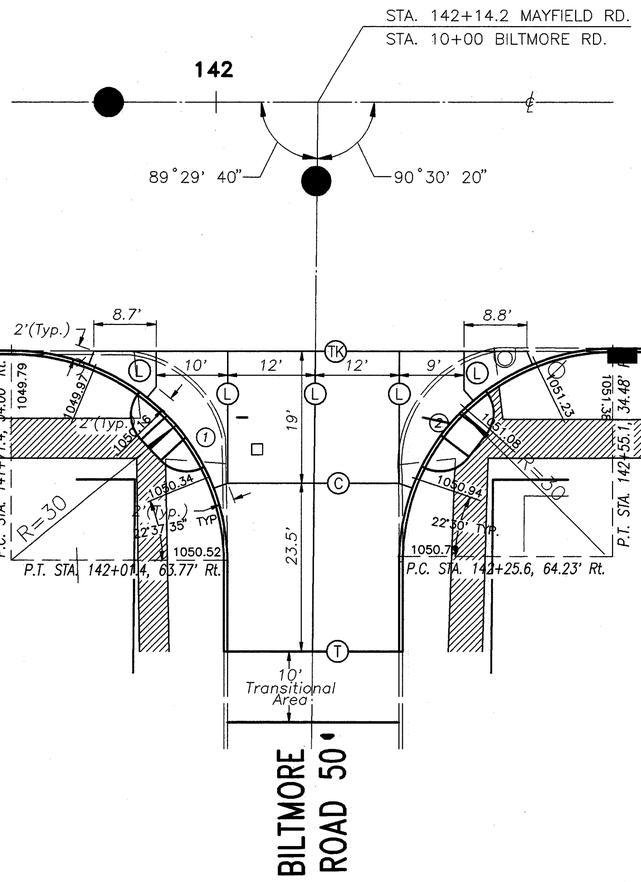
INTERSECTION DETAILS

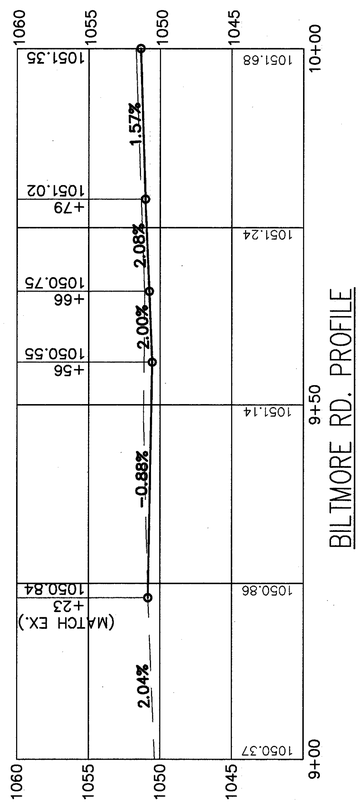
① $\triangle = 90°30'20"$
$R = 30.00'$
$L = 47.36'$
$C = 42.59'$
$T = 30.23'$

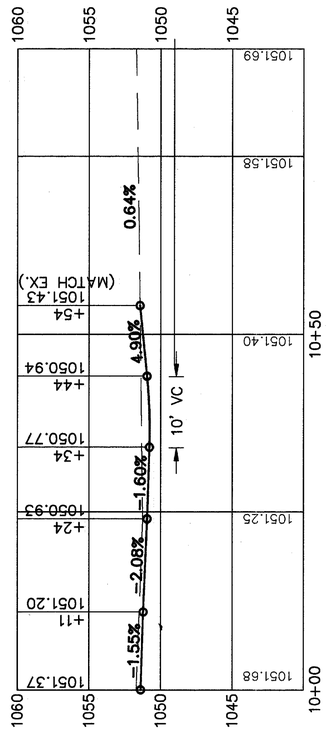
② $\triangle = 89°29'40"$
$R = 30.00'$
$L = 46.29'$
$C = 41.83'$
$T = 29.17'$

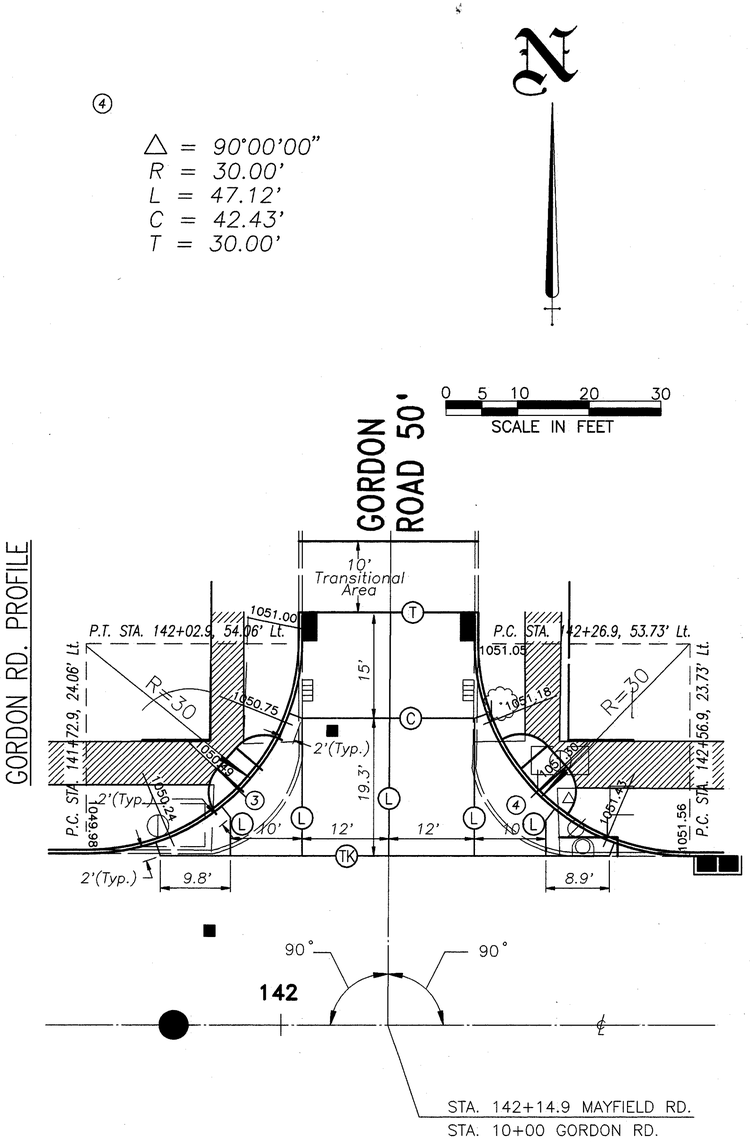
③ $\triangle = 90°00'00"$
$R = 30.00'$
$L = 47.12'$
$C = 42.43'$
$T = 30.00'$

④ $\triangle = 90°00'00"$
$R = 30.00'$
$L = 47.12'$
$C = 42.43'$
$T = 30.00'$









0 5 10 20 30
SCALE IN FEET

For Intersection Quantities See Sheet No. 34.
For Joint Legend and Typical Intersection Detail See Sheet No. 194.

Indicates Existing Concrete Walk To Be Removed And Replaced.

MAYFIELD ROAD

INTERSECTION DETAIL

FHWA REGION	STATE	PROJECT	
5	OHIO		

218
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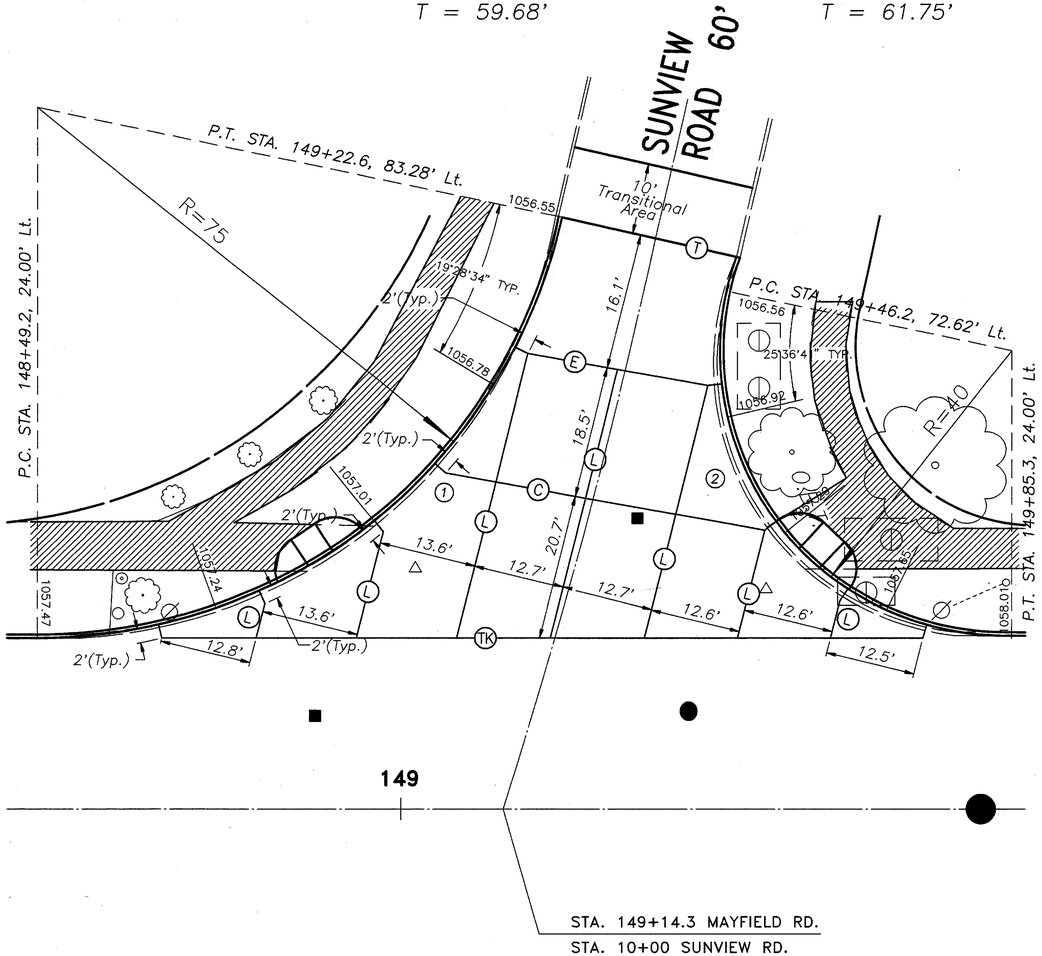
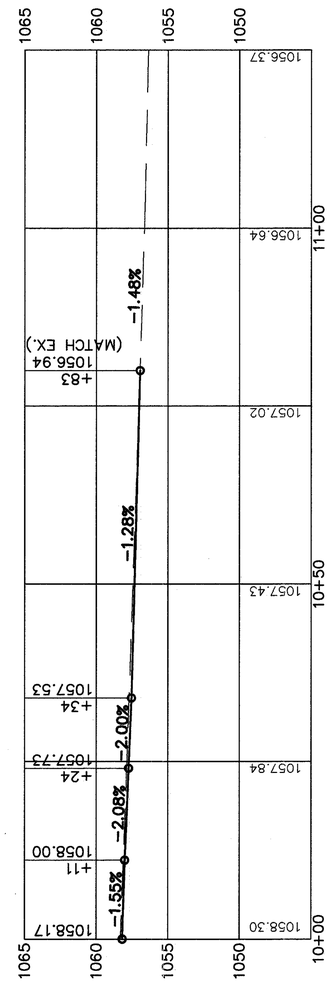
CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

INTERSECTION DETAILS

① $\triangle = 77°01'17"$, $R = 75.00'$, $L = 100.82'$, $C = 93.40'$, $T = 59.68'$

② $\triangle = 114°07'58"$, $R = 40.00'$, $L = 79.68'$, $C = 67.14'$, $T = 61.75'$





SUNVIEW RD. PROFILE



0 5 10 20 30
SCALE IN FEET

Indicates Existing Concrete Walk To Be Removed And Replaced.

For Intersection Quantities See Sheet No. 34.
For Joint Legend and Typical Intersection Detail See Sheet No. 194.

MAYFIELD ROAD

INTERSECTION DETAIL

INTERSECTION DETAILS

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

① △ = 90°00'00"
R = 30.00'
L = 47.12'
C = 42.43'
T = 30.00'

② △ = 90°00'00"
R = 30.00'
L = 47.12'
C = 42.43'
T = 30.00'

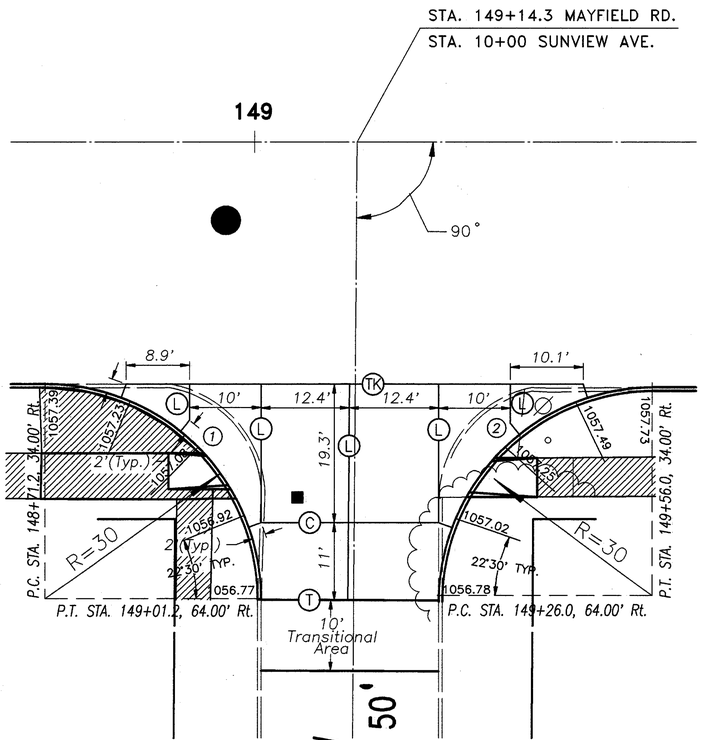
③ △ = 90°00'00"
R = 30.00'
L = 47.12'
C = 42.43'
T = 30.00'

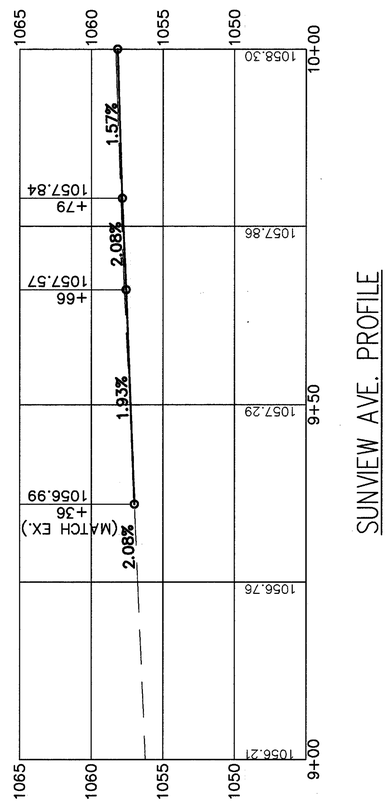
④ △ = 90°00'00"
R = 30.00'
L = 47.12'
C = 42.43'
T = 30.00'

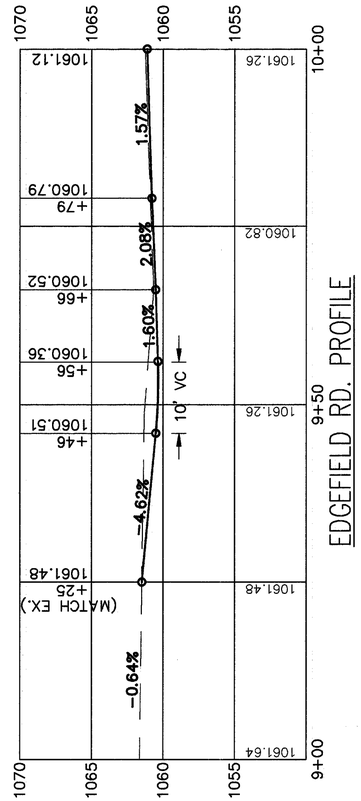
N

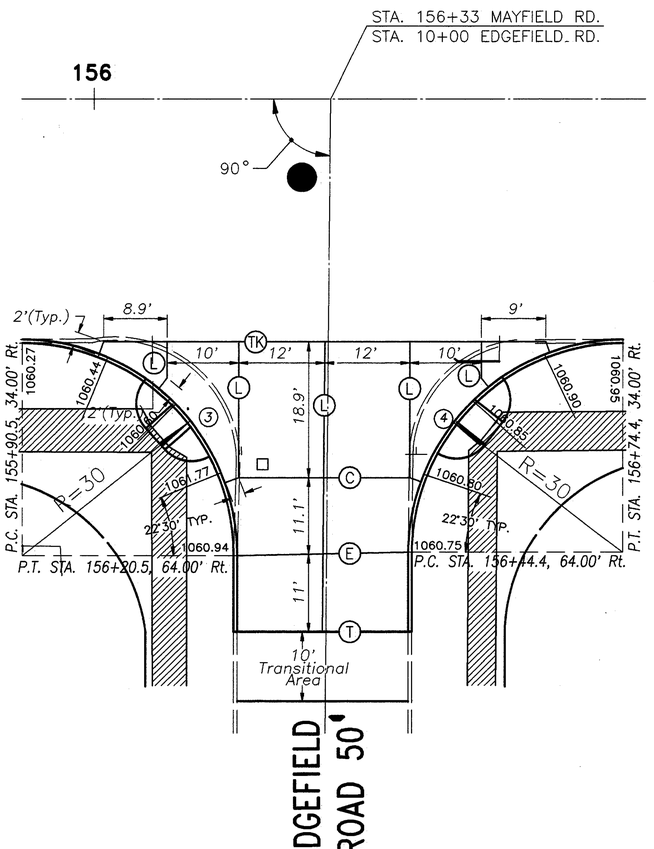
0 5 10 20 30
SCALE IN FEET

Indicates Existing Concrete Walk To Be Removed And Replaced.









For Intersection Quantities See Sheet No. 34.
For Joint Legend and Typical Intersection Detail See Sheet No. 194.

MAYFIELD ROAD

INTERSECTION DETAIL

INTERSECTION DETAILS

FHWA REGION	STATE	PROJECT	
5	OHIO		

220
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

① △ = 90°07'35"
R = 30.00'
L = 47.19'
C = 42.47'
T = 30.07'

② △ = 89°47'04"
R = 30.00'
L = 47.01'
C = 42.35'
T = 29.89'

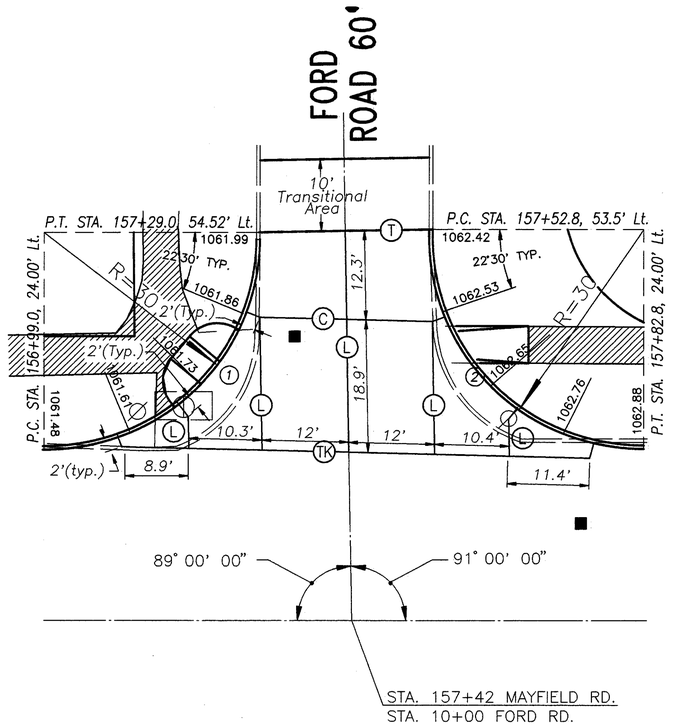
③ △ = 90°00'00"
R = 30.00'
L = 47.12'
C = 42.43'
T = 30.00'

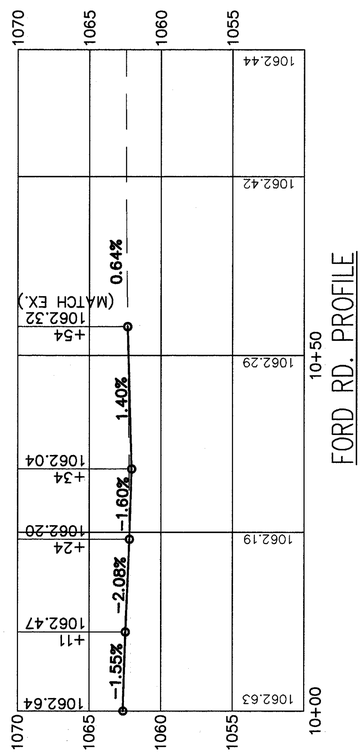
④ △ = 90°00'00"
R = 30.00'
L = 47.12'
C = 42.43'
T = 30.00'

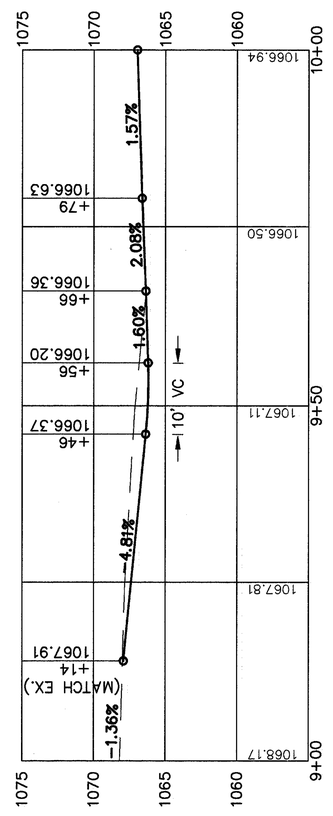
N

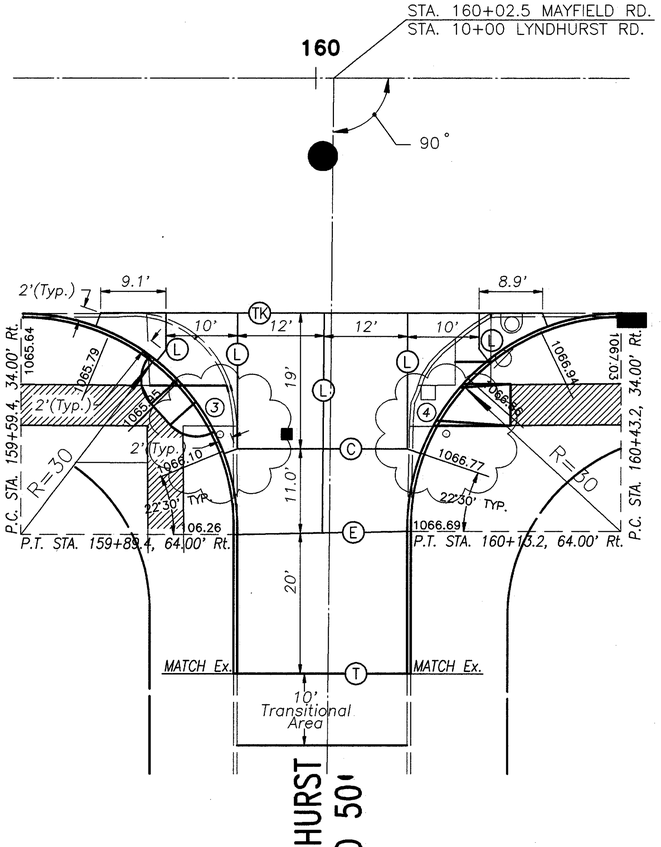
0 5 10 20 30
SCALE IN FEET

Indicates Existing Concrete Walk To Be Removed And Replaced.









For Intersection Quantities See Sheet No. 34.
For Joint Legend and Typical Intersection Detail See Sheet No. 194.

MAYFIELD ROAD

INTERSECTION DETAIL

INTERSECTION DETAILS

FHWA REGION	STATE	PROJECT	
5	OHIO		

221
426

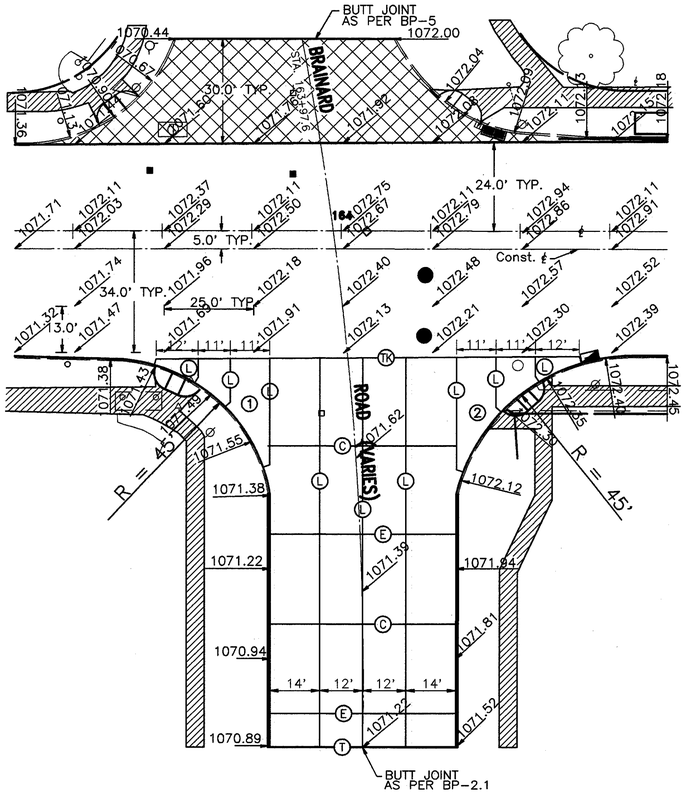
CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

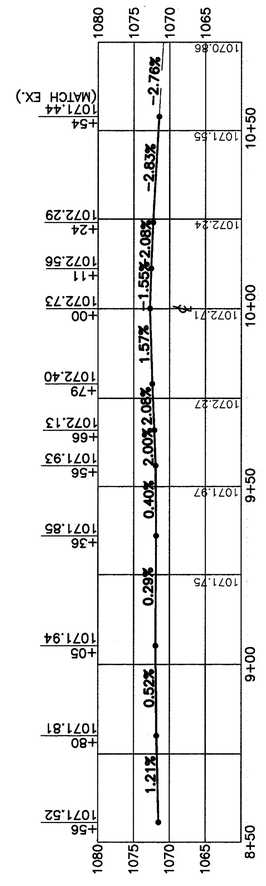
①

$\triangle$ = 90°25'07"
R = 45.00'
L = 71.01'
C = 63.87'
T = 45.33'

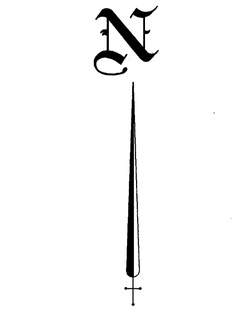
②

$\triangle$ = 90°25'07""
R = 45.00'
L = 71.01'
C = 63.87'
T = 45.33'





BRAINARD RD. PROFILE



Indicates Existing Concrete Walk To Be Removed And Replaced.

PAVEMENT PLANING BITUMINOUS (3")
ASPHALT CONCRETE (3")

For Intersection Quantities See Sheet No. 34.
For Joint Legend and Typical Intersection Detail See Sheet No. 194.

MAYFIELD ROAD

INTERSECTION DETAIL

FHWA REGION	STATE	PROJECT	
5	OHIO		

222
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

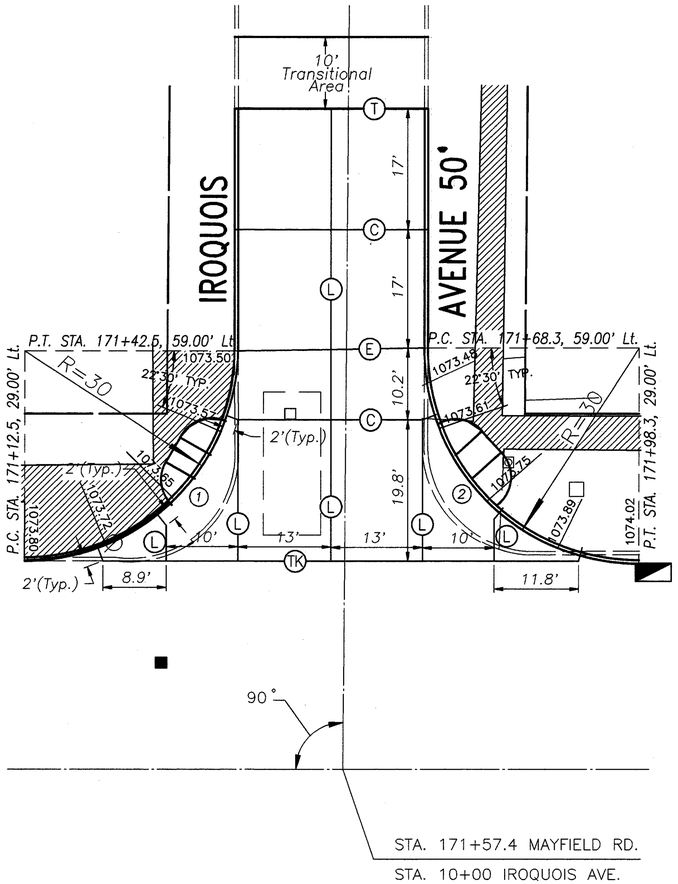
INTERSECTION DETAILS

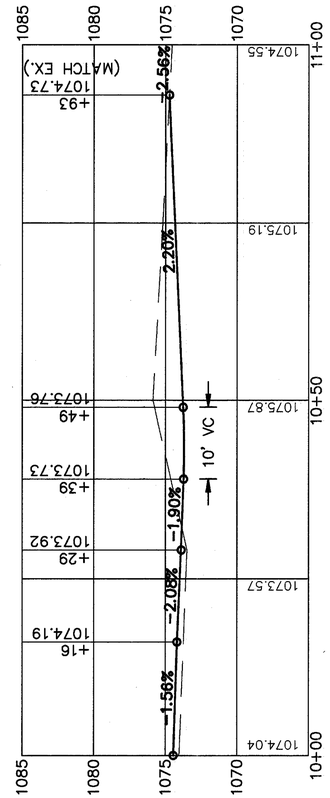
①

$\triangle$ = 90°00'00"
R = 30.00'
L = 47.12'
C = 42.43'
T = 30.00'

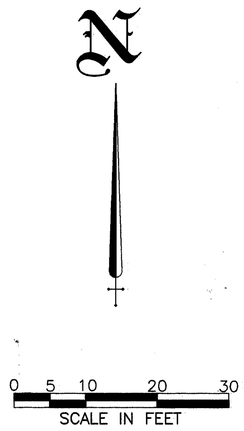
②

$\triangle$ = 90°00'00"
R = 30.00'
L = 47.12'
C = 42.43'
T = 30.00'





IROQUOIS AVE. PROFILE



For Intersection Quantities See Sheet No. 34.
For Joint Legend and Typical Intersection Detail See Sheet No. 194.

MAYFIELD ROAD

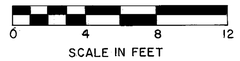
INTERSECTION DETAIL

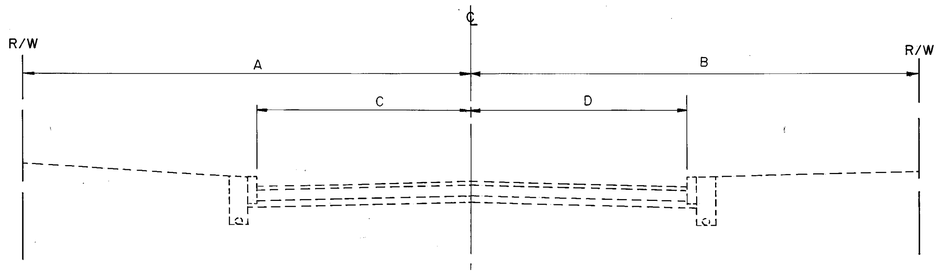
SIDE STREET EXISTING TYPICAL SECTIONS

CALC. BY DATE	NH-83(29)	OHIO
CHKD. BY DATE		F.H.W.A. REGION 5

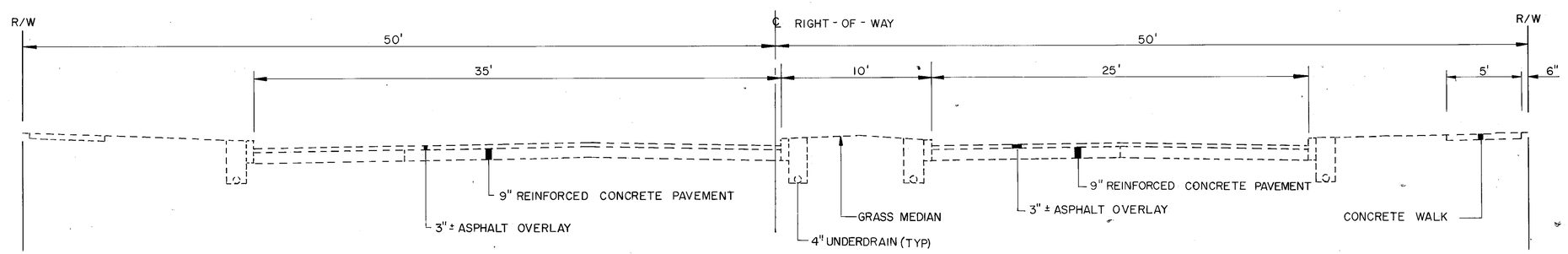
223
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD





STREET NAME	A	B	C	D	CURB TYPE	UNDERDRAINS	PAVEMENT COMPOSITION
BROOKLINE RD.	25'	25'	12'	12'	6"SAND/TYPE 6	4"	CONCRETE BASE WITH ASPHALT OVERLAY
GENESEE AVE.	25'	25'	12'	12'	6" SANDSTONE	4"	CONCRETE BASE WITH ASPHALT OVERLAY
PLAINFIELD RD.	25'	25'	12.25'	12.25'	TYPE 6	4"	6" CONCRETE BASE WITH 2" ASPHALT OVERLAY
SHERBROOK AVE.	25'	25'	12.25'	12.25'	TYPE 6	4"	CONCRETE BASE WITH ASPHALT OVERLAY
WINSTON RD.	25'	25'	12.35'	12.35'	TYPE 6	4"	CONCRETE BASE WITH ASPHALT OVERLAY
HOLMDEN RD.	25'	25'	12.15'	12.15'	6"SAND/TYPE 6	4"	CONCRETE BASE WITH ASPHALT OVERLAY
GRANTLEIGH RD.	25'	25'	12.50'	12.50'	TYPE 6	4"	STONE BASE WITH ASPHALT OVERLAY
FELTON RD.	25'	25'	12'	12'	6"SAND/TYPE 6	4"	CONCRETE BASE WITH ASPHALT OVERLAY
AVONDALE RD.	25'	25'	12.2'	12.2'	TYPE 6	4"	6" REINFORCED CONC. BASE W/ 2" ASPH. OVERLAY
MAPLEGROVE RD.	25'	25'	12'	12'	6"SAND/TYPE 6	4"	CONCRETE BASE WITH ASPHALT OVERLAY
VILLA RD.	25'	25'	12'	12'	6" SANDSTONE	4"	CONCRETE BASE WITH ASPHALT OVERLAY
ARGONNE RD.	30'	30'	12.15'	12.15'	TYPE 6	4"	CONCRETE BASE WITH ASPHALT OVERLAY
FRANCIS CT.	15'	15'	10'	10'	TYPE 6	4"	CONCRETE BASE WITH ASPHALT OVERLAY
SHEFFIELD RD.	25'	25'	12'	12'	TYPE 6	4"	CONCRETE BASE WITH ASPHALT OVERLAY
VICTORY DR.	25'	25'	22.4'	12'	TYPE 6	4"	CONCRETE BASE WITH ASPHALT OVERLAY
GARDEN DR.	10'	10'	10'	10'	TYPE 6	4"	7" REINFORCED CONC. W/ ASPHALT OVERLAY
GREEN RD.	30'	30'	24'	30'	TYPE-2 A	6"	9" REINFORCED CONC. W/3" ± ASPH. OVERLAY
DEAN RD.	25'	25'	12.2'	12.2'	TYPE-2A	6"	9" REINFORCED CONCRETE
DILL AVE.	25'	25'	12'	12'	TYPE-2A	4"	CONCRETE BASE WITH ASPHALT OVERLAY
MAYWOOD RD.	25'	25'	12'	12'	TYPE 6	4"	CONCRETE BASE WITH ASPHALT OVERLAY
OAKMOUNT RD.	25'	25'	12'	12'	TYPE 6	4"	CONCRETE BASE WITH ASPHALT OVERLAY
SHERIDAN RD.	25'	25'	12'	12'	TYPE 6	4"	CONCRETE BASE WITH ASPHALT OVERLAY
DORSH RD.	25'	25'	12'	12'	6"SAND/TYPE 6	4"	CONCRETE BASE WITH ASPHALT OVERLAY



SOUTH BELVOIR BLVD. EXISTING TYPICAL SECTION

MAYFIELD ROAD

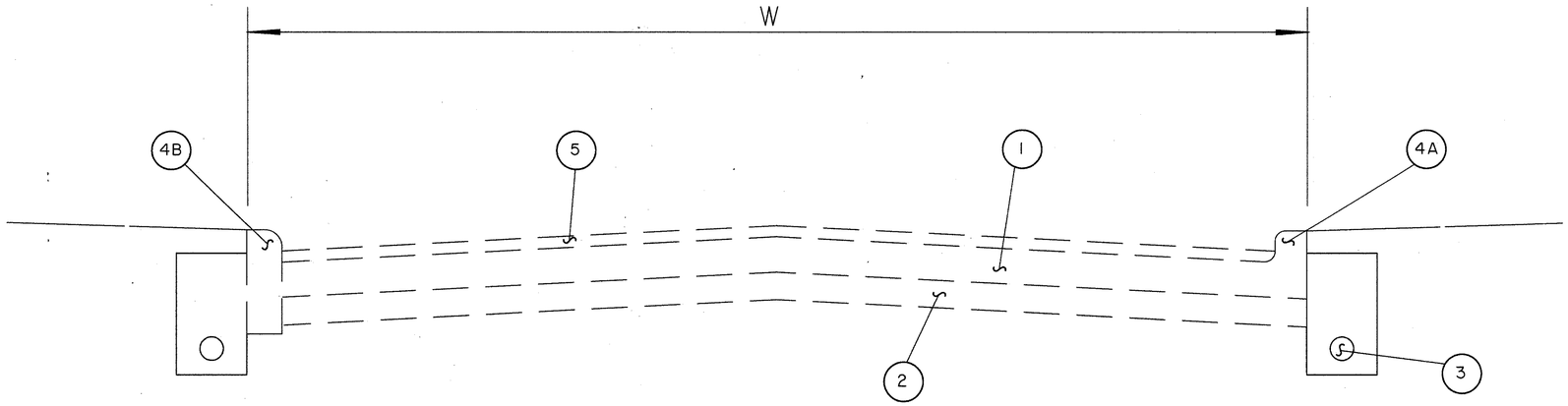
BRUNING 44-132-67199

SIDE STREET EXISTING TYPICAL SECTION

FHWA REGION	STATE	PROJECT	
5	OHIO		

224
426

CUYAHOGA COUNTY
CUY.–322–8.66
MAYFIELD ROAD



EXISTING TYPICAL SECTION (INTERSECTING STREETS)

No Scale

LEGEND

(1) REINFORCED CONCRETE BASE
(2) SUBBASE
(3) UNDERDRAIN
(4A) INTEGRAL CURB
(4B) VERTICAL CURB
(5) ASPHALT WEARING COURSE, THICKNESS VARIES

STREET NAME	W	1		2	3	4		5
		9"	7"			A	B	
PARKSIDE CIRCLE	23.1'		●	(4")	●	●		
DAYTONA ROAD	25.0'		●	(4")	●		●	●
CLUBSIDE ROAD	26.0'		●	(4")	●	●		●
EVANSTON ROAD	25.7'		●	(4")	●		●	●
GRENLEIGH ROAD	25.7'		●	(4")	●		●	●
CLEARVIEW ROAD	24.3'		●	(4")	●		●	●
RICHMOND ROAD	75.0'@ JOINT	●		(6")	●		●	●
WILLSHIRE ROAD	25.4'		●	(4")	●		●	●
HENNING DRIVE	26.3'		●	(4")	●		●	●
PARKVIEW DRIVE	24.4'		●	(4")	●		●	●
JAEGER DRIVE	25.2'		●	(4")	●		●	●
WINCHESTER ROAD	25.4'		●	(4")	●		●	●
IRENE ROAD	24.9'		●	(4")	●		●	●
BILTMORE ROAD	25.1'		●	(4")	●		●	●
GORDON ROAD	25.0'		●	(4")	●		●	●
CHURCHILL ROAD	25.0'		●	(4")	●		●	
COMMODORE ROAD	32.1'		●	(4")	●		●	
SUNVIEW ROAD (S)	25.8'		●	(4")	●		●	●
SUNVIEW ROAD (N)	26.4'		●	(4")	●	●		●
EDGEFIELD ROAD	24.9'		●	(4")	●		●	●
FORD ROAD	25.1'		●	(4")	●	●		●
LYNDHURST ROAD	24.8'		●	(4")	●		●	●
BRAINARD ROAD	62.0'@ JOINT	●		(6")	●	●		
IROQUOIS AVENUE	26.8'		●	(4")	●		●	●

MAYFIELD ROAD

DETAIL

SEEDING	
ENG WIDTH	SQ. YDS.

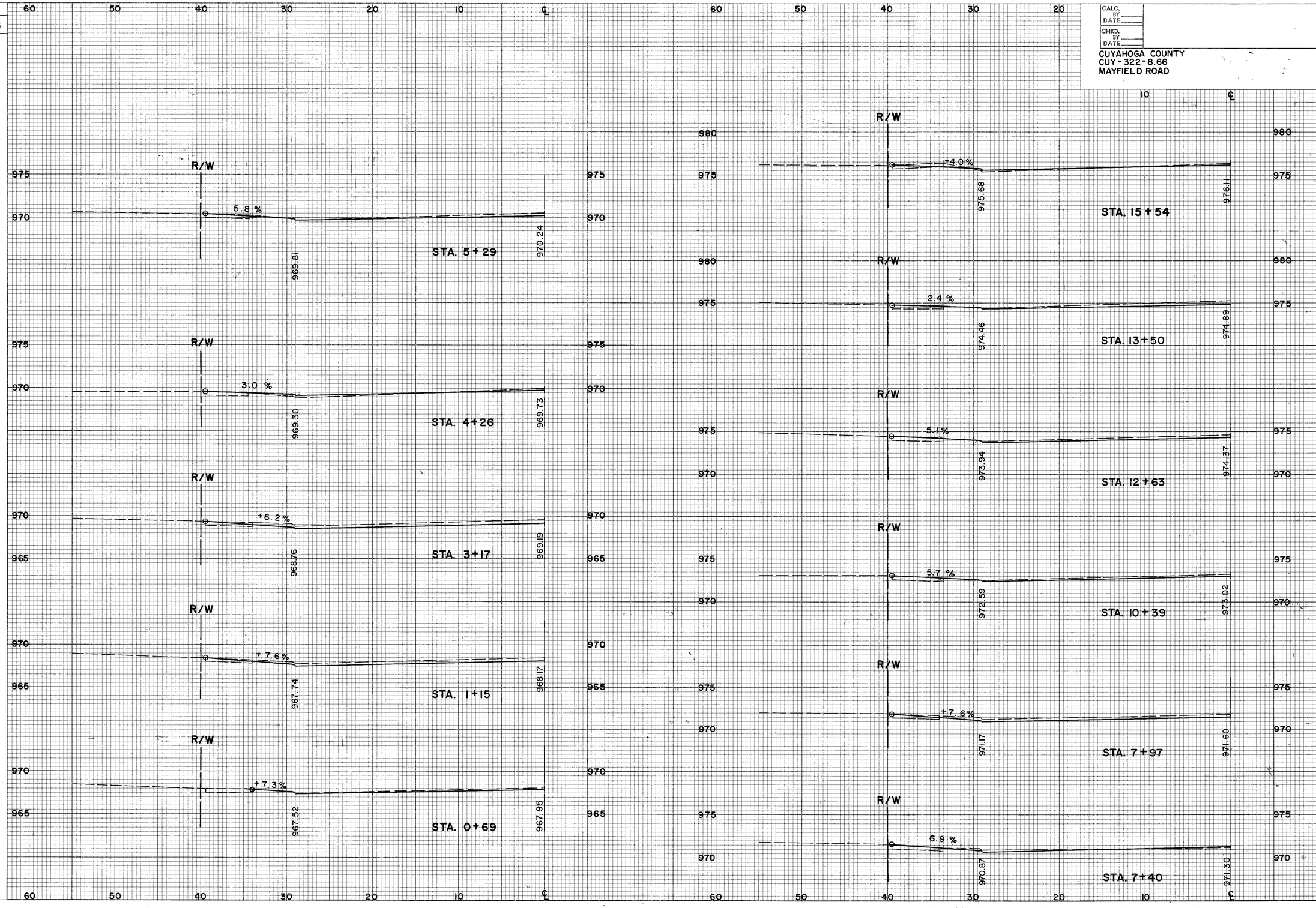
CALC. BY ____ DATE ____
CHKD. BY ____ DATE ____

OHIO
FHWA REGION

225
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL



MAYFIELD ROAD

MAYFIELD ROAD.....DRIVEWAY PROFILES.....LEFT..... STA. 0+69 TO STA. 15+54

SEEDING	
END WIDTH	SQ. YDS.

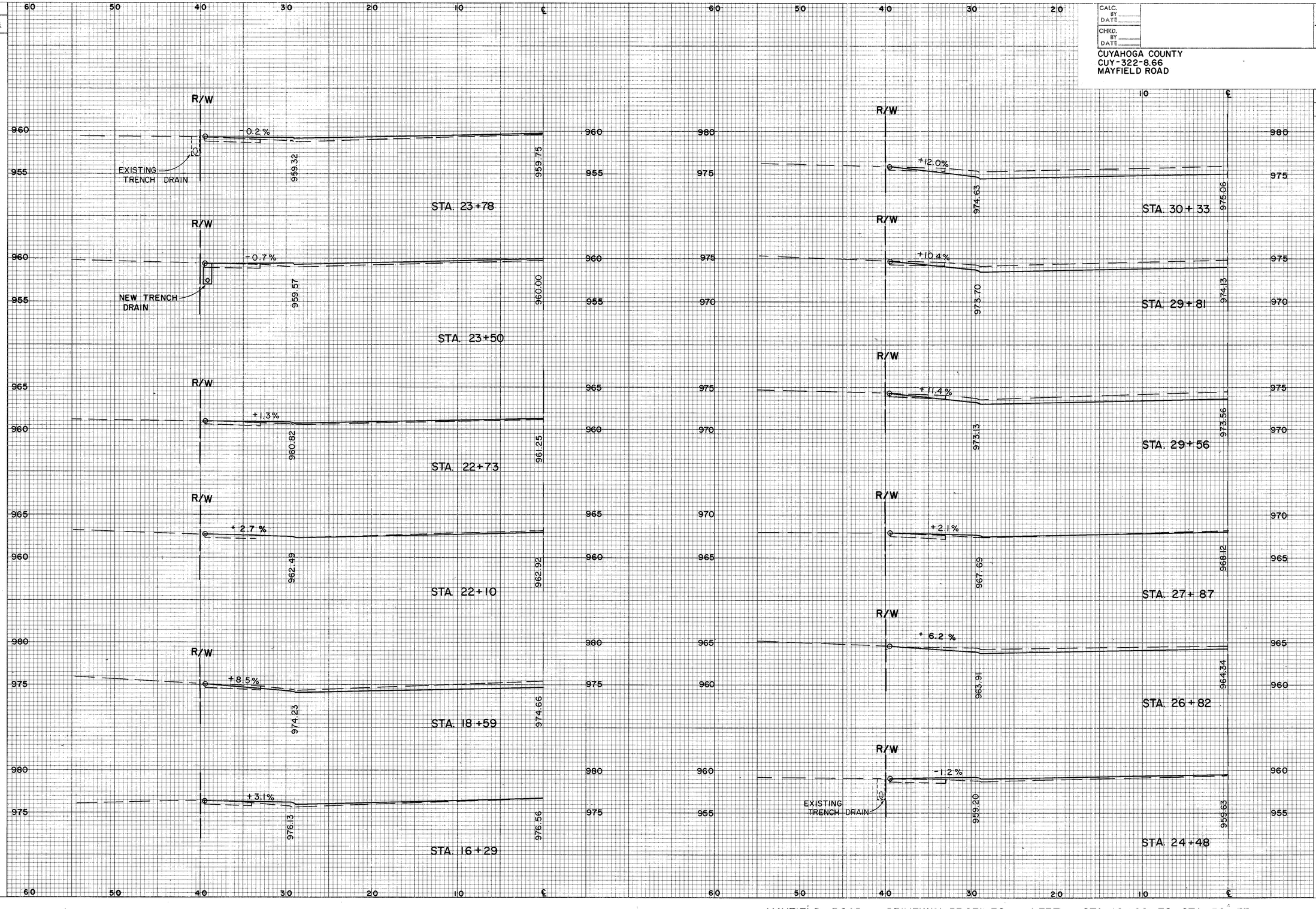
CALC. BY ____ DATE ____
CHKD. BY ____ DATE ____

OHIO
FHWA REGION

226
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL



MAYFIELD ROAD

MAYFIELD ROAD...DRIVEWAY PROFILES....LEFT....STA. 16+29 TO STA. 30+33

SEEDING	
END WIDTH	SQ YDS

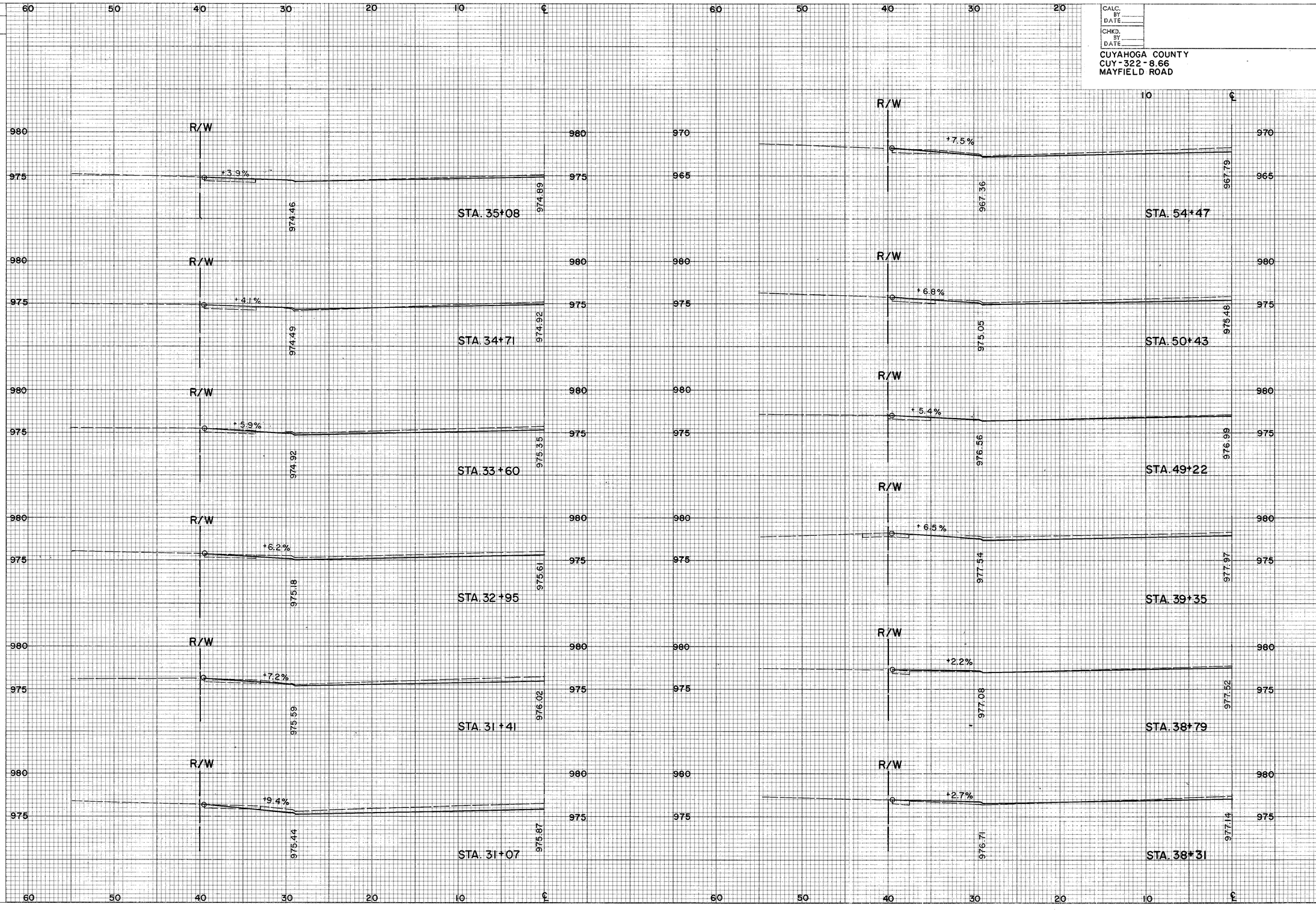
CALC. BY ____ DATE ____
CHKD. BY ____ DATE ____

OHIO
FHWA REGION

227
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL



MAYFIELD ROAD

MAYFIELD ROAD...DRIVEWAY PROFILES:..LEFT... STA. 31+07 TO STA. 54+47

SEEDING	
END WIDTH	SQ. YDS.

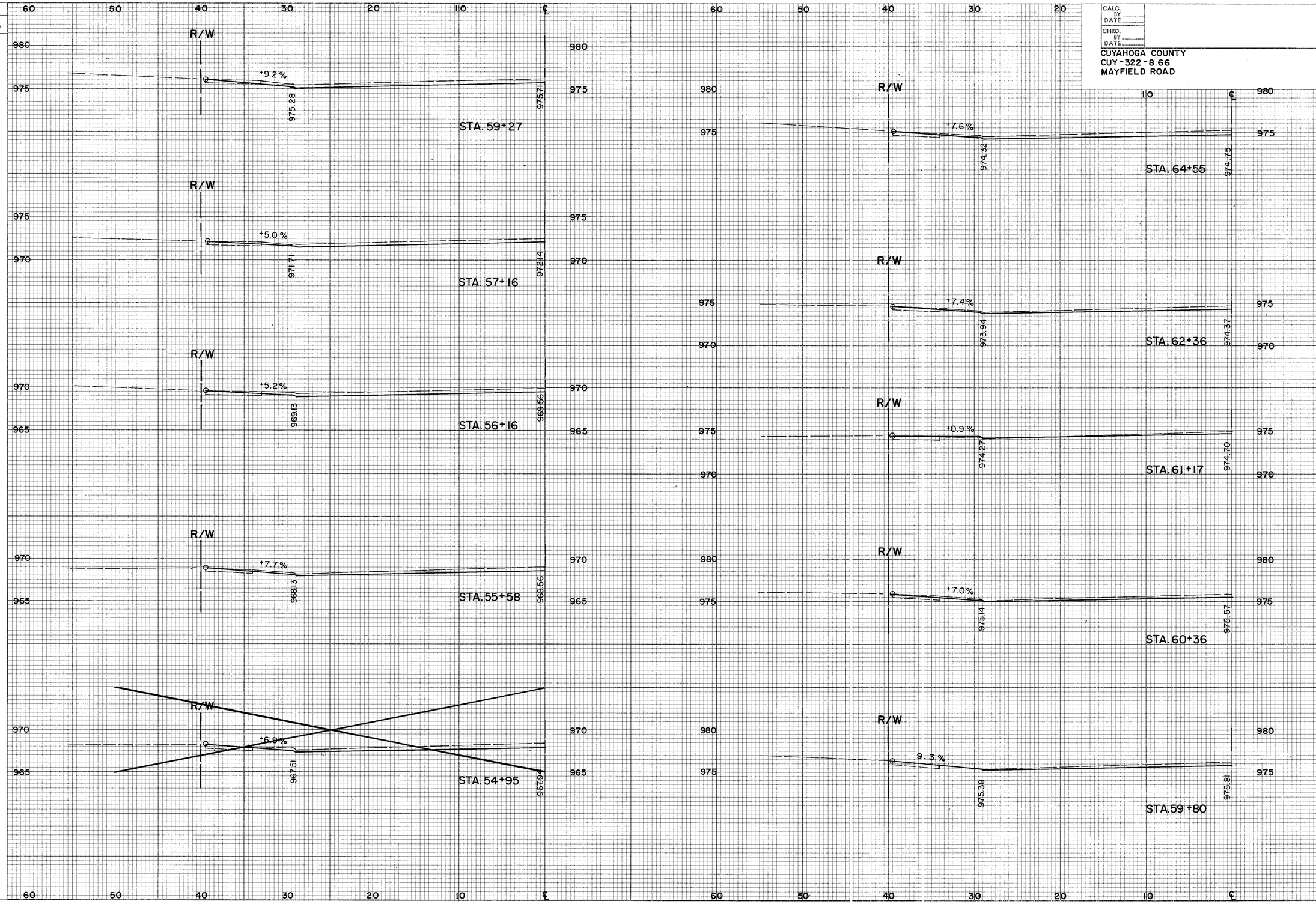
CALC. BY DATE
CHKD. BY DATE

OHIO
FHWA REGION

228
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL



MAYFIELD ROAD

MAYFIELD ROAD ... DRIVEWAY PROFILES ... LEFT ... STA. 54+95 TO STA. 64+54

SEEDING	
END WIDTH	SQ. YDS.

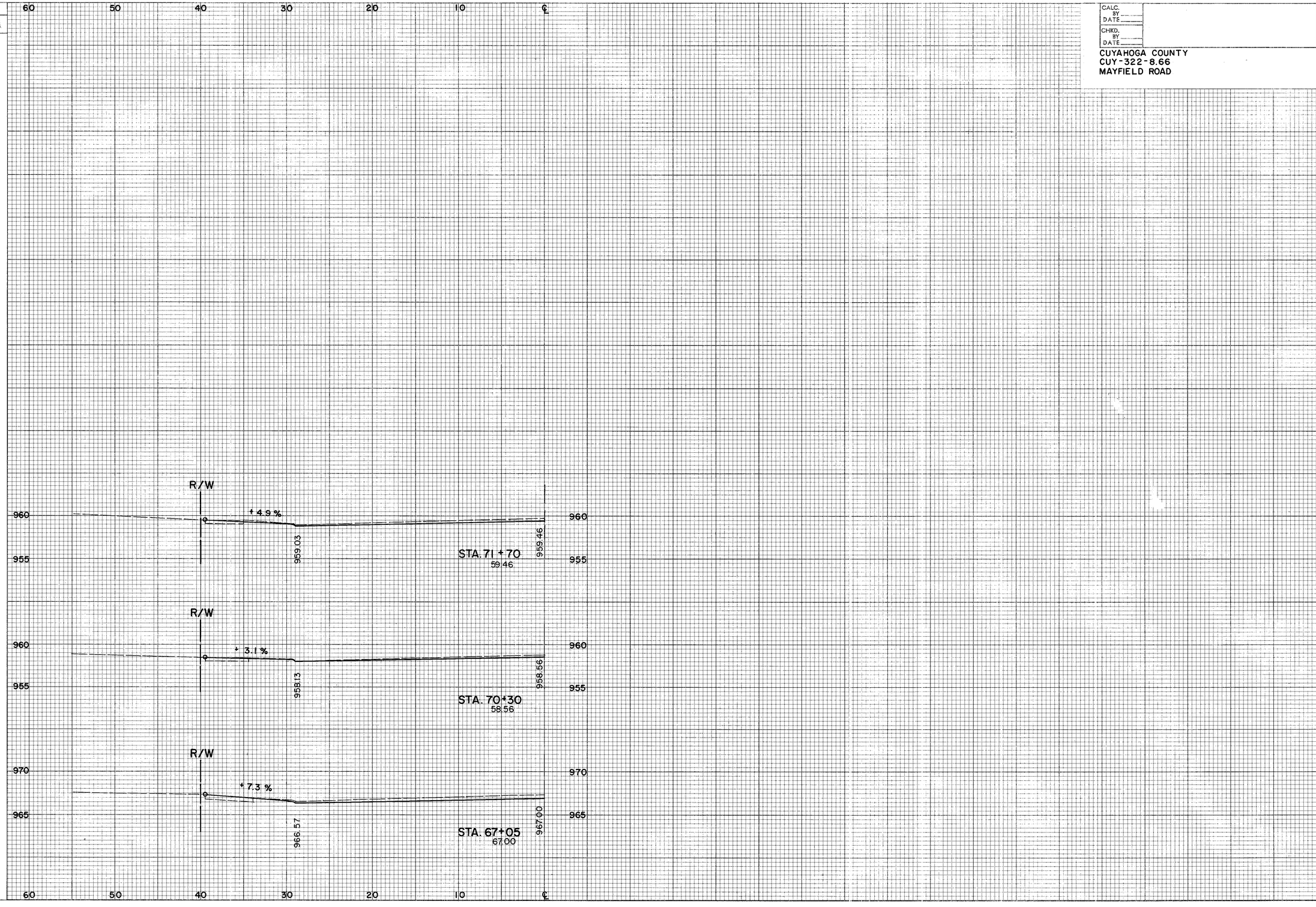
CALC. BY ____ DATE ____
CHKD. BY ____ DATE ____

OHIO
FHWA REGION

229
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL



MAYFIELD ROAD

MAYFIELD ROAD... DRIVEWAY PROFILES... LEFT... STA. 67 + 05 TO STA. 71 + 70

SEEDING	
END WIDTH	SQ. YDS.

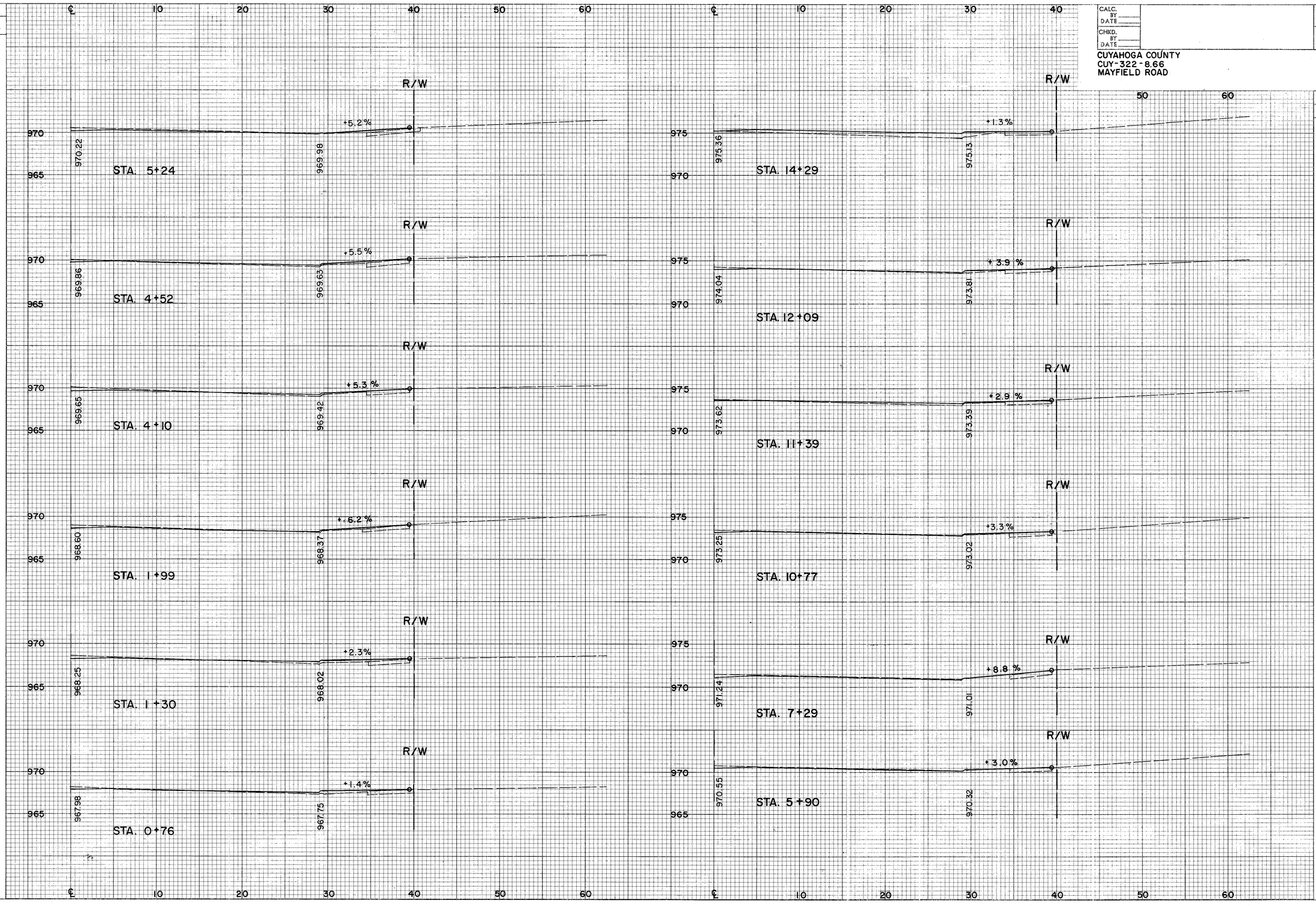
CALC. BY ____ DATE ____
CHKD. BY ____ DATE ____

OHIO
FHWA REGION

230
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL



MAYFIELD ROAD

MAYFIELD ROAD... DRIVEWAY PROFILES... RIGHT... STA. 0+76 TO STA. 14+29

SEEDING	
END WIDTH	SQ. YDS.

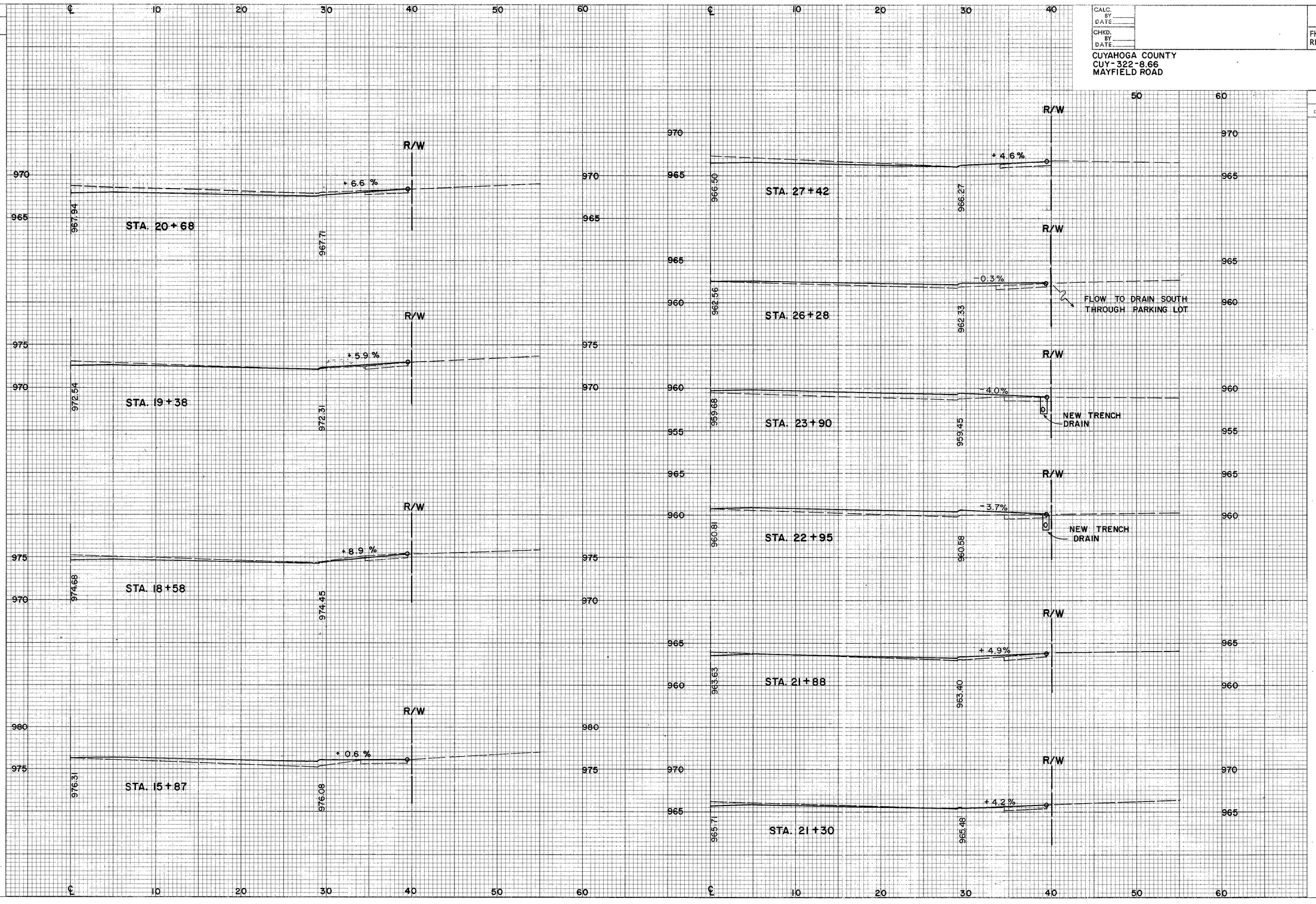
CALC. BY ____ DATE ____
CHKD. BY ____ DATE ____

OHIO
FHWA REGION

231
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL



MAYFIELD ROAD

MAYFIELD ROAD.... DRIVEWAY PROFILES.... RIGHT....STA. 15+40 TO STA. 27+42

SEEDING	
END WIDTH	SQ. YDS.

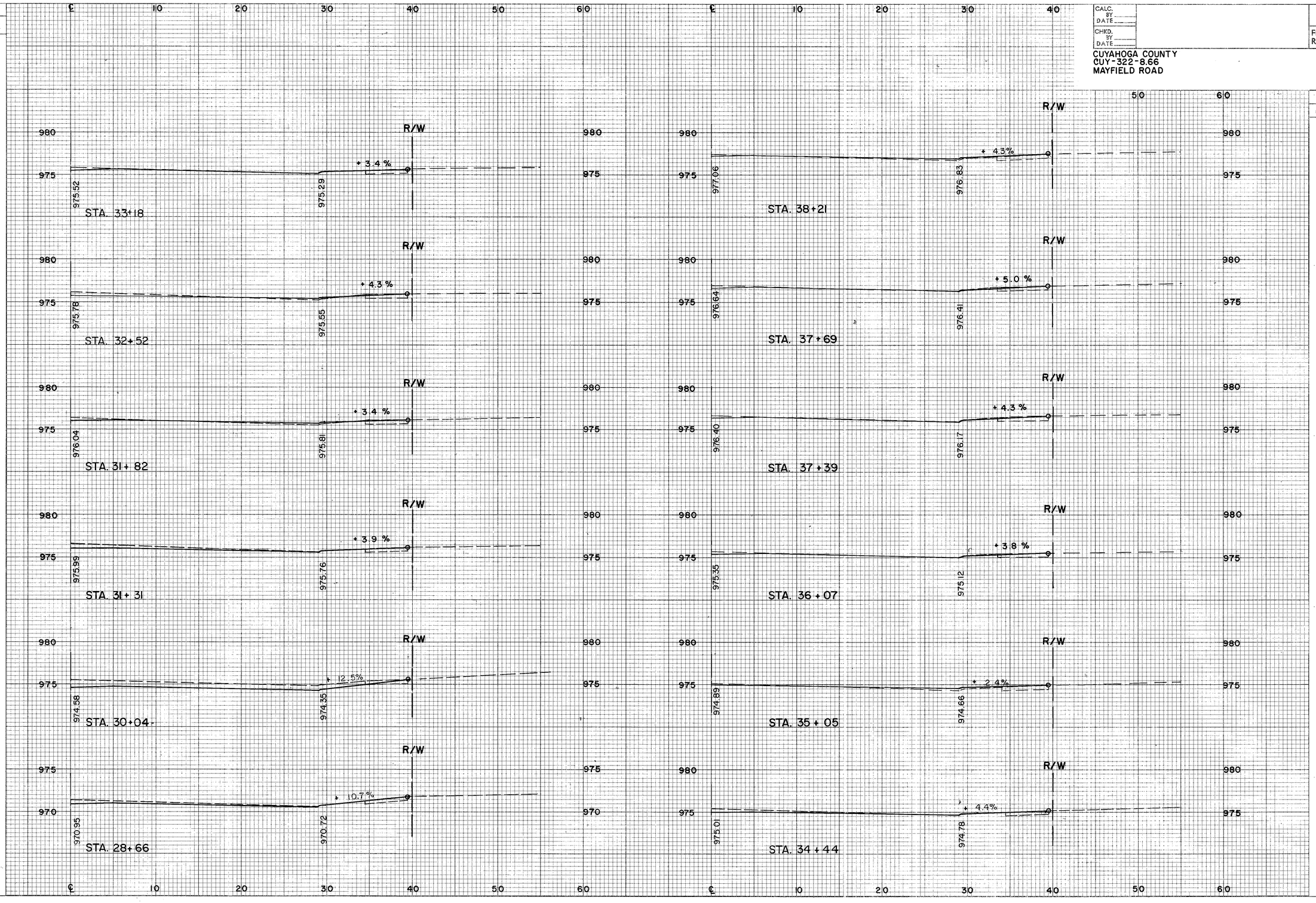
CALC. BY ____ DATE ____
CHKD. BY ____ DATE ____

OHIO
FHWA REGION

232
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL



MAYFIELD ROAD

MAYFIELD ROAD.... DRIVEWAY PROFILES.... RIGHT... STA. 28+66 TO STA. 38+21

SEEDING	
END WIDTH	SQ. YDS.

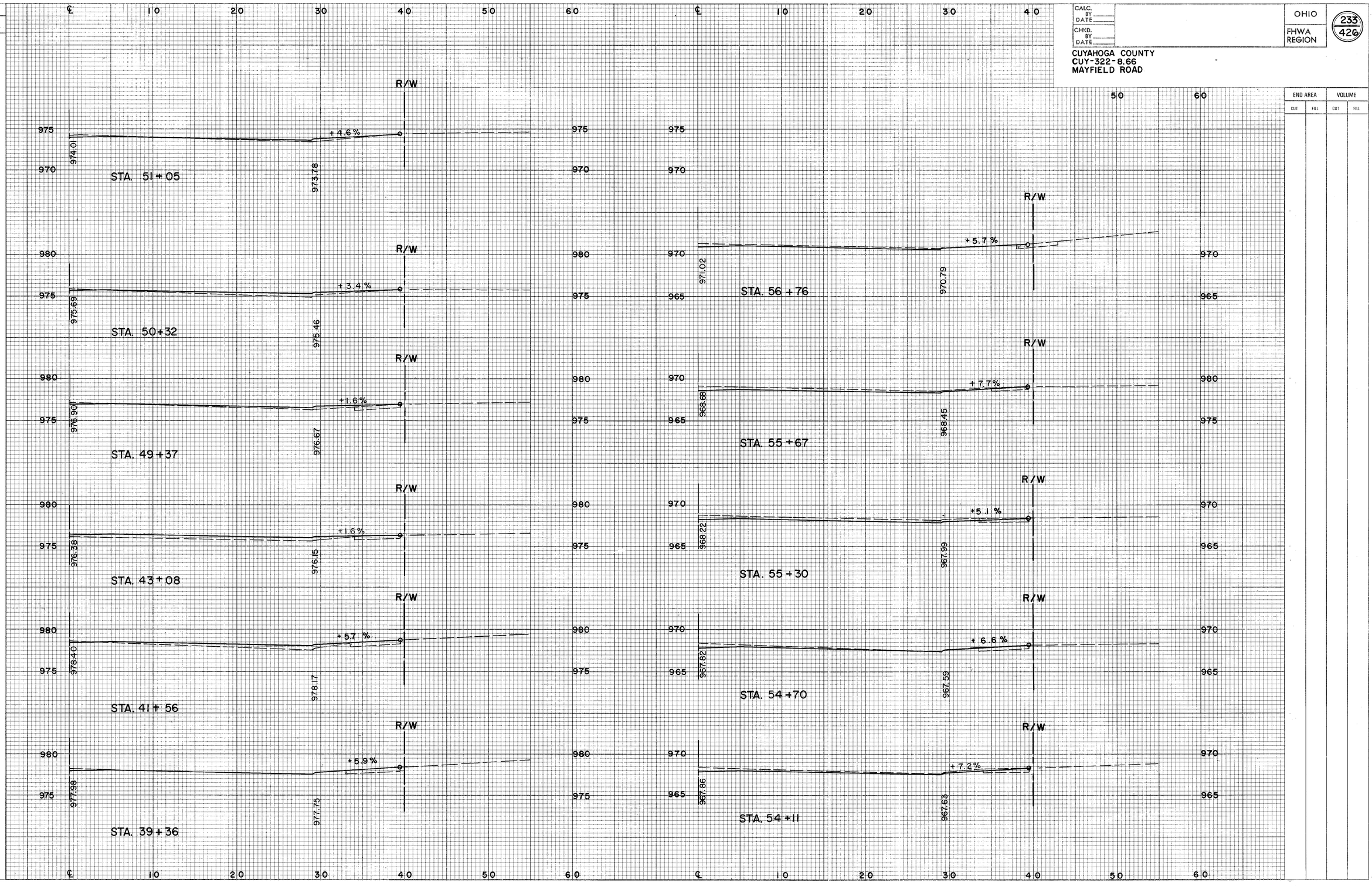
CALC. BY ____ DATE ____
CHKD. BY ____ DATE ____

OHIO
FHWA REGION

233
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL



MAYFIELD ROAD

MAYFIELD ROAD..... DRIVEWAY PROFILES.....RIGHT..... STA. 39+36 TO STA. 59+48

SEEDING	
END WIDTH	SQ. YDS.

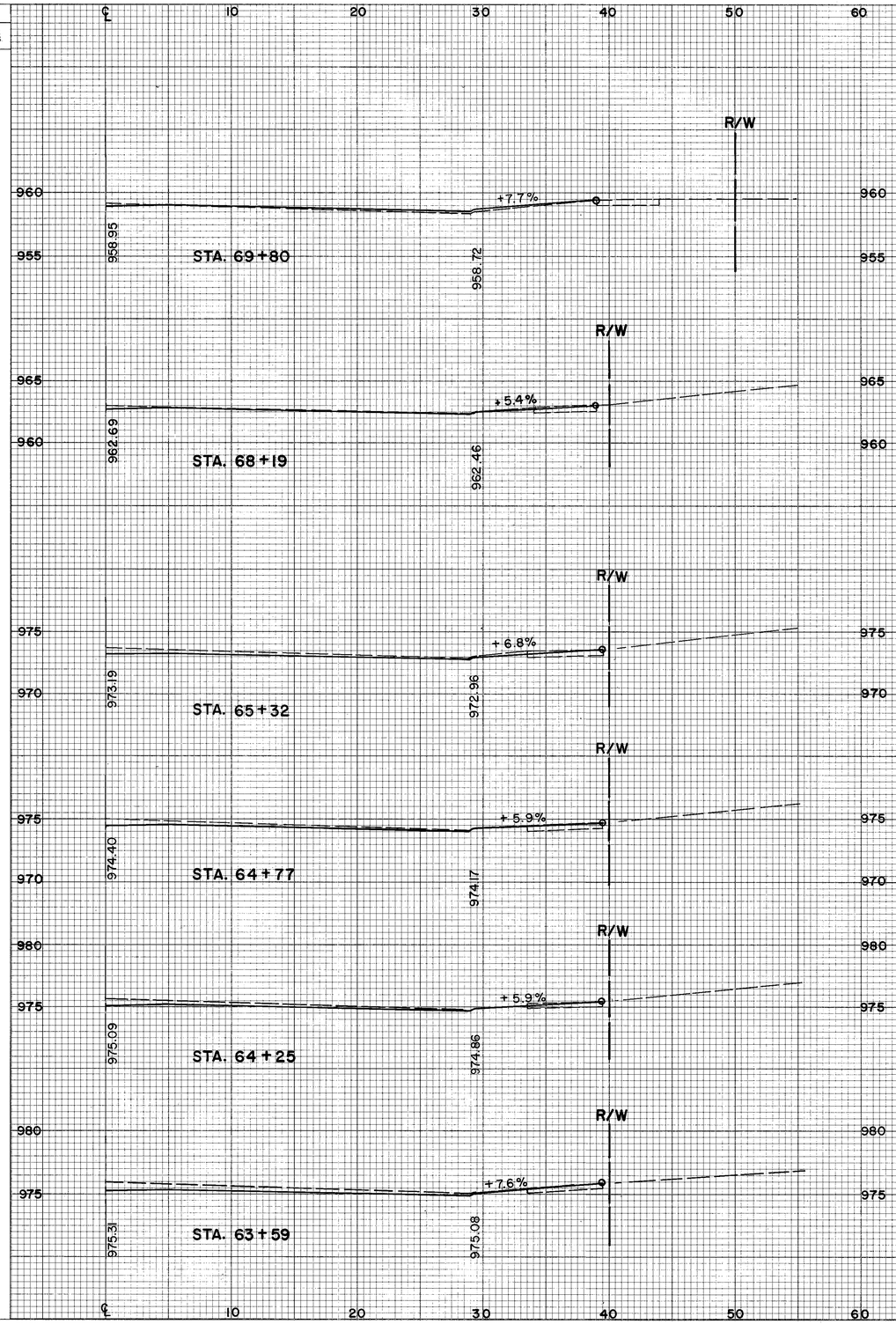
CALC. BY ____ DATE ____
CHKD. BY ____ DATE ____

OHIO
FHWA REGION

234
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL



MAYFIELD ROAD

MAYFIELD ROAD.....DRIVEWAY PROFILES.....RIGHT..... STA. 63+59 TO STA. 69+80

SEEDING	
END WIDTH	SQ. YDS.

F.H.W.A. REGION	STATE	PROJECT	
5	OHIO		

235
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL

60 50 40 30 20 10 0

1000 / 995 / 990 / 985 / 980 / 975

994.05 RW 998.96 1.5% 995.51

999.01 /
STA. 85+61 LT.
ASPH. DR. W/ CONC. APRON.

997.64 999.16 -1.2% 997.73

997.93 /
STA. 84+07 LT.
ASPH. DR. W/ CONC. APRON

994.96 -1.9% 995.06

995.26 /
STA. 80+72 LT.
ASPH. DR. W/ CONC. APRON

991.22 7.4% 990.44

990.64 /
STA. 78+89 LT.
CONC. APRON

990.64 9.1% 989.68

989.88 /
STA. 78+68 LT.
CONC. DR.

988.37 11.9% 987.12

~~987.12~~

987.32 /
STA. 78+05 LT.
CONC. DR.

984.99 12.1% 983.78

983.98 /
STA. 77+35 LT.
ASPH. DR. W/ CONC. APRON

980.67 8.8% 979.33

980.03 /
STA. 76+56 LT.
CONC. APRON

0 10 20 30 40 50 60

109+28 1014.95

1015 / 1010 / 1015 / 1010 / 1015 / 1010 / 1015 / 1010 / 990 / 985

1013.50 3.4% 1013.86

1013.85 /
STA. 104+46 RT.
ASPH. DR. W/ CONC. APRON

1014.29 4.0% 1014.71

1014.64 /
STA. 102+85 RT.
ASPH. DR.

1014.57 3.4% 1014.93

1014.92 /
STA. 102+27 RT.
CONC. APRON

1014.92 3.7% 1015.31

1015.27 /
STA. 101+55 RT.
CONC. APRON

1015.07 4.5% 1015.54

1015.42 /
STA. 100+96 RT.
ASPH. DR. W/ CONC. APRON

1013.32 2.5% 1013.58

1013.67 /
STA. 99+08.5 RT.
ASPH. DR. W/ CONC. APRON

990.19 -3.0% 989.85 989.65

990.52 /
STA. 78+85.5 RT.
CONC. DR.

0 10 20 30 40 50 60

MAYFIELD ROAD

STA. 76+56 LT. TO STA. 85+61 LT. — STA. 78+85.5 RT. TO STA. 109+28 RT.

DRIVE PROFILES

854739

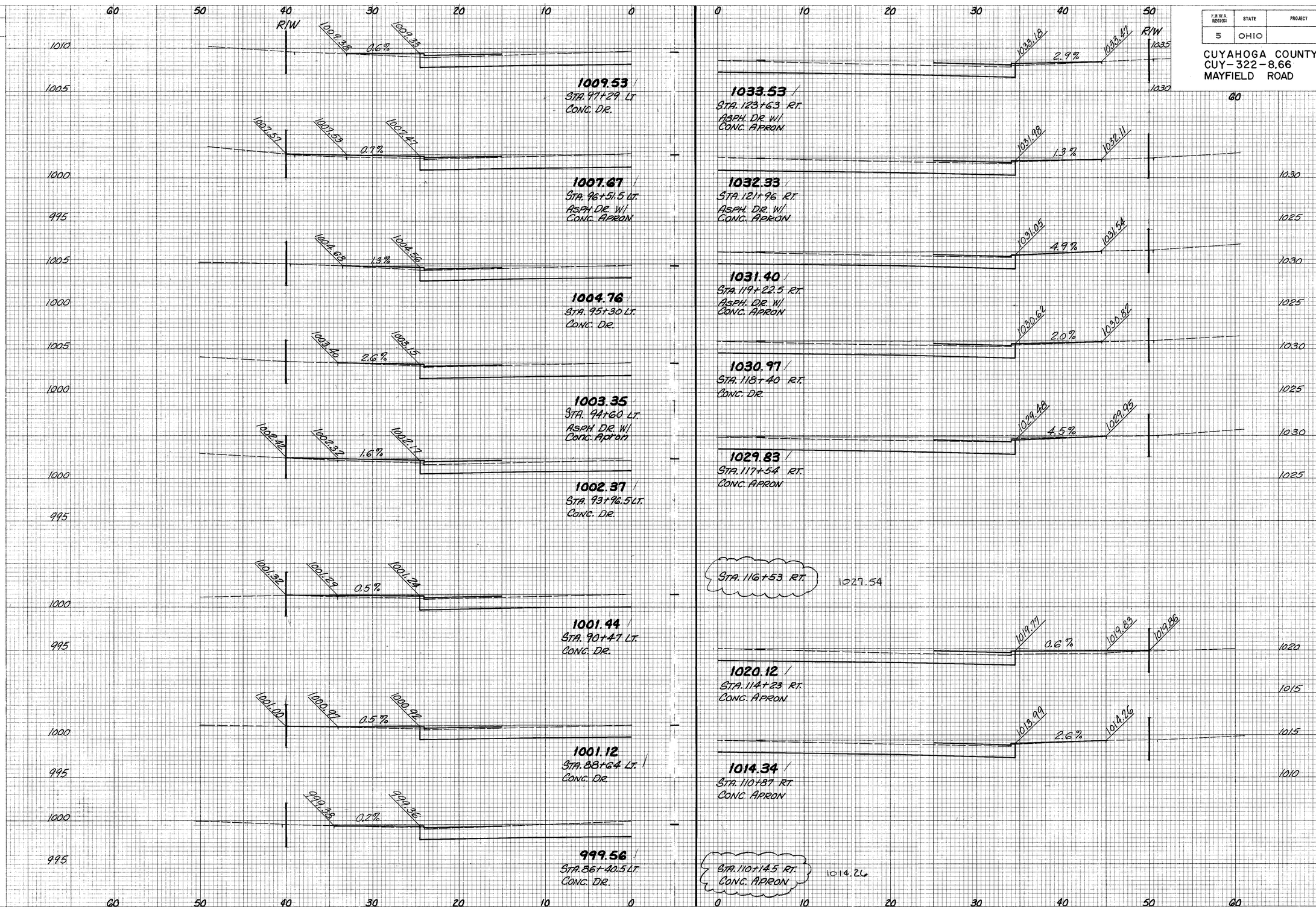
SEEDING	
END WIDTH	SQ. YDS.

F.H.W.A. REGION	STATE	PROJECT	
5	OHIO		

236
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL



MAYFIELD ROAD

STA. 86+40.5 LT. TO STA. 97+29 LT. — STA. 110+14.5 RT. TO STA. 123+63 RT.

DRIVE PROFILES

△2

BF64739

SEEDING	
END WIDTH	SQ. YDS.

F.H.W.A. REGION	STATE	PROJECT	
5	OHIO		

237
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL

1014.20
(BLANK)
110+34
(CHECK)

1014.39 /
STA. 109+88 LT.
CONC. APRON
1014.11 — -0.9% — 1014.19

1014.42 /
STA. 106+30 LT.
CONC. APRON
1013.80 — -2.7% — 1014.22

1013.97 /
STA. 105+60 LT.
CONC. APRON
1013.80 — 0.2% — 1013.77

1013.74 /
STA. 104+80 LT.
ASPH. DR. W/
CONC. APRON
R/W 1013.71 — 0.7% — 1013.54

1014.70 /
STA. 102+72 LT.
ASPH. DR. W/
CONC. APRON
1015.02 — 2.0% — 1014.50

1015.42 /
STA. 100+91 LT.
ASPH. DR. W/
CONC. APRON
1015.35 — 0.8% — 1015.22

1010.56 /
STA. 97+72 LT.
CONC. D.E.
1010.68 — 2.1% — 1010.36

1034.92 /
STA. 130+45 RT.
CONC. APRON
1034.57 — 2.8% — 1034.84

1035.06 /
STA. 130+07.5 RT.
GRAVEL DR. W/
CONC. APRON
1034.71 — 1.5% — 1034.85

1035.24 /
STA. 129+61 RT.
GRAVEL DR. W/
CONC. APRON
1034.89 — 1.3% — 1035.01

1035.40 /
STA. 129+19 RT.
CONC. APRON
1035.05 — 0.8% — 1035.13

1036.09 /
STA. 127+32.5 RT.
CONC. APRON
1035.74 — 2.1% — 1035.95

1035.41 /
STA. 125+97 RT.
ASPH. DR. W/
CONC. APRON
1035.06 — 2.7% — 1035.33

1034.65 /
STA. 125+02 RT.
ASPH. DR. W/
CONC. APRON
1032.30 — 3.8% — 1034.68

1034.01 /
STA. 124+22 RT.
ASPH. DR. W/
CONC. APRON
1033.66 — 2.9% — 1033.95

STA. 97+72 LT. TO STA. 110+34 LT. — STA. 124+22 RT. TO STA. 130+45 RT.

DRIVE PROFILES

MAYFIELD ROAD

R64739

SEEDING	
END WIDTH	SQ. YDS.

F.H.W.A. REGION	STATE	PROJECT	
5	OHIO		

238
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL

60 50 40 30 20 10 0

R/W 1031.13 1031.01 1.7% 1030.86

1031.06 ✓
STA. 118+50 LT.
ASPH. DR. W/ CONC. APRON

1030.09 2.5% 1029.88

1030.08 ✓
STA. 117+69 LT.
CONC. DR.

1028.20 0.2% 1028.22

1028.42 ✓
STA. 116+87 LT.
ASPH. DR.

1027.51 0.2% 1027.53

1027.73 ✓
STA. 116+60 LT.
CONC. APRON

1021.76 1.8% 1021.61

1021.81 ✓
STA. 114+75 LT.
CONC. APRON

1015.31 1015.20 1.6% 1015.06

1015.26 ✓
STA. 111+94 LT.
CONC. APRON

1014.79 1014.74 0.8% 1014.66

1014.86 ✓
STA. 111+54 LT.
CONC. APRON

1014.50 111+08.5

0 10 20 30 40 50 60

1052.08 0.1% 1052.09 R/W

1052.43 ✓
STA. 143+81 RT.
ASPH. DR. W/ CONC. APRON

X
AVENUE SPACE (APPROX. 142+77)
1052.13 ✓

1043.32 3.5% 1043.65

1043.67 ✓
STA. 140+09 RT.
ASPH. DR. W/ CONC. APRON

1034.27 1.2% 1034.39

1034.62 ✓
STA. 137+57 RT.
CONC. DR.

1033.05 4.8% 1033.51 R/W

1033.40 ✓
STA. 134+78 RT.
CONC. APRON

1033.46

1033.81 ✓
STA. 133+38 RT.
CONC. APRON

1033.47 2.5% 1033.71

1033.82 ✓
STA. 133+33 RT.
ASPH. DR. W/ CONC. APRON

1034.55 2.8% 1034.62 1034.79

1034.70 ✓
STA. 131+02 RT.
ASPH. DR. W/ CONC. APRON

1045 1050 1045 1040 1035 1030 1035 1035 1030 1035 1030

MAYFIELD ROAD

STA. 111+08.5 LT. TO STA. 118+50 LT. — STA. 131+02 RT. TO STA. 143+81 RT.

DRIVE PROFILES

4

B64739

SEEDING	
END WIDTH	SQ. YDS.

F.H.W.A. REGION	STATE	PROJECT	
5	OHIO		

239
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL

1035.23 ✓
STA. 129+64 LT.
CONC. APRON

1035.61 ✓
STA. 128+63 LT.
CONC. APRON

1036.10 ✓
STA. 127+22 LT.
CONC. APRON

1035.72 ✓
STA. 126+36 LT.
CONC. APRON

1033.65 ✓
STA. 123+78 LT.
ASPH. DR. W/
CONC. APRON

1033.17 ✓
STA. 123+17 LT.
CONC. DR.

1031.59 ✓
STA. 119+35 LT.
CONC. APRON

1031.29 ✓
STA. 118+89 LT.
CINDER DR. W/
CONC. APRON

1058.91 ✓
STA. 151+20 RT.
ASPH. DR. W/
CONC. APRON

1058.66 ✓
STA. 150+57 RT.
CONC. DR.

1056.84 ✓
STA. 147+52 RT.
CONC. APRON

1056.52 ✓
STA. 147+33 RT.
CONC. APRON

1054.85 ✓
STA. 146+32 RT.
CONC. DR.

1053.98 ✓
STA. 145+79 RT.
CONC. DR.

1053.29 ✓
STA. 145+36.5 RT.
ASPH. DR. W/
CONC. APRON

1052.74 ✓
STA. 144+87 RT.
ASPH. DR. W/
CONC. APRON

MAYFIELD ROAD

STA. 118+89 LT. TO STA. 129+64 LT. — STA. 144+87 RT. TO STA. 151+20 RT.

DRIVE PROFILES

5

864739

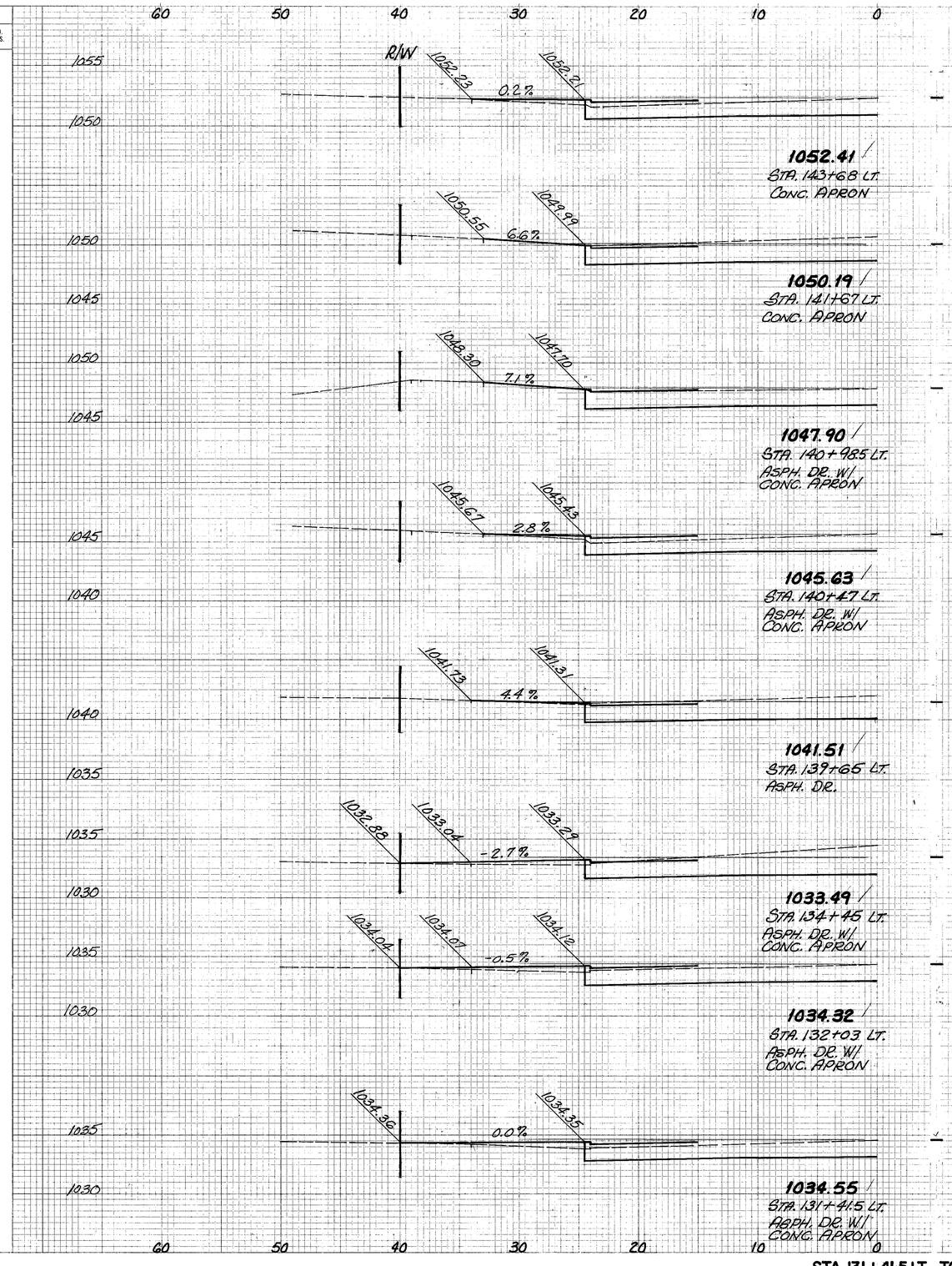
SEEDING	
END WIDTH	SQ. YDS.

F.H.W.A. REGION	STATE	PROJECT	
5	OHIO		

240
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL



STA. 131+41.5 LT. TO STA. 143+68 LT. — STA. 151+43 RT. TO STA. 161+92 RT.

DRIVE PROFILES

MAYFIELD ROAD

864739

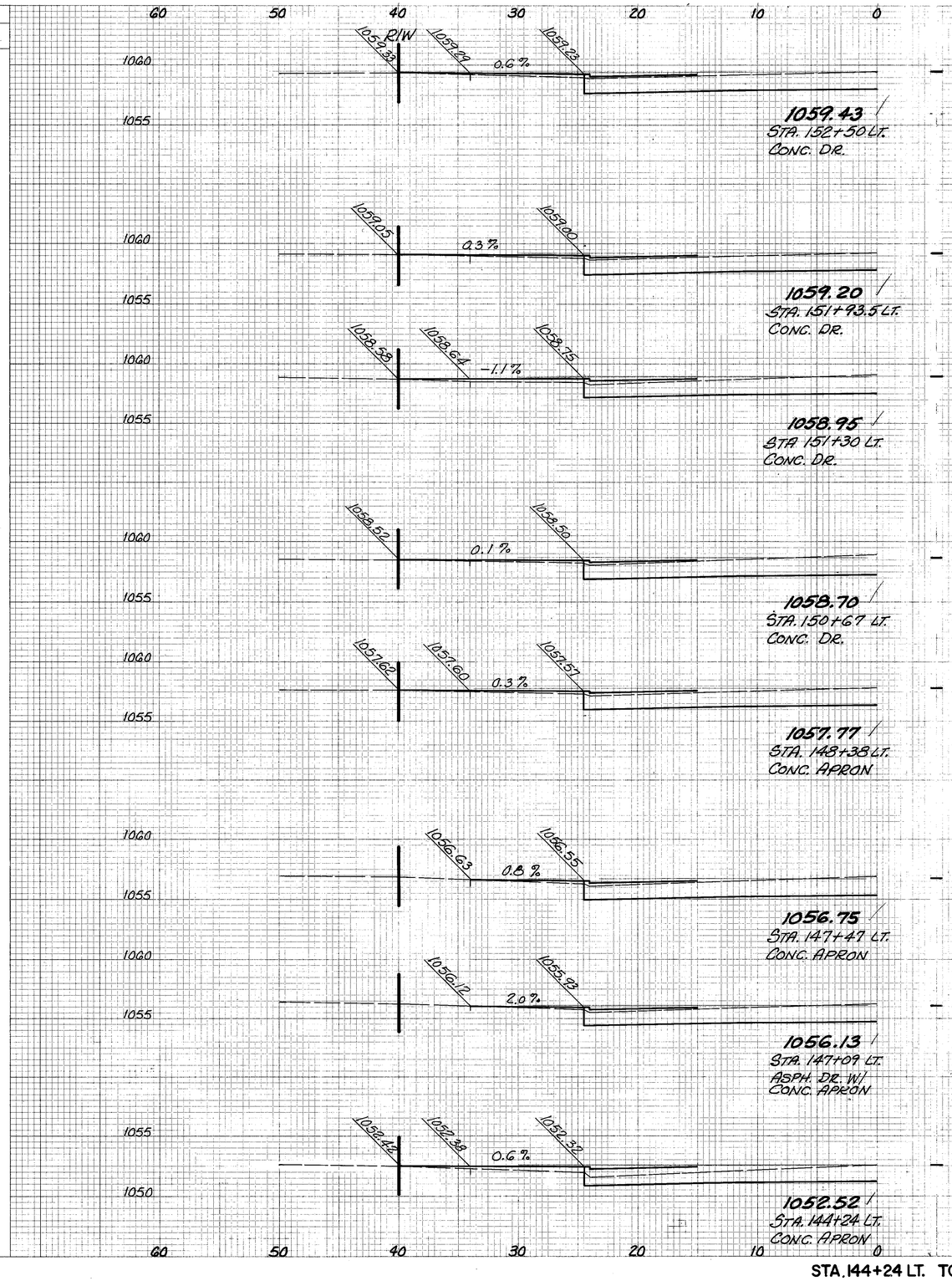
SEEDING	
END WIDTH	SQ. YDS.

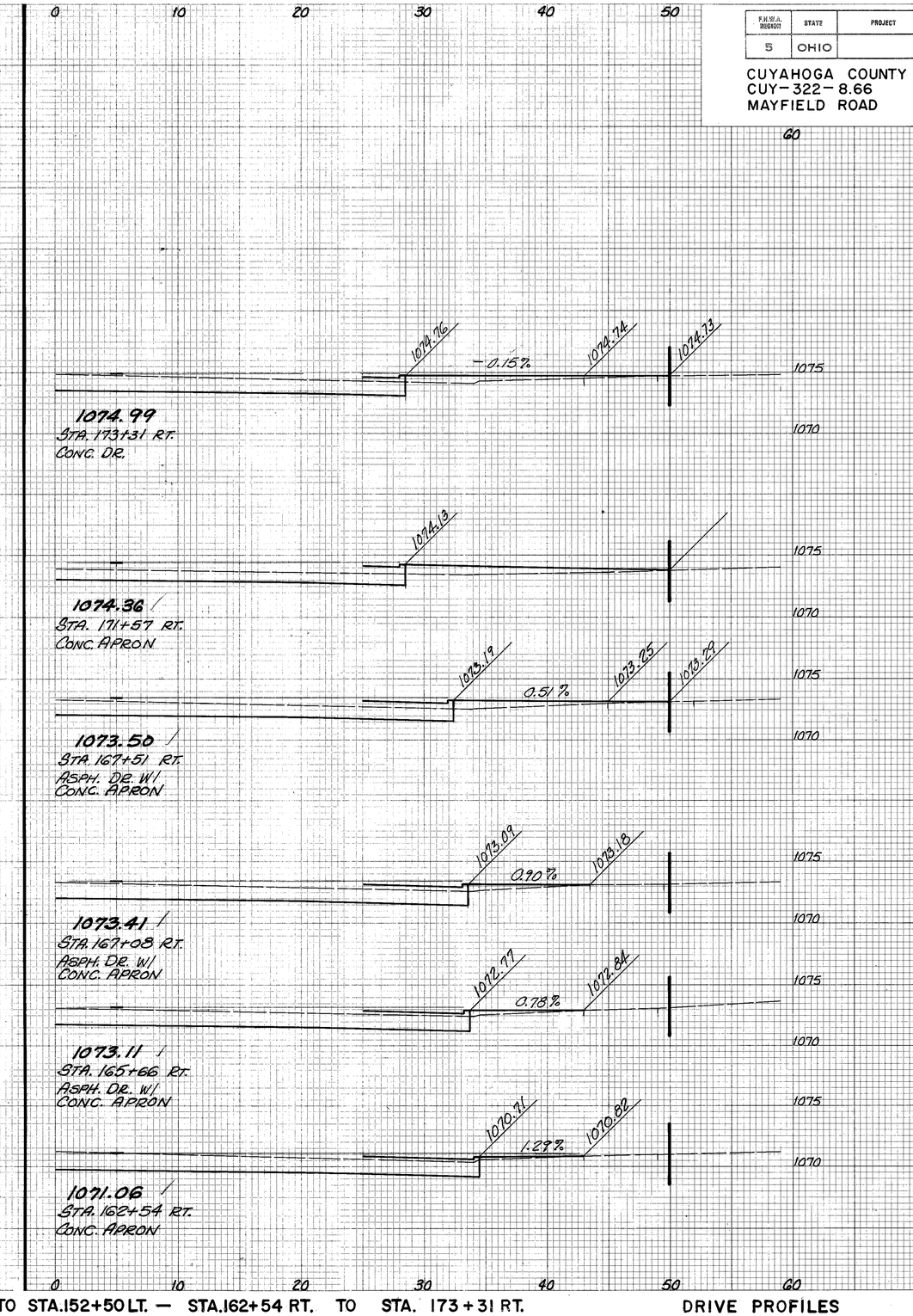
P.H. NO. & YEAR	STATE	PROJECT	
5	OHIO		

241
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL





MAYFIELD ROAD

STA. 144+24 LT. TO STA. 152+50 LT. — STA. 162+54 RT. TO STA. 173+31 RT.

DRIVE PROFILES

4

R64739

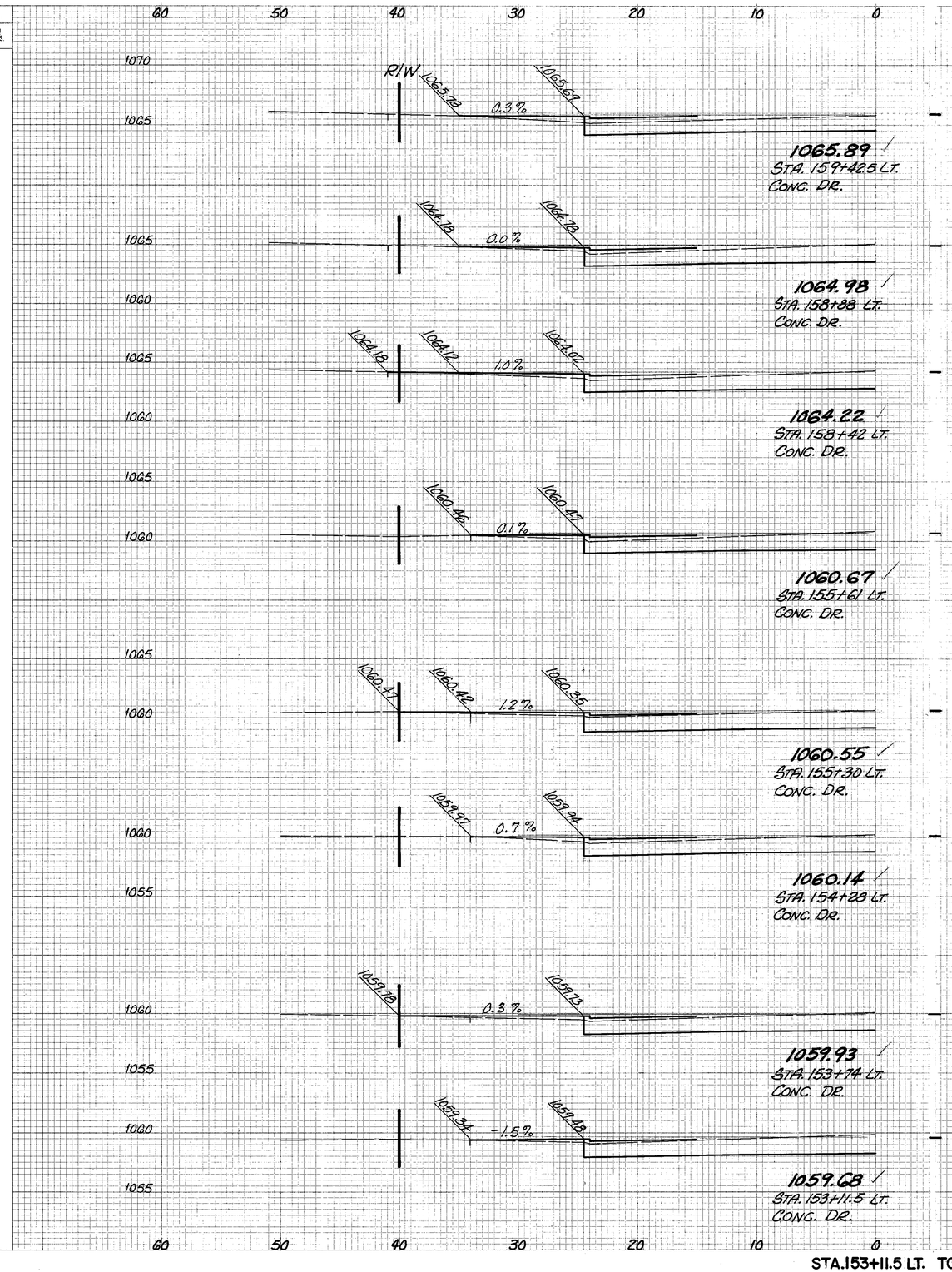
SEEDING	
ERO WIDTH	SQ. YDS.

F.H.W.A. REGION	STATE	PROJECT	
5	OHIO		

242
426

CUYAHOGA COUNTY
CUY- 322- 8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL



STA.153+11.5 LT. TO STA.159+42.5 LT. —

DRIVE PROFILES

MAYFIELD ROAD

B64739

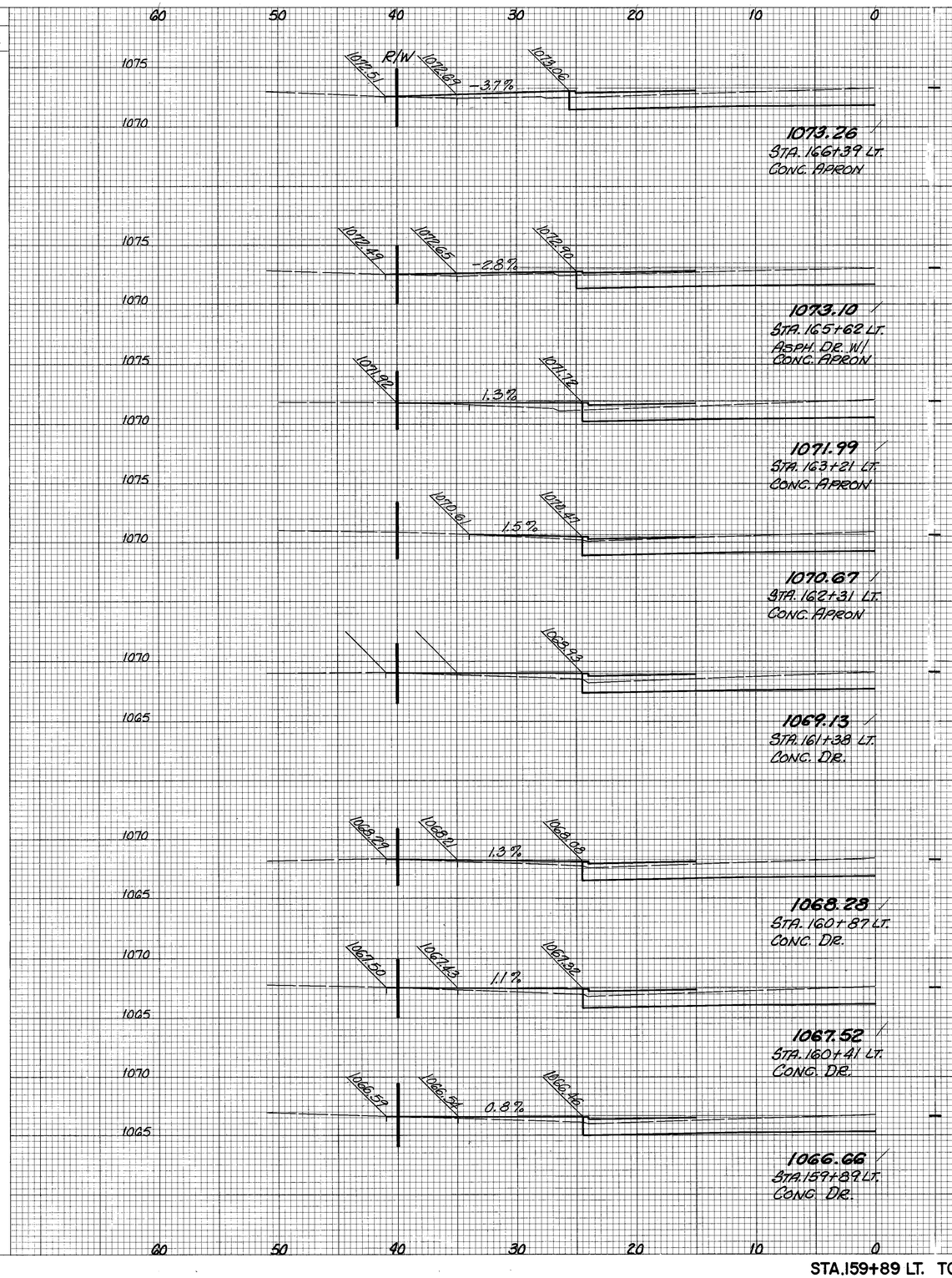
SEEDING	
END WIDTH	SQ. YDS.

F.H.W.A. REGION	STATE	PROJECT	
5	OHIO		

243
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL



MAYFIELD ROAD

STA. 159+89 LT. TO STA. 166+39 LT. —

DRIVE PROFILES

4

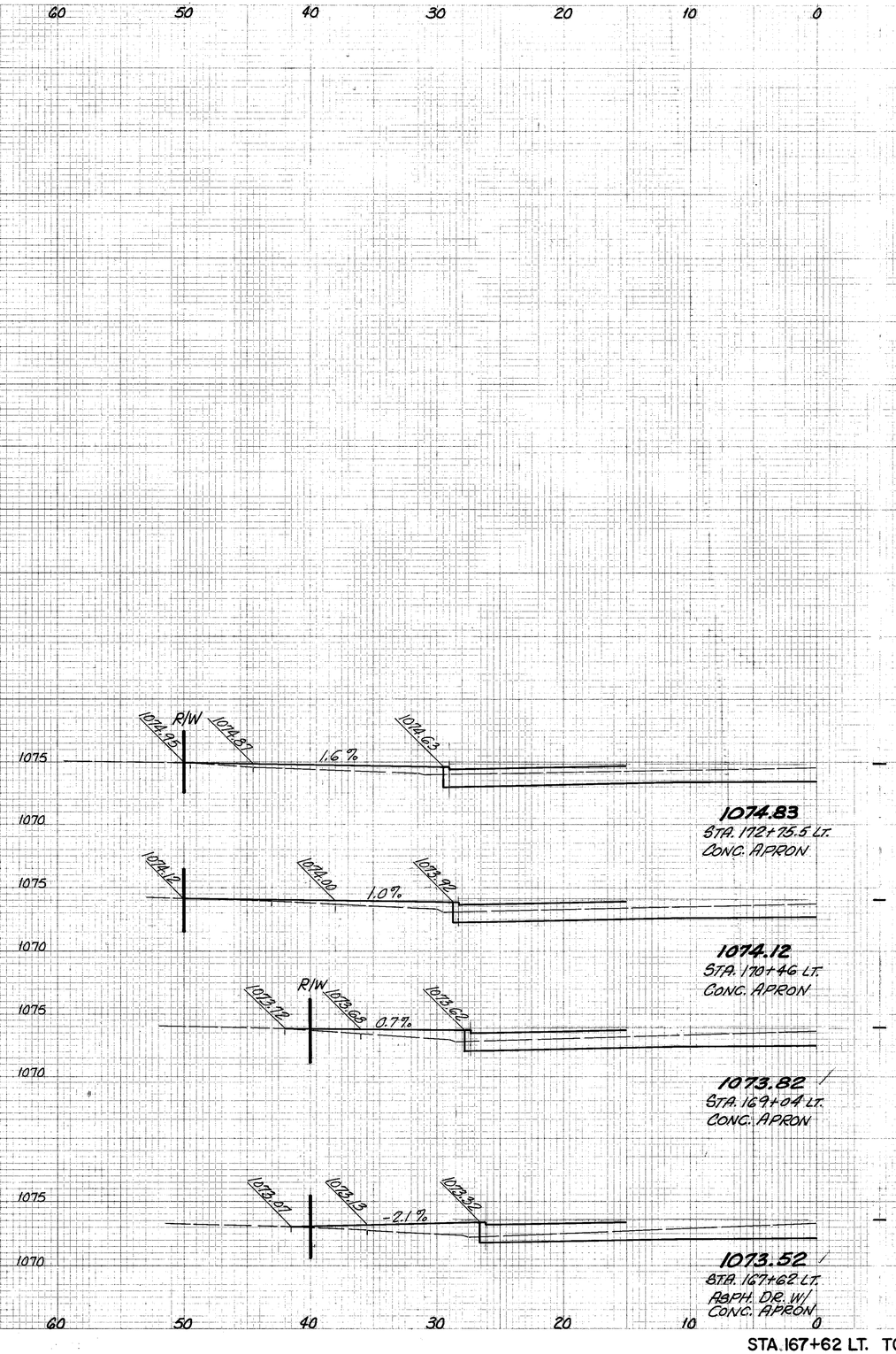
SEEDING	
END WIDTH	SQ. YDS.

F.H.W.A. REGION	STATE	PROJECT	
5	OHIO		

244
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

END AREA		VOLUME	
CUT	FILL	CUT	FILL



STA. 167+62 LT. TO STA. 172+75.5 LT. —

DRIVE PROFILES

MAYFIELD ROAD

R64139

I-3

TRAFFIC CONTROL NOTES

OHIO
F.H.W.A. REGION 5
246
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SCOPE

THESE NOTES AND SPECIFICATIONS SUPPLEMENT THE STATE OF OHIO'S CONSTRUCTION AND MATERIAL SPECIFICATIONS AND THE SUPPLEMENTAL SPECIFICATIONS NOTED ON THE TITLE SHEET. THE WORK TO BE PERFORMED BY THE CONTRACTOR IN CONNECTION WITH FURNISHING LABOR, SUPPLIES, EQUIPMENT, MATERIALS, AND PERFORMING ALL OPERATIONS NECESSARY FOR THE ACCEPTABLE INSTALLATION OF THE TRAFFIC CONTROL DEVICES, IN STRICT ACCORDANCE WITH THESE PLANS, NOTES AND SPECIFICATIONS. THESE NOTES, SCHEDULES, AND DRAWINGS ARE INTENDED TO PROVIDE FOR ALL MATERIAL AND LABOR REQUIRED TO FURNISH AND INSTALL A COMPLETE TRAFFIC CONTROL SYSTEM.

TRAFFIC CONTROL STANDARD CONSTRUCTION DRAWINGS

REFERENCES TO SUPPLEMENTAL SPECIFICATIONS 857, 858, 861, 957, 958, AND 961 ON THE TRAFFIC CONTROL STANDARD CONSTRUCTION DRAWINGS IN THESE PLANS SHALL BE CONSIDERED TO READ AS RESPECTIVE REFERENCES TO ITEMS 630, 631, 633, 730, 731 AND 733. REFERENCES TO ITEM 608 4" CONCRETE WALK FOR CONTROLLER WORK PADS SHALL BE CONSIDERED TO READ AS REFERENCES TO ITEM 633 CONTROLLER WORK PAD.

UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 ORC.

MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATIONS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC SIGNAL/FLASHER INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITIONS:

A) EXISTING SIGNAL/FLASHER INSTALLATIONS WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ONTO OR REMOVE, OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES OR OTHERWISE DISTURBS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION (AT AN INTERSECTION) FROM THE TIME HIS OPERATIONS FIRST DISTURB THE INSTALLATION UNTIL THE INSTALLATION HAS BEEN SUBSEQUENTLY REMOVED OR MODIFIED AND THE WORK IS ACCEPTED.

B) NEW OR REUSED SIGNAL/FLASHER INSTALLATIONS OR DEVICES, INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. HE SHALL PROVIDE THE CITY AND THE ENGINEER SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, 7 DAYS A WEEK. ALL LAMP OUTAGES, CABLE OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN FOUR HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGES.

IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE ALL DAMAGED EQUIPMENT EXCEPT POLES AND CONTROL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK IN SERVICE EIGHT HOURS AFTER THE CONTRACTOR'S NOTIFICATION OF THE OUTAGE.

IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO FULL OPERATION WITHIN THE ALLOWED EIGHT HOUR PERIOD, AND SHALL MAKE PERMANENT REPAIRS OF REPLACEMENT AS SOON THEREAFTER AS POSSIBLE.

NONE OF THE ABOVE SHALL BE CONSTRUED AS COLLECTIVE OR CONSECUTIVE OUTAGE TIME PERIODS AT ANY ONE LOCATION, THEN THE ALLOTTED TIME LIMIT SHALL BE FOR THE WORST SINGLE OUTAGE.

WHERE OUTAGES ARE THE DIRECT RESULT OF A VEHICLE ACCIDENT THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION OF ANY COMPENSATION FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGE.

WHERE THE CONTRACTOR HAS FAILED TO OR CANNOT RESPOND TO AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION, AT THESE LOCATIONS WITHIN HIS RESPONSIBILITY, WITHIN PERIOD AS SPECIFIED ABOVE, THE ENGINEER MAY INVOKE THE PROVISIONS OF SECTION 105.15 AND ANY SUBSEQUENT BILLINGS TO THE STATE, THE CITY OF LYNDHURST, OR THE CITY OF SOUTH EUCLID FOR POLICE SERVICES AND MAINTENANCE SERVICES BY CITY FORCES SHALL BE DEDUCTED FROM MONIES DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15.

THE CONTRACTOR SHALL PROVIDE THE MAINTENANCE SERVICE ENTIRELY WITH HIS FORCES OR HE MAY CHOOSE TO ENTER INTO A COOPERATIVE UNDERSTANDING WITH THE LOCAL MAINTAINING AGENCY TO PROVIDE THE MAINTENANCE AT CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL INFORM THE ENGINEER, IN WRITING, OF THE MAINTENANCE METHOD SELECTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY TRAFFIC SIGNAL COMPONENTS REQUIRED TO BE HANDLED DURING THE RELOCATION OF POLES AND REVISIONS TO THE SIGNAL SYSTEM.

WHEN A TRAFFIC SIGNAL MUST BE TAKEN OUT OF SERVICE BY THE CONTRACTOR, DUE TO CONSTRUCTION PROCEDURES, THIS OUTAGE SHALL NOT EXCEED 3 HOURS AND SHALL NOT INCLUDE THE HOURS OF 7:00 AM TO 9:00 AM, 12:00 PM TO 1:00 PM, AND 4:00 PM TO 6:00 PM. ANY SIGNALIZED INTERSECTION, WHERE THE SIGNAL IS OUT OF SERVICE DUE TO CONSTRUCTION PROCEDURES, OR DUE TO AN OUTAGE OR MALFUNCTION OF EQUIPMENT AS DESCRIBED ABOVE, SHALL BE PROTECTED, BY THE CONTRACTOR, WITH THE INSTALLATION OF TEMPORARY "STOP" SIGNS, EXCEPT FOR THE FOLLOWING INTERSECTIONS WHICH SHALL BE PROTECTED BY OFF-DUTY CITY OF LYNDHURST OR CITY OF SOUTH EUCLID POLICE, HIRED BY THE CONTRACTOR.

1. MAYFIELD ROAD (US 322) & GREEN ROAD (SOUTH EUCLID)
2. MAYFIELD ROAD (US 322) & BELVOIR BOULEVARD (SOUTH EUCLID)
3. MAYFIELD ROAD (US 322) & WARRENSVILLE CENTER ROAD (SOUTH EUCLID)
4. MAYFIELD ROAD (US 322) & BRAINARD ROAD (LYNDHURST)
5. MAYFIELD ROAD (US 322) & RICHMOND ROAD (S.R. 175) (LYNDHURST)
6. MAYFIELD ROAD (US 322) & DAYTONA ROAD (SCHOOL HOURS) (LYNDHURST)

ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING WHICH WILL BE OUT OF OPERATION SHALL BE COVERED IN THE MANNER DESCRIBED IN 632.24.

ALL COSTS RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR THE ITEM 614, MAINTAINING TRAFFIC.

TEMPORARY MAINTENANCE OF EXISTING SIGNALS

INCIDENTAL TO THE REQUIREMENTS FOR MAINTAINING TRAFFIC IN ACCORDANCE WITH 614.03, EXISTING TRAFFIC SIGNALS AT ALL THE INTERSECTIONS SHALL BE TEMPORARILY MAINTAINED UNTIL THE NEW TRAFFIC SIGNAL INSTALLATION IS IN OPERATION.

AT EXISTING SIGNALIZED INTERSECTIONS, THE CONTRACTOR SHALL RELOCATE THE SIGNAL HEADS AS NECESSARY TO ALIGN THE SIGNAL HEADS WITH THE ACTIVE TRAFFIC LANES INCLUDING ADDITIONAL WIRING OR MODIFICATIONS OF THE SIGNAL CONTROLLER AS APPROVED BY THE ENGINEER.

ANY COSTS FOR THE TEMPORARY MAINTENANCE OF EXISTING SIGNALS SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR 614 MAINTAINING TRAFFIC.

ITEM 632 REMOVAL OF TRAFFIC SIGNAL INSTALLATION

THE REMOVAL SHALL CONSIST OF VEHICULAR SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS, CONTROLLER WITH CABINET, TRAFFIC POLES AND PEDESTALS, MESSENGER WIRE, CABLE, CONDUIT RISER, AND ALL OTHER PORTIONS OF THE TRAFFIC SIGNAL INSTALLATION.

CONTRACTOR SHALL STORE REMOVED EQUIPMENT AND MATERIALS ON THE SITE FOR PICKUP BY THE CITY OF SOUTH EUCLID. IF THE EQUIPMENT AND MATERIALS HAVE NOT BEEN PICKED UP BY THE CITY AT THE END OF CONSTRUCTION, THE EQUIPMENT AND MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE CITY OF SOUTH EUCLID TO DISCONNECT EXISTING POWER SERVICE BEFORE THE EXISTING SIGNAL INSTALLATION IS REMOVED.

ITEM 632 REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN

REMOVED ITEMS SHALL BE DELIVERED AND UNLOADED AT THE CITY OF LYNDHURST SERVICE GARAGE LOCATED AT 5301 MAYFIELD ROAD IN ACCORDANCE WITH THE LISTING GIVEN ON SHEET 256.

POWER SERVICE, AS PER PLAN ITEM 632

ELECTRIC POWER SHALL BE OBTAINED FROM THE CLEVELAND ELECTRIC ILLUMINATING COMPANY AT THE LOCATION INDICATED ON THE PLANS. POWER SUPPLIED SHALL BE 115 VOLTS. NO METER IS REQUIRED.

ITEM 632 INTERCONNECT CABLE, INTEGRAL MESSENGER WIRE TYPE, 6 PAIR 19 AWG, SOLID, REA (PE-38), AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF INSTALLING INTEGRAL MESSENGER TYPE INTERCONNECT CABLE MEETING THE REQUIREMENTS OF 732.19 AND REA (PE-38). UNDER THIS METHOD ANY SECTIONS OF CABLE SHOWN IN THE PLANS TO BE CONTAINED IN CONTROLLERS, CABINETS, POLES, CONDUITS OR SUPPORTED ON MESSENGER WIRE INSTALLED FOR OTHER PURPOSES SHALL HAVE THE SUPPORTING MESSENGER AND JACKET WEB NEATLY REMOVED BY USE OF A TOOL SPECIFICALLY DESIGNED AND SIZED FOR THIS PURPOSE. DEVIATIONS FROM THE CABLE ROUTING SHOWN IN THE PLAN, FOR THE SOLE PURPOSE OF REDUCING THE AMOUNT OF MESSENGER TO BE REMOVED, WILL NOT BE PERMITTED. THE CABLE SHALL BE INSTALLED WITH APPROXIMATELY ONE TWIST FOR EACH 15 FEET OF SPAN LENGTH.

SPLICES SHALL OCCUR ONLY AT THE TERMINAL ENDS OF THE HARDWARE INTERCONNECT PANEL. THE NUMBER OF SPLICES BETWEEN CONTROLLERS SHALL BE ZERO.

PRUNING OF TREES IN ACCORDANCE WITH LA-1 TO PREVENT CONTACT WITH INTERCONNECT CABLE SHALL BE INCIDENTAL TO THE COST OF THE BID ITEM.

MEASUREMENT WILL BE BASED UPON THE NUMBER OF LINEAR FEET OF INTERCONNECT CABLE, INTEGRAL MESSENGER WIRE TYPE, 6 PAIR 19 AWG, SOLID, REA (PE-38), AS PER PLAN IN PLACE IN ACCORDANCE WITH THE METHOD DESCRIBED IN 632.28.

ITEM 632 REMOVAL OF EXISTING INTERCONNECT WIRE

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AND DISPOSING OF EXISTING INTERCONNECT WIRE FROM EXISTING POWER POLES ALONG THE SOUTH SIDE OF MAYFIELD ROAD (US 322) FROM THE SIGNALIZED INTERSECTION OF WARRENSVILLE CENTER ROAD TO THE SIGNALIZED INTERSECTION OF DORSH ROAD IN THE CITY OF SOUTH EUCLID AND FROM THE SIGNALIZED INTERSECTION OF DAYTONA ROAD TO THE SIGNALIZED INTERSECTION OF ST. CLAIRE CHURCH DRIVE IN THE CITY OF LYNDHURST.

PAYMENT FOR 632 REMOVAL OF EXISTING INTERCONNECT WIRE WILL BE AT THE CONTRACT UNIT PRICE FOR EACH LINEAL FOOT OF INTERCONNECT WIRE REMOVED AND DISPOSED OF AS SHOWN IN THE PLANS.

ITEM 625 PULL BOX, 713.08, 18" OR 24", AS PER PLAN

THIS ITEM SHALL CONSIST OF 18" OR 24" PRECAST CONCRETE TYPE PULL BOX. THE COVER SHALL BE MARKED WITH THE WORD "TRAFFIC" ON A PLATE IN ACCORDANCE WITH 713.08.

UNDERDRAINS FOR PULL BOXES

REFERENCE IS MADE TO THE STANDARD DRAWING HL-30.11 FOR DETAILS OF DRAINING PULL BOXES. UNDERDRAINS FOR PULL BOXES SHALL BE USED AS DIRECTED BY THE ENGINEER AND SHALL BE PROVIDED WHERE THE LENGTH REQUIRED FOR A SATISFACTORY OUTLET DOES NOT EXCEED APPROXIMATELY 40 FEET. AN ESTIMATED QUANTITY OF 450 L.F. FEET OF ITEM 603, 4" CONDUIT TYPE E, 707.15 IS INCLUDED IN THE GENERAL SUMMARY FOR THIS PURPOSE.

ITEM 630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING AND DISPOSING OF EXISTING OVERHEAD MOUNTED SIGNS INCLUDING EXISTING SPAN WIRE FROM EXISTING POWER POLES.

PAYMENT FOR 632 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN WILL BE AT THE CONTRACT UNIT PRICE FOR EACH SIGN REMOVED AND DISPOSED OF AS SHOWN IN THE PLANS.

632 LOOP DETECTOR UNITS, BY TYPE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF 632 AND 732.07 OR 732.08, LOOP DETECTOR UNITS SHALL HAVE THE FOLLOWING REQUIREMENTS OR FEATURES:

THE OUTPUT DEVICE SHALL BE A RELAY, AND ALL CONTACTS SHALL BE INCLUDED IN THE WIRING HARNESS.

THE LOOP DETECTOR UNITS FOR NON-SYSTEM LOOPS SHALL HAVE TWO (2) OUTPUTS. ONE OUTPUT TO BE PRESENCE AND THE OTHER TO BE PULSE TO ENABLE ACCURATE COUNTING OF VEHICLES ENTERING THE LOOP EVEN WHEN PRECEDING VEHICLES REMAIN PRESENT OVER THE LOOP. THE COUNT OUTPUT SHALL BE WIRED TO THE SYSTEM INPUT OF THE TRANSCEIVER MODULE. THE PRESENCE OUTPUT SHALL BE WIRED TO THE CONTROLLER'S DETECTOR INPUT AND THE TRANSCEIVER MODULE'S GRAPHICS DETECTOR INPUT.

THE UNIT SHALL BE SELF TUNING.

THE UNITS ELECTRICAL CONNECTION PLUGS OR WIRING HARNESS SHALL ALLOW READY REPLACEMENT WITH A SINGLE CHANNEL AMPLIFIER AS DESCRIBED IN THE FINAL PARAGRAPH OF 732.07.

EACH AMPLIFIER SHALL BE NUMBERED TO CORRESPOND WITH ITS LOOP NUMBER. THE LOOP NUMBERS ARE SHOWN ON EACH PLAN SHEET.

TRAFFIC CONTROL NOTES

ITEM 632 VEHICULAR SIGNAL HEADS, 3,4, OR 5 SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN

SECTION 732.01 OF THE SPECIFICATIONS IS MODIFIED FOR THIS PROJECT AS FOLLOWS:

A) SIGNAL HEADS AND VISORS SHALL BE CONSTRUCTED OF INJECTION MOLDED, UV STABILIZED, POLYCARBONATE PLASTIC AND MEET ITE SPECIFICATIONS.

B) PLASTIC LENSES SHALL BE USED.

C) PIPE, SPACERS, AND FITTINGS CONSTRUCTED OF POLYCARBONATE PLASTIC MAY BE USED IN LIEU OF GALVANIZED STEEL OR ALUMINUM.

D) PROPER EXTERIOR COLORS SHALL BE OBTAINED BY USE OF COLORED PLASTIC MATERIAL RATHER THAN PAINTING.

E) SIGNAL HEADS SHALL BE OF RIGID MOUNT TYPE.

ITEM 632 VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED, 3-SECTION, 12" LENS, 1-WAY, AS PER PLAN

A) SIGNAL HEADS SHALL BE EQUIPPED WITH DIMMERS.

ITEM 632 PEDESTRIAN SIGNAL HEADS, TYPE D-2, AS PER PLAN

SECTION 732.05 OF THE SPECIFICATIONS IS MODIFIED FOR THIS PROJECT AS FOLLOWS:

A) SIGNAL HEADS AND VISORS SHALL BE CONSTRUCTED OF ALUMINUM AND MEET ITE SPECIFICATIONS.

B) PLASTIC LENSES SHALL BE USED.

C) PIPE, SPACERS, AND FITTINGS CONSTRUCTED OF POLYCARBONATE PLASTIC MAY BE USED IN LIEU OF GALVANIZED STEEL OR ALUMINUM.

D) SIGNAL HEADS SHALL DISPLAY THE UPRAISED PALM AND WALKING PERSON SYMBOL AS SHOWN ON SIGNAL PLAN SHEETS.

GUARANTEE

THE CONTRACTOR SHALL GUARANTEE THAT THE TRAFFIC CONTROL SYSTEM INSTALLED AS PART OF THIS CONTRACT SHALL OPERATE SATISFACTORILY FOR A PERIOD OF 180 DAYS FOLLOWING COMPLETION OF THE 10-DAY PERFORMANCE TEST. IN THE EVENT OF UNSATISFACTORY OPERATION, THE CONTRACTOR SHALL CORRECT FAULTY INSTALLATIONS, MAKE REPAIRS AND REPLACE DEFECTIVE PARTS WITH NEW PARTS OF EQUAL OR BETTER QUALITY. EQUIPMENT, MATERIAL AND LABOR COSTS INCURRED IN CORRECTING AN UNSATISFACTORY OPERATION SHALL BE BORNE BY THE CONTRACTOR.

THE GUARANTEE SHALL COVER THE FOLLOWING ITEMS OF THE TRAFFIC CONTROL SYSTEM: CONTROLLERS AND ASSOCIATED EQUIPMENT, DETECTOR UNITS, INTERCONNECTION ITEMS AND MASTER CONTROL EQUIPMENT.

CUSTOMARY MANUFACTURER'S GUARANTEES FOR THE FOREGOING ITEMS SHALL BE TURNED OVER TO THE STATE OR THE MAINTAINING AGENCY FOLLOWING ACCEPTANCE OF THE EQUIPMENT.

THE COST OF GUARANTEEING THE TRAFFIC CONTROL SYSTEM WILL BE INCIDENTAL TO AND INCLUDED IN THE CONTRACT UNIT PRICE OF THE VARIOUS ITEMS MAKING UP THE SYSTEM.

CITY OF LYNDHURST (LOCAL AND MASTER CONTROLLER SPECIFICATIONS)

ITEM 633 CONTROLLER, ACTUATED, BY PHASE, SOLID STATE DIGITAL MICROPROCESSOR, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING ACTUATED, SOLID STATE DIGITAL MICROPROCESSOR TYPE CONTROLLERS WITH SECONDARY COORDINATOR, MENU DRIVEN PROMPTS, INTERNAL TBC, TELEMETRY UNIT, AND ALL OTHER ACCESSORIES THAT ARE NECESSARY TO MAKE THE CONTROLLER COMPLETELY FUNCTIONAL AND OPERATIONAL AS SHOWN IN THE PLANS.

THE CONTROLLER AND CABINET SHALL CONFORM TO O.D.O.T. SPECIFICATION 633 AND SHALL HAVE THE FOLLOWING FEATURES:

1. THE LOAD SWITCHES SHALL PROVIDE INPUT AND OUTPUT INDICATIONS.
2. THE CONFLICT MONITOR CAPABLE OF 6 OR 12 CHANNEL OPERATION, EXTENDED MONITORING LCD DISPLAY AND FAULT/EVENT STORAGE.
3. THE FOLLOWING SWITCHES SHALL BE ACCESSIBLE VIA THE POLICE PANEL DOOR:
   A. SIGNAL SHUTDOWN
   B. FLASH CONTROL
   C. MANUAL CONTROL & PUSHBUTTON
4. THE FOLLOWING SWITCHES SHALL BE MOUNTED ON THE SWITCH PANEL IN THE CABINET:
   A. RUN/STOP TIMING
   B. CONTROLLER TIMER POWER
   C. DETECTOR TEST
5. A SERVICE LAMP WITH DOOR ACTIVATED ON/OFF SWITCH.
6. THE CABINET EXTERIOR SHALL BE ALUMINUM COLORED AND INTERIOR SHALL BE WHITE.
7. THE CONTRACTOR SHALL FURNISH FOR APPROVAL A CABINET PLAN SHOWING COMPONENT PLACEMENT.

PAYMENT FOR 633 CONTROLLER, ACTUATED, BY PHASE, SOLID STATE DIGITAL MICROPROCESSOR, AS PER PLAN WILL BE MADE AT THE CONTRACT PRICE FOR EACH CONTROLLER IN PLACE, INCLUDING PRE-WIRED CABINET COMPLETELY INSTALLED, WIRED, TESTED, AND ACCEPTED.

ITEM 633 CONTROLLER, MASTER, SOLID STATE DIGITAL MICROPROCESSOR, TRAFFIC RESPONSIVE, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING A SOLID-STATE DIGITAL, MICROPROCESSOR TYPE TRAFFIC RESPONSIVE MASTER CONTROLLER WITH MENU DRIVEN PROMPTS, INTERNAL TBC, TELEMETRY UNIT, IN THE LOCAL CONTROLLER CABINET, AND ALL OTHER ACCESSORIES THAT ARE NECESSARY TO MAKE THE MASTER COMPLETELY FUNCTIONAL AND OPERTIONAL AS SHOWN IN THE PLANS. THIS ITEM SHALL ALSO INCLUDE THE EXTRA CABINET SPACE NECESSARY TO BE LOCATED IN THE LOCAL CONTROLLER CABINETS WHERE INDICATED IN IN THE PLANS.

THE MASTER CONTROLLER SHALL CONFORM TO O.D.O.T. SPECIFICATION 633 AND SHALL HAVE THE FOLLOWING FEATURES:

1. IT SHALL GENERATE SYSTEM PATTERN COMMANDS TO LOCAL INTERSECTION CONTROLLERS WITHIN ITS CONTROL AREA IN RESPONSE TO PREVAILING TRAFFIC CONDITIONS AS INDICATED BY SAMPLING SENSORS STRATEGICALLY PLACED IN THE CONTROL AREA. THE MASTER SHALL ALSO ALLOW PRE-PROGRAMMED TIME OF DAY SELECTION OF PATTERNS.
2. IT SHALL MONITOR THE OPERATION OF THE LOCAL INTERSECTION CONTROLLERS AND SHALL INITIATE FAILURE REPORTS IF MALFUNCTIONS ARE DETECTED. THE MASTER SHALL GENERATE SYSTEM OPERATION STATUS REPORTS FOR PRINTING AT THE CENTRAL OFFICE MONITOR.
3. IT SHALL BE CAPABLE OF OPERATING IN ANY OF THE FOLLOWING MODES:
   A. TRAFFIC RESPONSIVE WHEREBY PATTERN SELECTION IS BASED ON DYNAMIC TRAFFIC CONDITIONS AS MEASURED BY SYSTEM SENSORS LOCATED IN THE CONTROL AREA.
   B. TIME OF DAY/DAY OF WEEK WHEREBY PATTERN SELECTION IS BASED ON A PRE-PROGRAMMED BASIS WITH AUTOMATIC ADJUSTMENTS FOR SEASONAL CHANGES.
   C. MANUAL OVERRIDE WHEREBY PATTERN SELECTION IS BASED ON OPERATOR COMMAND AT THE CENTRAL OFFICE MONITOR OR TRAFFIC RESPONSIVE MASTER CONTROLLER SITE.
4. IT SHALL BE SUPPLIED WITH A 2400 BAUD MODEM.

THE MASTER CONTROLLER SHALL HAVE THE FOLLOWING CAPACITIES:

1. TOTAL LOCAL INTERSECTION CONTROLLERS: 30
2. SYSTEM SENSOR DETECTOR UNITS: 48
3. THERE SHALL BE A MINIMUM OF 30 SELECTABLE PATTERNS INCLUDING AN ADDITIONAL 4 SPECIAL PATTERNS. EACH PATTERN SHALL CONSIST OF A COMBINATION OF CYCLE, OFFSET AND SPLIT NUMBERS FOR EACH INTERSECTION IN THE SYSTEM. THE MASTER SHALL BE CAPABLE OF DIRECTING THE SYSTEM INTO FREE OPERATION. PATTERNS SELECTABLE FROM THE FOLLOWING MINIMUM PARAMETER RANGES:
   A. CYCLES: SIX (6)
   B. OFFSETS: FIVE (5)
   C. SPLITS: SIXTEEN (16)
4. SYSTEM SENSORS SHALL BE DISTRIBUTED TO A MINIMUM CAPACITY OF EIGHT (8) PER INTERSECTION, BUT NOT TO EXCEED THE TOTAL SENSOR CAPACITY.

THE MASTER CONTROLLER SHALL HAVE THE FOLLOWING FUNCTIONAL REQUIREMENTS:

1. PATTERN SELECTION DURING NORMAL TRAFFIC RESPONSIVE OPERATION SHALL BE BASED ON THE FOLLOWING QUANTITATIVE TRAFFIC FLOW PARAMETERS:
   A. VOLUME LEVEL OF ARTERIAL TRAFFIC FLOW
   B. DIRECTIONALITY OF ARTERIAL TRAFFIC FLOW
   C. RATIO OF ARTERIAL TRAFFIC FLOW TO NON-ARTERIAL TRAFFIC
2. PATTERN SELECTION DURING SPECIAL TRAFFIC RESPONSIVE OPERATION SHALL BE BASED ON THE FOLLOWING PARAMETERS:
   A. NORMAL RESPONSIVE OPERATION OVERRIDE BY DETECTION OF HIGH OCCUPANCY ON SELECTED SYSTEM SENSORS.
   B. NORMAL RESPONSIVE OPERATION OVERRIDE BY DETECTION OF QUEUE LENGTH OR DURATION ON SELECTED SYSTEM SENSORS.
3. PREFERENTIAL TRANSFER OF PATTERNS SHALL BE ACCOMPLISHED BY PROGRAMMABLE THRESHOLD VALUES. PROGRAMMABLE THRESHOLD VALUES SHALL ALSO BE PROVIDED FOR SPECIAL PATTERNS.
4. THE FOLLOWING SYSTEM SENSOR DATA SHALL FORM THE BASIS FOR ALL RESPONSIVE PATTERNS INITIATED BY THE MASTER:
   A. VOLUME , OCCUPANCY AND QUEUE DATA.
   B. EACH SYSTEM SENSOR SHALL BE CAPABLE OF SELECTIVE WEIGHTING.
   C. SYSTEM SENSOR DATA SHALL BE AVERAGED ON A MOVING BASIS, UTILIZING A USER PROGRAMMABLE TIME FACTOR.
   D. EACH SYSTEM SENSOR SHALL BE MONITORED FOR CONSTANT CALL, ABSENCE OF CALL AND ERRATIC OUTPUT. THERE SHALL BE AN OPTION TO ELIMINATE THE MONITORING OF ABSENCE OF CALLS DURING LIGHT TRAFFIC PERIODS ON A TIME OF DAY BASIS. SENSORS WHICH FAIL ANY MONITORING TEST SHALL BE AUTOMATICALLY DELETED FROM VOLUME AND OCCUPANCY CALCULATIONS. UPON RESUMPTION OF SATISFACTORY OPERATION, SENSORS SHALL AUTOMATICALLY RESUME INPUT TO VOLUME AND OCCUPANCY CALCULATIONS. A USER PRESCRIBED MINIMUM NUMBER OF DESIGNATED SENSORS SHALL BE REQUIRED TO MAINTAIN RESPONSIVE OPERATION. THE MINIMUM NUMBER OF OPERATIONAL SENSORS SHALL BE PROGRAMMABLE FOR EACH COMPUTATIONAL CHANNEL. IF FEWER THAN THE PRESCRIBED NUMBER OF SYSTEM SENSORS ARE OPERATIONAL, THEN THE MASTER SHALL REVERT TO THE TIME OF DAY, DAY OF WEEK MODE.
   E. EACH COMPUTATIONAL CHANNEL SHALL BE ASSIGNED FROM UP TO TWELVE (12) DIFFERENT SYSTEM SENSORS FROM THE TOTAL OF 48.
5. IT SHALL BE POSSIBLE TO SELECT ANY SYSTEM PATTERN FROM THE MASTER ON A PRE-PROGRAMMED TIME OF DAY, DAY OF WEEK BASIS. THERE SHALL BE TIME OF DAY OVERRIDE OF RESPONSIVE OPERATION. TIME OF DAY OPERATION SHALL UTILIZE A 99 YEAR CALENDER-CLOCK WITH AUTOMATIC DAYLIGHT SAVINGS TIME CHANGE.
6. MEANS SHALL BE PROVIDED TO ALLOW INTER-MASTER LINKING IN ORDER TO AFFORD COORDINATION BETWEEN CONTIGUOUS SYSTEM CONTROL AREAS. THIS SHALL INCLUDE SYNCHRONIZATION OF MASTER REFERENCE CLOCKS.
7. PATTERN CHANGES FOR EACH LOCAL CONTROLLER IN THE SYSTEM SHALL BE IMPLEMENTED SMOOTHLY AND IN THE SHORTEST TIME FRAME POSSIBLE WITHOUT VIOLATING MINIMUM INTERVAL VALUES.
8. THE MASTER CONTROLLER SHALL STORE AND FORMAT MONITORED FUNCTION DATA FOR EITHER IMMEDIATE OUTPUT TO THE CENTRAL OFFICE MONITOR OR SHALL STORE DATA FOR FUTURE OUTPUT FOR A MINIMUM STORAGE PERIOD OF FORTY-EIGHT HOURS. AS A MINIMUM THE FOLLOWING REPORTS SHALL BE INCLUDED:
   A. AN ACTIVITY LOG WHICH INCLUDES TIME, INTERSECTION AND ACTIVITY TYPE OF ALL MONITORED LOCAL INTERSECTION FAILURE CONDITIONS.
   B. A SYSTEM SENSOR FAILURE LOG WHICH INCLUDES TIME, SENSOR LOCATION AND TYPE OF FAILURE.
   C. A PATTERN CHANGE LOG WHICH INCLUDES THE OPERATING PATTERN AND THE TIME OF CHANGE WHILE IN THE RESPONSIVE MODE.
   D. A SYSTEM STATUS REPORT WHICH SHOWS THE CURRENT OPERATING MODE AND PATTERN FOR ALL LOCAL INTERSECTION CONTROLLERS ON LINE.
   E. A SYSTEM SENSOR DATA REPORT WHICH INCLUDES VOLUME, OCCUPANCY AND AVERAGE SPEED FOR ALL SYSTEM SENSORS.

PAYMENT FOR 633 CONTROLLER, MASTER, SOLID STATE DIGITAL MICROPROCESSOR, TRAFFIC RESPONSIVE, AS PER PLAN WILL BE MADE AT THE CONTRACT PRICE FOR EACH CONTROLLER, INCLUDING EXTRA CABINET SPACE, IN PLACE, COMPLETELY INSTALLED IN THE LOCAL CONTROLLER SHOWN IN THE PLANS, WIRED, TESTED, AND ACCEPTED.

TRAFFIC CONTROL NOTES

OHIO
F.H.W.A. REGION 5
248
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

CITY OF SOUTH EUCLID (LOCAL AND MASTER CONTROLLER SPECIFICATIONS)

ITEM 633 CONTROLLER, ACTUATED (2/8) PHASE, LOCAL TYPE 170 SV, AS PER PLAN

THE CONTRACTOR SHALL FURNISH AND INSTALL AN ACTUATED (2/8) PHASE, SOLID STATE, DIGITAL MICROPROCESSOR CONTROLLER WITH BASE OR POLE MOUNTED CONTROLLER CABINET AND ALL OTHER ACCESSORIES THAT ARE NECESSARY TO MAKE THE CONTROLLER COMPLETELY FUNCTIONAL AND OPERATIONAL AS SHOWN IN THE PLANS. ALSO THE CONTROLLER SHALL HAVE BEEN IN PRODUCTION FOR A MINIMUM OF 2 YEARS AND SHALL APPEAR ON CALIFORNIA DEPARTMENT OF TRANSPORTATION'S PREQUALIFICATION LIST AT THE TIME OF THE BID.

SOFTWARE FEATURES

LOCAL CONTROLLERS SHALL BE EQUIPPED WITH THE W4IKS, REVISION 27 OR LATER, 170 FULLY ACTUATED PROGRAM SOFTWARE AS MANUFACTURED BY WAPITI, MICRO SYSTEMS CORPORATION, 16771 WEST ELLENDALE ROAD, DALLAS, OREGON 97338 OR AN APPROVED EQUAL.

LOCAL INTERSECTION CONTROLLERS

LOCAL CONTROLLERS SHALL BE THE MICROCOMPUTER MODEL 170SV AND SHALL MEET ALL THE LATEST CALTRAN SPECIFICATIONS.

CONTROLLER CABINET:

THE CONTROLLER CABINETS SHALL BE THE MODEL 336B TYPE FOR ALL INTERSECTIONS EXCEPT AT SOUTH BELVOIR BOULEVARD. THE CABINET AT SOUTH BELVOIR BOULEVARD SHALL BE THE MODEL 332 TYPE. ALL CABINETS SHALL MEET OR EXCEED THE LATEST FHWA AND CALTRAN SPECIFICATION REQUIREMENTS AND SHALL HAVE THE FOLLOWING FEATURES:

1) THE FOLLOWING SWITCHES SHALL BE MOUNTED ON THE SWITCH PANEL IN THE CABINET:
   A) RUN/STOP TIME
   B) CONTROLLER SHUT DOWN
   C) DETECTOR TEST
2) FLUORESCENT FRONT AND BACK LIGHT WITH DOOR ACTIVATED ON/OFF SWITCH.
3) SLIDE OUT SHELF/DRAWER STORAGE UNIT.
4) LOWER INPUT TERMINATION PANEL.
5) TWO ADDITIONAL RELAYS.
6) CORBIN LOCKS.
7) LIGHTNING PROTECTION

CONFLICT MONITOR:

1) THE CONFLICT MONITOR SHALL BE CAPABLE OF (2/8) PHASE OPERATION AND SHALL MONITOR GREENS, YELLOWS, WALKS AND ABSENCE OF REDS.

2) A CONFLICT MONITOR, SERIES 210 OR EQUAL, SHALL BE PROVIDED.

3) PRIOR TO THE ACCEPTANCE OF ANY TRAFFIC SIGNAL INSTALLATION BY THE STATE OR CITY, THE CONTRACTOR SHALL CERTIFY IN WRITING, THAT THE CONTROLLER HAS BEEN FIELD TESTED BY AN AUTOMATIC CONFLICT MONITOR TESTER AND NO CONFLICTS EXIST IN THE PROPER OPERATION OF THE CONTROLLER.

PAYMENT FOR "ITEM 633, CONTROLLER, ACTUATED (2/8) PHASE, LOCAL TYPE 170 SV, AS PER PLAN" SHALL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT WILL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND OTHER INCIDENTIALS NECESSARY TO FURNISH THE CONTROLLER IN PLACE, INCLUDING ALL CONNECTIONS MADE AND WIRING COMPLETED, TESTED AND ACCEPTED.

ITEM 633 CONTROLLER, SYSTEM MASTER, TYPE 170SV, AS PER PLAN

THE CONTRACTOR SHALL FURNISH AND INSTALL A SOLID STATE DIGITAL MICROPROCESSOR MASTER CONTROLLER WITH BASE MOUNTED CONTROLLER CABINET AND ALL OTHER ACCESSORIES THAT ARE NECESSARY TO MAKE THE CONTROLLER COMPLETELY FUNCTIONAL AND OPERATIONAL AS SHOWN IN THE PLANS.

THE SYSTEM MASTER CONTROLLER SHALL BE THE MICROCOMPUTER MODEL 170SV WITH DUAL ACIA PORTS AND SHALL MEET ALL THE LATEST CALIFORNIA DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS. A LOCAL CONTROLLER TYPE 170SV SHALL BE INCLUDED AND SHALL CONFORM TO SPECIFICATIONS SET HEREIN. ALSO, THE CONTROLLER SHALL BE IN PRODUCTION FOR A MINIMUM OF 2 YEARS AND SHALL APPEAR ON CALIFORNIA'S DEPARTMENT OF TRANSPORTATION PREQUALIFICATIONS LIST AT THE TIME OF THE BID.

SOFTWARE FEATURES

THE MASTER CONTROLLER SHALL BE EQUIPPED WITH THE W70SM, ON STREET MASTER PROGRAM AS MANUFACTURED BY WAPITI, MICRO SYSTEMS CORPORATION, 16771 WEST ELLENDALE ROAD, DALLAS, OREGON 97338.

CONTROLLER CABINET:

THE CONTROLLER CABINETS SHALL BE THE MODEL 333 TYPE AND SHALL MEET OR EXCEED THE LATEST FHWA AND CALIFORNIA DEPARTMENT OF TRANSPORTATION SPECIFICATION REQUIREMENTS AND SHALL HAVE THE FOLLOWING FEATURES:

1) THE FOLLOWING SWITCHES SHALL BE MOUNTED ON THE SWITCH PANEL IN THE CABINET:
   A) RUN/STOP TIME
   B) CONTROLLER SHUT DOWN
   C) DETECTOR TEST
2) FLUORESCENT FRONT AND BACK LIGHT WITH DOOR ACTIVATED ON/OFF SWITCH.
3) SLIDE OUT SHELF/DRAWER STORAGE UNIT.
4) LOWER INPUT TERMINATION PANEL.
5) TWO ADDITIONAL RELAYS.
6) CORBIN LOCKS.
7) LIGHTNING PROTECTION
8) 2400 BAUD MODEM

CONFLICT MONITOR:

1) THE CONFLICT MONITOR SHALL BE CAPABLE OF (2/8) PHASE OPERATION AND SHALL MONITOR GREENS, YELLOWS, WALKS AND ABSENCE OF REDS.

2) A CONFLICT MONITOR, SERIES 210 OR EQUAL, SHALL BE PROVIDED.

3) PRIOR TO THE ACCEPTANCE OF ANY TRAFFIC SIGNAL INSTALLATION BY THE STATE OR CITY, THE CONTRACTOR SHALL CERTIFY IN WRITING, THAT THE CONTROLLER HAS BEEN FIELD TESTED BY AN AUTOMATIC CONFLICT MONITOR TESTER AND NO CONFLICTS EXIST IN THE PROPER OPERATION OF THE CONTROLLER.

PAYMENT FOR "ITEM 633, CONTROLLER, SYSTEM MASTER, TYPE 170SV, AS PER PLAN" SHALL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT WILL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND OTHER INCIDENTALS NECESSARY TO FURNISH THE CONTROLLER IN PLACE, INCLUDING ALL CONNECTIONS MADE AND WIRING COMPLETED, TESTED AND ACCEPTED.

ITEM 632 SIGNALIZATION MISC: PHONE DROP

THIS ITEM OF WORK SHALL CONSIST OF SUPPLYING A PHONE DROP TO THE CONTROLLER AT THE INTERSECTIONS AS SHOWN IN THE PLANS. IT SHALL INCLUDE CONDUIT RISER, TRENCH, CONDUIT, SHIELDED CABLE, LIGHTNING ARRESTOR AND CABINET TERMINALS TO COMPLETELY WIRE TO THE TELEPHONE MODEM SPECIFIED IN THE PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE ARRANGEMENTS WITH THE LOCAL TELEPHONE COMPANY TO HAVE TELEPHONE SERVICE DROP INSTALLED AT THE LOCATION SHOWN IN THE PLANS.

PAYMENT FOR ITEM 632 SIGNALIZATION MISC.: PHONE DROP WILL BE AT THE CONTRACT UNIT PRICE FOR EACH PHONE DROP IN PLACE, COMPLETELY INSTALLED IN THE LOCAL CONTROLLER SHOWN IN THE PLANS, WIRED, TESTED AND ACCEPTED.

ITEM 633: SIGNALIZATION MISC.: CENTRAL OFFICE MONITOR (BY CITY)

THIS ITEM OF WORK SHALL CONSIST OF INSTALLING THE CENTRAL OFFICE MONITOR TO BE LOCATED AT THE CITY OF SOUTH EUCLID POLICE DISPATCHERS OFFICE AND AT THE CITY OF LYNDHURST POLICE DISPATCHERS OFFICE. THE BASIC CENTRAL EQUIPMENT COMPLEMENT SHALL BE SUPPLIED AND SHALL CONSIST OF THE FOLLOWING:

1A) DESKTOP COMPUTER:

   a. 80486 PROCESSOR, 33 MHZ CLOCK SPEED
   b. 80487 MATH CO–PROCESSOR, 33 MHZ
   c. 80 MB HARD DRIVE
   d. 4 MB MEMORY, EXPANSIBLE TO 8 MB ON MOTHERBOARD
   e. 3 1/2" HIGH DENSITY DISK DRIVE (1.44 MB)
   f. 5 1/4" HIGH DENSITY DISK DRIVE (1.2 MB)
   g. MINIMUM 5 EXPANSION SLOTS (3 SIXTEEN BIT, 2 EIGHT BIT)
   h. 2 SERIAL, 1 PARALLEL PORTS
   i. ENHANCED KEYBOARD (101 KEYS)
   j. DOS VERSION 5.0, OR LATER

B) AN EPSON FX–1050 DOT MATRIX PRINTER OR PANASONIC KX–P1180
C) A 14 INCH SVGA COLOR MONITOR (640 X 400 MIN. RESOLUTION)
D) A 2400 BAUD MODEM, AUTO DIAL, AUTO ANSWER
E) A POWER LINE FILTER, VOLTAGE SURGE PROTECTOR AND A FUSE PROTECTED MULTI–SERVICE OUTLET WITH AT LEAST SIX POSITIONS
F) ALL NECESSARY CABLES AND ACCESSORIES NEEDED TO MAKE THE SYSTEM OPERATE ACCORDING TO THESE SPECIFICATIONS
G) PHONE DROP PROVIDED BY THE CITY OF SOUTH EUCLID & THE CITY OF LYNDHURST

2. PORTABLE CONTROLLER PROGRAMMER, TO CONSIST OF MINIMUM REQUIREMENTS AS FOLLOWS:

   A. 80386 PROCESSOR
   B. 16 MHZ OPERATING SPEED
   C. 60 MB INTERNAL HARD DRIVE
   D. 3 1/2" INTERNAL FLOPPY DRIVE (1.44MB)
   E. 2MB RAM
   F. INTERNAL MODEM 2400 BAUD
   G. CARRYING CASE WITH ALL CABLES AND ACCESSORIES NEEDED TO MAKE THE SYSTEM OPERATE ACCORDING TO THESE SPECIFICATIONS
   H. MS–DOS 5.0 VERSION OR HIGHER
   I. LCD SCREEN & BACKLIGHT CONTRAST
   J. EPSON FX–1050 DOT MATRIX PRINTER OR APPROVED EQUAL

3. THE GRAPHICS SHALL DISPLAY IN COLOR, THE VEHICULAR SIGNALS, PEDESTRIAN SIGNALS AND DETECTOR ACTUATIONS. EACH SYSTEM SHALL BE CAPABLE OF VIEWING ONE INTERSECTION AT A TIME. THE INTERSECTION LAYOUT SHALL BE GRAPHICALLY CONSTRUCTED BY THE USER USING PREDETERMINED SHAPES (EG: "T" INTERSECTION). ALSO IT SHALL BE POSSIBLE TO DISPLAY THE STATUS OF A COMPLETE SUBSYSTEM AT ONE TIME ON THE MONITOR. THE NAME AND SIGNAL STATUS (G–Y–R) OF EACH INTERSECTION SHALL BE DISPLAYED. THE SUBSYSTEM NETWORK SHALL BE CAPABLE OF BEING CONFIGURED IN ANY USER DEFINED GRID.

4. UPON COMMAND FROM THE CENTRAL OFFICE FACILITY, IT SHALL BE POSSIBLE TO DOWNLOAD ALL STORED SETTINGS ON THE DATA DISK FOR INTERSECTION CONTROLLER TIMING AS WELL AS COORDINATION SETTINGS AND TIME OF DAY PLANS. IT SHALL BE POSSIBLE TO DOWNLOAD ALL SETTINGS TO ALL INTERSECTIONS IN A SUBSYSTEM OR SELECT ANY/ALL PARAMETERS TO ANY INDIVIDUAL INTERSECTION. ALSO, UPON COMMAND IT SHALL BE POSSIBLE TO UPLOAD ALL THE INFORMATION MENTIONED ABOVE FROM EACH LOCAL INTERSECTION TO THE CENTRAL FACILITY.

IT SHALL BE POSSIBLE TO COMPARE AN UPLOADED LOCAL INTERSECTION DATA BASE WITH A PREVIOUSLY DEVELOPED DATA BASE STORED IN THE CENTRAL OFFICE MONITOR'S MEMORY. DIFFERENCES IN THE DATA BASES SHALL BE REPORTED.

5. THE ON–STREET MASTER SHALL ATTEMPT TO CONTACT THE CENTRAL OFFICE WHENEVER A SYSTEM MONITORED CONDITION OCCURS WHICH IS PROGRAMMED FOR IMMEDIATE REPORT. IF THE ON–STREET MASTER PROGRAM IS ON–LINE IN THE CENTRAL OFFICE MONITOR, THE FAILURE WILL BE DISPLAYED ON THE CRT AND ALSO HARD–COPIED BY THE PRINTER. THE ON–STREET MASTER WILL CONTINUE TO CONTACT THE CENTRAL OFFICE MONITOR AT REGULAR INTERVALS UNTIL THE PROGRAM IS BROUGHT ON–LINE AND THE MESSAGE IS TRANSMITTED.

6. UPON COMMAND FROM THE CENTRAL OFFICE FACILITY IT SHALL BE POSSIBLE TO DOWNLOAD MANUAL COMMANDS THAT WILL AFFECT THE FOLLOWING:

   A. OVERRIDE PATTERN SELECTED BY MASTER
   B. PLACE ENTIRE SYSTEM IN FREE OR FLASH
   C. PLACE AN INTERSECTION IN FREE
   D. PLACE AN INTERSECTION IN FLASH
   E. PLACE SYSTEM IN TIME–OF–DAY MODE

TRAFFIC CONTROL NOTES

CUYAHOGA COUNTY
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MAYFIELD ROAD

7. UPON COMMAND FROM THE CENTRAL OFFICE FACILITY IT SHALL BE POSSIBLE TO RETRIEVE THE FOLLOWING LOG REPORTS:

A. PATTERN CHANGES
B. LOCAL INTERSECTION FAILURES
C. SENSOR FAILURES
D. VOLUME, OCCUPANCY AND SPEED

8. IT SHALL BE POSSIBLE TO SPECIFY THE TIME AND DATE FOR AUTOMATIC TRANSMISSION OF ANY COMBINATION ON ALL THE LOGS SPECIFIED IN 6.

9. THE CENTRAL OFFICE FACILITY SHALL BE SUPPLIED WITH OFF-LINE PROGRAMS PASSER II-90 AND TRANSYT 7F, AS DEVELOPED BY MCTRANS FOR TRAFFIC SIGNAL PROGRESSION ANALYSIS AND SIGNAL OPERATION OPTIMIZATION ANALYSIS FOR SINGLE INTERSECTIONS. ALL PROGRAMS SHALL OPERATE ON PC DOS OR MS DOS. ONE (1) COPY OF SOFTWARE AND DOCUMENTATION SHALL BE SUPPLIED. THE CENTRAL OFFICE MONITOR SHALL BE CAPABLE OF THE FOLLOWING:

A. ALL OFF-LINE PROGRAMS AND "CLOSED LOOP" SYSTEM SOFTWARE SHALL BE IMPLEMENTED THROUGH A COLOR MENU DRIVEN SYSTEM.

B. ALL OFF-LINE PROGRAMS AND "CLOSED LOOP" SOFTWARE SHALL BE STORED ON THE HARD DISK UNDER SEPARATE SUBDIRECTORIES. THERE SHALL ALSO BE SEPARATE SUBDIRECTORIES FOR DATA FILES FOR EACH OF THE OFF-LINE PROGRAMS AND "CLOSED LOOP" SOFTWARE.

10. THE CONTRACTOR SHALL SUPPLY TRAINING FOR CITY DESIGNATED PERSONNEL. THE TRAINING SHALL INCLUDE OPERATION OF THE CENTRAL COMPUTER AND FIELD EQUIPMENT, MAINTENANCE OF ALL FIELD EQUIPMENT AND ASSISTANCE IN SYSTEM PARAMETER DEVELOPMENT. THE TRAINING PROGRAM SHALL BE AS FOLLOWS:

LOCAL CONTROL EQUIPMENT CONSTRUCTION TRAINING SHALL CONSIST OF AT LEAST EIGHT (8) HOURS OF INSTRUCTION FOR UP TO FIVE PERSONS. TRAINING SESSIONS WILL BE HELD IN CITY PROVIDED FACILITIES. TRAINING WILL INCLUDE THOROUGH FAMILIARIZATION WITH THE FOLLOWING FIELD EQUIPMENT:

A. LOCAL CONTROLLERS
B. INTERSECTION MULTIPLEX AND TELEMETRY AND MODEM UNITS
C. CONTROLLER ACCESSORIES AND AUXILIARY EQUIPMENT

THE COURSES SHALL ALSO COVER GENERAL FIELD MAINTENANCE AND TROUBLE-SHOOTING PROCEDURES AND TESTING PROCEDURES, AS WELL AS THE PROPER USE OF SYSTEM MAINTENANCE ACCESSORIES TO CHECK THE ABOVE LISTED COMPONENTS.

TRAFFIC RESPONSIVE MASTER CONTROLLER TRAINING SHALL CONSIST OF AT LEAST EIGHT (8) HOURS OF INSTRUCTION FOR UP TO FIVE CITY DESIGNATED PERSONS. TRAINING SESSIONS SHALL BE HELD AT THE SYSTEM SUPPLIER'S FACILITIES AND SHALL BE HELD IN CONJUNCTION WITH THE BENCH MARK TEST.

CENTRAL SOFTWARE TRAINING SHALL INCLUDE ALL ITEMS NECESSARY TO SET UP THE MONITORING OF INTERSECTION CONTROLLERS. THERE SHALL BE 24 HOURS OF TRAINING FOR UP TO FIVE PERSONS. IT SHALL ALSO INCLUDE INSTRUCTION IN METHODS OF PREPARING TIMING SETTINGS, CHOOSING SYSTEM AND INTERSECTION PARAMETERS, LOADING TIMING PLANS AND OTHER PARAMETERS, INCLUDING TRAFFIC RESPONSIVE OPERATION, AND OTHER FUNCTIONS WHICH WILL BE NECESSARY TO IMPLEMENT AND FINE TUNE SYSTEM OPERATION. FINALLY IT SHALL INCLUDE GENERAL MAINTENANCE AND TROUBLE SHOOTING PROCEDURES FOR THE MASTER CONTROL DEVICE.

MAINTENANCE TRAINING (FIELD EQUIPMENT) SHALL CONSIST OF AT LEAST EIGHT (8) HOURS OF INSTRUCTION FOR UP TO FIVE PERSONS. TRAINING SESSIONS SHALL BE HELD IN CITY FACILITIES. IT SHALL COVER MAINTENANCE AND TROUBLE-SHOOTING TECHNIQUES FOR ALL FIELD EQUIPMENT AND THE USE OF SYSTEM MAINTENANCE ACCESSORIES.

MAINTENANCE TRAINING (COMPUTER AND PERIPHERALS) SHALL CONSIST OF AT LEAST EIGHT (8) HOURS OF INSTRUCTION AT A SITE SELECTED BY THE SYSTEM SUPPLIER FOR UP TO FIVE CITY DESIGNATED PERSONS. IT SHALL COVER DETAILED PROCEDURES FOR MAINTAINING AND TROUBLE-SHOOTING THE MASTER CPU, MASTER COMMUNICATIONS DEVICES, AND MASTER PERIPHERAL EQUIPMENT. THE TRAINING SHALL COVER BOTH PRESENTATION OF RECOMMENDED PROCEDURES, AS WELL AS "HANDS ON" DEMONSTRATION OF METHODS TO ISOLATE, DETERMINE AND CORRECT EQUIPMENT MALFUNCTIONS.

FOLLOW-UP COMPUTER OPERATION TRAINING SHALL CONSIST OF AT LEAST EIGHT (8) HOURS OF TRAINING FOR UP TO FIVE CITY DESIGNATED PERSONS. IT SHALL BE HELD DURING THE 180 DAY GUARANTEE PERIOD IN CITY SUPPLIED FACILITIES. IT SHALL INCORPORATE A MANAGERIAL OVERVIEW OF THE SYSTEM AND SYSTEM OPERATION PROCEDURES TO FULLY FAMILIARIZE CITY PERSONNEL WITH THE DAY-TO-DAY OPERATION OF THE SYSTEM.

THE CONTRACTOR SHALL PROVIDE ALL COURSE MATERIALS FOR ALL TRAINING SESSIONS, INCLUDING OPERATION MANUALS, REPAIR MANUALS, TEST EQUIPMENT, DEMONSTRATION MATERIALS, AND OTHER MATERIALS FOR DEVICES TO ASSURE A USEFUL SESSION. INSTRUCTORS SHALL BE KNOWLEDGEABLE ON THE OPERATION OF THE SYSTEM PROVIDED AND BE CAPABLE OF EFFICIENTLY AND ACCURATELY PRESENTING THIS KNOWLEDGE TO THE TRAINEES.

THE COSTS OF ALL TRAINING, INCLUDING COURSE MATERIALS, TRAVEL OR SUBSISTENCE AND RELATED COSTS, SHALL BE ENTIRELY BORNE BY THE CONTRACTOR. COSTS SHALL BE INCIDENTAL TO THE UNIT PRICES BID FOR THE VARIOUS ITEMS OF EQUIPMENT UNDER THE CONTRACT.

11. BENCH MARK TESTING WILL BE ACCOMPLISHED AT THE SYSTEM SUPPLIER'S FACILITIES IN CONJUNCTION WITH THE TRAINING COURSE. THE PURPOSE OF BENCH MARK TESTING IS TO DEMONSTRATE THE CAPABILITIES OF THE SYSTEM WHICH THE SUPPLIER INTENDS TO FURNISH. THE COMPUTER, PERIPHERAL DEVICES AND ELEMENTS UTILIZED FOR THE TESTS NEED NOT BE THE SPECIFIC ITEMS WHICH WILL BE INSTALLED IN THE CITY BUT SHALL BE OF THE SAME TYPE, MODEL AND CAPACITY. (USE OF THE ACTUAL EQUIPMENT TO BE INSTALLED IN THE CITY IS PREFERRED). BENCH MARK TESTING SHALL INCLUDE THE FOLLOWING:

A. LOAD AND OPERATE A BENCH MARK PROGRAM ON THE COMPUTER, UTILIZING ALL PERIPHERAL DEVICES AND AT LEAST TWO ACTUATED (FOUR PHASE MINIMUM) INTERSECTION CONTROLLERS. THE BENCH MARK PROGRAM SYSTEM SHALL SIMULATE AT LEAST 15 LOCAL INTERSECTIONS AND AT LEAST 10 SENSOR INPUTS WITH THE ABILITY TO SIMULATE FIELD VOLUME AND OCCUPANCY DETECTOR DATA.

B. THE BENCH MARK TESTS SHALL EXERCISE ALL FEATURES OF THE HARDWARE, SOFTWARE, COMMUNICATIONS SYSTEMS AND LOCAL CONTROLLERS AND SHALL BE A MINIMUM OF 48 HOURS OF CONTINUOUS OPERATION.

THE TESTING SHALL BE ARRANGED AT A TIME MUTUALLY AGREEABLE TO THE CITY AND CONTRACTOR. THE COURSE SHALL COVER FAMILIARIZATION AND OPERATIONAL TRAINING IN THE USE OF THE SYSTEM. THE TRAINING SHALL BE BASED UPON (HANDS-ON) OPERATION OF THE MASTER, PERIPHERALS, COMMUNICATIONS DEVICES AND LOCAL CONTROLLERS.

12. ITEM 632.27 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS IS MODIFIED AS FOLLOWED:

A. PART 5, FUNCTIONAL TEST, SHALL HAVE THE FOLLOWING REQUIREMENTS ADDED:
   1. ALL HARDWARE, SOFTWARE AND PERFORMANCE FUNCTIONS REQUIRED IN THE SPECIFICATIONS SHALL BE INDIVIDUALLY DEMONSTRATED TO THE ENGINEER BY THE CONTRACTOR TO ASSURE COMPLIANCE AND TO SHOW THAT THE SYSTEM IS COMPLETELY FUNCTIONAL AND READY FOR SERVICE.
   2. TRAINING SHALL HAVE BEEN PROVIDED TO CITY REPRESENTATIVES IN THE MANNER REQUIRED AND SHALL BE COMPLETED.

B. PART 6, PERFORMANCE TEST (10 DAY TEST) SHALL BE MODIFIED ONLY AS FOLLOWS:
   1. THE LIST OF MAJOR MALFUNCTIONS IN 632.27-6 SHALL BE EXPANDED TO INCLUDE:
      a. FAILURE OF LOCAL CONTROLLER TO CONTROL TRAFFIC SAFELY AND IN CONFORMANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
      b. FAILURE OF THE MASTER CONTROLLER (WITH SYSTEM MONITOR) TO CORRECTLY SUPERVISE AND CONTROL THE SYSTEM, OR TO ACCEPT AND PROCESS TRAFFIC DATA FROM THE FIELD OR TO PROPERLY REPORT SYSTEM STATUS AND MALFUNCTIONS.
      c. FAILURE OF MORE THAN TWO INTERSECTIONS, IN ANY 24 HOUR PERIOD, TO FUNCTION COMPLETELY IN THE MANNER CALLED FOR IN THE SPECIFICATION WITHOUT LOSS OF COMMUNICATION OR REVERTING TO STANDBY OPERATION.
      d. FAILURE OF ANY SINGLE INTERSECTION MORE THAN 3 TIMES DURING A 5 DAY PERIOD TO FUNCTION COMPLETELY IN THE MANNER CALLED FOR IN THE SPECIFICATION WITHOUT LOSS OF COMMUNICATION OR REVERTING TO STANDBY OPERATION.
      e. A SOFTWARE ERROR WHICH CAUSES THE SYSTEM TO CEASE TO OPERATE THE TRAFFIC CONTROL SYSTEM OR CAUSES AN UNSAFE CONDITION ON THE STREET.
      f. THE APPEARANCE OF ANY PROBLEM WHICH, IN THE OPINION OF THE ENGINEER, HAS A SIGNIFICANT AFFECT UPON THE RELIABILITY, SAFETY OR OPERATION ON THE SYSTEM.
   2. DURING THE 10-DAY PERFORMANCE TEST THE ENGINEER OR TRAINED REPRESENTATIVES OF THE CITY, SHALL EXERCISE THE SYSTEM AND DOCUMENT THE PERFORMANCE OF ALL SPECIFIED FEATURES, AND ANY OTHER EVENTS WHICH COULD BE EXPECTED TO OCCUR IN AN OPERATIONAL TRAFFIC CONTROL SYSTEM INCLUDING THE SIMULATION OF FAILURES.

PAYMENT FOR ITEM 633 SIGNALIZATION MISC.: CENTRAL OFFICE MONITOR (BY CITY) WILL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH CENTRAL OFFICE MONITOR IN PLACE AND FULLY OPERATIONAL AS SHOWN IN THE PLANS.

ITEM 633: PREEMPTION, RECEIVING UNIT, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING PREEMPTION RECEIVING UNITS ON THE SIGNAL SUPPORTS AT THE LOCATIONS SHOWN IN THE PLANS. THE RECEIVING UNITS SHALL BE THE MODEL EPS-II AS MANUFACTURED BY EMERGENCY PREEMPTION SYSTEMS, INC., SCOTTSDALE ARIZONA.

RECEIVING UNITS SHALL BE COMPLETE WITH MOUNTING HARDWARE FOR MAST ARM MOUNTING. WIRING TO THE DETECTORS SHALL BE ACCOMPLISHED THROUGH THE USE OF STANDARD 2 CONDUCTOR LOOP LEAD-IN CABLE. QUANTITIES FOR LOOP LEAD-IN SHALL BE A SEPARATE BID ITEM.

PAYMENT FOR 633 PREEMPTION EQUIPMENT, RECEIVING UNIT, AS PER PLAN WILL BE MADE AT THE CONTRACT PRICE FOR EACH RECEIVING UNIT IN PLACE, COMPLETELY INSTALLED, WIRED, TESTED AND ACCEPTED.

ITEM 633: PREEMPTION, PHASE SELECTOR, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING A SOLID STATE EMERGENCY VEHICLE PREEMPTION PHASE SELECTOR AT THE LOCATIONS SHOWN IN THE PLANS. THE PHASE SELECTOR SHALL BE THE MODEL EPS-II AS MANUFACTURED BY EMERGENCY PREEMPTION SYSTEMS, INC., SCOTTSDALE, ARIZONA. IT SHALL INCLUDE CABLING AND CONNECTORS AND ADDITIONAL CABINET SPACE IN THE LOCAL CONTROLLER CABINET TO HOUSE THE PHASE SELECTOR AND TERMINATIONS.

THE CITY OF SOUTH EUCLID IS USING 170 TYPE CONTROLLERS AND THE CITY OF LYNDHURST IS USING NEMA TYPE CONTROLLERS. THE PHASE SELECTOR MUST BE COMPATIBLE WITH THE CONTROLLER TYPE SHOWN IN THE PLANS AT THE LOCATIONS SPECIFIED.

THE PREEMPTION SYSTEM SHALL BE CALIBRATED TO RESPOND AND DETECT THE PRESENCE OF EMERGENCY VEHICLE SIRENS IN THE YELP MODE AT A DISTANCE OF 1000 FEET FROM THE INTERSECTION.

THE CONTRACTOR SHALL PROGRAM THE LOCAL CONTROLLER WITH THE PREEMPTION CHANNELS AS SHOWN IN THE PLANS.

PAYMENT FOR 633 PREEMPTION EQUIPMENT, PHASE SELECTOR, AS PER PLAN WILL BE MADE AT THE CONTRACT PRICE FOR EACH PHASE SELECTOR IN PLACE, COMPLETELLY INSTALLED, WIRED, TESTED AND ACCEPTED.

CITY OF LYNDHURST

ITEM 633 CONTROLLER, ACTUATED, BY PHASE, SOLID STATE, DIGITAL MICROPROCESSOR, MODEL: TRANSYT 1880 EL, (WITH INTERNAL TRANSCEIVER MODULE), - ALTERNATE BID

THE CONTROLLER SHALL BE A MODEL: TRANSYT 1880 EL WITH INTERNAL TRANSCEIVER MODULE AS MANUFACTURED BY TRANSYT AND SHALL INCORPORATE OR BE FURNISHED WITH ALL THE DESIGN FEATURES, AUXILIARY EQUIPMENT, ACCESSORIES, AND PRE-WIRED CABINET FEATURES AS REQUIRED IN THE STANDARD BID ITEM.

PAYMENT WILL BE AT THE CONTRACT UNIT PRICE FOR EACH, IN PLACE, ALL CONNECTIONS MADE AND WIRING COMPLETED, TESTED AND ACCEPTED.

ITEM 633 CONTROLLER, MASTER, SOLID STATE, DIGITAL MICROPROCESSOR, TRAFFIC RESPONSIVE MODEL: TRANSYT 3800EL - ALTERNATE BID

THE CONTROLLER SHALL BE A MODEL: TRANSYT 3800EL MASTER AS MANUFACTURED BY TRANSYT AND SHALL INCORPORATE OR BE FURNISHED WITH ALL THE DESIGN FEATURES, AUXILIARY EQUIPMENT AND ACCESSORIES AS REQUIRED IN THE STANDARD BID ITEM.

PAYMENT WILL BE AT THE CONTRACT UNIT PRICE FOR EACH, IN PLACE, ALL CONNECTIONS MADE AND WIRING COMPLETED, TESTED AND ACCEPTED.

ITEM 633 CONTROLLER ITEM MISC.: CENTRAL OFFICE MONITOR MODEL ZENITH 486/AT SERIES WORK STATION MICROCOMPUTER-ALTERNATE BID.

THE CENTRAL OFFICE MONITORS SHALL BE A MODEL ZENITH 486/AT SERIES WORK STATION MICROCOMPUTER AND SHALL INCORPORATE OR BE FURNISHED WITH ALL THE DESIGN FEATURES, AUXILIARY EQUIPMENT AND ACCESSORIES AS REQUIRED IN THE STANDARD BID ITEM.

PAYMENT WILL BE AT THE CONTRACT UNIT PRICE FOR EACH, IN PLACE, ALL CONNECTIONS MADE, TESTED AND ACCEPTED.

PLOT SUBMITTED: 27-MAY-1993 13:5

TRAFFIC CONTROL GENERAL SUMMARY

I - 100% CITY OF SOUTH EUCLID
II - 100% CITY OF LYNDHURST
III - NORMAL PROJECT PARTICIPATION-CITY OF SOUTH EUCLID
IV- NORMAL PROJECT PARTICIPATION-CITY OF LYNDHURST

CUYAHOGA COUNTY
CUY-322-8.66

OHIO
FHWA REGION 5
FEDERAL PROJECT

250
426

ITEM	SHEET NUMBER 254	255	265	279	295	PARTICIPATION I	II	III	IV	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	AS PER SHEET REF.
														TRAFFIC CONTROL	
625	446							446		625	25100	446	LIN.FT.	CONDUIT, 1", 713.04	
625	192							192		625	25300	192	LIN.FT.	CONDUIT, 1-1/2", 713.04	
625	488	1106						488	1106	625	25400	1594	LIN.FT.	CONDUIT, 2", 713.04	
625	1922	553						1922	553	625	25500	2475	LIN.FT.	CONDUIT, 3", 713.04	
625	18	120						18	120	625	25600	138	LIN.FT.	CONDUIT, 4", 713.04	
625		619							619	625	25900	619	LIN.FT.	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, SIZE: 3"	
625	2104	1216						2104	1216	625	29000	3320	LIN.FT.	TRENCH	
625	943	483						943	483	625	29500	1426	LIN.FT.	TRENCH IN PAVED AREA, TYPE A	
625	48							48		625	30700	48	EACH	PULL BOX, 713.08, 18"	
625		39							39	625	30701	39	EACH	PULL BOX, 713.08, 18", AS PER PLAN	246
625	53	29						53	29	625	32000	82	EACH	GROUND ROD	
630	33.6							33.6		630	00000	33.6	CU.YD.	CONCRETE FOR ANCHOR BASE FOUNDATION	
630				12					12	630	02100	12	LIN.FT.	GROUND-MOUNTED SUPPORT, NO. 2 POST	
630			443	717				443	717	630	03100	1160	LIN.FT.	GROUND-MOUNTED SUPPORT, NO. 3 POST	
630				96					96	630	04100	96	LIN.FT.	GROUND-MOUNTED SUPPORT, NO. 4 POST	
630				5					5	630	75400	5	EACH	SPAN WIRE*SUPPORT, TYPE TC-17.10, DESIGN 4 * SIGN	
630	7							5	2	630	75600	7	EACH	SPAN WIRE*SUPPORT, TYPE TC-17.10, DESIGN 6 * SIGN	295
630			139	163				139	163	630	79500	302	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	
630			527	846				527	846	630	80100	1373	SQ.FT.	SIGN, FLAT SHEET	
630			258	146				258	146	630	80102	404	SQ.FT.	SIGN, FLAT SHEET, TYPE G	
630			105	23				105	23	630	84900	128	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
630				5					5	630	85000	5	EACH	REMOVAL OF GROUND MOUNTED SIGN AND STORAGE	
630				14					14	630	86002	14	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
630				5					5	630	86006	5	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND STORAGE	
630			25	28				25	28	630	87401	53	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN	246
630				78					78	630	87500	78	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	
630				5					5	630	87510	5	EACH	REMOVAL OF POLE MOUNTED SIGN AND STORAGE	
630	7352							7352		632	62810	7352	LIN.FT.	REMOVAL OF EXISTING INTERCONNECT	
632	50	30						50	30	632	00303	80	EACH	VEHICULAR SIGNAL HEAD, 3 SECTON, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN	247
632	2	2						2	2	632	00403	4	EACH	VEHICULAR SIGNAL HEAD, 4 SECTON, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN	247
632	8	10						8	10	632	00503	18	EACH	VEHICULAR SIGNAL HEAD, 5 SECTON, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN	247
632	4							4		632	03201	4	EACH	VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED, 3 SECTION, 12" LENS, 1-WAY, AS PER PLAN	247
632		32							32	632	20100	32	EACH	PEDESTRIAN SIGNAL HEAD, TYPE A-2	
632	52							52		632	20601	52	EACH	PEDESTRIAN SIGNAL HEAD, TYPE D2, AS PER PLAN	247
632	64	42						64	42	632	25000	106	EACH	COVERING OF VEHICULAR SIGNAL HEAD	
632	26	32						26	32	632	26000	58	EACH	PEDESTRIAN PUSHBUTTON	
632		38							38	632	27005	38	EACH	LOOP DETECTOR UNIT, AS PER PLAN	246
632	55	9						55	9	632	27009	64	EACH	LOOP DETECTOR UNIT, DELAY AND EXTENSION TYPE, AS PER PLAN	246
632	4571	3611						4571	3611	632	27500	8182	LIN.FT.	LOOP DETECTOR PAVEMENT CUTTING	

PLOT SUBMITTED BY:

PARTICIPATION

I – 100% CITY OF SOUTH EUCLID
II – 100% CITY OF LYNDHURST
III – NORMAL PROJECT PARTICIPATION – CITY OF SOUTH EUCLID
IV – NORMAL PROJECT PARTICIPATION – CITY OF LYNDHURST

TRAFFIC CONTROL GENERAL SUMMARY

FHWA REGION	STATE	PROJECT	
5	OHIO		

251
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

ITEM	SHEET NUMBER																PARTICIPATION				ITEM	ITEM EXTENSION	GRAND TOTAL	UNIT	DESCRIPTION	AS PER PLAN REF. SHEET
		254		255													I	II	III	IV						
																									— TRAFFIC CONTROL —	
632		5097		3868															5097	3868	632	40500	8965	LIN. FT.	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG	
632		3667		2637															3667	2637	632	40700	6304	LIN. FT.	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	
632				2101																2101	632	40900	2101	LIN. FT.	SIGNAL CABLE, 9 CONDUCTOR, NO. 14 AWG	
632		2705																	2705		632	43300	2705	LIN. FT.	SIGNAL CABLE, MISC.: 5 CONDUCTOR, NO. 10 AWG	
632		491																	491		632	43300	491	LIN. FT.	SIGNAL CABLE, MISC.: 7 CONDUCTOR, NO. 10 AWG	
632				2049																2049	632	53202	2049	LIN. FT.	INTERCONNECT CABLE, 6 PAIR, NO. 19 AWG, SOLID, REA (PE-39)	
632		8108		8087															8108	8087	632	62803	16195	LIN. FT.	INTERCONNECT CABLE, INTEGRAL MESSENGER WIRE TYPE, 6 PAIR,	
																									NO. 19 AWG, SOLID, REA (PE-38) AS PER PLAN	246
632		12027		8754															12027	8754	632	64900	20781	LIN. FT.	LOOP DETECTOR WIRE, TYPE E	
632		14558		8068															14558	8068	632	65200	22626	LIN. FT.	LOOP DETECTOR LEAD-IN CABLE	
632		3986																	3986		632	65200	3986	LIN. FT.	LOOP DETECTOR LEAD-IN CABLE, NO. 10	
632		497																	497		632	67200	497	LIN. FT.	POWER CABLE, 2 CONDUCTOR, NO. 8 AWG	
632				409																409	632	67300	409	LIN. FT.	POWER CABLE, 3 CONDUCTOR, NO. 8 AWG	
632		7		6															7	6	632	70001	13	EACH	POWER SERVICE, AS PER PLAN	246
632		10		6															10	6	632	70400	16	EACH	CONDUIT RISER, 2" DIAMETER	
632		27		16															27	16	632	71000	43	EACH	CABLE SUPPORT ASSEMBLY	
632		55.7		40															55.7	40	632	72000	95.7	CU. YDS.	CONCRETE FOR ANCHOR BASE FOUNDATION	
632		1																	1		632	80100	1	EACH	SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 1, 12' ARM	
632		1																	1		632	80100	1	EACH	SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 1, 15' ARM	
632		1																	1		632	80100	1	EACH	SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 1, 18' ARM	
632		1																	1		632	80200	1	EACH	SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 2, 25' ARM	
632		1																	1		632	80200	1	EACH	SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 2, 26' ARM	
632		1																	1		632	80200	1	EACH	SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 2, 27' ARM	
632		5																	5		632	80200	5	EACH	SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 2, 28' ARM	
632		3																	3		632	80200	3	EACH	SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 2, 29' ARM	
632		1		1															1	1	632	80200	2	EACH	SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 2, 30' ARM	
632				1																1	632	80300	1	EACH	SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 3, 30' ARM	
632		1		1															1	1	632	80300	2	EACH	SIGNAL SUPPORT, TYPE TC-81.20 DESIGN 3, 32' ARM	
632				1																1	632	80300	1	EACH	SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 3, 33' ARM	
632		1																	1		632	80300	1	EACH	SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 3, 36' ARM	
632		1																	1		632	80300	1	EACH	SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 3, 38' ARM	
632				1																1	632	80300	1	EACH	SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 3 WITH	
632																									MAST ARMS TC-81.20 DES. 1, 22' & TC-81.20 DES. 1, 19'	
632				1																1	632	80300	1	EACH	SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 3 WITH	
632																									MAST ARMS TC-81.20 DES. 2, 26' & TC-81.20 DES. 1, 22'	
632				1																1	632	80300	1	EACH	SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 3 WITH	
632																									MAST ARMS TC-81.20 DES. 2, 26' & TC-81.20 DES. 1, 20'	
632				1																1	632	80300	1	EACH	SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 3 WITH	
																									MAST ARMS TC-81.20 DES. 2, 29' & TC-81.20 DES. 1, 24'	

PARTICIPATION

I – 100% CITY OF SOUTH EUCLID
II – 100% CITY OF LYNDHURST
III – NORMAL PROJECT PARTICIPATION – CITY OF SOUTH EUCLID
IV – NORMAL PROJECT PARTICIPATION – CITY OF LYNDHURST

TRAFFIC CONTROL GENERAL SUMMARY

FHWA REGION	STATE	PROJECT	
5	OHIO		

252
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

ITEM	SHEET NUMBER																	PARTICIPATION				ITEM	ITEM EXTENSION	GRAND TOTAL	UNIT	DESCRIPTION	AS PER PLAN REF. SHEET
		254		255		256												I	II	III	IV						
																										— TRAFFIC CONTROL —	
632		1																		1		632	80400	1	EACH	SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 4 WITH MAST ARMS TC–81.20 DESIGN 2, 28' AND TC–81.20 DESIGN 2, 28'	
632		1																		1		632	80400	1	EACH	SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 4 WITH MAST ARMS TC–81.20 DESIGN 2, 29' AND TC–81.20 DESIGN 2, 25'	
632		1																		1		632	80400	1	EACH	SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 4 WITH MAST ARMS TC–81.20 DESIGN 3, 32' AND TC–81.20 DESIGN 2, 27'	
632		1																		1		632	80400	1	EACH	SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 4 WITH MAST ARMS TC–81.20 DESIGN 3, 36' AND TC–81.20 DESIGN 2, 31'	
632				1																	1	632	80400	1	EACH	SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 4, 35' ARM	
632				2																	2	632	80400	2	EACH	SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 4, 37' ARM	
632				1																	1	632	80400	1	EACH	SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 4 WITH MAST ARMS TC–81.20 DES. 2, 26' & TC–81.20 DES. 2, 25'	
632		1																		1		632	80500	1	EACH	SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 11, 39' ARM	
632		1				1														1	1	632	80500	2	EACH	SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 11, 42' ARM	
632		2				1														2	1	632	80500	3	EACH	SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 11, 43' ARM	
632						2															2	632	80500	2	EACH	SIGNAL SUPPORT TC–81.20, DESIGN 11, 44' ARM	
632		1																		1		632	80700	1	EACH	SIGNAL SUPPORT, TYPE TC–12.30, DESIGN 6, WITH MAST ARMS TC–81.20 DESIGN 11, 39' AND TC–81.20 DESIGN 11, 39'	
632		11				7														11	7	632	89900	18	EACH	PEDESTAL, 8', TRANSFORMER BASE	
632		10																		10		632	90100	10	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION	
632						13															13	632	90101	13	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	246
632		1				1														1	1	632	90400	2	EACH	SIGNALIZATION MISC.: PHONE DROP	
632		1																		1		632	90400	1	EACH	SIGNALIZATION MISC.: CENTRAL OFFICE MONITOR (SOUTH EUCLID)	
632						1															1	632	90400	1	EACH	SIGNALIZATION MISC.: CENTRAL OFFICE MONITOR (LYNDHURST)	
633						2															2	633	32005	2	EACH	CONTROLLER, ACTUATED, 2 PHASE, SOLID STATE DIGITAL MICROPROCESSOR, *, MODEL: TRANSYT 1880EL, WITH (INTERNAL TRANCEIVER MODULE) ALTERNATE BID * AS PER PLAN	249
633						2															2	633	32005	2	EACH	CONTROLLER, ACTUATED, 2 PHASE, SOLID STATE DIGITAL MICROPROCESSOR, AS PER PLAN	247
633						2															2	633	33001	2	EACH	CONTROLLER, ACTUATED, 3 PHASE, SOLID STATE DIGITAL MICROPROCESSOR, AS PER PLAN	247
633						2															2	633	33001	2	EACH	CONTROLLER, ACTUATED, 3 PHASE, SOLID STATE DIGITAL MICROPROCESSOR, *, MODEL: TRANSYT 1880EL, WITH (INTERNAL TRANCEIVER MODULE) ALTERNATE BID * AS PER PLAN	249
633						2															2	633	38001	2	EACH	CONTROLLER, ACTUATED, 8 PHASE, SOLID STATE DIGITAL MICROPROCESSOR, AS PER PLAN	247
633						2															2	633	38001	2	EACH	CONTROLLER, ACTUATED, 8 PHASE, SOLID STATE DIGITAL MICROPROCESSOR, *, MODEL: TRANSYT 1880EL, WITH (INTERNAL TRANCEIVER MODULE) ALTERNATE BID * AS PER PLAN	249
633		7																		7		633	39900	7	EACH	CONTROLLER, ACTUATED, 2/8 PHASE, LOCAL TYPE 170SV, AS PER PLAN	248
633		1																		1		633	39900	1	EACH	CONTROLLER, SYSTEM MASTER, TYPE 170SV, SOLID STATE DIGITAL MICROPROCESSOR, AS PER PLAN	248

PARTICIPATION

I – 100% CITY OF SOUTH EUCLID
II – 100% CITY OF LYNDHURST
III – NORMAL PROJECT PARTICIPATION – CITY OF SOUTH EUCLID
IV – NORMAL PROJECT PARTICIPATION – CITY OF LYNDHURST

TRAFFIC CONTROL SUMMARY

FHWA REGION	STATE	PROJECT	
5	OHIO		

253
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

ITEM	SHEET NUMBER																PARTICIPATION				ITEM	ITEM EXTENSION	GRAND TOTAL	UNIT	DESCRIPTION	AS PER PLAN REF. SHEET
		254		256				342		343							I	II	III	IV						
																									— TRAFFIC CONTROL —	
633				1																1	633	39901	1	EACH	CONTROLLER, MASTER, TRAFFIC RESPONSIVE, AS PER PLAN, SOLID STATE DIGITAL MICROPROCESSOR	247
633				1																1	633	39900	1	EACH	CONTROLLER, MASTER, TRAFFIC RESPONSIVE, AS PER PLAN, SOLID STATE DIGITAL MICROPROCESSOR, MODEL: TRANSYT 3800EL–ALTERNATE BID	249
633				1																1	633	64000	1	EACH	PREEMPTION	
633		32		21															32	21	633	64100	53	EACH	PREEMPTION EQUIPMENT, RECEIVING UNIT, AS PER PLAN	
633		7		6															7	6	633	99000	13	EACH	PREEMPTION EQUIPMENT, PHASE SELECTOR, AS PER PLAN	
633				8																8	633	70000	8	CU. YD.	CONCRETE FOR CABINET FOUNDATION	
633				46																46	633	70500	46	SQ. FT.	CONTROLLER WORK PAD	
633				1																1	633	99000	1	EACH	CONTROLLER ITEM MISC.:CENTRAL OFFICE MONITOR (LYNDHURST), MODEL: ZENITH 486 WORKSTATION, MICROCOMPUTER - ALTERNATE BID	
642								3.29		4.51									3.29	4.51	642	00202	7.80	MILE	LANE LINE, TYPE 2	
642								2.79		4.24									2.79	4.24	642	00302	7.03	MILE	CENTER LINE, TYPE 2	
642								1431		1865									1431	1865	642	00402	3296	LIN. FT.	CHANNELIZING LINE, TYPE 2	
642								1242		1085									1242	1085	642	00502	2327	LIN. FT.	STOP LINE, TYPE 2	
642								4450		3955									4450	3955	642	00602	8405	LIN. FT.	CROSSWALK LINE, TYPE 2	
642								63		295									63	295	642	00702	358	LIN. FT.	TRANSVERSE LINE, TYPE 2	
642								78		80									78	80	642	00902	158	SQ. FT.	ISLAND MARKING, TYPE 2	
642								44		109									44	109	642	01302	153	EACH	LANE ARROW, TYPE 2	
642								7		16									7	16	642	01402	23	EACH	WORD "ONLY" ON PAVEMENT, 72", TYPE 2	

TRAFFIC SIGNAL SUBSUMMARY

Totals Carried to Sheet 250-253

CHKD. BY. DATE.
CHKD. BY. DATE.

OHIO
F.H.W.A. REGION 5

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CUYAHOGA COUNTY
U.S. ROUTE No. 322
MAYFIELD ROAD

REF. No.	ITEM	295	248	298	300	302	304	306	309	312	314	335	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
	625			21	201	33	44		52	95			625	25100	446	LINEAR FEET	CONDUIT, 1", 713.04
	625							192					625	25300	192	LINEAR FEET	CONDUIT, 1-1/2", 713.04
	625			19	16	38		39	202	67		107	625	25400	488	LINEAR FEET	CONDUIT, 2", 713.04
	625			197	312	191	204	213	684	121			625	25500	1922	LINEAR FEET	CONDUIT, 3", 713.04
	625							18					625	25600	18	LINEAR FEET	CONDUIT, 4", 713.04
	625			169	357	126	213	193	792	223		31	625	29000	2104	LINEAR FEET	TRENCH
	625			68	172	136	35	260	136	60		76	625	29500	943	LINEAR FEET	TRENCH IN PAVED AREAS, TYPE A
	625			4	6	4	4	10	17	3			625	30700	48	EACH	PULL BOX, 713.08, 18"
	625	14		4	4	4	4	6	13	4			625	32000	53	EACH	GROUND ROD
	630	33.6											630	00000	33.6	CUBIC YARDS	CONCRETE FOR ANCHOR BASE FOUNDATION
	630	7											630	75601	7	EACH	SPAN WIRE SUPPORT, TYPE TC-17.10, DESIGN 6, AS PER PLAN
	630											7352	632		7352	LINEAR FEET	REMOVAL OF EXISTING INTERCONNECT
	632			8	4	8	6	4	14	6			632	00301	50	EACH	VEHICULAR SIGNAL HEAD, 3 SECTION, 12" LENS, ONE WAY, AS PER PLAN
	632						2						632	00401	2	EACH	VEHICULAR SIGNAL HEAD, 4 SECTION, 12" LENS, ONE WAY, AS PER PLAN
	632				4			4					632	00501	8	EACH	VEHICULAR SIGNAL HEAD, 5 SECTION, 12" LENS, ONE WAY, AS PER PLAN
	632								4				632	03201	4	EACH	VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED, 3 SECTION, 12" LENS, 1 WAY, AS PER PLAN
	632			8	8	8	4	8	12	4			632	20600	52	EACH	PEDESTRIAN SIGNAL HEAD, TYPE D2, AS PER PLAN
	632			8	8	8	8	8	18	6			632	25000	64	EACH	COVERING OF VEHICULAR SIGNAL HEAD
	632			4	4	4	2	4	6	2			632	26000	26	EACH	PEDESTRIAN PUSHBUTTON
	632			6	12	6	5	16	7	3			632	27009	55	EACH	LOOP DETECTOR UNITS, DELAY AND EXTENSION TYPE, AS PER PLAN
	632			273	1275	269	254	1960	406	134			632	27500	4571	LINEAR FEET	LOOP DETECTOR PAVEMENT CUTTING
	632			557		575	801	436	2040	688			632	40500	5097	LINEAR FEET	SIGNAL CABLE, 5 CONDUCTOR, No. 14 AWG
	632			427	1302	379	182	1037	326	14			632	40700	3667	LINEAR FEET	SIGNAL CABLE, 7 CONDUCTOR, No. 14 AWG
	632								2705				632	43300	2705	LINEAR FEET	SIGNAL CABLE, MISC. 5 CONDUCTOR, NO. 10 AWG
	632								491				632	43300	491	LINEAR FEET	SIGNAL CABLE, MISC. 7 CONDUCTOR, NO. 10 AWG
	632											8108	632	62803	8108	LINEAR FEET	INTERCONNECT CABLE, INTEGRAL, MESSENGER WIRE TYPE, 6 PAIR, NO. 19 AWG SOLID, REA (PE-38) AS PER PLAN
	632			742	3297	724	624	5210	1050	380			632	64900	12027	LINEAR FEET	LOOP DETECTOR WIRE, TYPE F
	632			1510	3087	1442	1553	3675	2443	848			632	65200	14558	LINEAR FEET	LOOP DETECTOR LEAD-IN CABLE
	632								3986				632	65201	3986	LINEAR FEET	LOOP DETECTOR LEAD-IN CABLE, NO. 10
	632			75	61	90	50	47	116	58			632	67190	497	LINEAR FEET	POWER CABLE, 2 CONDUCTOR, No. 8 AWG
	632			1	1	1	1	1	1	1			632	70001	7	EACH	POWER SERVICE, AS PER PLAN
	632			1	1	1	1	1	1	1		3	632	70400	10	EACH	CONDUIT RISER, 2" DIA.
	632			3	4	4	2	4	8	2			632	71000	27	EACH	CABLE SUPPORT ASSEMBLY
	632			6.0	9.7	6.0	6.2	6.6	14.9	6.3			632	72000	55.7	CUBIC YARDS	CONCRETE FOR ANCHOR BASE FOUNDATIONS
	632			1									632	80100	1	EACH	SIGNAL SUPPORT, TYPE TC- 81.20, DESIGN 1, 12' ARM
	632								1				632	80100	1	EACH	SIGNAL SUPPORT, TYPE TC- 81.20, DESIGN 1, 15' ARM
	632					1							632	80100	1	EACH	SIGNAL SUPPORT, TYPE TC- 81.20, DESIGN 1, 18' ARM
	632							1					632	80200	1	EACH	SIGNAL SUPPORT, TYPE TC- 81.20, DESIGN 2, 25' ARM
	632								1				632	80200	1	EACH	SIGNAL SUPPORT, TYPE TC- 81.20, DESIGN 2, 26' ARM
	632							1					632	80200	1	EACH	SIGNAL SUPPORT, TYPE TC- 81.20, DESIGN 2, 27' ARM
	632					1			4				632	80200	5	EACH	SIGNAL SUPPORT, TYPE TC- 81.20, DESIGN 2, 28' ARM
	632					2			1				632	80200	3	EACH	SIGNAL SUPPORT, TYPE TC- 81.20, DESIGN 2, 29' ARM
	632							1					632	80200	1	EACH	SIGNAL SUPPORT, TYPE TC- 81.20, DESIGN 2, 30' ARM
	632				1								632	80300	1	EACH	SIGNAL SUPPORT, TYPE TC- 81.20, DESIGN 3, 32' ARM
	632			1									632	80300	1	EACH	SIGNAL SUPPORT, TYPE TC- 81.20, DESIGN 3, 36' ARM
	632							1					632	80300	1	EACH	SIGNAL SUPPORT, TYPE TC- 81.20, DESIGN 3, 38' ARM
	632								1				632	80400	1	EACH	SIGNAL SUPPORT, TYPE TC- 81.20, DESIGN 4, WITH MAST ARMS TC-81.20 DESIGN 2, 28' AND TC-81.20 DESIGN 2, 28'
	632						1						632	80400	1	EACH	SIGNAL SUPPORT, TYPE TC- 81.20, DESIGN 4, WITH MAST ARMS TC-81.20 DESIGN 2, 29' AND TC-81.20 DESIGN 2, 25'
	632									1			632	80400	1	EACH	SIGNAL SUPPORT, TYPE TC- 81.20, DESIGN 4, WITH MAST ARMS TC-81.20 DESIGN 3, 32' AND TC-81.20 DESIGN 2, 27'
	632						1						632	80400	1	EACH	SIGNAL SUPPORT, TYPE TC- 81.20, DESIGN 4, WITH MAST ARMS TC-81.20 DESIGN 3, 36' AND TC-81.20 DESIGN 2, 31'
	632									1			632	80500	1	EACH	SIGNAL SUPPORT, TYPE TC- 81.20, DESIGN 11, 39' ARM
	632				1								632	80500	1	EACH	SIGNAL SUPPORT, TYPE TC- 81.20, DESIGN 11, 42' ARM
	632				2								632	80500	2	EACH	SIGNAL SUPPORT, TYPE TC- 81.20, DESIGN 11, 43' ARM
	632			1									632	80500	1	EACH	SIGNAL SUPPORT, TYPE TC-81.20, DESIGN II, WITH MAST ARMS TC-81.20 DESIGN 11, 39' AND TC-81.20 DESIGN 11, 39'
	632			1			2	1	5	2			632	89900	11	EACH	PEDESTAL, 8', TRANSFORMER BASE
	632			1	1	1	1	1	3	1	1		632	90100	10	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION
	632							1					632	90400	1	EACH	SIGNALIZATION MISC.: PHONE DROP
	632		1										632	90400	1	EACH	SIGNALIZATION MISC.: CENTRAL OFFICE MONITOR(SOUTH EUCLID)
	633			1	1	1	1	1	1	1			633	39900	7	EACH	CONTROLLER, ACTUATED, 2/8 PHASE, LOCAL TYPE 170SV, AS PER PLAN
	633							1					633	39900	1	EACH	CONTROLLER, ACTUATED, MASTER, TYPE 170SV, SOLID STATE DIGITAL MICROPROCESSOR, AS PER PLAN
	633			4	4	4	4	4	9	3			633	64101	32	EACH	PREEMPTION EQUIPMENT, RECEIVING UNIT, AS PER PLAN
	633			1	1	1	1	1	1	1			633	64201	7	EACH	PREEMPTION EQUIPMENT, PHASE SELECTOR, AS PER PLAN

TRAFFIC CONTROL SUB-SUMMARY

CALC. BY: DATE:	CUY-322-8.66 CUYAHOGA COUNTY	OHIO
CHKD. BY: DATE:		FHWA REGION 5
		FEDERAL PROJECT

ITEM	SHEET NUMBER														ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	AS PER PLAN SHEET NO.
	315	318	320	321	323	325	326	327	328	330	331	332	334	341						
625	183	132		169	152				65			196		209	625	25400	1106	LIN. FT.	CONDUIT, 2", 713.04	
625	70	83		86	83				113			118			625	25500	553	LIN. FT.	CONDUIT, 3", 713.04	
625				120											625	25600	120	LIN. FT.	CONDUIT, 4", 713.04	
625	35	40		172	106				111			155			625	25900	619	LIN. FT.	CONDUIT, JACKED OR DRILLED UNDER PAVEMENT, SIZE: 3"	
625	203	166		281	64				169			220		113	625	29000	1216	LIN. FT.	TRENCH	
625	20	24		83	171				9			80		96	625	29500	483	LIN. FT.	TRENCH IN PAVED AREA, TYPE A	
625	5	5		9	6				6			8			625	30701	39	EA.	PULLBOX, 713.08, 18", AS PER PLAN	246
625	5	4		5	5				5			5			625	32000	29	EA.	GROUND ROD	
632	6	3		4	6				8			3			632	00303	30	EA.	VEHICULAR SIGNAL HEAD, 3 SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN	247
632					2										632	00403	2	EA.	VEHICULAR SIGNAL HEAD, 4 SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN	247
632		1		4								5			632	00503	10	EA.	VEHICULAR SIGNAL HEAD, 5 SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN	247
632	4	4		8	2				6			8			632	20100	32	EA.	PEDESTRIAN SIGNAL HEAD, TYPE A-2	
632	6	4		8	8				8			8			632	25000	42	EA.	COVERING OF VEHICULAR SIGNAL HEAD	
632	4	4		8	2				6			8			632	26000	32	EA.	PEDESTRIAN PUSHBUTTON	
632	5	5		10	5				4			9			632	27005	38	EA.	LOOP DETECTOR UNIT, AS PER PLAN	246
632	1			2	2				2			2			632	27009	9	EA.	LOOP DETECTOR UNIT, DELAY AND EXTENSION TYPE, AS PER PLAN	246
632	313	274		1128	500				377			1019			632	27500	3611	LIN. FT.	LOOP DETECTOR PAVEMENT CUTTING	
632	783	317		1099	816				853						632	40500	3868	LIN. FT.	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG	
632		218		1171	398							850			632	40700	2637	LIN. FT.	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	
632	46	108		969					322			656			632	40900	2101	LIN. FT.	SIGNAL CABLE, 9 CONDUCTOR, NO. 14 AWG	
632														2049	632	53202	2049	LIN. FT.	INTERCONNECT CABLE, 6 PAIR NO. 19 AWG SOLID, REA (PE 39)	
632														8087	632	62803	8087	LIN. FT.	INTERCONNECT CABLE, INTEGRAL MESSENGER WIRE TYPE, 6 PAIR, NO. 19 AWG SOLID, REA (PE-38) AS PER PLAN	246
632	818	708		2600	1338				964			2326			632	64900	8754	LIN. FT.	LOOP DETECTOR WIRE, TYPE E	
632	977	762		2388	1414				1198			1329			632	65200	8068	LIN. FT.	LOOP DETECTOR LEAD-IN CABLE	
632	86	94		64	44				51			70			632	67300	409	LIN. FT.	POWER CABLE, 3 CONDUCTOR, NO. 8 AWG	
632	1	1		1	1				1			1			632	70001	6	FA.	POWER SERVICE, AS PER PLAN	246
632														6	632	70400	6	EA.	CONDUIT RISER, 2" DIAMETER	
632	2	2		4	2				2			4			632	71000	16	EA.	CABLE SUPPORT ASSEMBLY	
632	5.0	4.5		8.7	6.0				6.0			9.5			632	72000	40.00	CU. YD.	CONCRETE FOR ANCHOR BASE FOUNDATION	
632		1													632	80200	1	EA.	SIGNAL SUPPORT, TYPE TC-81.20 DESIGN 2, 30' ARM	
632				1											632	80300	1	EA.	SIGNAL SUPPORT, TYPE TC-81.20 DESIGN 3, 30' ARM	
632				1											632	80300	1	EA.	SIGNAL SUPPORT, TYPE TC-81.20 DESIGN 3, 32' ARM	
632												1			632	80300	1	EA.	SIGNAL SUPPORT, TYPE TC-81.20 DESIGN 3, 33' ARM	
632	1														632	80300	1	EA.	SIGNAL SUPPORT TC-81.20 DESIGN NO. 3, WITH MAST ARMS TC-81.20 DES. 1, 22' & TC-81.20 DES. 1, 19'	
632									1						632	80300	1	EA.	SIGNAL SUPPORT TC-81.20 DESIGN NO. 3, WITH MAST ARMS TC-81.20 DES. 2, 26' & TC-81.20 DES. 1, 22'	
632					1										632	80300	1	EA.	SIGNAL SUPPORT TC-81.20 DESIGN NO. 3, WITH MAST ARMS TC-81.20 DES. 2, 26' & TC-81.20 DES. 1, 20'	
632					1										632	80300	1	EA.	SIGNAL SUPPORT TC-81.20 DESIGN NO. 3, WITH MAST ARMS TC-81.20 DES. 2, 29' & TC-81.20 DES. 1, 24'	
632												1			632	80400	1	EA.	SIGNAL SUPPORT, TYPE TC-81.20 DESIGN 4, 35' ARM	
632	1	1													632	80400	2	EA.	SIGNAL SUPPORT, TYPE TC-81.20 DESIGN 4, 37' ARM	
632									1						632	80400	1	EA.	SIGNAL SUPPORT TC-81.20 DESIGN NO. 4, WITH MAST ARMS TC-81.20 DES. 2, 26' & TC-81.20 DES. 2, 25'	

CALC. BY: DATE:	CUY-322-8.66 CUYAHOGA COUNTY	OHIO
CHKD. BY: DATE:		FHWA REGION 5
		FEDERAL PROJECT

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TRAFFIC CONTROL SUB-SUMMARY

ITEM	SHEET NUMBER 248	249	315	318	320	321	323	325	326	327	328	330	331	332	334	341	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	AS PER PLAN SHEET NO.
632														1			632	80500	1	EA.	SIGNAL SUPPORT TC-81.20 DESIGN NO. 11, 42' ARM	
632														1			632	80500	1	EA.	SIGNAL SUPPORT TC-81.20 DESIGN NO. 11, 43' ARM	
632						2											632	80500	2	EA.	SIGNAL SUPPORT TC-81.20 DESIGN NO. 11, 44' ARM	
632			2	1			2				2						632	89900	7	EA.	PEDESTAL, 8', TRANSFORMER BASE	
632			1	1	1	1	1	1	1	1	1	1	1	1	1		632	90101	13	EA.	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	246
632				1													632	90400	1	EA.	SIGNALIZATION MISC.: PHONE DROP	
632																	632	90400	1	EA.	SIGNALIZATION MISC.: CENTRAL OFFICE MONITOR (LYNDHURST)	
633			1								1						633	32005	2	EA.	CONTROLLER, ACTUATED, 2 PHASE, SOLID STATE DIGITAL MICROPROCESSOR, AS PER PLAN	247
633				1			1										633	33001	2	EA.	CONTROLLER, ACTUATED, 3 PHASE, SOLID STATE DIGITAL MICROPROCESSOR, AS PER PLAN	247
633						1								1			633	38001	2	EA.	CONTROLLER, ACTUATED, 8 PHASE, SOLID-STATE DIGITAL MICROPROCESSOR, AS PER PLAN	247
633				1													633	39900	1	EA.	CONTROLLER, MASTER, SOLID STATE DIGITAL MICROPROCESSOR, TRAFFIC RESPONSIVE, AS PER PLAN	247
633											1						633	64000	1	EA.	PREEMPTION	
633			1.0	1.0		1.8	1.0				1.0			1.8			633	70000	8.00	CU. YD.	CONCRETE FOR CABINET FOUNDATION	
633			8.3	8.3		10.4					8.3			10.4			633	70500	46.00	SQ. FT.	CONTROLLER WORK PAD	
633			3	2		4	4				4			4			633	64101	21	EA.	PREEMPTION EQUIPMENT, RECEIVING UNIT, AS PER PLAN	249
633			1	1		1	1				1			1			633	64201	6	EA.	PREEMPTION EQUIPMENT, PHASE SELECTOR, AS PER PLAN	249
633		1															633	99000	1	EA.	CONTROLLER ITEM MISC.: CENTRAL OFFICE MONITOR, (LYNDHURST) MODEL: ZENITH 486 WORKSTATION, MICROCOMPUTER-ALTERNATE BID	249
633		2															633	32005	2	EA.	CONTROLLER, ACTUATED, 2 PHASE, SOLID STATE DIGITAL MICROPROCESSOR, MODEL: TRANSYT 1880EL, WITH (INTERNAL TRANCEIVER MODULE) ALTERNATE BID, AS PER PLAN	249
633		2															633	33001	2	EA.	CONTROLLER, ACTUATED, 3 PHASE, SOLID STATE DIGITAL MICROPROCESSOR, MODEL: TRANSYT 1880EL, WITH (INTERNAL TRANCEIVER MODULE) ALTERNATE BID, AS PER PLAN	249
633		2															633	38001	2	EA.	CONTROLLER, ACTUATED, 8 PHASE, SOLID STATE DIGITAL MICROPROCESSOR, MODEL: TRANSYT 1880EL, WITH (INTERNAL TRANCEIVER MODULE) ALTERNATE BID, AS PER PLAN	249
633		1															633	39901	1	EA.	CONTROLLER, MASTER, SOLID STATE DIGITAL MICROPROCESSOR, TRAFFIC RESPONSIVE, MODEL: TRANSYT 1880EL, WITH (3800E "MASTER") ALTERNATE BID, AS PER PLAN	249

SUMMARY OF SIGNING QUANTITIES

OHIO
F.H.W.A. REGION 5
257
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

REF. NO	STATION	OFFSET	REMARKS	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT NO. 2 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 3 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 4 POST LIN. FT.		630 SIGN SUPPORT ASSEMBLY POLE MOUNTED EACH	* SPAN WIRE SIGN SUPPORTS	630 SIGN, FLAT SHEET SQ. FT.	630 SIGN, FLAT SHEET TYPE G SQ. FT.		630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL EACH		630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN EACH			
1	0+44	32' LT.	"LEFT ARROW/ONLY/STRAIGHT ARROW/ONLY/STRAIGHT & RIGHT ARROW" – NEW	R–31C–48	48 X 30		26.00					10.00								
2	0+50	32' RT.	"EAST" – ERECT NEW SIGN	M–39–24	24 X 12					1		2.00								
3	0+50	32' RT.	"U.S. ROUTE MARKER "322" (3–DIGIT)" – ERECT NEW SIGN	M–1–24–3	30 X 24					1		5.00								
4	0+93	31' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
5	0+93	31' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
6	1+35	32' LT.	"LEFT ARROW/ONLY/STRAIGHT ARROW/ONLY/STRAIGHT & RIGHT ARROW" – NEW	R–31C–48	48 X 30		26.00					10.00								
7	1+55	32' RT.	"U.S. ROUTE MARKER "322" (3–DIGIT)" – REMOVE EXISTING SIGN												1					
8	1+55	32' RT.	"BEGIN" – ERECT NEW SIGN	RP–49–24	24 X 6							1.00								
9	1+55	32' RT.	'CENTER LANE/TWO WAY LEFT TURN ARROWS/ONLY" – ERECT 2 NEW SIGNS	R–48–24	24 X 36		13.00					6.00								
10			NOT USED																	
11	2+89	32' RT.	"SPEED LIMIT 25" – REMOVE EXISTING SIGN												1					
12	2+89	32' RT.	"SPEED LIMIT 25" – ERECT NEW SIGN	R–10–24	24 X 30					1		5.00								
13	3+45	31' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
14	3+84	CL	"TWO WAY LEFT TURN ARROWS/ONLY" – ERECT NEW SIGN	R–50–30	30 X 36						*		15.00							
15	3+84	10.5' LT.	"STRAIGHT ARROW/ONLY" – ERECT NEW SIGN	R–30A–30	30 X 36						*		7.50							
16	3+84	22.5' LT.	"STRAIGHT AND RIGHT ARROW" – ERECT NEW SIGN	R–29A–30	30 X 36						*		7.50							
17	3+84	10.5' RT.	"STRAIGHT ARROW/ONLY" – ERECT NEW SIGN	R–30A–30	30 X 36						*		7.50							
18	3+84	22.5' RT.	"STRAIGHT AND RIGHT ARROW" – ERECT NEW SIGN	R–29A–30	30 X 36						*		7.50							
19	3+92	CL	"TWO WAY LEFT TURN ARROWS/ONLY" – REMOVE EXISTING SIGN														1			
20	3+92	10.5' LT.	"STRAIGHT ARROW/ONLY" – REMOVE EXISTING SIGN														1			
21	3+92	22.5' LT.	"STRAIGHT AND RIGHT ARROW" – REMOVE EXISTING SIGN														1			
22	3+92	10.5' RT.	"STRAIGHT ARROW/ONLY" – REMOVE EXISTING SIGN														1			
23	3+92	22.5' RT.	"STRAIGHT AND RIGHT ARROW" – REMOVE EXISTING SIGN														1			
24	3+96	32' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
25	3+96	32' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
26	4+98	32' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
27	4+98	32' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
28	5+07	31' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
29	5+07	31' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
30	6+01	32' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
31	6+01	32' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
32	6+42	31' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
33	6+42	31' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
34	7+14	32' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
35	7+14	32' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
36	7+70	32' LT.	"CENTER LANE/TWO WAY LEFT TURN ARROWS/ONLY" – ERECT NEW SIGN	R–48–24	24 X 36		13.00					6.00								
37	7+93	32' RT.	"CENTER LANE/TWO WAY LEFT TURN ARROWS/ONLY" – ERECT NEW SIGN	R–48–24	24 X 36		13.00					6.00								
38	8+16	31' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
39	8+16	31' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
40	9+54	32' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
			TOTAL (QUANTITIES CARRIED TO SHEET 265)				91.00			12		64.50	45.00		11		5			

STEPHEN HOVANCSEK & ASSOC., INC.

* SEE SHEET 295 FOR SPAN WIRE SUPPORT BID ITEMS

MAYFIELD ROAD

SUMMARY OF SIGNING QUANTITIES

OHIO
F.H.W.A. REGION 5
258
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

REF. NO	STATION	OFFSET	REMARKS	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT NO. 2 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 3 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 4 POST LIN. FT.		630 SIGN SUPPORT ASSEMBLY POLE MOUNTED EACH		630 SIGN, FLAT SHEET SQ. FT.	630 SIGN, FLAT SHEET TYPE G SQ. FT.		630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL EACH		630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN EACH			
41	9+54	32' RT.	"NO PARKING ANYTIME/ARROW" - ERECT NEW SIGN	R-55-12	12 X 18					1		1.50								
42	9+60	31' LT.	"NO PARKING ANYTIME/ARROW" - REMOVE EXISTING SIGN												1					
43	9+60	31' LT.	"NO PARKING ANYTIME/ARROW" - ERECT NEW SIGN	R-55-12	12 X 18					1		1.50								
44	10+50	32' RT.	"CENTER LANE/TWO WAY LEFT TURN ARROWS/ONLY" - ERECT NEW SIGN	R-48-24	24 X 36		13.00					6.00								
45	10+76	31' LT.	"CENTER LANE/TWO WAY LEFT TURN ARROWS/ONLY" - ERECT NEW SIGN	R-48-24	24 X 36		13.00					6.00								
46	11+79	31' LT.	"WEST" - ERECT NEW SIGN	M-40-24	24 X 12					1		2.00								
47	11+79	31' LT.	"U.S. ROUTE MARKER "322" (3-DIGIT)" - ERECT NEW SIGN	M-1-24-3	30 X 24					1		5.00								
48	11+79	31' LT.	"NO PARKING ANYTIME/ARROW" - ERECT NEW SIGN	R-55-12	12 X 18					1		1.50								
49	11+85	32' RT.	"NO PARKING ANYTIME/ARROW" - REMOVE EXISTING SIGN												1					
50	11+85	32' RT.	"NO PARKING ANYTIME/ARROW" - ERECT NEW SIGN	R-55-12	12 X 18					1		1.50								
51	12+82	31' LT.	"NO PARKING ANYTIME/ARROW" - ERECT NEW SIGN	R-55-12	12 X 18					1		1.50								
52	13+73	32' RT.	"NO PARKING ANYTIME/ARROW" - REMOVE EXISTING SIGN												1					
53	13+73	32' RT.	"NO PARKING ANYTIME/ARROW" - ERECT NEW SIGN	R-55-12	12 X 18					1		1.50								
54	14+27	31' LT.	"NO PARKING ANYTIME/ARROW" - REMOVE EXISTING SIGN												1					
55	14+27	31' LT.	"NO PARKING ANYTIME/ARROW" - ERECT NEW SIGN	R-55-12	12 X 18					1		1.50								
56	15+48	32' RT.	"EAST" - REMOVE EXISTING SIGN												1					
57	15+48	32' RT.	"U.S. ROUTE MARKER "322" (3-DIGIT)" - REMOVE EXISTING SIGN												1					
58	15+48	32' RT.	"EAST" - ERECT NEW SIGN	M-39-24	24 X 12					1		2.00								
59	15+48	32' RT.	"U.S. ROUTE MARKER "322" (3-DIGIT)" - ERECT NEW SIGN	M-1-24-3	30 X 24					1		5.00								
60	16+13	32' RT.	"NO PARKING ANYTIME/ARROW" - REMOVE EXISTING SIGN												1					
61	16+13	30' LT.	"SPEED LIMIT 25" - REMOVE EXISTING SIGN												1					
62	16+15	CL	"TWO WAY LEFT TURN ARROWS/ONLY" - REMOVE EXISTING SIGN														1			
63	16+15	5.5' LT.	"STRAIGHT ARROW/ONLY" - REMOVE EXISTING SIGN														1			
64	16+15	12' LT.	"STRAIGHT AND RIGHT ARROW" - REMOVE EXISTING SIGN														1			
65	16+15	5.5' RT.	"STRAIGHT ARROW/ONLY" - REMOVE EXISTING SIGN														1			
66	16+15	12' RT.	"STRAIGHT AND RIGHT ARROW" - REMOVE EXISTING SIGN														1			
67	16+50	32' RT.	"NO PARKING ANYTIME/ARROW" - ERECT NEW SIGN	R-55-12	12 X 18					1		1.50								
68	16+50	30' LT.	"SPEED LIMIT 25" - ERECT NEW SIGN	R-10-24	24 X 30					1		5.00								
69	16+50	CL	"TWO WAY LEFT TURN ARROWS/ONLY" - ERECT 2 NEW SIGNS	R-50-30	30 X 36						*		15.00							
70	16+50	5.5' LT.	"STRAIGHT ARROW/ONLY" - ERECT NEW SIGN	R-30A-30	30 X 36						*		7.50							
71	16+50	12' LT.	"STRAIGHT AND RIGHT ARROW" - ERECT NEW SIGN	R-29A-30	30 X 36						*		7.50							
72	16+50	5.5' RT.	"STRAIGHT ARROW/ONLY" - ERECT NEW SIGN	R-30A-30	30 X 36						*		7.50							
73	16+50	12' RT.	"STRAIGHT AND RIGHT ARROW" - ERECT NEW SIGN	R-29A-30	30 X 36						*		7.50							
74	17+04	31' LT.	"NO PARKING ANYTIME/ARROW" - REMOVE EXISTING SIGN												1					
75	17+04	31' LT.	"NO PARKING ANYTIME/ARROW" - ERECT NEW SIGN	R-55-12	12 X 18					1		1.50								
76	17+11	32' RT.	"SPEED LIMIT 25" - REMOVE EXISTING SIGN												1					
77	17+11	32' RT.	"SPEED LIMIT 25" - ERECT NEW SIGN	R-10-24	24 X 30					1		5.00								
78	18+18	32' RT.	"NO PARKING ANYTIME/ARROW" - REMOVE EXISTING SIGN												1					
79	18+18	32' RT.	"NO PARKING ANYTIME/ARROW" - ERECT NEW SIGN	R-55-12	12 X 18					1		1.50								
80	19+20	32' RT.	"NO PARKING ANYTIME/ARROW" - REMOVE EXISTING SIGN												1					
			TOTAL (QUANTITIES CARRIED TO SHEET 265)				26.00			16		51.00	45.00		12		5			

* SEE SHEET 295 FOR SPAN WIRE SUPPORT BID ITEMS

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD

SUMMARY OF SIGNING QUANTITIES

OHIO | F.H.W.A. REGION 5 | 259 / 426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

REF. NO	STATION	OFFSET	REMARKS	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT NO. 2 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 3 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 4 POST LIN. FT.		630 SIGN SUPPORT ASSEMBLY POLE MOUNTED EACH		630 SIGN, FLAT SHEET SQ. FT.	630 SIGN, FLAT SHEET TYPE G SQ. FT.		630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL EACH					
81	19+20	32' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X18					1		1.50								
82	19+57	31' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
83	19+57	31' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
84	20+34	32' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
85	20+34	32' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
86	32+51	35' LT.	"DO NOT ENTER" - ERECT NEW SIGN	R–41B–30	30 X 30					1			6.25							
87	32+51	35' LT.	"ONE WAY/ARROW" - ERECT NEW SIGN	R–43R–36	36 X 12					1			3.00							
88	21+74	33' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
89	21+74	33' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
90	21+85	31' LT.	"BEGIN" – ERECT NEW SIGN	RP–49–24	24 X 6					1		1.00								
91	21+85	31' LT.	"CENTER LANE/TWO WAY LEFT TURN ARROWS/ONLY" – ERECT NEW SIGN	R–48–24	24 X 36					1		6.00								
92	22+43	31' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
93	22+43	31' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
94	22+70	34' RT.	"LEFT ARROW/ONLY/STRAIGHT ARROW/ONLY/STRAIGHT & RIGHT ARROW/ONLY" – NEW	R–31C–48	48 X 30		26.00					10.00								
95	22+95	30' LT.	"SPEED LIMIT 25" – REMOVE EXISTING SIGN												1					
95A	24+74	47' RT.	"SCHOOL CROSSWALK SYMBOL" – ERECT NEW SIGN	W–81–30	30 X 30					1		6.25								
96	22+95	30' LT.	"WEST" – ERECT NEW SIGN	M–40–24	24 X 6					1		1.00								
97	22+95	30' LT.	"U.S. ROUTE MARKER "322" (3–DIGIT)" – ERECT NEW SIGN	M–1–24–3	30 X 24					1		5.00								
98	23+35	32' LT.	"SPEED LIMIT 25" – ERECT NEW SIGN	R–10–24	24 X 30		13.00					5.00								
99	23+40	32' RT.	"SCHOOL XING" – ERECT NEW SIGN	WP–82–24	24 X 18					1		3.00								
100	23+40	32' RT.	"SCHOOL CROSSING" – ERECT NEW SIGN	W–82–30	30 X 30		14.00			1		6.25								
100A	24+74	47' RT.	"CROSSWALK PLAQUE" – ERECT NEW SIGN	WP–81–24	24 X 18					1		3.00								
101	23+54	33' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
102	23+54	33' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
103	24+18	31' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
104	24+18	31' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
105	24+20	33' RT.	"LEFT ARROW/ONLY/STRAIGHT ARROW/ONLY/STRAIGHT & RIGHT ARROW/ONLY" – NEW	R–31C–48	48 X 30		26.00					10.00								
105A	25+92	31' LT.	"SCHOOL CROSSWALK SYMBOL" – ERECT NEW SIGN	W–81–30	30 X 30					1		6.25								
106	25+92	31' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
107	25+92	31' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
108	26+25	32' LT.	"LEFT ARROW/ONLY/STRAIGHT ARROW/ONLY/STRAIGHT & RIGHT ARROW/ONLY" – NEW	R–31C–48	48 X 30		26.00					10.00								
109	26+46	33' RT.	"SPEED LIMIT 25" – REMOVE EXISTING SIGN												1					
110	26+46	33' RT.	"SPEED LIMIT 25" – ERECT NEW SIGN	R–10–24	24 X 30					1		5.00								
110A	25+92	31' LT.	"CROSSWALK PLAQUE" – ERECT NEW SIGN	WP–81–24	24 X 18					1		3.00								
111	26+91	32' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
112	26+91	32' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
113	26+91	32' LT.	"SCHOOL XING" – ERECT NEW SIGN	WP–82–24	24 X 18					1		3.00								
114	26+91	32' LT.	"SCHOOL CROSSING" – ERECT NEW SIGN	W–82–30	30 X 30					1		6.25								
115	26+93	32' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
116	26+93	32' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
117	26+93	32' RT.	"EAST" – REMOVE EXISTING SIGN												1					
118	26+93	32' RT.	"U.S. ROUTE MARKER "322" (3–DIGIT)" – REMOVE EXISTING SIGN												1					
119	26+93	32' RT.	"EAST" – ERECT NEW SIGN	M–39–24	24 X 6					1		1.00								
120	26+93	32' RT.	"U.S. ROUTE MARKER "322" (3–DIGIT)" – ERECT NEW SIGN	M–1–24–3	30 X 24					1		5.00								
			TOTAL (QUANTITIES CARRIED TO SHEET 265)				105.00			27		111	9.25		13					

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD

SUMMARY OF SIGNING QUANTITIES

OHIO
F.H.W.A. REGION 5
260
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

REF. NO	STATION	OFFSET	REMARKS	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT NO. 2 POST (LIN. FT.)	630 GROUND MOUNTED SUPPORT NO. 3 POST (LIN. FT.)	630 GROUND MOUNTED SUPPORT NO. 4 POST (LIN. FT.)		630 SIGN SUPPORT ASSEMBLY POLE MOUNTED (EACH)	630 * SPAN WIRE SIGN SUPPORTS (EACH)	630 SIGN, FLAT SHEET (SQ. FT.)	630 SIGN, FLAT SHEET TYPE G (SQ. FT.)		630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL (EACH)		630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN (EACH)			
121	27+96	32' RT.	"BEGIN" – ERECT NEW SIGN	RP-49-24	24 X 6					1		1.00								
122	27+96	32' RT.	"CENTER LANE/TWO WAY LEFT TURN ARROWS/ONLY" – ERECT NEW SIGN	R-48-24	24 X 36					1		6.00								
123	28+32	31' LT.	"SCHOOL CROSSING" – REMOVE EXISTING SIGN												1					
124	28+32	31' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
125	28+32	31' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
126	28+40	31' LT.	"LEFT ARROW/ONLY/STRAIGHT ARROW/ONLY/STRAIGHT & RIGHT ARROW/ONLY" – NEW	R-31C-48	48 X 30		26.00					10.0								
127	28+90	32' LT.	"END" – ERECT NEW SIGN	RP-51-24	36 X 6							1.5								
128	28+90	32' LT.	"CENTER LANE/TWO WAY LEFT TURN ARROWS/ONLY" – ERECT NEW SIGN	R-48-24	24 X 36		13.00					6.0								
129	28+99	32' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
130	28+99	32' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
131	29+70	31' LT.	"ROUGH ROAD" – REMOVE												1					
132	30+70	CL	"TWO WAY LEFT TURN ARROWS/ONLY" – ERECT 2 NEW SIGNS	R-50-30	30 X 36						*		15.0							
133	30+70	5.5' LT.	"STRAIGHT ARROW/ONLY" – ERECT NEW SIGN	R-30A-30	30 X 36						*		7.5							
134	30+70	12' LT.	"STRAIGHT AND RIGHT ARROW" – ERECT NEW SIGN	R-29A-30	30 X 36						*		7.5							
135	30+70	5.5' LT.	"STRAIGHT ARROW/ONLY" – ERECT NEW SIGN	R-30A-30	30 X 36						*		7.5							
136	30+70	12' RT.	"STRAIGHT AND RIGHT ARROW" – ERECT NEW SIGN	R-29A-30	30 X 36						*		7.5							
137	30+70	32' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
138	30+70	32' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
139	30+91	31' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
140	30+98	CL	"TWO WAY LEFT TURN ARROWS/ONLY" – REMOVE EXISTING SIGN														1			
141	30+98	5.5' LT.	"STRAIGHT ARROW/ONLY" – REMOVE EXISTING SIGN														1			
142	30+98	12' LT.	"STRAIGHT AND RIGHT ARROW" – REMOVE EXISTING SIGN														1			
143	30+98	5.5' RT.	"STRAIGHT ARROW/ONLY" – REMOVE EXISTING SIGN														1			
144	30+98	12' RT.	"STRAIGHT AND RIGHT ARROW" – REMOVE EXISTING SIGN														1			
145	31+18	32' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
146	32+11	35' LT.	"DO NOT ENTER" – REMOVE EXISTING SIGN												1					
147	32+11	33' LT.	"NO RIGHT/ARROW" – ERECT NEW SIGN	R-120-24	24 X 24					1			4.0							
147A	32+11	33' LT.	"ONE WAY/ARROW" – ERECT NEW SIGN	R-43L-36	36 X 12					1			3.0							
147B	32+26	32' RT.	"NO LEFT/ARROW" – ERECT NEW SIGN	R-120-24	24 X 24					1			4.0							
148	32+51	33' LT.	"NO RIGHT/ARROW" – REMOVE EXISTING SIGN												1					
150	33+32	32' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
151	33+32	32' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
152	33+35	31' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
153	33+35	31' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
154	35+42	32' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
155	35+42	32' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
156	35+42	32' LT.	"CENTER LANE/TWO WAY LEFT TURN ARROWS/ONLY" – ERECT NEW SIGN	R-48-24	24 X 36							6.0								
157	35+50	32' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
158	35+50	32' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
159	35+50	32' RT.	"SCHOOL CROSSING" – REMOVE EXISTING SIGN												1					
160	35+50	32' RT.	"SCHOOL CROSSING" – ERECT NEW SIGN	W-82-30	30 X 30					1		6.25								
			TOTAL (QUANTITIES CARRIED TO SHEET 265)				39.00			14		48.75	56.00		13		5			

STEPHEN HOVANCSEK & ASSOC., INC.

* SEE SHEET 295 FOR SPAN WIRE SUPPORT BID ITEMS

MAYFIELD ROAD

SUMMARY OF SIGNING QUANTITIES

OHIO
F.H.W.A. REGION 5
261
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

REF. NO	STATION	OFFSET	REMARKS	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT NO. 2 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 3 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 4 POST LIN. FT.		630 SIGN SUPPORT ASSEMBLY POLE MOUNTED EACH	SPAN WIRE SIGN SUPPORTS	630 SIGN, FLAT SHEET SQ. FT.	630 SIGN, FLAT SHEET TYPE G SQ. FT.		630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH					
161	35+50	32' RT.	"SCHOOL XING" – ERECT NEW SIGN	WP-82-24	24 X 18					1		3.00								
162	35+80	32' RT.	"CENTER LANE/TWO WAY LEFT TURN ARROWS/ONLY" – ERECT NEW SIGN	R-48-24	24 X 36		13.00					6.00								
163	36+48	32' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
164	36+48	32' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
165	37+61	31' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
165A	36+54	31' RT.	"SCHOOL CROSSWALK SYMBOL" – ERECT NEW SIGN	W-81-30	30 X 30					1		6.25								
166	37+61	31' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
167	37+61	31' RT.	"SPEED LIMIT 25" – REMOVE EXISTING SIGN												1					
168	37+61	31' RT.	"SPEED LIMIT 25" – ERECT NEW SIGN	R-10-24	24 X 30					1		5.0								
169	37+73	34' LT.	"CENTER LANE/TWO WAY LEFT TURN ARROWS/ONLY" – ERECT NEW SIGN	R-48-24	24 X 36					1		6.0								
170	37+73	34' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
170A	36+54	31' RT.	"CROSSWALK PLAQUE" – ERECT NEW SIGN	WP-81-24	24 X 18					1		3.0								
171	37+73	34' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
172	38+40	33' LT.	"SPEED LIMIT 25" – ERECT NEW SIGN	R-10-24	24 X 30					1		5.0								
173	38+40	33' LT.	"SPEED LIMIT 25" – REMOVE EXISTING SIGN												1					
174	39+07	32' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
175	39+07	32' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
175A	37+07	33' LT.	"SCHOOL CROSSWALK SYMBOL – ERECT NEW SIGN	W-81-30	30 X 30					1		6.25								
176	39+07	32' LT.	"SCHOOL CROSSING" – REMOVE EXISTING SIGN												1					
177	39+07	32' LT.	"SCHOOL CROSSING" – ERECT NEW SIGN	W-82-30	30 X 30					1		6.25								
178	39+07	32' LT.	"SCHOOL XING" – ERECT NEW SIGN	WP-82-24	24 X 18					1		3.0								
179	39+13	32' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
180	39+13	32' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
180A	37+07	33' LT.	"CROSSWALK PLAQUE" – ERECT NEW SIGN	WP-81-24	24 X 18					1		3.0								
181	40+38	32' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
182	40+38	32' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
183	40+48	31' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
184	40+48	31' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
185	41+76	32' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
186	41+76	32' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
187	41+77	32' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
188	41+77	32' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
189	42+50	32' LT.	"BEGIN" – ERECT NEW SIGN	RP-49-36	24 X 6							1.0								
190	42+50	32' LT.	"CENTER LANE/TWO WAY LEFT TURN ARROWS/ONLY" – ERECT NEW SIGN	R-48-24	24 X 36		13.00					6.00								
191	42+93	32' RT.	"END" – ERECT NEW SIGN	RP-51-36	24 X 6					1		1.0								
192	42+93	32' RT.	"CENTER LANE/TWO WAY LEFT TURN ARROWS/ONLY" – ERECT NEW SIGN	R-48-24	24 X 36					1		6.00								
193	43+77	33' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
194	43+77	33' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
195	44+15	30' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
196	44+15	30' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
197	44+36	35' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
198	44+36	35' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
199	44+95	32' RT.	"LEFT ARROW/ONLY/STRAIGHT ARROW/ONLY/STRAIGHT & RIGHT ARROW/ONLY" – NEW	R-31C-48	48 X 30		26.00					10.0								
200	45+29	30' LT.	"WEST" – ERECT NEW SIGN	M-40-24	24 X 12					1		2.0								
			TOTAL (QUANTITIES CARRIED TO SHEET 265)				52.00			25		96.75			15					

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD

SUMMARY OF SIGNING QUANTITIES

OHIO
F.H.W.A. REGION 5
262
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

REF. NO	STATION	OFFSET	REMARKS	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT NO. 2 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 3 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 4 POST LIN. FT.		630 SIGN SUPPORT ASSEMBLY POLE MOUNTED EACH	SPAN WIRE SIGN SUPPORTS	SIGN, FLAT SHEET SQ. FT.	SIGN, FLAT SHEET TYPE G SQ. FT.		630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH		630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN EACH			
201	45+29	30' LT.	"U.S. ROUTE MARKER '322' (3 DIGIT)" – ERECT NEW SIGN	M-1-24-3	30 X 24					1		5.0								
202	45+29	30' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
203	45+29	30' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
204	45+29	34' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
205	45+29	34' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
206	46+40	32' RT.	"LEFT ARROW/ONLY/STRAIGHT ARROW/ONLY/STRAIGHT & RIGHT ARROW" – NEW	R-31C-48	48 X 30		26.00					10.0								
207	46+60	34' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
208	46+60	34' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
209	47+50	32' LT.	"LEFT ARROW/ONLY/STRAIGHT ARROW/ONLY/STRAIGHT & RIGHT ARROW" – NEW	R-31C-48	48 X 30		26.00					10.0								
210	48+29	34' RT.	"U.S. ROUTE MARKER '322' (3 DIGIT)" – REMOVE EXISTING SIGN												1					
211	48+29	34' RT.	"EAST" – REMOVE EXISTING SIGN												1					
212	48+29	34' RT.	"U.S. ROUTE MARKER '322' (3 DIGIT)" – ERECT NEW SIGN	M-1-24-3	30 X 24					1		5.0								
213	48+29	34' RT.	"EAST" – ERECT NEW SIGN	M-39-24	24 X 12					1		2.0								
214	48+29	34' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
215	48+29	34' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
216	48+32	31' LT.	"SPEED LIMIT 25" – ERECT NEW SIGN	R-10-24	24 X 30					1		5.0								
217	48+32	31' LT.	"SPEED LIMIT 25" – REMOVE EXISTING SIGN												1					
218	48+32	31' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
219	48+32	31' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
220	49+20	32' RT.	"CENTER LANE/TWO WAY LEFT TURN ARROWS/ONLY" – ERECT NEW SIGN	R-48-24	24 X 36		13.00					6.0								
221	49+20	32' RT.	"BEGIN" – ERECT NEW SIGN	RP-49-24	24 X 6							1.0								
222	49+48	31' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
223	49+48	31' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
224	49+48	31' LT.	"SCHOOL CROSSING" – REMOVE EXISTING SIGN												1					
227	49+50	32' RT.	"SPEED LIMIT 25" – REMOVE EXISTING SIGN												1					
228	49+50	32' RT.	"SPEED LIMIT 25" – ERECT NEW SIGN	R-10-24	24 X 30					1		5.0								
229	49+50	32' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
230	49+50	32' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.5								
231	49+75	32' LT.	"LEFT ARROW/ONLY/STRAIGHT ARROW/ONLY/STRAIGHT & RIGHT ARROW" – NEW	R-31C-48	48 X 30		26.00					10.0								
232	49+98	CL	"TWO WAY LEFT ARROWS/ONLY" – REMOVE EXISTING SIGN														1			
233	49+98	5.5' LT.	"STRAIGHT ARROW/ONLY" – REMOVE EXISTING SIGN														1			
234	49+98	12' LT.	"STRAIGHT AND RIGHT TURN ARROW" – REMOVE EXISTING SIGN														1			
235	49+98	5.5' RT.	"STRAIGHT ARROW/ONLY" – REMOVE EXISTING SIGN														1			
236	49+98	12' RT.	"STRAIGHT AND RIGHT TURN ARROW" – REMOVE EXISTING SIGN														1			
237	49+98	32' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
238	50+62	39' LT.	"WRONG WAY" – REMOVE EXISTING SIGN												1					
239	50+62	39' LT.	"DO NOT ENTER" – ERECT NEW SIGN	R-41B-30	30 X 30					1			6.25							
240	50+62	39' LT.	"DO NOT ENTER" – REMOVE EXISTING SIGN												1					
			TOTAL (QUANTITIES CARRIED TO SHEET 265)				91.00			13		69.50	6.25		15		5			

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD

SUMMARY OF SIGNING QUANTITIES

OHIO | F.H.W.A. REGION 5 | 263 / 426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

REF. NO	STATION	OFFSET	REMARKS	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT NO. 2 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 3 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 4 POST LIN. FT.		630 SIGN SUPPORT ASSEMBLY POLE MOUNTED EACH	* SPAN WIRE SIGN SUPPORTS	630 SIGN, FLAT SHEET SQ. FT.	630 SIGN, FLAT SHEET TYPE G SQ. FT.		630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH				
241	50+71	32' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1				
242	50+71	32' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.50							
243	50+91	32' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1				
244	50+91	32' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.50							
245	51+92	32' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1				
245A	50+62	39' LT.	"ONE WAY ARROW" – ERECT NEW SIGN	R-43R-36	36 X 12					1			3.00						
246	51+92	32' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.50							
247	52+40	31' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.50							
248	52+40	31' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1				
249	52+87	CL	"TWO WAY LEFT ARROWS/ONLY" – ERECT 2 NEW SIGNS	R-50-30	30 X 36						*		15.0						
250	52+87	5.5' LT.	"STRAIGHT ARROW/ONLY" – ERECT NEW SIGN	R-30A-30	30 X 36						*		7.50						
250A	50+62	39' LT.	"ONE WAY ARROW" – ERECT NEW SIGN	R-43L-36	36 X 12					1			3.00						
251	52+87	12' LT.	"STRAIGHT AND RIGHT TURN ARROW" – ERECT NEW SIGN	R-29A-30	30 X 36						*		7.50						
252	52+87	5.5' RT.	"STRAIGHT ARROW/ONLY" – ERECT NEW SIGN	R-30A-30	30 X 36						*		7.50						
253	52+87	12' RT.	"STRAIGHT AND RIGHT TURN ARROW" – ERECT NEW SIGN	R-29A-30	30 X 36						*		7.50						
254	53+54	32' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.50							
255	53+54	32' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1				
256	53+54	32' LT.	"NO U TURN" – REMOVE EXISTING SIGN												1				
257	53+54	32' LT.	"NO U TURN" – ERECT NEW SIGN	RP-123-24	24 X 18					1		3.00							
258	54+71	33' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.50							
259	54+71	33' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1				
260	55+60	32' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1				
261	55+60	32' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.50							
262	55+93	33' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.50							
263	55+93	33' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1				
264	56+56	32' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1				
265	56+56	32' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.50							
266	56+69	31' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.50							
267	56+69	31' LT.	"NO PARKING ANYTIME/ARROW" REMOVE EXISTING SIGN												1				
268	57+94	32' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1				
269	57+94	32' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.50							
270	58+78	32' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.50							
271	58+78	32' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1				
272			NOT USED																
273	58+78	32' LT.	"SPEED LIMIT 25" – REMOVE EXISTING SIGN												1				
274	59+18	31' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1				
275	59+18	31' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.50							
276	59+39	31' RT.	"STOP HERE ON RED" – REMOVE EXISTING SIGN												1				
278	59+99	33' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1		1.50							
279	59+99	33' LT.	"CENTER LANE/TWO WAY LEFT TURN ARROWS/ONLY" – ERECT NEW SIGN	R-48-24	24 X 36					1		6.00							
280	60+00	33' LT.	"SPEED LIMIT 25" – ERECT NEW SIGN	R-10-24	24 X 30		13.00					5.00							
			TOTAL (QUANTITIES CARRIED TO SHEET 265)				13.00			18		35.00	51.00		16				

STEPHEN HOVANCSEK & ASSOC., INC.

* SEE SHEET 295 FOR SPAN WIRE SUPPORT BID ITEMS

MAYFIELD ROAD

SUMMARY OF SIGNING QUANTITIES

OHIO
F.H.W.A. REGION 5
264
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

REF. NO	STATION	OFFSET	REMARKS	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT NO. 2 POST	630 GROUND MOUNTED SUPPORT NO. 3 POST	630 GROUND MOUNTED SUPPORT NO. 4 POST		630 SIGN SUPPORT ASSEMBLY POLE MOUNTED	630 * SPAN WIRE SIGN SUPPORTS	630 SIGN, FLAT SHEET	630 SIGN, FLAT SHEET TYPE G		630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL		630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN			
						LIN. FT.	LIN. FT.	LIN. FT.		EACH	EACH	SQ. FT.	SQ. FT.		EACH		EACH			
281	60+38	31' RT.	"CENTER LANE/TWO WAY LEFT TURN ARROWS/ONLY" – ERECT NEW SIGN	R–48–24	24 X 36					1		6.00								
282	61+62	31' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
283	61+62	31' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
284	62+16	32' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
285	62+16	32' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
286	62+56	31' LT.	"STOP HERE ON RED" – REMOVE EXISTING SIGN												1					
287	62+89	31' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
288	62+89	31' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
289	63+10	32' LT.	"CENTER LANE/TWO WAY LEFT TURN ARROWS/ONLY" – ERECT NEW SIGN	R–48–24	24 X 36		13.00					6.00								
290	63+20	32' RT.	"CENTER LANE/TWO WAY LEFT TURN ARROWS/ONLY" – ERECT NEW SIGN	R–48–24	24 X 36		13.00					6.00								
291	65+20	32' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
292	65+20	32' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
293	66+29	33' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
294	66+29	33' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
295	67+45	CL	"TWO WAY LEFT TURN ARROWS/ONLY" – ERECT 2 NEW SIGNS	R–50–30	30 X 36						*		15.00							
296	67+45	5.5' LT.	"STRAIGHT ARROW/ONLY" – ERECT NEW SIGN	R–30A–30	30 X 36						*		7.50							
297	67+45	12' LT.	"STRAIGHT AND RIGHT TURN ARROW" – ERECT NEW SIGN	R–29A–30	30 X 36						*		7.50							
298	67+45	5.5' RT.	"STRAIGHT ARROW/ONLY" – ERECT NEW SIGN	R–30A–30	30 X 36						*		7.50							
299	67+45	12' RT.	"STRAIGHT AND RIGHT TURN ARROW" – ERECT NEW SIGN	R–29A–30	30 X 36						*		7.50							
300	67+77	32' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
301	67+77	32' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	RP–123–24	12 X 18					1		1.50								
302	67+82	CL	"TWO WAY LEFT TURN ARROWS/ONLY" – REMOVE EXISTING SIGN														1			
303	67+82	5.5' LT.	"STRAIGHT ARROW/ONLY" – REMOVE EXISTING SIGN														1			
304	67+82	12' LT.	"STRAIGHT AND RIGHT TURN ARROW" – REMOVE EXISTING SIGN														1			
305	67+82	5.5' RT.	"STRAIGHT ARROW/ONLY" – REMOVE EXISTING SIGN														1			
306	67+82	12' RT.	"STRAIGHT AND RIGHT TURN ARROW" – REMOVE EXISTING SIGN														1			
307	69+11	33' RT.	"LYNDHURST CORPORATION LIMIT" – ERECT NEW SIGN	N–1–40	40 X 20					1		5.56								
308	69+12	33' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
309	69+12	33' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
310	70+13	34' LT.	"SPEED LIMIT 25" – ERECT NEW SIGN	R–10–24	24 X 30					1		5.00								
311	70+44	33' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
312	71+10	33' LT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
313	71+10	33' LT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
314	72+23	33' LT.	"CENTER LANE/TWO WAY LEFT TURN ARROWS/ONLY" – ERECT NEW SIGN	R–48–24	24 X 36					1		6.00								
315	73+57	33' RT.	"NO PARKING ANYTIME/ARROW" – REMOVE EXISTING SIGN												1					
316	73+57	33' RT.	"NO PARKING ANYTIME/ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1		1.50								
			TOTAL (QUANTITIES CARRIED TO SHEET 265)				26.00			14		49.56	45.00		10		5			

STEPHEN HOVANCSEK & ASSOC., INC.

* SEE SHEET 295 FOR SPAN WIRE SUPPORT BID ITEMS

MAYFIELD ROAD

SUMMARY OF SIGNING QUANTITIES

OHIO
F.H.W.A. REGION 5
265
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

REF. NO	STATION	OFFSET	REMARKS	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT NO. 2 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 3 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 4 POST LIN. FT.		630 SIGN SUPPORT ASSEMBLY POLE MOUNTED EACH	630 SPAN WIRE SIGN SUPPORTS EACH	630 SIGN, FLAT SHEET SQ. FT.	630 SIGN, FLAT SHEET TYPE G SQ. FT.		630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH		630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN EACH			
			SUBTOTAL SHEET 257			91.00				12		64.50	45.00		11		5			
			SUBTOTAL SHEET 258			26.00				16		51.00	45.00		12		5			
			SUBTOTAL SHEET 259			105.00				27		111	9.25		13					
			SUBTOTAL SHEET 260			39.00				14		48.75	56.00		13		5			
			SUBTOTAL SHEET 261			52.00				25		96.75			15					
			SUBTOTAL SHEET 262			91.00				13		69.50	6.25		15		5			
			SUBTOTAL SHEET 263			13.00				18		35.00	51.00		16					
			SUBTOTAL SHEET 264			26.00				14		49.56	45.00		10		5			
			GRAND TOTAL			443.00				139		526.06	257.50		105		25			

STEPHEN HOVANCSEK & ASSOC., INC.

(QUANTITIES CARRIED TO SHEET 250)

MAYFIELD ROAD

FHWA REGION	STATE	PROJECT	
5	OHIO		

266
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

SUMMARY OF SIGNING QUANTITIES

REF. NO.	STATION	OFFSET	REMARKS	CODE	SIZE	630 GROUND MOUNTED SUPPORT NO. 2 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 3 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 4 POST LIN. FT.		630 SIGN SUPPORT ASSEMBLY POLE MOUNTED EACH	630 SIGN, FLAT SHEET SQ. FT.	630 SIGN, FLAT SHEET, TYPE G SQ. FT.		630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND STORAGE EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND STORAGE EACH	630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN EACH	630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF POLE MOUNTED SIGN AND STORAGE EACH
1			NOT USED																	
2	74+60	26' Lt.	"REDUCED SPEED AHEAD" – ERECT NEW SIGN	R–11B–24	24 X 30					1	5.00									
3	74+21	41' Rt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R–10–24	24 X 30					1	5.00									
4	74+21	41' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
5	75+81	26' Lt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R–48–24	24 X 36					1	6.00									
6	75+87	40' Rt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R–48–24	24 X 36					1	6.00									
7	76+89	29' Lt	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
8	77+18	38' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
9	77+18	38' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
10	77+77	27' Lt.	"WEST" – ERECT NEW SIGN	M–40–24	24 X 12					1	2.00									
11	77+77	27' Lt.	"U.S. ROUTE MARKER "322" (3 DIGIT)" – ERECT NEW SIGN	M–1–24–3	30 X 24					1	5.00									
12	78+46	28' Lt.	"LIONS / L" – REMOVE EXISTING SIGN																	1
13	78+46	28' Lt.	"K OF C HALL/ 1ST. & 3RD. THUR. 8:00" – REMOVE EXISTING SIGN																	1
14	78+46	28' Lt.	"SOUTH EUCLID, OHIO" – REMOVE EXISTING SIGN																	1
15	78+48	38' Rt.	"EAST" – ERECT NEW SIGN	M–39–24	24 X 12					1	2.00									
16	78+48	38' Rt.	"U.S. ROUTE MARKER "322" (3 DIGIT)" – ERECT NEW SIGN	M–1–24–3	30 X 24					1	5.00									
17	79+02	28' Lt	"EMERGENCY SNOW BAN / NO PARKING WHEN SNOW EXCEEDS 2 IN. / ALL CITY STREETS" – EXISTING SIGN, REMOVE																	1
18	79+02	28' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
19	79+62	28' Lt.	"SPEED LIMIT 35" – REMOVE EXISTING SIGN																1	
20			NOT USED																	
21	79+67	36' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
21A	79+67	36' Rt.	"CENTER LINE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R–48–24	24 X 36					1	6.00									
21B	79+67	36' Rt.	"END" – ERECT NEW SIGN	RP–49–24	24 X 6						1.00									
22	79+62	28' Lt.	"STOP FOR SCHOOL BUS LOADING OR UNLOADING CITY ORINANCE" – REMOVE EXISTING SIGN																1	
23	79+62	28' Lt.	"STOP FOR SCHOOL BUS LOADING OR UNLOADING CITY ORINANCE" – ERECT NEW SIGN	R–84–30	30 X 30					1	6.25									
24	80+10	30' Lt.	"SOUTH EUCLID CORPORATION LIMITS" – ERECT NEW SIGN	N–1–40	40 X 20		22				5.56									
25	80+66	68' Rt.	"STOP" – EXISTING SIGN, NO WORK																	
26	80+91	37' Rt	"PARKSIDE" – EXISTING SIGN, NO WORK																	
27	80+91	37' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
28	80+98	27' Lt.	"NO PARKING ANYTIME" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
29	80+00	30' Lt.	"CENTER LINE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R–48–24	24 X 36		13.50				6.00									
29A	80+00	30' Lt.	"END" – ERECT NEW SIGN	RP–51–24	24 X 6						1.00									
30	81+66	28' Lt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
31	80+91	37' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
32			NOT USED																	
33	82+69	28' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
34	82+06	36' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
35	82+12	37' Rt.	"SOUTH EUCLID – LYND." – EXISTING SIGN, REMOVE											1		1				
36	82+12	37' Rt.	"KIWANIS YOUTH. CENTER MONDAY 6:30 P.M." – EXISTING SIGN, REMOVE											1		1				
37			NOT USED																	
38	82+44	36' Rt.	"KIWANIS / K / INTERNATIONAL" – EXISTING SIGN, REMOVE											1		1				
39			NOT USED																	
			TOTAL CARRIED TO SHEET 279				35.50			19	75.31			3		3		5	4	

MAYFIELD ROAD

SUMMARY OF SIGNING QUANTITIES

FHWA REGION	STATE	PROJECT	
5	OHIO		

267
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

REF. NO.	STATION	OFFSET	REMARKS	CODE	SIZE	630 GROUND MOUNTED SUPPORT NO. 2 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 3 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 4 POST LIN. FT.		630 SIGN SUPPORT ASSEMBLY POLE MOUNTED EACH	630 SIGN, FLAT SHEET SQ. FT.	630 SIGN, FLAT SHEET, TYPE G SQ. FT.		630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND STORAGE EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND STORAGE EACH	630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN EACH	630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF POLE MOUNTED SIGN AND STORAGE EACH
40	82+81	52' Lt.	"DO NOT ENTER" – REMOVE EXISTING SIGN AND SUPPORT											1		1				
41	82+81	52' Lt.	"DO NOT ENTER" – ERECT NEW SIGN AND SUPPORT	R-41B-36	36 X 36			13.50				9.00								
42	82+81	52' Lt.	"ONE WAY" – ERECT NEW SIGN	R-43R-36	36 X 12						3.00									
43	83+22	52' Lt.	"DO NOT ENTER" – ERECT NEW SIGN AND SUPPORT	R-41B-36	36 X 36			13.50				9.00								
44	82+81	52' Lt.	"ONE WAY" – ERECT NEW SIGN	R-43L-36	36 X 12						3.00									
45	83+22	52' Lt.	"DO NOT ENTER" – REMOVE EXISTING SIGN AND SUPPORT											1		1				
46	83+22	52' Lt.	"ONE WAY" – ERECT NEW SIGN	R-43R-36	36 X 12						3.00									
47	83+50	27' Rt.	"NO RIGHT TURN SYMBOL" – REMOVE EXISTING SIGN																1	
48	83+50	27' Rt.	"DAYTONA" – EXISTING SIGN, NO WORK																	
49	83+22	52' Lt.	"ONE WAY" – ERECT NEW SIGN	R-43L-36	36 X 12						3.00									
50	82+79	11' Lt.	"NO RIGHT TURN" – ERECT NEW SIGN ON SIGNAL MAST ARM	R-120-24	24 X 24						4.00									
51	83+18	21' Rt.	"NO LEFT TURN" – ERECT NEW SIGN ON SIGNAL MAST ARM	R-121-24	24 X 24						4.00									
52	84+36	36' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
53	84+36	36' Rt.	"MAYFIELD" – EXISTING SIGN, NO WORK																	
54	84+36	36' Rt.	"CLUBSIDE" – EXISTING SIGN, NO WORK																	
55	84+36	36' Rt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS / ONLY" – ERECT NEW SIGN	R-48-24	24 X 36					1	6.00									
56	84+36	36' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
57	84+59	27' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
57A	84+59	27' Lt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS / ONLY" – ERECT NEW SIGN	R-48-24	24 X 36					1	6.00									
58	84+59	27' Lt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
59	85+24	70' Rt.	"STOP" – EXISTING SIGN, NO WORK																	
60	85+32	55' Rt.	"LYNDHURST PARK ESTATES" – EXISTING SIGN, NO WORK																	
61	85+21	64' Rt.	"COUNTRYSIDE / BROOKWOOD / MIDDLEDALE / SEVEN OAKS" – EXISTING SIGN, NO WORK																	
62	85+68	37' Rt.	"SCHOOL CROSSING SYMBOL" – EXISTING SIGN, NO WORK																	
63	85+68	37' Rt.	"SCHOOL CROSSING PLAQUE" – EXISTING SIGN, NO WORK																	
64	85+73	28' Lt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R-10-24	24 X 30					1	5.00									
65	86+36	37' Rt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R-10-24	24 X 30		13.00				5.00									
66			NOT USED																	
67			NOT USED																	
68	86+84	37' Rt.	"LEFT ARROW / ONLY & STAIGHT ARROW / ONLY & STRAIGHT ARROW / ONLY" ERECT NEW SIGN & SUPPORTS	R-31FF-48	48 X 30			29.00			10.00									
69	87+00	38' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
70			NOT USED																	
71			NOT USED																	
72			NOT USED																	
73	86+92	26' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
74	87+31	45' Lt.	"ONE WAY / RIGHT ARROW" – EXISTING SIGN, NO WORK																	
75	87+73	45' Lt.	"ONE WAY / LEFT ARROW" – EXISTING SIGN, NO WORK																	
76	87+50	40' Rt.	"CHARLES F. BRUSH HIGH SCHOOL / LEFT ARROW / CLASS OF 81" – REMOVE EXISTING SIGN												1		1			
77	87+69	37' Rt.	"SCHOOL CROSSWALK SYMBOL" – EXISTING SIGN, NO WORK																	
78	87+69	37' Rt.	"CROSSWALK PLAQUE" – EXISTING SIGN, NO WORK																	
79	87+85	39' Rt.	"PUSH BUTTON FOR WALK SIGNAL" – REMOVE EXISTING SIGN AND SUPPORT											1		1				
			TOTAL CARRIED TO SHEET 279				13.00	56.00		7	58.00	18.00		3	1	3	1		3	

MAYFIELD ROAD

FHWA REGION	STATE	PROJECT	
5	OHIO		

268
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

SUMMARY OF SIGNING QUANTITIES

REF. NO.	STATION	OFFSET	REMARKS	CODE	SIZE	630 GROUND MOUNTED SUPPORT NO. 2 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 3 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 4 POST LIN. FT.		630 SIGN SUPPORT ASSEMBLY POLE MOUNTED EACH	630 SIGN, FLAT SHEET SQ. FT.	630 SIGN, FLAT SHEET, TYPE G SQ. FT.		630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND STORAGE EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND STORAGE EACH	630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN EACH	630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF POLE MOUNTED SIGN AND STORAGE EACH
80	87+95	27' Lt.	"PUSH BUTTON FOR WALK SIGNAL" – REMOVE EXISTING SIGN & SUPPORTS											1		1				
81	87+95	27' Lt.	"EVANSTON" – EXISTING SIGN, NO WORK																	
82	87+95	27' Lt.	"RTA" – EXISTING SIGN, NO WORK																	
83			NOT USED																	
84	87+95	27' Lt.	"SCHOOL CROSSWALK SYMBOL" – EXISTING SIGN, NO WORK																	
85	87+95	27' Lt.	"CROSSWALK PLAQUE" – EXISTING SIGN, NO WORK																	
86	88+06	27' Lt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R–48–24	24 X 36		13.50				6.00									
86A	88+06	27' Lt.	"END" – ERECT NEW SIGN & SUPPORT	RP–51–24	24 X 6						1.00									
87	88+33	38' Rt.	"RTA" – EXISTING SIGN, NO WORK																	
88	88+33	38' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
89	88+54	28' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
90	88+54	28' Lt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
91	87+25	16' OVERHEAD Lt.	"NO TURN ON RED" – ERECT NEW SIGN	R–23–24	24 X 24						4.00									
92	87+25	16' OVERHEAD Lt.	"8 AM – 4 AM SCHOOL DAYS" – ERECT NEW SIGN	RP–23–24	24 X 9.5						1.58									
93	87+25	16' OVERHEAD Lt.	"NO TURN ON RED" – REMOVE EXISITING SIGN															1		
94	87+25	16' OVERHEAD Lt.	"8 AM – 4 AM SCHOOL DAYS" – REMOVE EXISTING SIGN															1		
95	88+76	38' Rt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R–48–24	24 X 36						6.00									
96	88+76	38' Rt	"BEGIN" – ERECT NEW SIGN & SUPPORT	RP–49–24	24 X 6		13.50				1.00									
97			NOT USED																	
98			NOT USED																	
99			NOT USED																	
100			NOT USED																	
101			NOT USED																	
102			NOT USED																	
103	89+61	27' Lt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R–10–24	24 X 30					1	5.00									
104	89+61	27' Lt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
105	89+64	37' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
106	90+82	27' Lt	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
107	90+82	27' Lt.	"SCHOOL CROSSING SYMBOL" – EXISTING SIGN, NO WORK																	
108	90+82	27' Lt.	"SCHOOL XING PLAQUE" – EXISTING SIGN, NO WORK																	
109	90+92	37' Rt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R–10–24	24 X 30					1	5.00									
110	90+92	37' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					I	1.50									
111	91+53	54' Lt.	"STOP" – ERECT NEW SIGN & SUPPORT	R–1–30	30 X 30		13.00					6.25								
112	92+21	36' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
113	92+35	27' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
114	92+35	27' Lt.	"GREENLEIGH" – EXISTING SIGN, NO WORK																	
115	93+62	37' Rt.	"NO PARKING ANYTIME / ARROW" ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
116	93+62	37' Rt.	"4900" – EXISTING SIGN, NO WORK																	
117	93+62	37' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
118	93+69	5' OVERHEAD Rt.	"(TWO WAY LEFT TURN ARROWS) / ONLY" – REMOVE EXISTING SIGN & SPAN WIRE															1		
119	93+69	5' OVERHEAD Rt.	"(TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN & SPAN WIRE	R–50–30	30 X 36							7.50								
			TOTAL CARRIED TO SHEET 279				40.00			9	40.08	13.75		1		1		3	4	

MAYFIELD ROAD

FHWA REGION	STATE	PROJECT	
5	OHIO		

269
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SUMMARY OF SIGNING QUANTITIES

REF. NO.	STATION	OFFSET	REMARKS	CODE	SIZE	630 GROUND MOUNTED SUPPORT NO. 2 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 3 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 4 POST LIN. FT.		630 SIGN SUPPORT ASSEMBLY POLE MOUNTED EACH	630 SIGN, FLAT SHEET SQ. FT.		630 SIGN, FLAT SHEET, TYPE G SQ. FT.	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND STORAGE EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND STORAGE EACH	630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN EACH	630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF POLE MOUNTED SIGN AND STORAGE EACH
120	93+69	OVERHEAD 5' Rt.	"(TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R-50-30	30 X 36								7.50							
121	93+76	27' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
122	93+76	27' Lt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
123	96+13	26' Lt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R-10-24	24 X 30					1	5.00									
124	96+13	26' Lt.	"NO PARKING ANYTIME / ARROW" ERECT NEW SIGN	R-55-12	12 X 18						1.50									
125	96+16	38' Rt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R-10-24	24 X 30					1	5.00									
126	96+16	38' Rt.	"NO PARKING ANYTIME / ARROW" ERECT NEW SIGN	R-55-12	12 X 18						1.50									
127	96+16	38' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
128	97+46	37' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
129	97+46	37' Rt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R-48-24	24 X 36					1	6.00									
130	98+19	27' Lt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
131	98+19	27' Lt	"RTA" – EXISTING SIGN, NO WORK																	
132	98+44	54' Lt.	"STOP" – ERECT NEW SIGN & SUPPORT	R-1-30	30 X 30		13.00						6.25							
133	98+77	38' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
134	98+95	55' Rt.	"YIELD TO TRAFFIC" – EXISTING SIGN, NO WORK																	
135	99+00	27' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
136	99+00	27' Lt.	"MAYFIELD" – EXISTING SIGN, NO WORK																	
137	99+00	27' Lt.	"CLEARVIEW" – EXISTING SIGN, NO WORK																	
138	99+23	55' Rt.	"DO NOT ENTER" – EXISTING SIGN, REMOVE – ERECT NEW SIGN	R-41B-30	30 X 30		13.00						6.25	1		1				
139	99+23	55' Rt.	"EXIT ONLY" – EXISTING SIGN, REMOVE											1						
140	100+05	38' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
141	100+05	38' Rt	"RTA" – EXISTING SIGN, NO WORK																	
142	100+15	27' Lt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R-48-24	24 X 36					1	6.00									
143	100+15	27' Lt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
144	100+79	40' Rt.	"ENTER ONLY" – EXISTING SIGN, NO WORK																	
145	101+21	38' Rt.	"JCT" – REMOVE EXISTING SIGN											1						
146	101+21	38' Rt.	"STATE ROUTE MARKER "175" (3 DIGIT)" – REMOVE EXISTING SIGN & SUPPORT											1		1				
147	101+21	38' Rt.	"JCT" – ERECT NEW SIGN & SUPPORT	M-17-24	24 X 12		17.00				2.00									
148	101+21	38' Rt.	"STATE ROUTE MARKER "175" (3 DIGIT)" – ERECT NEW SIGN	M-2-24-3	30 X 24						5.00									
149			NOT USED																	
150	101+26	38' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
151	101+26	27' Lt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R-10-24	24 X 30					1	5.00									
152	101+26	27' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
153	102+69	38' Rt.	"MAYFIELD ROAD / RICHMOND ROAD / 500 FEET AHEAD" – REMOVE EXISTING SIGN																1	
154	102+69	38' Rt.	"MAYFIELD ROAD / RICHMOND ROAD / 500 FEET AHEAD" – ERECT NEW SIGN	D-500-30	30 X 30					1	6.25									
155	105+94	26' Lt.	"WEST" – ERECT NEW SIGN	M-40-24	24 X 12					1	2.00									
156	105+94	26' Lt.	"U.S. ROUTE MARKER "322" (3 DIGIT)" – ERECT NEW SIGN	M-1-24-3	30 X 24					1	5.00									
157	103+94	26' Lt.	"NO PARKING ANYTIME / ARROW" ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
158	103+94	26' Lt.	"SPEED LIMIT 35" – REMOVE EXISTING SIGN	R-10-24	24 X 30														1	
159	103+94	38' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
			TOTAL CARRIED TO SHEET 279				43.00			17	60.75		20	4		2			8	

MAYFIELD ROAD

SUMMARY OF SIGNING QUANTITIES

FHWA REGION	STATE	PROJECT	
5	OHIO		

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CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

REF. NO.	STATION	OFFSET	REMARKS	CODE	SIZE	630 GROUND MOUNTED SUPPORT NO. 2 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 3 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 4 POST LIN. FT.		630 SIGN SUPPORT ASSEMBLY POLE MOUNTED EACH	630 SIGN, FLAT SHEET SQ. FT.	630 SIGN, FLAT SHEET, TYPE G SQ. FT.		630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND STORAGE EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND STORAGE EACH	630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN EACH	630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF POLE MOUNTED SIGN AND STORAGE EACH
160			NOT USED																	
161	105+32	26' Lt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
162	103+94	26' Lt.	"BEGIN" – ERECT NEW SIGN	RP–49–24	24 X 6					1	1.00									
163	103+94	26' Lt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R–48–24	24 X 36						6.00									
164	105+32	26' Lt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R–10–24	24 X 30					1	5.00									
165			NOT USED																	
166			NOT USED																	
167	105+32	38' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
168	105+94	26' Lt.	"WEST" – REMOVE EXISTING SIGN																1	
169	105+94	26' Lt.	"STATE ROUTE MARKER "322" (3 DIGIT)" – REMOVE EXISTING SIGN																1	
170	106+06	29' Lt.	"NO LEFT TURN SYMBOL" – EXISTING SIGN, NO WORK																	
171	106+56	30' Lt	"NO LEFT TURN SYMBOL" – EXISTING SIGN, NO WORK																	
172	106+56	30' Lt.	"NO LEFT TURN PLAQUE" – EXISTING SIGN, NO WORK																	
173	106+70	43' Rt.	"RICHMOND ROAD" – EXISTING SIGN, NO WORK																	
174			NOT USED																	
175	106+70	43' Rt.	"MAYFIELD ROAD" – EXISTING SIGN, NO WORK																	
176	106+91	30' Lt.	"STATE ROUTE MARKER "175" (3 DIGIT)" – ERECT NEW SIGN & SUPPORT	M–2–24–3	30 X 24		17.00				5.00									
177	106+91	30' Lt.	"TWO WAY HORIZONTAL ADVANCE MARKER" – ERECT NEW SIGN	M–25–21	21 X 15						2.19									
178	106+91	30' Lt.	"STATE ROUTE MARKER "175" (3 DIGIT)" – REMOVE EXISTING SIGN & SUPPORT											1		1				
179	106+91	30' Lt.	"TWO WAY HORIZONTAL ADVANCE MARKER" – REMOVE EXISTING SIGN											1						
180	106+97	60' Rt.	"PUSH BUTTON FOR WALK SIGNAL" EXISTING SIGN, REMOVE																1	
181	106+99	64' Rt	"U.S. ROUTE MARKER "322" (3 DIGIT)" – ERECT NEW SIGN	M–1–24–3	30 X 24					1	5.00									
182	106+99	64' Rt.	"TWO WAY HORIZONTAL ADVANCE MARKER" – ERECT NEW SIGN	M–25–21	21 X 15					1	2.19									
183	106+99	64' Rt.	"U.S. ROUTE MARKER "322" (3 DIGIT)" – REMOVE EXISTING SIGN																1	
184	106+99	64' Rt.	"TWO WAY HORIZONTAL ADVANCE MARKER" – REMOVE EXISTING SIGN																1	
185	106+99	64' Rt.	"CROSS ON WALK / COMPLETE CROSSING ON DON'T WALK" – EXISTING SIGN, NO WORK																	
186	107+13	25' Lt. OVERHEAD	"NO TURN ON RED" – EXISTING SIGN, REMOVE															1		
187	107+13	25' Lt. OVERHEAD	"7 AM TO 6 PM" – EXISTING SIGN, REMOVE															1		
188	107+13	45' Lt.	"PUSH BUTTON FOR WALK SIGNAL" – EXISTING SIGN, REMOVE																1	
189	107+13	45' Lt.	"RTA" – EXISTING SIGN, NO WORK																	
190	107+15	59' Rt. OVERHEAD	"NO TURN ON RED" – EXISTING SIGN, REMOVE															1		
191	107+15	59' Rt. OVERHEAD	"7 AM TO 6 PM" – EXISTING SIGN, REMOVE															1		
192	107+86	50' Lt. OVERHEAD	"NO TURN ON RED" – EXISTING SIGN, REMOVE															1		
193	107+86	50' Lt. OVERHEAD	"7 AM TO 6 PM" – EXISTING SIGN, REMOVE															1		
194	107+86	25' Rt. OVERHEAD	"7 AM TO 6 PM" – EXISTING SIGN, REMOVE															1		
195	107+96	25' Rt. OVERHEAD	"NO TURN ON RED" – EXISTING SIGN, REMOVE															1		
196	107+96	51' Rt	"TWO WAY HORIZONTAL ADVANCE MARKER" – REMOVE EXISTING SIGN																1	
197	107+96	51' Rt.	"STATE ROUTE MARKER "175" (3 DIGIT)" – REMOVE EXISTING SIGN																1	
198	107+96	51' Rt.	"TWO WAY HORIZONTAL ADVANCE MARKER" – ERECT NEW SIGN	M–25–21	21 X 15					1	2.19									
199	107+96	51' Rt.	"STATE ROUTE MARKER "175" (3 DIGIT)" – ERECT NEW SIGN	M–2–24–3	30 X 24					1	5.00									
			TOTAL CARRIED TO SHEET 279				17.00			6	33.57			2		1		8	10	

MAYFIELD ROAD

SUMMARY OF SIGNING QUANTITIES

FHWA REGION	STATE	PROJECT	
5	OHIO		

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CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

REF. NO.	STATION	OFFSET	REMARKS	CODE	SIZE	630 GROUND MOUNTED SUPPORT NO. 2 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 3 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 4 POST LIN. FT.		630 SIGN SUPPORT ASSEMBLY POLE MOUNTED EACH	630 SIGN, FLAT SHEET SQ. FT.	630 SIGN, FLAT SHEET, TYPE G SQ. FT.		630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND STORAGE EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND STORAGE EACH	630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN EACH	630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF POLE MOUNTED SIGN AND STORAGE EACH
200	108+22	42' Rt.	"PUSH BUTTON FOR WALK SIGNAL" – EXISTING SIGN, REMOVE																1	
201	108+22	42' Rt.	"CROSS ON WALK / COMPLETE CROSSING ON DON'T WALK" – EXISTING SIGN, NO WORK																	
202	108+19	33' Lt.	"TWO WAY HORIZONTAL ADVANCE TURN MARKER" – REMOVE EXISTING SIGN & SUPPORT											1		1				
203	108+19	33' Lt.	"STATE ROUTE MARKER (3 DIGIT)" – REMOVE EXISTING SIGN											1						
204	108+19	33' Lt.	"STATE ROUTE MARKER "322" (3 DIGIT)" – ERECT NEW SIGN & SUPPORT	M–1–24–3	30 X 24			13.00			5.00									
205	108+19	33' Lt.	"TWO WAY HORIZONTAL ADVANCE TURN MARKER" – ERECT NEW SIGN	M–25–21	21 X 15						2.19									
206	108+30	32' Lt.	"PUSH BUTTON FOR WALK SIGNAL" – EXISTING SIGN, REMOVE																1	
207	108+30	32' Lt.	"RICHMOND ROAD" – EXISTING SIGN, NO WORK																	
208			NOT USED																	
209	108+92	26' Lt.	"RTA" – EXISTING SIGN, NO WORK																	
210	110+76	38' Rt.	"BEGIN" – ERECT NEW SIGN	RP–49–24	24 X 6						1.00									
211	110+76	38' Rt	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R–48–24	24 X 36		13.00				6.00									
211A	104+00	38' Rt.	"LANE USE CONTROL SIGN" – ERECT NEW SIGN & SUPPORTS	R–31C–48	30 X 48		24.00				10.00									
212	106+40	38' Rt.	"LANE USE CONTROL SIGN" – ERECT NEW SIGN & SUPPORTS	R–31C–48	30 X 48		24.00				10.00									
213	108+75	26' Lt.	"LANE USE CONTROL SIGN" – ERECT NEW SIGN & SUPPORTS	R–31C–48	30 X 48		24.00				10.00									
214	109+66	38' Rt.	"RTA" – EXISTING SIGN, NO WORK																	
215	109+62	26' Lt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R–10–24	24 X 30					1	5.00									
216	109+62	26' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
217	109+62	26' Lt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
218	109+79	26' Lt.	"LANE USE CONTROL SIGN" – ERECT NEW SIGN & SUPPORTS	R–31C–48	30 X 48		24.00			1	10.00									
219	110+29	38' Rt.	"NO U–TURN PLAQUE" – REMOVE EXISTING SIGN																1	
220	110+29	38' Rt	"NO U–TURN SYMBOL" – REMOVE EXISTING SIGN																1	
221	108+94	38' Rt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R–10–24	24 X 30					1	5.00									
222			NOT USED																	
223			NOT USED																	
224	111+65	37' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
225	111+65	37' Rt	"STATE ROUTE MARKER "322" (3 DIGIT)" – ERECT NEW SIGN	M–1–24–3	30 X 24					1	5.00									
226	111+65	37' Rt.	"EAST" – ERECT NEW SIGN	M–39–24	24 X 12					1	2.00									
227	111+77	26' Lt.	"JCT" – ERECT NEW SIGN	M–17–24	24 X 12					1	2.00									
228	111+77	26' Lt.	"STATE ROUTE MARKER "175" (3 DIGIT)" – ERECT NEW SIGN	M–2–24–3	30 X 24					1	5.00									
229			NOT USED																	
230	111+77	26' Lt	"JCT" – REMOVE EXISTING SIGN																1	
231	111+77	26' Lt.	"STATE ROUTE MARKER (3 DIGIT)" – REMOVE EXISTING SIGN																1	
232	112+76	26' Lt.	"MAYFIELD ROAD / RICHMOND ROAD / 500 FEET AHEAD" – ERECT NEW SIGN	D–500–30	30 X 30					1	6.25									
233	112+76	26' Lt.	"NO PARKING ANYTIME / APRON" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
234	112+76	26' Lt	"MAYFIELD ROAD / RICHMOND ROAD / 500 FEET AHEAD" – REMOVE EXISTING SIGN																1	
235	112+76	26' Lt	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
236			NOT USED																	
237			NOT USED																	
238	112 83	39' Rt	"LANE USE CONTROL SIGN" – ERECT NEW SIGN & SUPPORT	R–31C–48	30 X 48		24.00				10.00									
			TOTAL CARRIED TO SHEET 279				133.00	13.00		11	98.94			2		1			9	

MAYFIELD ROAD

FHWA REGION	STATE	PROJECT	
5	OHIO		

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CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

SUMMARY OF SIGNING QUANTITIES

REF. NO.	STATION	OFFSET	REMARKS	CODE	SIZE	630 GROUND MOUNTED SUPPORT NO. 2 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 3 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 4 POST LIN. FT.		630 SIGN SUPPORT ASSEMBLY POLE MOUNTED EACH	630 SIGN, FLAT SHEET SQ. FT.	630 SIGN, FLAT SHEET, TYPE G SQ. FT.	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH		630 REMOVAL OF GROUND MOUNTED SIGN AND STORAGE EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND STORAGE EACH	630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN EACH	630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF POLE MOUNTED SIGN AND STORAGE EACH
239	112+76	27' Lt.	"BEGIN" – ERECT NEW SIGN	RP–49–24	24 X 6					1	1.00									
240	112+76	27' Lt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R–48–24	24 X 36						6.00									
241	113+90	38' Rt.	"LANE USE CONTROL SIGN" – ERECT NEW SIGN & SUPPORT	R–31C–48	30 X 48					1	10.00									
242			NOT USED																	
243	114+05	38' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
244	114+23	26' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
245	115+46	38' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
246	115+46	38' Rt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R–10–24	24 X 30					1	5.00									
247	115+46	26' Lt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R–10–24	24 X 30					1	5.00									
248	115+46	26' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
249			NOT USED																	
250	115+05	26' Lt	"LANE USE CONTROL SIGN" – ERECT NEW SIGN & SUPPORT	R–31C–48	30 X 48		24.00				10.00									
251	116+57	27' Lt.	"LANE USE CONTROL SIGN" – ERECT NEW SIGN & SUPPORT	R–31C–48	30 X 48		24.00				10.00									
252	116+73	39' Rt.	"NO LEFT TURN SYMBOL" – EXISTING SIGN, NO WORK																	
253	116+73	39' Rt.	"NO LEFT TURN PLAQUE" – EXISTING SIGN, NO WORK																	
254	116+73	39' Rt.	"BEGIN" – ERECT NEW SIGN	RP–49–24	24 X 6					1	1.00									
255	116+73	39' Rt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R–48–24	24 X 36						6.00									
256	116+98	27' Lt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
257	117+97	39' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
258	117+97	39' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
259			NOT USED																	
260			NOT USED																	
261	117+97	OVERHEAD 3' Rt.	"(TWO WAY LEFT TURN ARROWS) / ONLY" – REMOVE EXISTING SIGN & SPAN WIRE															1		
262			NOT USED																	
263	118+75	26' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
264	119+49	26' Lt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R–10–24	24 X 30					1	5.00									
265	119+49	26' Lt	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
266	119+49	26' Lt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
267	119+35	39' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
268	119+35	39' Rt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R–10–24	24 X 30					1	5.00									
269	120+68	26' Lt.	"RTA" – EXISTING SIGN, NO WORK																	
270	120+76	38' Rt	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
271	121+51	30' Lt.	"WILSHIRE" – EXISTING SIGN, NO WORK																	
272	121+51	40' Rt.	"RTA" – EXISTING SIGN, NO WORK																	
273	151+64	48' Lt.	"STOP" – ERECT NEW SIGN & SUPPORT	R–1–30	30 X 30		13.00					6.25								
274	122+15	38' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
275	122+93	26' Lt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R–48–24	24 X 36					1	6.00									
276	122+93	26' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
277	122+93	26' Lt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
278	123+07	38' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
			TOTAL CARRIED TO SHEET 279				61.00			18	85.00	6.25						1	6	

FHWA REGION	STATE	PROJECT	
5	OHIO		

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CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

SUMMARY OF SIGNING QUANTITIES

REF. NO.	STATION	OFFSET	REMARKS	CODE	SIZE	630 GROUND MOUNTED SUPPORT NO. 2 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 3 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 4 POST LIN. FT.		630 SIGN SUPPORT ASSEMBLY POLE MOUNTED EACH	630 SIGN, FLAT SHEET SQ. FT.	630 SIGN, FLAT SHEET, TYPE G SQ. FT.		630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND STORAGE EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND STORAGE EACH	630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN EACH	630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF POLE MOUNTED SIGN AND STORAGE EACH
279	123+07	38' Rt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R–48–24	24 X 36					1	6.00									
280	124+09	38' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
281	124+14	26' Lt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R–10–24	24 X 30					1	5.00									
282	125+06	49' Lt.	"STOP" – ERECT NEW SIGN & SUPPORT	R–1–30	30 X 30		13.00					6.25								
283	125+13	38' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
284	125+75	26' Lt.	"MAYFIELD RD." – EXISTING SIGN, NO WORK																	
285	125+75	26' Lt.	"HENNING DR." – EXISTING SIGN, NO WORK																	
286	125+75	26' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
287	126+62	26' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
288	126+62	26' Lt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
289	126+20	39' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
290	126+20	39' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
291	126+20	39' Rt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R–10–24	24 X 30					1	5.00									
292	127+13	38' Rt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R–48–24	24 X 36					1	6.00									
293	127+17	26' Lt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R–48–24	24 X 36					1	6.00									
294	127+98	28' Lt.	"THORNBURY / ARROW" – EXISTING SIGN, NO WORK																	
295	127+98	28' Lt.	"LYNDHURST PAVILION" – EXISTING SIGN, NO WORK																	
296	127+98	28' Lt.	"PARKVIEW" – EXISTING SIGNS, NO WORK																	
297	128+17	52' Lt.	"STOP" – ERECT NEW SIGN & SUPPORT	R–1–30	30 X 30		13.00					6.25								
298	128+26	38' Rt.	"RTA" – EXISTING SIGN, NO WORK																	
299	128+26	38' Rt.	"MAYFIELD RD." – EXISTING SIGN, NO WORK																	
300	128+26	38' Rt.	"JAEGAR DR." – EXISTING SIGN, NO WORK																	
301	128+26	38' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
302	128+69	50' Rt.	"STOP" – ERECT NEW SIGN & SUPPORT	R–1–30	30 X 30		13.00					6.25								
303	129+05	27' Lt.	"RTA" – EXISTING SIGN, NO WORK																	
304	129+35	27' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
305	129+35	27' Lt	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
306	129+38	38' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
307	130+89	38' Rt.	"STOP HERE ON RED" – REMOVE EXISTING SIGN																1	
308	131+87	40' Lt.	"ONE WAY" – ERECT NEW SIGN	R–43L–36	12 X 36						3.00									
309	131+02	28' Lt.	"ENTER" – EXISTING SIGNS, NO WORK																	
310	131+76	38' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
311	131+76	38' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
312	131+87	40' Lt.	"STOP" – ERECT NEW SIGN	R–1–30	30 X 30							6.25								
313	132+20	40' Lt.	"STOP" – ERECT NEW SIGN	R–1–30	30 X 30							6.25								
314	132+24	28' Lt.	"EXIT" – EXISTING SIGNS, NO WORK																	
315	132+69	28' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
316	132+69	28' Lt.	"STOP HERE ON RED" – REMOVE EXISTING SIGN																1	
317	131+87	40' Lt.	"ONE WAY" – ERECT NEW SIGN	R–43R–36	12 X 36						3.00									
318	132+78	38' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
			TOTAL CARRIED TO SHEET 279				39.00			13	46.00	31.25							9	

FHWA REGION	STATE	PROJECT	
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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SUMMARY OF SIGNING QUANTITIES

REF. NO.	STATION	OFFSET	REMARKS	CODE	SIZE	630 GROUND MOUNTED SUPPORT NO. 2 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 3 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 4 POST LIN. FT.		630 SIGN SUPPORT ASSEMBLY POLE MOUNTED EACH	630 SIGN, FLAT SHEET SQ. FT.	630 SIGN, FLAT SHEET, TYPE G SQ. FT.		630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND STORAGE EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND STORAGE EACH	630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN EACH	630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF POLE MOUNTED SIGN AND STORAGE EACH
319	132+78	38' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
320	131+87	40' Lt.	"DO NOT ENTER" – REMOUNT EXISTING SIGN ON NEW POST					13.50												
321	132+20	40' Lt.	"DO NOT ENTER" – REMOUNT EXISTING SIGN ON NEW POST					13.50												
322	133+05	28' Lt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R-10-24	24 X 30					1	5.00									
323	133+08	39' Rt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R-10-24	24 X 30					1	5.00									
323A	133+30	38' Rt.	"LANE USE CONTROL SIGN" – ERECT NEW SIGN & SUPPORTS	R-31C-48	30 X 48		24.00				10.00									
324	133+91	30' Lt.	"BEGIN" – ERECT NEW SIGN	RP-49-24	24 X 6					1	1.00									
325	133+91	30' Lt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R-48-24	24 X 36						6.00									
326	133+91	30' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
327	133+91	30' Lt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
328	134+00	38' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
329	132+20	40' Lt.	"ONE WAY" – ERECT NEW SIGN	R-43R-36	12 X 36						3.00									
330	132+20	40' Lt.	"ONE WAY" – ERECT NEW SIGN	R-43L-36	12 X 36						3.00									
331	134+87	38' Rt.	"LANE USE CONTROL SIGN" – ERECT NEW SIGN & SUPPORTS	R-31C-48	30 X 48		24.00				10.00									
332			NOT USED																	
333	135+10	27' Lt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
334	135+10	27' Lt.	"MAYFIELD RD." – EXISTING SIGN, NO WORK																	
335	135+10	27' Lt.	"IRENE RD." – EXISTING SIGN, NO WORK																	
336	135+26	52' Lt.	"EXIT LEFT ONLY WHEN SIGNAL IS GREEN FOR IRENE" – EXISTING SIGN, NO WORK																	
337	135+25	OVERHEAD 5' Rt.	"NO TURN ON RED" – EXISTING SIGN, REMOVE															1		
338	135+66	30' Lt.	"DO NOT ENTER" – EXISTING SIGN, NO WORK																	
339	135+47	37' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
340	135+47	37' Rt.	"MAYFIELD RD." – EXISTING SIGN, NO WORK																	
341	135+47	37' Rt.	"WINCHESTER ROAD" – EXISTING SIGN, NO WORK																	
342			NOT USED																	
343	135+74	27' Lt.	"LANE USE CONTROL SIGN" – ERECT NEW SIGN & SUPPORTS	R-31C-48	30 X 48		24.00				10.00									
344	136+27	38' Rt	"RTA" – EXISTING SIGN, NO WORK																	
345	136+82	38' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
346	136+82	38' Rt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R-48-24	24 X 36					1	6.00									
347	136+82	38' Rt.	"BEGIN" – ERECT NEW SIGN	RP-49-24	24 X 6						1.00									
348			NOT USED																	
349			NOT USED																	
350	137+19	27' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
351	136+86	27' Lt.	"LANE USE CONTROL SIGN" – ERECT NEW SIGN & SUPPORTS	R-31C-48	30 X 48		24.00				10.00									
352	137+88	28' Rt.	"ONE WAY (ENCLOSED ON RIGHT ARROW) – EXISTING SIGN, NO WORK																	
353	137+88	28' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
354	138+47	42' Lt.	"STOP" – ERECT NEW SIGN AND SUPPORT	R-1-30	30 X 30		13.00					6.25								
355	138+93	27' Lt.	"MAYFIELD RD." – EXISTING SIGN, NO WORK																	
356	138+93	27' Lt.	CHURCHILL RD." – EXISTING SIGN, NO WORK																	
357	138+84	38' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
			TOTAL CARRIED TO SHEET 279				109.00	27.00		10	79.00	6.25						1	4	

MAYFIELD ROAD

SUMMARY OF SIGNING QUANTITIES

FHWA REGION	STATE	PROJECT	
5	OHIO		

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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

REF. NO.	STATION	OFFSET	REMARKS	CODE	SIZE	630 GROUND MOUNTED SUPPORT NO. 2 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 3 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 4 POST LIN. FT.		630 SIGN SUPPORT ASSEMBLY POLE MOUNTED EACH	630 SIGN, FLAT SHEET SQ. FT.	630 SIGN, FLAT SHEET, TYPE G SQ. FT.		630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND STORAGE EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND STORAGE EACH	630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN EACH	630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF POLE MOUNTED SIGN AND STORAGE EACH
358	139+79	55' Rt.	"STOP" – EXISTING SIGN, NO WORK																	
359	139+88	37' Rt.	"COMMODORE" – EXISTING SIGN, NO WORK																	
360	140+19	28' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
361	140+34	30' Lt.	"DO NOT ENTER" – EXISTING SIGN, NO WORK																	
362	140+52	39' Rt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R-10-24	24 X 30					1	5.00									
363	140+59	32' Lt.	"ENTRANCE / ARROW" – EXISTING SIGN, NO WORK																	
364	141+18	38' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
365	141+18	38' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
366	141+18	38' Rt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R-48-24	24 X 36					1	6.00									
367	141+18	28' Lt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R-48-24	24 X 36					1	6.00									
368	141+18	28' Lt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R-10-24	24 X 30					1	5.00									
369	142+00	43' Lt.	"STOP" – ERECT NEW SIGN & SUPPORT	R-1-30	30 X 30		13.00					6.25								
370	142+30	62' Rt.	"STOP" – ERECT NEW SIGN & SUPPORT	R-1-30	30 X 30		13.00					6.25								
371	142+42	28' Lt.	"MAYFIELD RD." – EXISTING SIGN, NO WORK																	
372	142+42	28' Lt.	"WINCHESTER ROAD" – EXISTING SIGN, NO WORK																	
373	142+42	28' Lt.	"RTA" – EXISTING SIGN, NO WORK																	
374	142+48	38' Rt.	"BILTMORE" – EXISTING SIGN, NO WORK																	
375	142+48	38' Rt.	"MAYFIELD" – EXISTING SIGN, NO WORK																	
376	142+48	38' Rt.	"RTA" – EXISTING SIGN, NO WORK																	
377	143+46	37' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
378	143+98	29' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
379	143+98	29' Lt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
380	144+71	37' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
381	145+97	37' Rt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R-48-24	24 X 36					1	6.00									
382	146+21	27' Lt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R-48-24	24 X 36					1	6.00									
383	146+21	27' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
384	146+21	27' Lt	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
385	147+13	37' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
386	147+13	37' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
387	147+13	37' Rt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R-10-24	24 X 30					1	5.00									
388	147+43	30' Lt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R-10-24	24 X 30					1	5.00									
389	148+12	27' Lt.	"RTA" – EXISTING SIGN, NO WORK																	
390	148+76	41' Rt.	"RTA" – EXISTING SIGN, NO WORK																	
391	148+96	43' Lt.	"BEACONFIELD / HAVENSTON / DORSET / RAE" – EXISTING SIGN, NO WORK																	
392	148+96	58' Lt.	"STOP" – ERECT NEW SIGN AND SUPPORT	R-1-30	30 X 30		13.00					6.25								
393	149+31	56' Rt.	"STOP" – ERECT NEW SIGN AND SUPPORT	R-1-30	30 X 30		13.00					6.25								
394	149+41	38' Rt.	"SUNVIEW" – EXISTING SIGN, NO WORK																	
395	149+75	27' Lt.	"MAYFIELD RD." – EXISTING SIGN, NO WORK																	
396	149+75	27' Lt.	"SUNVIEW RD." – EXISTING SIGN, NO WORK																	
397	150+69	38' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R-55-12	12 X 18					1	1.50									
			TOTAL CARRIED TO SHEET 279				52.00			15	54.50	25.00							5	

MAYFIELD ROAD

SUMMARY OF SIGNING QUANTITIES

FHWA REGION	STATE	PROJECT	
5	OHIO		

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CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

REF. NO.	STATION	OFFSET	REMARKS	CODE	SIZE	630 GROUND MOUNTED SUPPORT NO. 2 POST (LIN. FT.)	630 GROUND MOUNTED SUPPORT NO. 3 POST (LIN. FT.)	630 GROUND MOUNTED SUPPORT NO. 4 POST (LIN. FT.)		630 SIGN SUPPORT ASSEMBLY POLE MOUNTED (EACH)	630 SIGN, FLAT SHEET (SQ. FT.)	630 SIGN, FLAT SHEET, TYPE G (SQ. FT.)		630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL (EACH)	630 REMOVAL OF GROUND MOUNTED SIGN AND STORAGE (EACH)	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL (EACH)	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND STORAGE (EACH)	630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN (EACH)	630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL (EACH)	630 REMOVAL OF POLE MOUNTED SIGN AND STORAGE (EACH)
398	150+69	38' Rt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R–10–24	24 X 30					1	5.00									
399	150+77	28' Lt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R–10–24	24 X 30					1	5.00									
400	151+63	28' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN & SUPPORT	R–55–12	12 X 18	12.00					1.50									
401	151+63	28' Lt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN & SUPPORT											1		1				
402	151+93	37' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
403	151+93	37' Rt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R–48–24	24 X 36					1	6.00									
404	152+07	27' Lt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R–48–24	24 X 36					1	6.00									
405	153+15	37' Rt.	"U.S. ROUTE MARKER "322" (3 DIGIT)" – ERECT NEW SIGN	M–1–24–3	30 X 24					1	5.00									
406	153+15	37' Rt.	"EAST" – ERECT NEW SIGN	M–39–24	24 X 12					1	2.00									
407	153+40	27' Lt.	"WEST" – ERECT NEW SIGN	M–40–24	24 X 12					1	2.00									
408	153+40	27' Lt.	"U.S. ROUTE MARKER "322" (3 DIGIT)" – ERECT NEW SIGN	M–1–24–3	30 X 24					1	5.00									
409	153+40	27' Lt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
410	154+35	37' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
411	154+35	37' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
412	154+66	27' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
413	155+46	38' Rt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R–48–24	24 X 36					1	6.00									
414	155+46	29' Lt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R–10–24	24 X 30					1	5.00									
415	155+46	29' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
416	155+46	29' Lt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
417	156+34	27' Lt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R–48–24	24 X 36					1	6.00									
418	156+45	50' Rt.	"STOP" – EXISTING SIGN, NO WORK																	
419	156+60	32' Rt.	"EDGEFIELD" – EXISTING SIGN, NO WORK																	
420	156+93	27' Lt.	"RTA" – EXISTING SIGN, NO WORK																	
421	157+12	30' Lt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
422	157+26	44' Lt.	"STOP" – ERECT NEW SIGN & SUPPORT	R–1–30	30 X 30		13.00					6.25								
423	157+58	37' Rt.	"RTA" – EXISTING SIGN, NO WORK																	
424	157+65	27' Lt	"NO PARKING CIY STREETS 2 AM TO 6 AM" – EXISTING SIGN, NO WORK																	
425	157+65	27' Lt.	"MAYFIELD RD." – EXISTING SIGN, NO WORK																	
426	157+65	27' Lt.	"FORD RD." – EXISTING SIGN, NO WORK																	
427	157+92	37' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
428	157+92	37' Rt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R–10–24	24 X 30					1	5.00									
429	158+61	40' Rt.	"MAYFIELD ROAD / BRAINARD ROAD / 500 FEET AHEAD" – ERECT NEW SIGN & SUPPORT	D–500–30	30 X 30		13.00				6.25									
430	159+67	27' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
431	159+67	27' Lt.	"NO U–TURN SYMBOL" – REMOVE EXISTING SIGN																1	
432	159+67	27' Lt.	"NO U–TURN PLAQUE" – REMOVE EXISTING SIGN																1	
433	160+15	53' Rt.	"STOP" – ERECT NEW SIGN & SUPPORT	R–1–30	30 X 30		13.00					6.25								
434	160+26	38' Rt.	"LYNHURST RD." – EXISTING SIGN, NO WORK																	
435	160+26	38' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
436	160+70	27' Lt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
437	161+47	38' Rt.	"SCHOOL XING PLAQUE" – EXISTING SIGN, NO WORK																	
			TOTAL CARRIED TO SHEET 279			12.00	39.00			18	74.75	12.50		1		1			8	

MAYFIELD ROAD

SUMMARY OF SIGNING QUANTITIES

FHWA REGION	STATE	PROJECT	
5	OHIO		

277
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

REF. NO.	STATION	OFFSET	REMARKS	CODE	SIZE	630 GROUND MOUNTED SUPPORT NO. 2 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 3 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 4 POST LIN. FT.		630 SIGN SUPPORT ASSEMBLY POLE MOUNTED EACH	630 SIGN, FLAT SHEET SQ. FT.	630 SIGN, FLAT SHEET, TYPE G SQ. FT.		630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND STORAGE EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND STORAGE EACH	630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN EACH	630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF POLE MOUNTED SIGN AND STORAGE EACH
438	161+47	38' Rt.	"SCHOOL XING SYMBOL" – EXISTING SIGN, NO WORK																	
439	161+47	38' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
440			NOT USED																	
441			NOT USED																	
442	161+85	27' Lt.	"BEGIN" – ERECT NEW SIGN	RP–49–24	24 X 6					1	1.00									
443	161+85	27' Lt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R–48–24	24 X 36						6.00									
444	161+97	38' Rt.	"LANE USE CONTROL SIGN" – ERECT NEW SIGN & SUPPORTS	R–31C–48	30 X 48		24.00				10.00									
445	162+43	38' Rt.	"LANE USE CONTROL SIGN" – ERECT NEW SIGN & SUPPORTS	R–31C–48	30 X 48		24.00				10.00									
446	162+56	27' Lt.	"SPEED LIMIT 35" – REMOVE EXISTING SIGN																1	
447	162+56	27' Lt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R–10–24	24 X 30					1	5.00									
448	162+71	OVERHEAD 5' Rt.	"(TWO WAY LEFT TURN ARROWS) / ONLY" – REMOVE EXISTING SIGN & SPAN WIRE															1		
449	162+86	38' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
450	162+86	37' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
451	162+86	37' Rt.	"SCHOOL XING PLAQUE" – EXISTING SIGN, REMOVE																1	
452	162+86	37' Rt.	"SCHOOL CROSSING SYMBOL" – EXISTING SIGN, REMOVE																1	
453	162+56	27' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
454	163+42	40' Rt.	"RTA" – EXISTING SIGN, NO WORK																	
455	163+42	40' Rt.	"CROSSWALK PLAQUE" – EXISTING SIGN, NO WORK																	
456	163+42	40' Rt.	"SCHOOL CROSSWALK SYMBOL" – EXISTING SIGN, NO WORK																	
457	163+44	OVERHEAD 18' Lt.	"NO TURN ON RED 8 AM TO 4 PM SCHOOL DAYS" – EXISTING SIGN, REMOVE															1		
458	163+46	68' Lt.	"CROSSWALK PLAQUE" – EXISTING SIGN, NO WORK																	
459	163+46	68' Lt.	"SCHOOL CROSSWALK SYMBOL" – EXISTING SIGN, NO WORK																	
460			NOT USED																	
461	163+71	OVERHEAD 44' Rt.	"LEFT ARROW / ONLY" – EXISTING SIGN, NO WORK																	
462	163+63	OVERHEAD 44' Rt.	"NO TURN ON RED 8 AM TO 4 PM SCHOOL DAYS" – EXISTING SIGN, REMOVE															1		
463	163+63	55' Rt.	"BRAINARD RD." – EXISTING SIGN, NO WORK																	
464	163+65	55' Rt.	"MAYFIELD RD." – EXISTING SIGN, NO WORK																	
465	164+20	OVERHEAD 34' Lt.	"NO TURN ON RED 8 AM TO 4 PM SCHOOL DAYS" – EXISTING SIGN, REMOVE															1		
466	164+47	OVERHEAD 32' Rt.	"NO TURN ON RED 8 AM TO 4 PM SCHOOL DAYS" – EXISTING SIGN, REMOVE															1		
467			NOT USED																	
468	164+47	47' Rt.	"CROSSWALK PLAQUE" – EXISTING SIGN, NO WORK																	
469	164+47	47' Rt.	"SCHOOL CROSSWALK SYMBOL" – EXISTING SIGN, NO WORK																	
470			NOT USED																	
471	164+51	31' Lt.	"SCHOOL CROSSWALK SYMBOL" – EXISTING SIGN, NO WORK																	
472	164+51	31' Lt.	"CROSSWALK PLAQUE" – EXISTING SIGN, NO WORK																	
473	164+70	41' Rt.	"SCHOOL" – EXISTING SIGN, NO WORK																	
474	164+70	41' Rt.	"SCHOOL CROSSING SYMBOL" – EXISTING SIGN, NO WORK																	
475	164+83	30' Lt.	"RTA" – EXISTING SIGN, NO WORK																	
476	164+93	30' Lt.	"LANE USE CONTROL SIGN" – ERECT NEW SIGN & SUPPORTS	R–31C–48	30 X 48		24.00				10.00									
			TOTAL CARRIED TO SHEET 279				72.00			5	46.50							5	4	

MAYFIELD ROAD

SUMMARY OF SIGNING QUANTITIES

FHWA REGION	STATE	PROJECT	
5	OHIO		

278
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

REF. NO.	STATION	OFFSET	REMARKS	CODE	SIZE	630 GROUND MOUNTED SUPPORT NO. 2 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 3 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 4 POST LIN. FT.		630 SIGN SUPPORT ASSEMBLY POLE MOUNTED EACH	630 SIGN, FLAT SHEET SQ. FT.	630 SIGN, FLAT SHEET, TYPE G SQ. FT.		630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND STORAGE EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND STORAGE EACH	630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN EACH	630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF POLE MOUNTED SIGN AND STORAGE EACH
477	165+46	38' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
478	166+02	30' Lt.	"LANE USE CONTROL SIGN" – ERECT NEW SIGN & SUPPORTS	R–31C–48	30 X 48		24.00				10.00									
479	166+46	38' Rt.	"CENTER LANE / (TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R–48–24	24 X 36					1	6.00									
480	166+46	38' Rt.	"BEGIN" – ERECT NEW SIGN	RP–49–24	24 X 6						1.00									
481	166+40	18' Rt. OVERHEAD	"SCHOOL SAFETY ZONE" – REMOVE EXISTING SIGN & SUPPORT															1		
481A	171+25	31' Lt.	"SCHOOL CROSSWALK SYMBOL"- ERECT NEW SIGN	W-81-36	36X36					1	9.00									
482	166+46	36' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
483	166+46	36' Rt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R–10–24	24 X 30					1	5.00									
484	171+00	30' Rt.	"SCHOOL CROSSWALK SYMBOL" – ERECT NEW SIGN	W–81–36	36 X 36					1	9.00									
485	171+00	30' Rt.	"CROSSWALK PLAQUE" – ERECT NEW SIGN	WP–81–24	18 X 24					1	3.00									
486	166+50	30' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
486A	171+25	31' Lt.	"CROSSWALK PLAQUE"- ERECT NEW SIGN	WP-81-24	18 X 24					1	3.00									
487	166+46	28' Lt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
488	166+73	38' Rt.	"DO NOT BLOCK DRIVEWAY" – EXISTING SIGN, NO WORK																	
489	167+39	13' Lt. OVERHEAD	"NO TURN ON RED 8 AM TO 4 PM SCHOOL DAYS" – REMOVE EXISTING SIGN & SPAN WIRE															1		
490	167+31	30' Lt.	"SCHOOL CROSSING SYMBOL" – REMOVE EXISTING SIGN AND SUPPORT											1		1				
491	167+31	30' Lt.	"SCHOOL XING PLAQUE" – REMOVE EXISTING SIGN AND SUPPORT											1						
492	167+31	46' Lt.	"STOP" – ERECT NEW SIGN & SUPPORT	R–10–24	30 X 30		13.00					6.25								
493	167+77	46' Lt.	"DO NOT ENTER" – EXISTING SIGN, NO WORK																	
494	167+77	46' Lt.	"EXIT ONLY" – EXISTING SIGN, NO WORK																	
495	168+01	40' Rt.	"SCHOOL CROSSING PLAQUE" – REMOVE EXISTING SIGN & SUPPORT											1		1				
496	168+01	40' Rt.	"SCHOOL XING SYMBOL" – REMOVE EXISTING SIGN											1						
497	168+19	32' Lt.	"SPEED LIMIT 35" – ERECT NEW SIGN	R–10–24	24 X 30					1	5.00									
498	168+19	32' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
499	168+50	32' Lt.	"MAYFIELD ROAD / BRAINARD ROAD / 500 FEET AHEAD" – REMOVE EXISTING SIGN & SUPPORT											1		1				
500	168+50	32' Lt.	"MAYFIELD ROAD / BRAINARD ROAD / 500 FEET AHEAD" – ERECT NEW SIGN & SUPPORT	D–500–30	30 X 30		13.00				6.25									
501	168+82	31' Lt.	"CRIME STOPPERS / 252–7463 / CASH REWARDS" – EXISTING SIGN, NO WORK																	
502	168+83	34' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
503	169+18	52' Lt.	"ENTER ONLY" – EXISTING SIGN, NO WORK																	
504	169+21	44' Lt.	"THROUGH TRAFFIC PROHIBITED POLICE ORDER" – EXISTING SIGN, NO WORK																	
505	169+29	34' Lt.	"CITY OF LYNDHURST WELCOME" – REMOVE EXISTING SIGN & SUPPORT														1			1
506	169+83	12' Lt. OVERHEAD	"SCHOOL SAFETY ZONE" – REMOVE EXISTING SIGN & SUPPORT															1		
507	169+83	33' Rt.	"NO STOPPING OR STANDING" – REMOVE EXISTING SIGN																1	
508	169+83	33' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
509	169+90	30' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
510	171+25	31' Lt.	"IROQUOIS" – EXISTING SIGN, NO WORK																	
511	171+40	56' Lt.	"STOP HERE ON RED" – REMOVE EXISTING SIGN & SUPPORT											1		1				
512	171+40	56' Lt.	"MUST STOP HERE TO ACTUATE SIGNAL" – REMOVE EXISTING SIGN											1						
513	167+74	40' Rt.	"STOP" – ERECT NEW SIGN	R–1–30	30 X 30		13.00					6.25								
514	171+82	40' Rt.	"DO NOT ENTER" – EXISTING SIGNS, NO WORK																	
515	171+83	30' Rt.	"CROSSWALK PLAQUE" – REMOVE EXISTING SIGN & SUPPORT											1		1				
516	171+83	30' Rt.	"SCHOOL CROSSWALK SYMBOL" –REMOVE EXISTING SIGN											1						
			TOTAL CARRIED TO SHEET 279				63.00			13	66.25	12.50		9		5	1	3	3	1

MAYFIELD ROAD

SUMMARY OF SIGNING QUANTITIES

FHWA REGION	STATE	PROJECT	
5	OHIO		

279
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

REF. NO.	STATION	OFFSET	REMARKS	CODE	SIZE	630 GROUND MOUNTED SUPPORT NO. 2 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 3 POST LIN. FT.	630 GROUND MOUNTED SUPPORT NO. 4 POST LIN. FT.		630 SIGN SUPPORT ASSEMBLY POLE MOUNTED EACH	630 SIGN, FLAT SHEET SQ. FT.	630 SIGN, FLAT SHEET, TYPE G SQ. FT.		630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND STORAGE EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND STORAGE EACH	630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL, AS PER PLAN EACH	630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF POLE MOUNTED SIGN AND STORAGE EACH
517			NOT USED																	
518	171+83	40' Rt.	"TO CROSS MAYFIELD PUSH BUTTON WAIT FOR WALK SIGNAL" – REMOVE EXISTING SIGN											1						
519	171+62	OVERHEAD 39' Rt.	"NO TURN ON RED 7 AM TO 6 PM" – REMOVE EXISTING SIGN & SPAN WIRE															1		
520	172+26	32' Lt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
521	172+29	OVERHEAD 25' Lt.	"STRAIGHT, RIGHT ARROW" – REMOVE EXISTING SIGN															1		
522	172+30	OVERHEAD 13' Lt.	"STRAIGHT ARROW / ONLY" – REMOVE EXISTING SIGN															1		
523	172+33	OVERHEAD 0' Rt.	"(TWO WAY LEFT TURN ARROWS) / ONLY" – REMOVE EXISTING SIGN & SPAN WIRE															1		
524	172+33	OVERHEAD 0' Rt.	"(TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN & SPAN WIRE	R–50–36	36 X 48						12.00									
525	172+35	OVERHEAD 10' Rt.	"STRAIGHT ARROW / ONLY" – REMOVE EXISTING SIGN															1		
526	172+33	OVERHEAD 0' Rt.	"(TWO WAY LEFT TURN ARROWS) / ONLY" – ERECT NEW SIGN	R–50–36	36 X 48						12.00									
527	172+33	OVERHEAD 0' Rt.	"(TWO WAY LEFT TURN ARROWS) / ONLY" – REMOVE EXISTING SIGN															1		
528	172+38	OVERHEAD 23' Rt.	"STRAIGHT, RIGHT ARROW" – REMOVE EXISTING SIGN															1		
529	172+41	29' Rt.	"RTA" – EXISTING SIGN, NO WORK																	
530	172+41	32' Rt.	"NO PARKING ANYTIME / ARROW" – ERECT NEW SIGN	R–55–12	12 X 18					1	1.50									
531	173+20	32' Lt.	"SCHOOL CROSSING SYMBOL" – EXISTING SIGN, NO WORK																	
532	173+20	32' Lt.	"SCHOOL" – EXISTING SIGN, NO WORK																	
533	173+62	38' Rt.	"WELCOME TO MAYFIELD HEIGHTS" – EXISTING SIGN, NO WORK																	
534	173+70	40' Rt.	"CRIME STOPPERS / 252–7463 / CASH REWARDS" – EXISTING SIGN, NO WORK												1					
			TOTAL							2	27.00			1	1			7		
			SUBTOTAL SHEET 266				35.5			19	75.31				3		3		5	4
			SUBTOTAL SHEET 267				13.00	56.00		7	58.00	18.00		3	1	3	1		3	
			SUBTOTAL SHEET 268				40.00			9	40.08	13.75		1		1		3	4	
			SUBTOTAL SHEET 269				43.00			17	60.75	20.00		4		2			8	
			SUBTOTAL SHEET 270				17.00			6	33.57			2		1		8	10	
			SUBTOTAL SHEET 271				133.00	13.00		11	98.94			2		1			9	
			SUBTOTAL SHEET 272				61.00			18	85.00	6.25						1	6	
			SUBTOTAL SHEET 273				39.00			13	46.00	31.25							9	
			SUBTOTAL SHEET 274				109.00	27.00		10	79.00	6.25						1	4	
			SUBTOTAL SHEET 275				52.00			15	54.50	25.00							5	
			SUBTOTAL SHEET 276			12.00	39.00			18	74.75	12.50		1		1			8	
			SUBTOTAL SHEET 277				72.00			5	46.50							5	4	
			SUBTOTAL SHEET 278				63.00			13	66.25	12.50		9		5	1	3	3	1
			SUBTOTAL SHEET 279							2	27.00			1	1			7		
			GRAND TOTAL (QUANTITIES CARRIED TO SHEET 250)			12.00	716.50	96.00		163	845.65	146.00		23	5	14	5	28	78	5

CALC. BY. ____ DATE ____
CHKD. BY. ____ DATE ____

OHIO
F.H.W.A. REGION 5

280
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

WARRENSVILLE CENTER RD. (70')

BROOKLINE RD. (50')

GENESEE AVE. (50')

PLAINFIELD RD. (50')

SHERBROOK RD. (50')

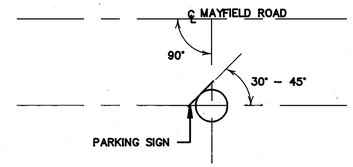
MATCH LINE STA. 4+00

MATCH LINE STA. 9+00

0+00 1+00 2+00 3+00 5+00 6+00 7+00 8+00

1 R-31C-48 ONLY ONLY
2 EAST M-39-24
3 322 M-1-24-3
4 NO PARKING ANY TIME
5 NO PARKING ANY TIME R-55-12
6 R-31C-48 ONLY ONLY
7 NO PARKING ANY TIME
8 BEGIN RP-49-24
9 CENTER LANE ONLY R-48-24
10 NO PARKING ANY TIME
11 SPEED LIMIT 25
12 SPEED LIMIT 25 R-10-24
13 NO PARKING ANY TIME R-55-12
14 ONLY R-50-30
15 ONLY R-30A-30
16 R-29A-30
17 ONLY
18 R-30A-30 R-29A-30
19 NO PARKING ANY TIME
20 NO PARKING ANY TIME
21 NO PARKING ANY TIME
22 ONLY
23 ONLY
24 NO PARKING ANY TIME
25 NO PARKING ANY TIME R-55-12
26 NO PARKING ANY TIME
27 NO PARKING ANY TIME R-55-12
28 NO PARKING ANY TIME
29 NO PARKING ANY TIME R-55-12
30 NO PARKING ANY TIME
31 NO PARKING ANY TIME R-55-12
32 NO PARKING ANY TIME
33 NO PARKING ANY TIME R-55-12
34 NO PARKING ANY TIME
35 NO PARKING ANY TIME R-55-12
36 CENTER LANE ONLY R-48-24
37 CENTER LANE ONLY R-48-24
38 NO PARKING ANY TIME
39 NO PARKING ANY TIME R-55-12

GRAPHIC SCALE
(IN FEET)



TYPICAL PARKING SIGN ORIENTATION

FOR SIGN SUBSUMMARY REFERENCE
SEE SHT. NOS. 257 TO 265

FOR PAVEMENT MARKING
SEE SHT. NOS. 344 TO 351

✖ INDICATES SIGNALIZED INTERSECTION

▨ INDICATES TO BE REMOVED

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD

TRAFFIC CONTROL STA. 0+00 TO STA. 9+00

CALC. BY. DATE
CHKD. BY. DATE

OHIO
F.H.W.A. REGION 5

281
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

WINSTON RD. (50')
HOLMDEN RD. (50')
AVONDALE RD. (50')
GRANTLEIGH RD. (50')
VILLA DR. (50')
FELTON RD. (50')
MAPLE GROVE RD. (50')

MATCH LINE STA. 9+00
MATCH LINE STA. 14+00
MATCH LINE STA. 19+00

10+00 11+00 12+00 13+00 15+00 16+00 17+00 18+00

GRAPHIC SCALE
(IN FEET)

NO PARKING ANY TIME R-55-12
NO PARKING ANY TIME R-55-12
CENTER LANE ONLY R-48-24
WEST M-40-24
322 M-1-24-3
NO PARKING ANY TIME R-55-12
NO PARKING ANY TIME R-55-12
NO PARKING ANY TIME R-55-12
CENTER LANE ONLY R-48-24
NO PARKING ANY TIME R-55-12
NO PARKING ANY TIME R-55-12
NO PARKING ANY TIME R-55-12
NO PARKING ANY TIME R-55-12
SPEED LIMIT 25 R-10-24
NO PARKING ANY TIME R-55-12
NO PARKING ANY TIME R-55-12
SPEED LIMIT 25 R-10-24
322 M-1-24-3
EAST M-39-24
NO PARKING ANY TIME R-55-12
NO PARKING ANY TIME R-55-12
ONLY R-30A-30 R-29A-30
ONLY R-50-30 R-30A-30 R-29A-30
ONLY R-30A-30 R-29A-30

FOR SIGN SUBSUMMARY REFERENCE
SEE SHT. NOS. 257 TO 265

FOR PAVEMENT MARKING
SEE SHT. NOS. 344 TO 351

✱ INDICATES SIGNALIZED INTERSECTION

INDICATES TO BE REMOVED

STEPHEN HOVANCSEK & ASSOC., INC.

TRAFFIC CONTROL STA. 9+00 TO STA. 19+00

MAYFIELD ROAD

CALC. BY. ____ DATE ____
CHKD. BY. ____ DATE ____

OHIO
F.H.W.A. REGION 5

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426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

GRAPHIC SCALE
(IN FEET)

MATCH LINE STA. 19+00
20+00
21+00
ARGONNE RD. (60')
22+00
23+00
MATCH LINE STA. 24+00

MATCH LINE STA. 24+00
25+00
26+00
27+00
28+00
MATCH LINE STA. 29+00

S. BELVOIR BLVD. (100')

80 NO PARKING ANY TIME R-55-12
81 NO PARKING ANY TIME R-55-12
82 NO PARKING ANY TIME R-55-12
83 NO PARKING ANY TIME R-55-12
84 NO PARKING ANY TIME R-55-12
85 NO PARKING ANY TIME R-55-12
88 NO PARKING ANY TIME R-55-12
89 NO PARKING ANY TIME R-55-12
90 BEGIN RP-49-24
91 CENTER LANE ONLY R-48-24
92 NO PARKING ANY TIME R-55-12
93 NO PARKING ANY TIME R-55-12
94 ONLY ONLY ONLY R-31C-48
95 SPEED LIMIT R-10-24
96 WEST M-40-24
97 322 M-1-24-3
98 SPEED LIMIT 25 R-10-24
99 SCHOOL XING W-82-24 WP-82-24
100 W-82-30
101 NO PARKING ANY TIME R-55-12
102 NO PARKING ANY TIME R-55-12
103 NO PARKING ANY TIME R-55-12
104 NO PARKING ANY TIME R-55-12
105 ONLY ONLY ONLY R-31C-48
105A W-81-30
106 NO PARKING ANY TIME R-55-12
107 NO PARKING ANY TIME R-55-12
108 ONLY ONLY ONLY R-31C-48
109 SPEED LIMIT R-10-24
110 SPEED LIMIT 25 R-10-24
110A CROSS WALK WP-81-24
111 NO PARKING ANY TIME R-55-12
112 NO PARKING ANY TIME R-55-12
113 SCHOOL XING W-82-30 WP-82-24
114 W-82-30
115 NO PARKING ANY TIME R-55-12
116 NO PARKING ANY TIME R-55-12
117 EXIT
118 M-1-24-3
119 EAST M-39-24
120 322
121 BEGIN RP-49-24
122 CENTER LANE ONLY R-48-24
123 CONVERGING CHEVRON
124 NO PARKING ANY TIME R-55-12
125 NO PARKING ANY TIME R-55-12
126 ONLY ONLY ONLY R-31C-48
127 END RP-51-24
128 CENTER LANE ONLY R-48-24
129 NO PARKING ANY TIME R-55-12
130 NO PARKING ANY TIME R-55-12
95A W-81-30
100A CROSS WALK WP-81-24

FOR SIGN SUBSUMMARY REFERENCE
SEE SHT. NOS. 257 TO 265

FOR PAVEMENT MARKING
SEE SHT. NOS. 344 TO 351

⋇ INDICATES SIGNALIZED INTERSECTION

▨ INDICATES TO BE REMOVED

MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

TRAFFIC CONTROL STA. 19+00 TO STA. 29+00

CALC. BY. ____ DATE ____
CHKD. BY. ____ DATE ____

OHIO
F.H.W.A. REGION 5

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426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

MATCH LINE STA. 29+00
MATCH LINE STA. 34+00
MATCH LINE STA. 34+00
MATCH LINE STA. 39+00

30+00 31+00 32+00 33+00
35+00 36+00 37+00 38+00

FRANCIS CT. (30')
SHEFFIELD RD. (50')

(131) ROUGH ROAD
(132) ONLY R-50-30
(133) ONLY R-30A-30
(134) R-29A-30
(135) ONLY R-30A-30
(136) R-29A-30
(137) NO PARKING ANY TIME R-55-12
(138) NO PARKING ANY TIME R-55-12
(139) NO PARKING ANY TIME R-55-12
(140) ONLY
(141) ONLY
(142)
(143) ONLY
(144)
(145) NO PARKING ANY TIME R-55-12
(146) DO NOT ENTER
(147) R-120-24
(147A) ONE WAY R-43L-36
(147B) W-8I-30 WP-8I-24
(148)
(150) NO PARKING ANY TIME R-55-12
(151) NO PARKING ANY TIME R-55-12
(152) NO PARKING ANY TIME R-55-12
(153) NO PARKING ANY TIME R-55-12
(154) NO PARKING ANY TIME R-55-12
(155) NO PARKING ANY TIME R-55-12
(156) CENTER LANE ONLY R-48-24
(157) NO PARKING ANY TIME R-55-12
(158) NO PARKING ANY TIME R-55-12
(159) PEDESTRIAN CROSSING
(160) W-82-30
(161) SCHOOL XING WP-82-24
(162) CENTER LANE ONLY R-48-24
(163) NO PARKING ANY TIME R-55-12
(164) NO PARKING ANY TIME R-55-12
(165) NO PARKING ANY TIME R-55-12
(166) NO PARKING ANY TIME R-55-12
(167) NO PARKING ANY TIME R-55-12
(168) SPEED LIMIT 25 R-10-24
(169) CENTER LANE ONLY R-48-24
(170) NO PARKING ANY TIME R-55-12
(171) NO PARKING ANY TIME R-55-12
(172) SPEED LIMIT 25 R-10-24
(173) SPEED LIMIT R-10-24
(175A) CROSS WALK
(180A) W-8I-30 WP-8I-24
(180A) CROSS WALK W-8I-30 WP-8I-24
(86) R-41B-30 DO NOT ENTER
(87) ONE WAY R-43R-36

GRAPHIC SCALE
(IN FEET)

FOR SIGN SUBSUMMARY REFERENCE
SEE SHT. NOS. 257 TO 265

FOR PAVEMENT MARKING
SEE SHT. NOS. 344 TO 351

* INDICATES SIGNALIZED INTERSECTION

INDICATES TO BE REMOVED

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD

TRAFFIC CONTROL STA. 29+00 TO STA. 39+00

CALC. BY. ____ DATE ____
CHKD. BY. ____ DATE ____

OHIO
F.H.W.A. REGION 5

284
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

MATCH LINE STA. 39+00

MATCH LINE STA. 44+00

MATCH LINE STA. 49+00

VICTORY DR. (50')

S. GREEN RD. (60')

GARDEN DR. (20')

40+00 41+00 42+00 43+00 45+00 46+00 47+00 48+00

174 NO PARKING ANY TIME R-55-12
175 NO PARKING ANY TIME
176 SCHOOL CROSSING
177 W-82-30
178 SCHOOL XING WP-82-24
179 NO PARKING ANY TIME R-55-12
180 NO PARKING ANY TIME
181 NO PARKING ANY TIME R-55-12
182 NO PARKING ANY TIME
183 NO PARKING ANY TIME R-55-12
184 NO PARKING ANY TIME
185 NO PARKING ANY TIME R-55-12
186 NO PARKING ANY TIME
187 NO PARKING ANY TIME R-55-12
188 NO PARKING ANY TIME
189 BEGIN RP-49-24
190 CENTER LANE ONLY R-48-24
191 END RP-51-24
192 CENTER LANE ONLY R-48-24
193 NO PARKING ANY TIME R-55-12
194 NO PARKING ANY TIME
195 NO PARKING ANY TIME R-55-12
196 NO PARKING ANY TIME
197 NO PARKING ANY TIME R-55-12
198 NO PARKING ANY TIME
199 ONLY ONLY R-31C-48
200 WEST M-40-24
201 322 M-1-24-3
202 NO PARKING ANY TIME R-55-12
203 NO PARKING ANY TIME
204 NO PARKING ANY TIME R-55-12
205 NO PARKING ANY TIME
206 ONLY ONLY R-31C-48
207 NO PARKING ANY TIME R-55-12
208 NO PARKING ANY TIME
209 ONLY ONLY R-31C-48
210 322 M-1-24-3
211 EAST M-39-24
212 NO PARKING ANY TIME R-55-12
213 NO PARKING ANY TIME
214 NO PARKING ANY TIME R-55-12
215 NO PARKING ANY TIME
216 SPEED LIMIT 25 R-10-24
217 SPEED LIMIT
218 NO PARKING ANY TIME R-55-12
219 NO PARKING ANY TIME

GRAPHIC SCALE
30 0 10 20 40 80
(IN FEET)

FOR SIGN SUBSUMMARY REFERENCE SEE SHT. NOS. 257 TO 265

FOR PAVEMENT MARKING SEE SHT. NOS. 344 TO 351

⧓ INDICATES SIGNALIZED INTERSECTION

⊠ INDICATES TO BE REMOVED

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD

TRAFFIC CONTROL STA. 39+00 TO STA. 49+00

CALC. BY. ____ DATE ____
CHKD. BY. ____ DATE ____

OHIO
F.H.W.A. REGION 5

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426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

MATCH LINE STA. 49+00
MATCH LINE STA. 54+00
MATCH LINE STA. 59+00
50+00
51+00
52+00
53+00
55+00
56+00
57+00
58+00
DEAN DR. (60')
DILL AVE. (50')
MAYWOOD RD. (50')
BEGIN
CENTER LANE ONLY
SPEED LIMIT 25
SCHOOL CROSSING
ONE WAY
WRONG WAY
DO NOT ENTER
ONLY
NO PARKING ANY TIME
NO PARKING ANY TIME
R-55-12
R-31C-48
R-41B-30
R-43R-36
R-43L-36
R-48-24
RP-49-24
R-10-24
R-123-24
R-30A-30
R-29A-30
R-50-30

GRAPHIC SCALE
30 0 10 20 40 60
(IN FEET)

FOR SIGN SUBSUMMARY REFERENCE
SEE SHT. NOS. 257 TO 265

FOR PAVEMENT MARKING
SEE SHT. NOS. 344 TO 351

* INDICATES SIGNALIZED INTERSECTION

INDICATES TO BE REMOVED

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD

TRAFFIC CONTROL STA.49+00 TO STA. 59+00

CALC. BY. ____ DATE ____
CHKD. BY. ____ DATE ____

OHIO
F.H.W.A. REGION 5

286
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)

MATCH LINE STA. 59+00
60+00
61+00
62+00
63+00
MATCH LINE STA. 64+00

MAYWOOD RD. (50')

OAKMOUNT RD. (50')

276 CLOSED TO PEDS
278 NO PARKING ANY TIME R-55-12
279 CENTER LANE ONLY R-48-24
285 NO PARKING ANY TIME R-55-12
284 NO PARKING ANY TIME
286 CLOSED TO PEDS
289 CENTER LANE ONLY R-48-24
274 NO PARKING ANY TIME
R-55-12
275 NO PARKING ANY TIME
280 SPEED LIMIT 25 R-10-24
281 CENTER LANE ONLY R-48-24
282 NO PARKING ANY TIME
R-55-12
283 NO PARKING ANY TIME
287 NO PARKING ANY TIME
R-55-12
288 NO PARKING ANY TIME
290 CENTER LANE ONLY R-48-24

MATCH LINE STA. 64+00
65+00
66+00
67+00
68+00
MATCH LINE STA. 69+00

SHERIDAN RD. (50')

294 NO PARKING ANY TIME R-55-12
293 NO PARKING ANY TIME
291 NO PARKING ANY TIME
R-55-12
292 NO PARKING ANY TIME
300 NO PARKING ANY TIME
R-55-12
301 NO PARKING ANY TIME

304 CLOSED TO PEDS
303 CLOSED TO PEDS
302 CLOSED TO PEDS
305 CLOSED TO PEDS
306 CLOSED TO PEDS
297 R-29A-30
296 ONLY R-30A-30
295 ONLY R-50-30
298 ONLY R-30A-30
299 R-29A-30

FOR SIGN SUBSUMMARY REFERENCE
SEE SHT. NOS. 257 TO 265

FOR PAVEMENT MARKING
SEE SHT. NOS. 344 TO 351

⁂ INDICATES SIGNALIZED INTERSECTION

INDICATES TO BE REMOVED

MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

TRAFFIC CONTROL STA. 59+00 TO STA. 69+00

CALC. BY. ____ DATE ____		OHIO	287 426
CHKD. BY. ____ DATE ____		F.H.W.A. REGION 5	

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

GRAPHIC SCALE
(IN FEET)

CITY OF SOUTH EUCLID

MATCH LINE STA. 69+00

MATCH LINE STA. 74+00

DORSH RD. (50')

309 NO PARKING ANY TIME R–55–12

308 NO PARKING ANY TIME

310 SPEED LIMIT 25 R–10–24

313 NO PARKING ANY TIME R–55–12

312 NO PARKING ANY TIME

314 CENTER LANE ONLY R–48–24

70+00 71+00 72+00 73+00

307 LYNDHURST CORPORATION LIMIT N–1–40

311 NO PARKING ANY TIME R–55–12

CITY OF LYNDHURST

315 NO PARKING ANY TIME

316 NO PARKING ANY TIME R–55–12

FOR SIGN SUBSUMMARY REFERENCE
SEE SHT. NOS. 257 TO 265

FOR PAVEMENT MARKING
SEE SHT. NOS. 344 TO 351

⧓ INDICATES SIGNALIZED INTERSECTION

⊠ INDICATES TO BE REMOVED

MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

TRAFFIC CONTROL STA. 69+00 TO STA. 74+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

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426

286

0 5 10 30 60 90
Scale In Feet

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

CITY OF SOUTH EUCLID

CITY OF LYNDHURST

MATCH LINE STA. 74+00

MATCH LINE STA. 82+00

MATCH LINE STA. 89+00

Corp. Line

SOUTH EUCLID CORPORATION LIMIT

PARKSIDE CIRCLE 50'

DAYTONA ROAD 60'

CLUBSIDE ROAD 80'

EVANSTON ROAD 60'

MAYFIELD ROAD

(2) REDUCED SPEED AHEAD R-11B-36
(3) SPEED LIMIT 35 R-10-24
(4) NO PARKING ANY TIME R-55-12
(5) CENTER LANE ONLY R-48-24
(6) CENTER LANE ONLY R-48-24
(7) NO PARKING ANY TIME R-55-12
(8) NO PARKING ANY TIME R-55-12
(9) NO STOPPING OR PARKING
(10) WEST M-40-24
(11) 322 M-1-24-3
(12) NO STOPPING OR PARKING
(13) NO STOPPING OR PARKING 1ST & 3RD THURS. BOSS
(14) NO STOPPING OR PARKING SOUTH EUCLID, OHIO 1ST & 3RD THURS. BOSS
(15) EAST M-39-24
(16) 322 M-1-24-3
(17) NO STOPPING OR PARKING BUS LOADING ZONE NO PARKING
(18) NO PARKING ANY TIME R-55-12
(19) NO STOPPING OR PARKING BUS LOADING ZONE
(21) NO PARKING ANY TIME R-55-12
(21A) CENTER LANE ONLY R-48-24
(21B) END CENTER LANE ONLY RP-51-24
(22) NO STOPPING OR PARKING BUS LOADING ZONE NO PARKING
(23) STOP FOR SCHOOL BUS LOADING UNLOADING CITY ORDINANCE R-84-30
(24) SOUTH EUCLID CORPORATION LIMIT
(25) STOP
(26) PARKSIDE
(27) NO STOPPING OR PARKING
(28) NO PARKING ANY TIME R-55-12
(29) CENTER LANE ONLY R-48-24
(29A) BEGIN RP-49-24
(30) NO STOPPING OR PARKING
(31) NO PARKING ANY TIME R-55-12
(33) NO PARKING ANY TIME R-55-12
(34) NO PARKING ANY TIME R-55-12
(35) NO STOPPING OR PARKING SCHOOL BUS LOADING ZONE
(36) NO STOPPING OR PARKING BUS LOADING ZONE NO PARKING
(38) R-41B-36 DO NOT ENTER
(40) DO NOT ENTER
(41) R-41B-36 DO NOT ENTER
(42) ONE WAY R-43R-36
(43) R-41B-36 DO NOT ENTER
(44) ONE WAY R-43L-36
(45) DO NOT ENTER
(46) ONE WAY R-43R-36
(47)
(48) DAYTONA
(49) ONE WAY R-43L-36
(50) R-120-24
(51) R-121-24
(52) NO STOPPING OR PARKING
(53) MAYFIELD
(54) CLUBSIDE
(55) CENTER LANE ONLY R-48-24
(56) NO PARKING ANY TIME R-55-12
(57) NO PARKING ANY TIME R-55-12
(57A) CENTER LANE ONLY R-48-24
(58) NO STOPPING OR PARKING
(59) STOP
(60) LYNDHURST PARK ESTATES (BOTH SIDES)
(61) COUNTRY SIDE BROOKWOOD MIDDLEDALE SEVEN OAKS (BOTH SIDES)
(62) SCHOOL XING
(63)
(64) SPEED LIMIT 35 R-10-24
(65) SPEED LIMIT 35 R-10-24
(68) ONLY ONLY ONLY R-31FF-48
(69) NO PARKING ANY TIME R-55-12
(73) NO PARKING ANY TIME R-55-12
(74) ONE WAY
(75) ONE WAY
(76) (BOTH SIDES)
(77) CROSS WALK
(78)
(79) NO STOPPING OR PARKING BUS LOADING ZONE NO PARKING
(80) EVANSTON
(81) TYROS TYM AND MOLINE HOUSE
(82) RTA
(84) CROSS WALK
(85)
(86) CENTER LANE ONLY R-48-24
(86A) END CENTER LANE ONLY RP-51-24
(87) RTA
(88) NO PARKING ANY TIME R-55-12
(89) NO PARKING ANY TIME R-55-12
(90) NO STOPPING OR PARKING
(91) NO TURN ON RED R-23-24
(92) SCHOOL ZONE
(93)
(94) NO STOPPING OR PARKING BUS LOADING ZONE NO PARKING
(95) CENTER LANE ONLY R-48-24
(96) BEGIN RP-49-24

FOR SIGNAGE REFERENCE SEE SHEET NO. 258-279.

✱ INDICATES SIGNALIZED INTERSECTION

⊠ INDICATES SIGN TO BE REMOVED

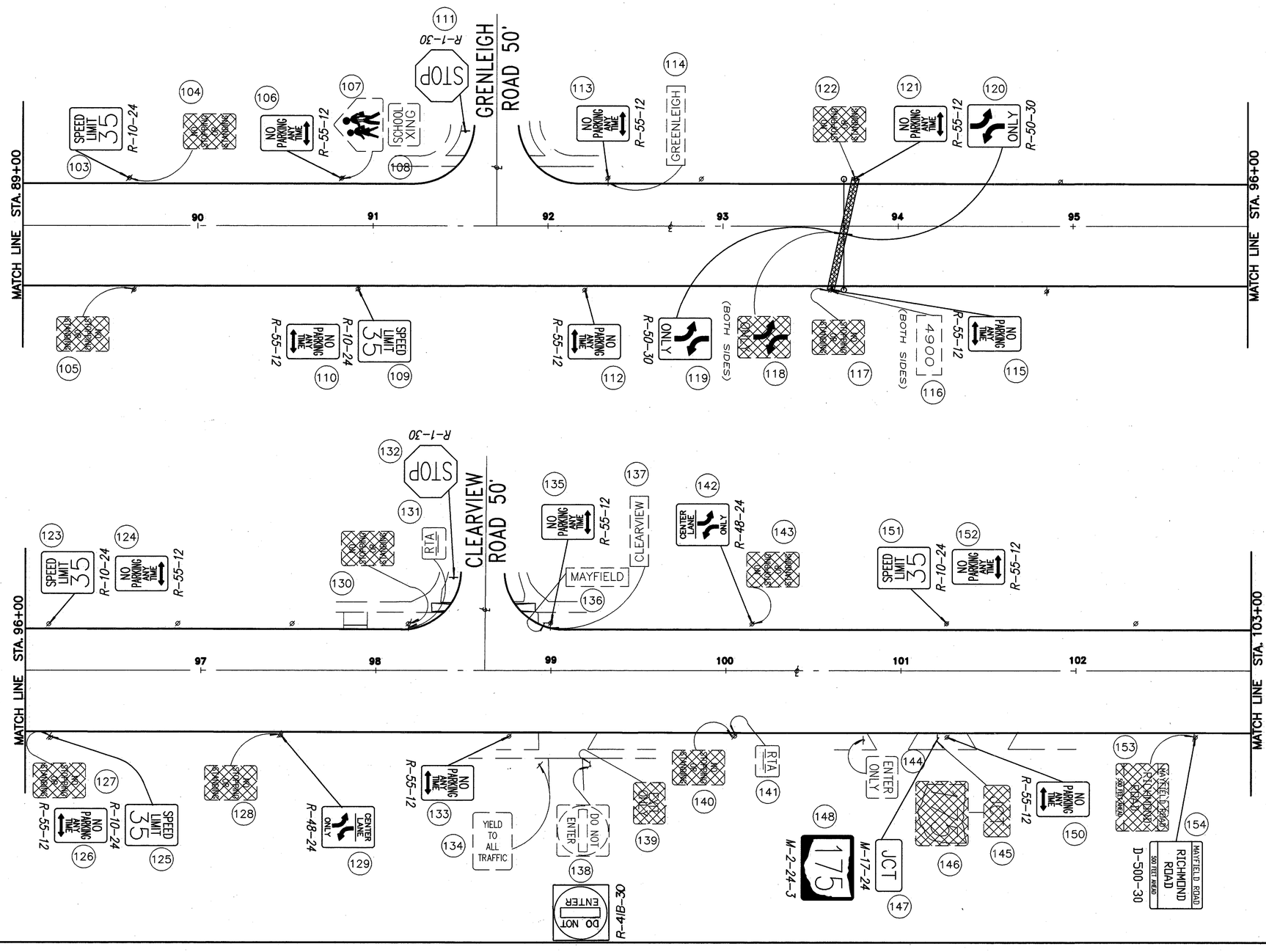
TRAFFIC CONTROL STA. 74+00 TO STA. 89+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

289
426

0 5 10 30 60 90
Scale In Feet

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



FOR SIGNAGE REFERENCE SEE SHEET NO. 258-279 .

⊠ INDICATES SIGN TO BE REMOVED

TRAFFIC CONTROL STA. 89+00 TO STA. 103+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

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426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

0 5 10 30 60 90
Scale In Feet

N

MATCH LINE STA. 103+00

MATCH LINE STA. 111+00

MATCH LINE STA. 111+00

MATCH LINE STA. 119+00

ROAD (VARIES)

RICHMOND

MAYFIELD RD.

RICHMOND RD.

RICHMOND RD

RICHMOND THEATRE

MAYFIELD ROAD

FOR SIGNAGE REFERENCE SEE SHEET NO. 258-279

* INDICATES SIGNALIZED INTERSECTION

⊠ INDICATES SIGN TO BE REMOVED

TRAFFIC CONTROL STA. 103+00 TO STA. 119+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

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426

Scale In Feet: 0 5 10 30 60 90

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

N

MATCH LINE STA. 119+00

MATCH LINE STA. 126+00

MATCH LINE STA. 133+00

WILLSHIRE ROAD 50'

HENNING DRIVE 50'

PARKVIEW DRIVE 50'

JAEGER DRIVE 50'

LYNDHURST CITY HALL

MAYFIELD ROAD

264 SPEED LIMIT 35 R–10–24
265 NO PARKING ANY TIME R–55–12
266 NO STOPPING OR PARKING
267 NO PARKING ANY TIME R–55–12
268 SPEED LIMIT 35 R–10–24
269 RTA
270 NO STOPPING OR PARKING
271 WILLSHIRE
272 RTA
273 STOP R–1–30
274 NO PARKING ANY TIME R–55–12
275 CENTER LANE ONLY
276 NO PARKING ANY TIME R–48–24
277 NO STOPPING OR PARKING R–55–12
278 NO STOPPING OR PARKING
279 CENTER LANE ONLY R–48–24
280 NO PARKING ANY TIME R–55–12
281 SPEED LIMIT 35 R–10–24
282 STOP R–1–30
283 NO STOPPING OR PARKING
284 MAYFIELD
285 HENNING
286 NO PARKING ANY TIME R–55–12
287 NO PARKING ANY TIME R–55–12
288 NO STOPPING OR PARKING
289 NO STOPPING OR PARKING
290 NO PARKING ANY TIME R–55–12
291 SPEED LIMIT 35 R–10–24
292 CENTER LANE ONLY R–48–24
293 CENTER LANE ONLY R–48–24
294 THORNBURY
295 LYNDHURST PAVILION
296 PARKVIEW (BOTH SIDES)
297 STOP R–1–30
298 RTA
299 MAYFIELD
300 JAEGER
301 NO STOPPING OR PARKING
302 STOP R–1–30
303 RTA
304 NO PARKING ANY TIME R–55–12
305 NO STOPPING OR PARKING
306 NO PARKING ANY TIME R–55–12
307 NO STOPPING OR PARKING
308 ONE WAY R–43L–36
309 ENTER (BOTH SIDES)
310 NO STOPPING OR PARKING
311 NO PARKING ANY TIME R–55–12
312 STOP R–1–30
313 STOP R–1–30
314 MAYFIELD (BOTH SIDES)
315 NO PARKING ANY TIME R–55–12
316 NO STOPPING OR PARKING
317 ONE WAY R–43R–36
318 NO STOPPING OR PARKING
319 NO PARKING ANY TIME R–55–12
320 DO NOT ENTER R–41B–36
321 DO NOT ENTER R–41B–36
329 ONE WAY R–43R–36
330 ONE WAY R–43L–36

120 121 122 123 124 125 126 127 128 129 130 131 132

FOR SIGNAGE REFERENCE SEE SHEET NO. 258-279.

✳ INDICATES SIGNALIZED INTERSECTION

⊠ INDICATES SIGN TO BE REMOVED

TRAFFIC CONTROL STA. 119+00 TO STA. 133+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

292
426

0 5 10 30 60 90
Scale In Feet

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

MATCH LINE STA. 133+00

MATCH LINE STA. 141+00

MATCH LINE STA. 148+00

LYNDHURST FIRE DEPT.

IRENE ROAD 50'

CHURCHILL ROAD 55'

WINCHESTER ROAD 50'

COMMODORE ROAD 50'

GORDON ROAD 50'

BILTMORE ROAD 50'

MAYFIELD ROAD

134 135 136 137 138 139 140 141 142 143 144 145 146 147

322 BEGIN RP-49-24
323 SPEED LIMIT 35 R-10-24
323A ONLY ONLY R-31C-48
324 CENTER LANE ONLY R-48-24
325 NO PARKING ANY TIME R-55-12
326 DO NOT ENTER
327 DO NOT ENTER
328 NO PARKING ANY TIME R-55-12
331 ONLY ONLY R-31C-48
333 DO NOT ENTER
334 MAYFIELD RD.
335 IRENE RD.
336 EXIT LEFT ONLY WHEN SIGNAL IS GREEN FOR IRENE
337 NO TURN ON RED
338 DO NOT ENTER
339 DO NOT ENTER
340 MAYFIELD RD.
341 WINCHESTER RD.
343 ONLY ONLY R-31C-48
344 R.T.A.
345 NO PARKING ANY TIME R-55-12
346 CENTER LANE ONLY R-48-24
347 BEGIN RP-49-24
350 NO PARKING ANY TIME R-55-12
351 ONLY ONLY R-31C-48
352 ONE WAY
353 DO NOT ENTER
354 STOP R-1-30
355 MAYFIELD RD.
356 CHURCHILL RD.
357 NO PARKING ANY TIME R-55-12
358 STOP
359 COMMODORE
360 NO PARKING ANY TIME R-55-12
361 DO NOT ENTER
362 SPEED LIMIT 35 R-10-24
363 ENTRANCE
364 DO NOT ENTER
365 NO PARKING ANY TIME R-55-12
366 CENTER LANE ONLY R-48-24
367 CENTER LANE ONLY R-48-24
368 SPEED LIMIT 35 R-10-24
369 STOP R-1-30
370 STOP R-1-30
371 MAYFIELD RD.
372 WINCHESTER RD.
373 R.T.A.
374 BILTMORE
375 MAYFIELD
376 R.T.A.
377 NO PARKING ANY TIME R-55-12
378 NO PARKING ANY TIME R-55-12
379 DO NOT ENTER
380 DO NOT ENTER
381 CENTER LANE ONLY R-48-24
382 CENTER LANE ONLY R-48-24
383 NO PARKING ANY TIME R-55-12
384 DO NOT ENTER
385 DO NOT ENTER
386 NO PARKING ANY TIME R-55-12
387 SPEED LIMIT 35 R-10-24
388 SPEED LIMIT 35 R-10-24

FOR SIGNAGE REFERENCE SEE SHEET NO. 258-279

✳ INDICATES SIGNALIZED INTERSECTION

⊠ INDICATES SIGN TO BE REMOVED

TRAFFIC CONTROL STA. 133+00 TO STA. 148+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

293 of 426

0 5 10 30 60 90
Scale In Feet

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

N

MATCH LINE STA. 148+00

MATCH LINE STA. 155+00

MATCH LINE STA. 155+00

MATCH LINE STA. 162+00

149 150 151 152 153 154

156 157 158 159 160 161

SUNVIEW AVENUE 50'

SUNVIEW ROAD 60'

FORD ROAD 60'

EDGEFIELD ROAD 50'

LYNDHURST ROAD 50'

MAYFIELD ROAD

389 RTA

390 RTA

391 BEACONFIELD HAVENSTON DORSET RAE

392 STOP R-1-30

393 STOP R-1-30

394 SUNVIEW

395 MAYFIELD RD.

396 SUNVIEW RD

397 NO PARKING ANY TIME R-55-12

398 SPEED LIMIT 35 R-10-24

399 SPEED LIMIT 35 R-10-24

400 NO PARKING ANY TIME R-55-12

401 NO PARKING ANY TIME

402 NO PARKING ANY TIME

403 CENTER LANE ONLY R-48-36

404 CENTER LANE ONLY R-48-24

405 322 M-1-24

406 EAST M-39-24

407 WEST M-40-24

408 322 M-1-24

409 NO PARKING ANY TIME

410 NO PARKING ANY TIME

411 NO PARKING ANY TIME R-55-12

412 NO PARKING ANY TIME R-55-12

413 CENTER LANE ONLY R-48-24

414 SPEED LIMIT 35 R-10-24

415 NO PARKING ANY TIME R-55-12

416 NO PARKING ANY TIME

417 CENTER LANE ONLY R-10-24

418 STOP R-1-30

419 EDGEFIELD

420 RTA

421 NO PARKING ANY TIME

422 STOP R-1-30

423 RTA

424 NO PARKING CITY STREETS 2AM TO 6AM

425 MAYFIELD RD.

426 FORD RD.

427 NO PARKING ANY TIME R-55-12

428 SPEED LIMIT 35 R-10-24

429 MAYFIELD RD. BRAINARD ROAD 500 FEET AHEAD D-500-30

430 NO PARKING ANY TIME R-55-12

431 NO PARKING ANY TIME

432 NO PARKING ANY TIME

433 STOP R-1-30

434 LYNDHURST RD.

435 NO PARKING ANY TIME R-55-12

436 NO PARKING ANY TIME

437 SCHOOL XING

438 R-55-12

439 NO PARKING ANY TIME

442 BEGIN RP-49-24

443 CENTER LANE ONLY R-48-24

444 ONLY ONLY R-310-48

FOR SIGNAGE REFERENCE SEE SHEET NO. 258-279.

INDICATES SIGN TO BE REMOVED

TRAFFIC CONTROL STA. 148+00 TO STA. 162+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

294/426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD.

0 5 10 30 60 90
Scale In Feet

N

MAYFIELD ROAD

BRAINARD ROAD (VARIES)

IROQUOIS AVENUE 50'

ST. CLARE CHURCH

CITY OF MAYFIELD HEIGHTS

CITY OF LYNDHURST

GREENS OF LYNDHURST SHOPPING CENTER

MATCH LINE STA. 162+00

MATCH LINE STA. 169+00

MATCH LINE STA. 169+00

Corp. Line

Corp. Line

Corp. Line

163 164 165 166 167 168

170 171 172 173

445 SPEED LIMIT 35 R-10-24
446 NO PARKING ANY TIME R-55-12
447 SPEED LIMIT 35 R-10-24
448 NO PARKING ANY TIME R-55-12 ONLY (BOTH SIDES)
449 NO PARKING ANY TIME R-55-12
450 NO PARKING ANY TIME R-55-12
451 SCHOOL XING
452 ONLY ONLY R-31C-48
453 NO PARKING ANY TIME R-55-12
454 RTA
455 CROSS WALK
456 (BOTH SIDES)
457 NO TURN ON RED SIGN TO BE MAY BE SIGNAL MOUNTED
458 CROSS WALK
459 (BOTH SIDES)
461 ONLY
462 NO TURN ON RED SIGN TO BE MAY BE SIGNAL MOUNTED
463 BRAINARD RD.
464 MAYFIELD RD.
465 NO TURN ON RED SIGN TO BE MAY BE SIGNAL MOUNTED
466 NO TURN ON RED SIGN TO BE MAY BE SIGNAL MOUNTED
468 CROSS WALK
469 (BOTH SIDES)
471 CROSS WALK
472 (BOTH SIDES)
473 SCHOOL
474 (BOTH SIDES)
475 RTA
476 ONLY ONLY R-31C-48
477 NO PARKING ANY TIME R-55-12
478 ONLY ONLY R-31C-48
479 CENTER LANE ONLY R-48-24
480 BEGIN RP-49-24
481 NO PARKING ANY TIME
482 NO PARKING ANY TIME
483 SPEED LIMIT 35 R-10-24
484 (BOTH SIDES)
485 CROSS WALK W-81-36 WP-81-24
486 NO PARKING ANY TIME R-55-12
486A
487 NO STOPPING OR STANDING
488 DO NOT BLOCK DRIVEWAY
489 NO PARKING ANY TIME
490 SCHOOL XING
491 (BOTH SIDES)
492 STOP R-1-30
493 DO NOT ENTER
494 EXIT ONLY
495 SCHOOL XING
496 (BOTH SIDES)
497 SPEED LIMIT 35 R-10-24
498 NO PARKING ANY TIME R-55-12
499 MAYFIELD ROAD CLEVELAND MAYFIELD ROAD
500 MAYFIELD ROAD BRAINARD ROAD 500 FEET AHEAD D-500-30
501 CRIME STOPPERS 252-7463 CASH REWARDS
502 NO PARKING ANY TIME R-55-12
503 ENTER ONLY
504 THROUGH TRAFFIC PROHIBITED POLICE ORDER
505 CITY OF LYNDHURST WELCOME
506 SCHOOL XING
507 NO PARKING ANY TIME R-55-12
508 CROSS WALK W-81-36 WP-81-24
509 NO PARKING ANY TIME R-55-12
510 IROQUOIS
511 NO TURN ON RED SIGN TO BE MAY BE SIGNAL MOUNTED
512 NO TURN ON RED SIGN TO BE MAY BE SIGNAL MOUNTED
514 ENTER DO NOT ENTER
515 CROSS WALK
516 (BOTH SIDES)
518 NO PARKING ANY TIME
519 NO PARKING ANY TIME
520 NO PARKING ANY TIME R-55-12
521 ONLY
522 ONLY
523 ONLY
524 ONLY R-50-36
525 ONLY
526 ONLY R-50-36
527 ONLY
528 ONLY
529 RTA
530 NO PARKING ANY TIME R-55-12
531 SCHOOL
532 (BOTH SIDES)
533 WELCOME TO MAYFIELD HEIGHTS
534 CRIME STOPPERS 252-7463 CASH REWARDS
513 STOP R-1-30
481A

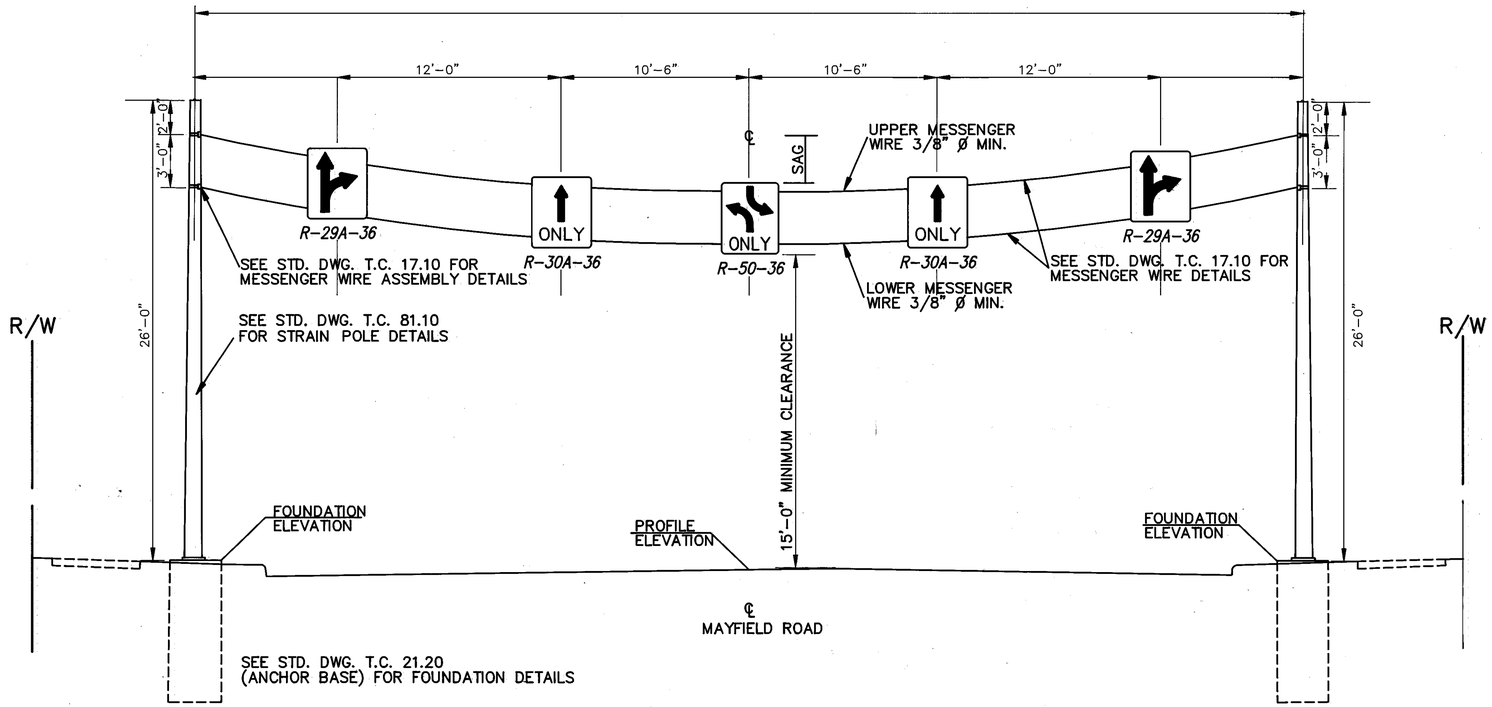
FOR SIGNAGE REFERENCE SEE SHEET NO. 258-279.

✳ INDICATES SIGNALIZED INTERSECTION
⊠ INDICATES SIGN TO BE REMOVED

TRAFFIC CONTROL STA. 162+00 TO STA. 173+70

CALC. BY. DATE		OHIO	295 426
CHKD. BY. DATE		F.H.W.A. REGION 5	

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD



SPAN WIRE SIGN SUPPORT DETAIL

SUB–SUMMARY OF QUANTITIES

SHEET NO.	STATION		630 SPAN WIRE SUPPORT, TYPE T.C. 17.10 DESIGN NO. 6 SPAN 64'			630 CONCRETE FOR ANCHOR BASE FOUNDATIONS	625 GROUND ROD	STRAIN POLE, LEFT	STRAIN POLE, RIGHT	SAG	PROFILE ELEVATION	FOUNDATION ELEVATION, LEFT	FOUNDATION ELEVATION, RIGHT
			EACH			C.Y.	EACH	OFFSET	OFFSET	FEET			
280	3+84		1			4.8	2	32' L	32' R	2.88'	969.51	969.64	969.85
281	16+50		1			4.8	2	32' L	32' R	2.88'	976.65	976.78	976.99
283	30+70		1			4.8	2	32' L	32' R	2.88'	975.54	975.67	975.88
285	52+87		1			4.8	2	32' L	32' R	2.88'	969.33	969.46	969.67
286	67+45		1			4.8	2	32' L	32' R	2.88'	965.48	965.61	965.82
390	93+69		1			4.8	2	27' L	37' R	2.88'	1002.03	1002.96	1003.11
403	172+33		1			4.8	2	33' L	31' R	2.88'	1074.62	1075.31	1075.69
	TOTAL		7			33.60	14						

NOTES:
1.–THE HANDHOLE SHALL BE LOCATED ON THE SIDE OF THE POLE FARTHEST FROM THE ROADWAY.
2.–A CAPPED 2" BLIND HALF COUPLING SHALL BE LOCATED 12" FROM THE TOP OF THE POLE FACING TOWARD THE ROADWAY.
3.–ALL FOUNDATIONS SHALL CONTAIN ONE 2" CAPPED CONDUIT ELL FOR FUTURE USE. IT SHALL BE LOCATED PERPENDICULAR TO THE ROADWAY CENTERLINE ON THE SIDE OF THE FOUNDATION FARTHEST FROM THE ROADWAY.

NOTE:
SPAN WIRE SIGN SUPPORTS LISTED ON THIS SHEET HAVE BEEN CARRIED TO THE GENERAL SUMMARY AS BID ITEM "SPAN WIRE SIGN SUPPORT, TYPE T.C. 17.10, DESIGN NO. 6.

Carried to Sheet 254

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD

SPAN WIRE SIGN SUPPORT

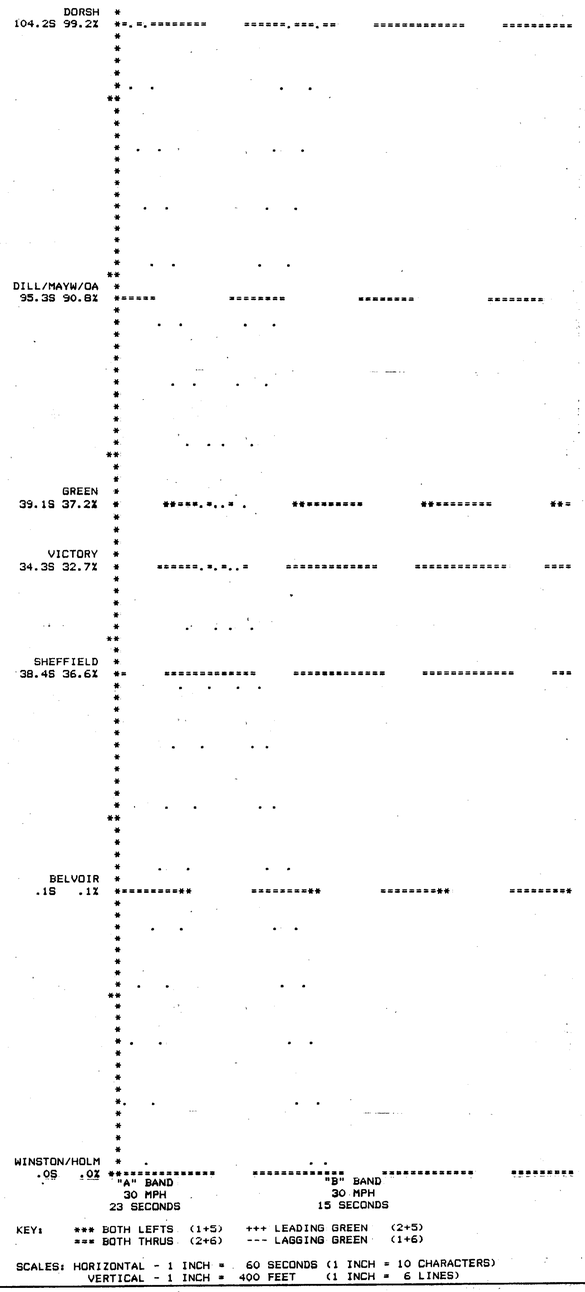
MAYFIELD ROAD
TIME-SPACE DIAGRAMS

OHIO
F.H.W.A. REGION 5
296
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

A.M.

1 TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION
PASSER2 MULTIPHASE ARTERIAL PROGRESSION - 145101 3.0 FEB. 1986
PASSER II-84
TIME-SPACE DIAGRAM FOR: MAYFIELD RD
SOUTH EUCLID DISTRICT 12 RUN NUMBER 1 04/13/92 CYCLE LENGTH 105

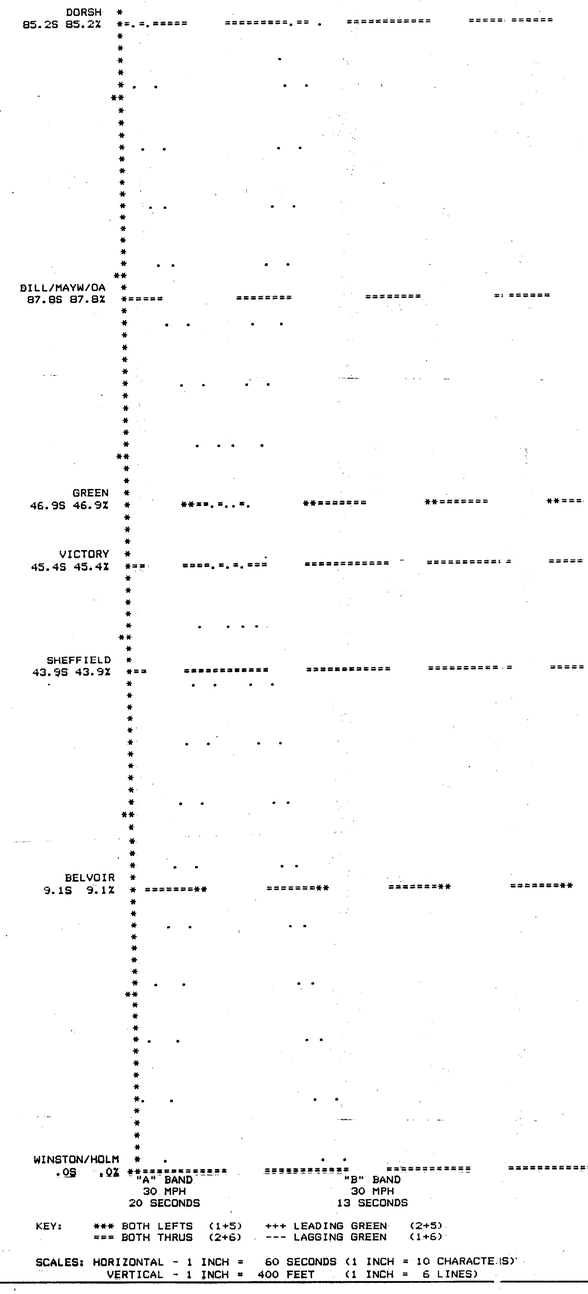


KEY: *** BOTH LEFTS (1+5) +++ LEADING GREEN (2+5)
=== BOTH THRUS (2+6) --- LAGGING GREEN (1+6)

SCALES: HORIZONTAL - 1 INCH = 60 SECONDS (1 INCH = 10 CHARACTERS)
VERTICAL - 1 INCH = 400 FEET (1 INCH = 6 LINES)

NOON

1 TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION
PASSER2 MULTIPHASE ARTERIAL PROGRESSION - 145101 3.0 FEB. 1986
PASSER II-84
TIME-SPACE DIAGRAM FOR: MAYFIELD RD
SOUTH EUCLID DISTRICT 12 RUN NUMBER 1 04/13/92 CYCLE LENGTH 100

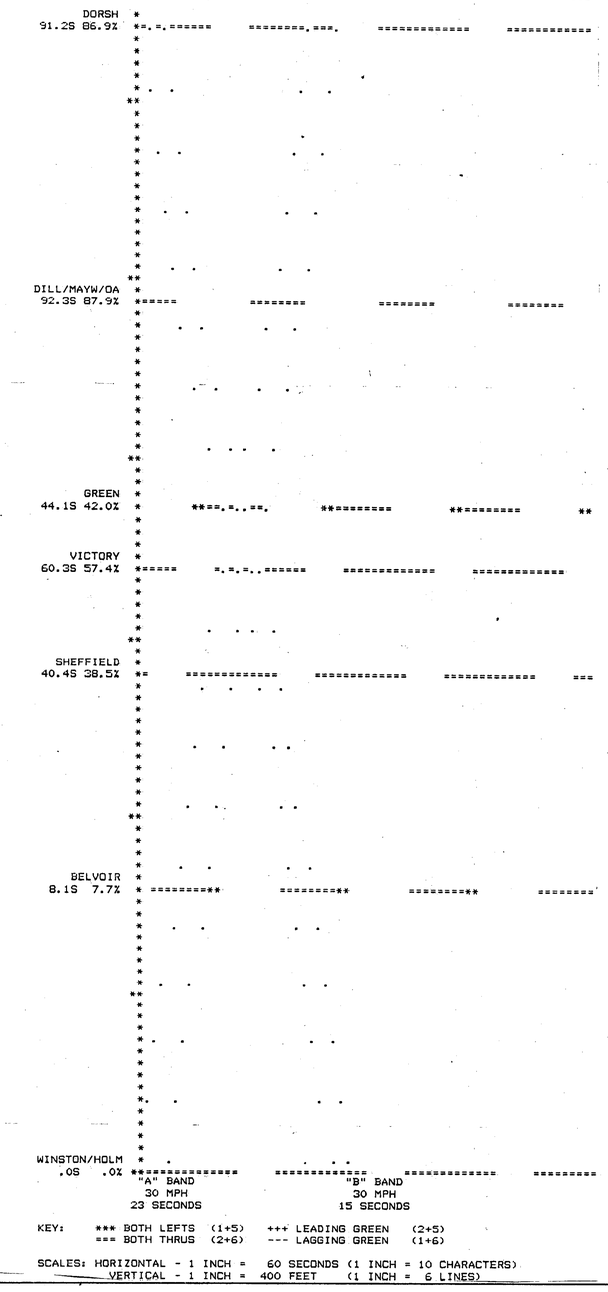


KEY: *** BOTH LEFTS (1+5) +++ LEADING GREEN (2+5)
=== BOTH THRUS (2+6) --- LAGGING GREEN (1+6)

SCALES: HORIZONTAL - 1 INCH = 60 SECONDS (1 INCH = 10 CHARACTERS)
VERTICAL - 1 INCH = 400 FEET (1 INCH = 6 LINES)

P.M.

1 TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION
PASSER2 MULTIPHASE ARTERIAL PROGRESSION - 145101 3.0 FEB. 1986
PASSER II-84
TIME-SPACE DIAGRAM FOR: MAYFIELD RD
SOUTH EUCLID DISTRICT 12 RUN NUMBER 1 04/13/92 CYCLE LENGTH 105



KEY: *** BOTH LEFTS (1+5) +++ LEADING GREEN (2+5)
=== BOTH THRUS (2+6) --- LAGGING GREEN (1+6)

SCALES: HORIZONTAL - 1 INCH = 60 SECONDS (1 INCH = 10 CHARACTERS)
VERTICAL - 1 INCH = 400 FEET (1 INCH = 6 LINES)

MAYFIELD ROAD

TIME-SPACE DIAGRAMS

MAYFIELD RD. TIME-SPACE DIAGRAMS

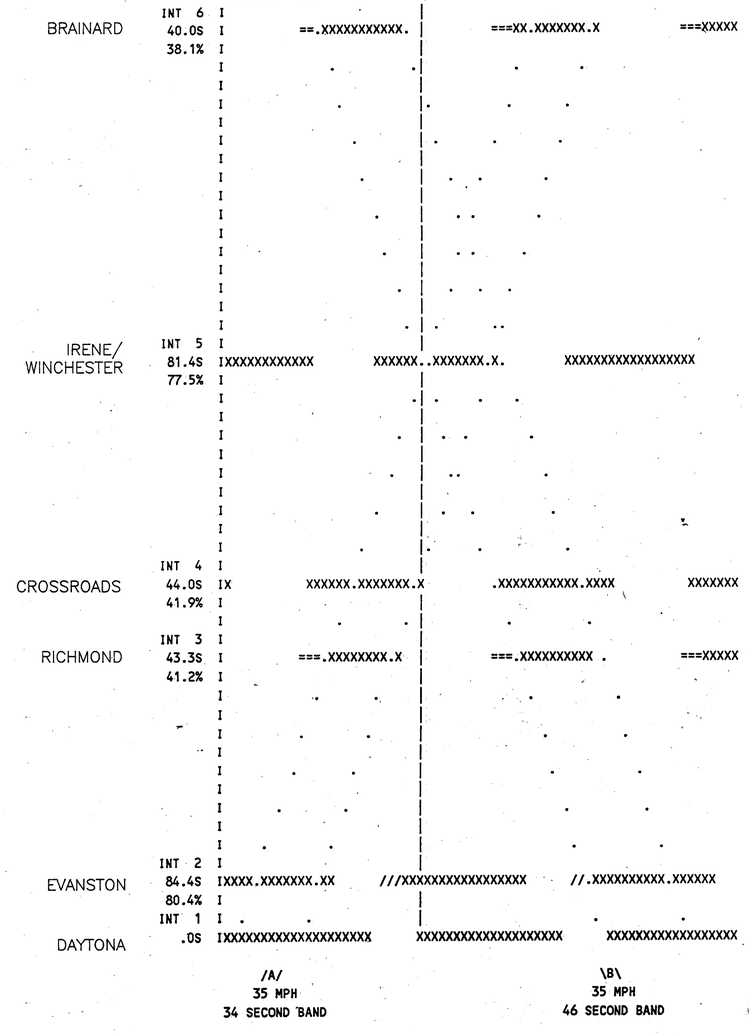
CALC. BY: DATE:	CUY-322-8.66	OHIO
CHKD. BY: DATE:		FHWA REGION 5
		FEDERAL PROJECT

297
426

OFF PEAK

(TS.DIAGM)
TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION
PASSER II-87 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 JUL 88

RUN NO 3 DISTRICT MAYFIELD RD 02/26/92 CYCLE = 105 SECONDS
HORIZONTAL SCALE 1 INCH = 40 SECS (1 inch = 10 characters)
VERTICAL SCALE 1 INCH = 1000 FEET (1 inch = 6 lines)



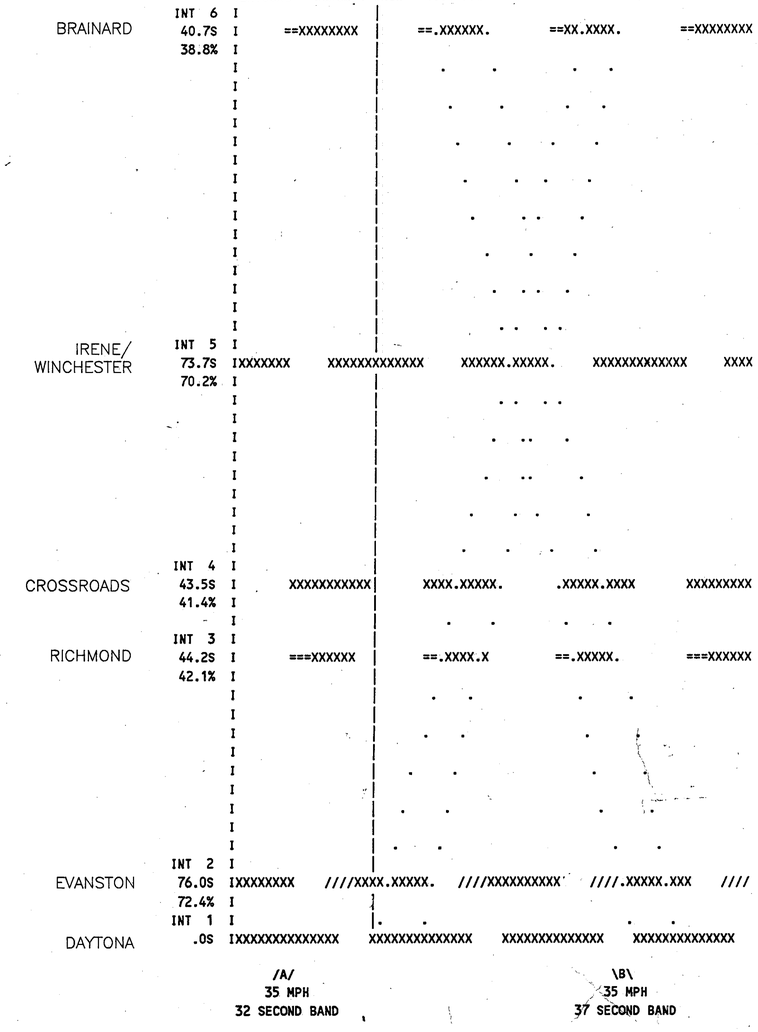
/A/ 35 MPH 34 SECOND BAND

\B\ 35 MPH 46 SECOND BAND

AM PEAK

(TS.DIAGM)
TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION
PASSER II-87 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 JUL 88

RUN NO 1 DISTRICT MAYFIELD RD 02/26/92 CYCLE = 105 SECONDS
HORIZONTAL SCALE 1 INCH = 60 SECS (1 inch = 10 characters)
VERTICAL SCALE 1 INCH = 1000 FEET (1 inch = 6 lines)



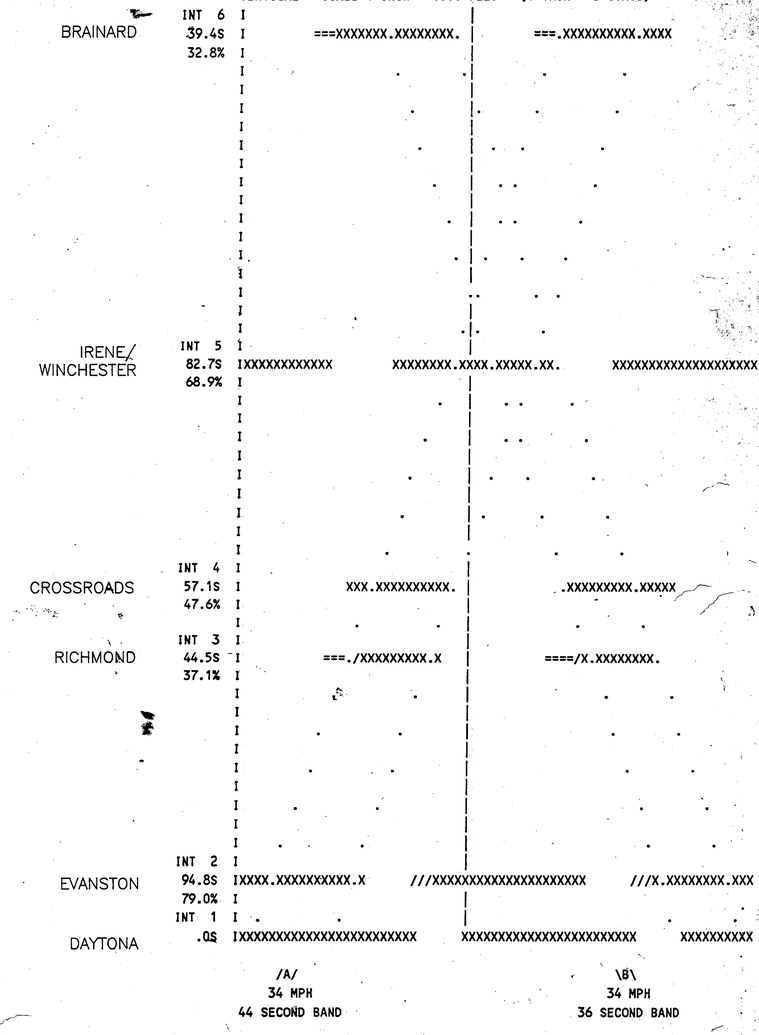
/A/ 35 MPH 32 SECOND BAND

\B\ 35 MPH 37 SECOND BAND

PM PEAK

(TS.DIAGM)
TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION
PASSER II-87 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 JUL 88

RUN NO 2 DISTRICT MAYFIELD RD 02/26/92 CYCLE = 120 SECONDS
HORIZONTAL SCALE 1 INCH = 40 SECS (1 inch = 10 characters)
VERTICAL SCALE 1 INCH = 1000 FEET (1 inch = 6 lines)



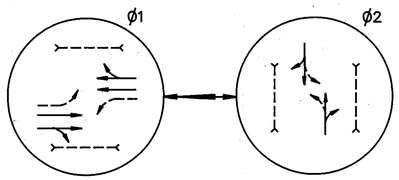
/A/ 34 MPH 44 SECOND BAND

\B\ 34 MPH 36 SECOND BAND

	ø1	ø2
PERIOD		
MINIMUM GREEN (sec.)	40.0	–
INITIAL GREEN (sec.)	–	5.0
VEHICLE EXTENSION (sec.)	–	3.0
MAXIMUM GREEN I (sec.)	–	25.0
MAXIMUM GREEN II (sec.)	–	35.0
MINIMUM PEDESTRIAN WALK (sec.)	31.0	7.0
MINIMUM PEDESTRIAN FLASH DW (sec.)	9.0	13.0
MINIMUM YELLOW VEHICLE CLEARANCE (sec.)	3.0	3.0
ALL–RED VEHICLE CLEARANCE (sec.)	2.0	2.0
RECALL	ON	OFF
MEMORY	OFF	OFF

SIGNAL TIMING CHART

RECALL – DWELL



SIGNAL PHASE DIAGRAM

	PHASE ø 1				PHASE ø 2					
	ROW	PEDESTRIAN CLEARANCE	VEHICLE CLEARANCE–Y	VEHICLE CLEARANCE–R	ROW	PEDESTRIAN CLEARANCE	VEHICLE CLEARANCE–Y	VEHICLE CLEARANCE–R	DWELL	FLASH
Ⓐ	G	G	Y	R	R	R	R	R	G	Y
Ⓑ	G	G	Y	R	R	R	R	R	G	Y
Ⓒ	G	G	Y	R	R	R	R	R	G	Y
Ⓓ	G	G	Y	R	R	R	R	R	G	Y
Ⓔ	R	R	R	R	G	G	Y	R	R	R
Ⓕ	R	R	R	R	G	G	Y	R	R	R
Ⓖ	R	R	R	R	G	G	Y	R	R	R
Ⓗ	R	R	R	R	G	G	Y	R	R	R
w–w	DW	DW	DW	DW	W	FDW	DW	DW	DW	OFF
x–x	DW	DW	DW	DW	W	FDW	DW	DW	DW	OFF
y–y	W	FDW	DW	DW	DW	DW	DW	DW	DW	OFF
z–z	W	FDW	DW	DW	DW	DW	DW	DW	DW	OFF

SIGNAL SEQUENCE DIAGRAM

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)

PREEMPT CHANNELS

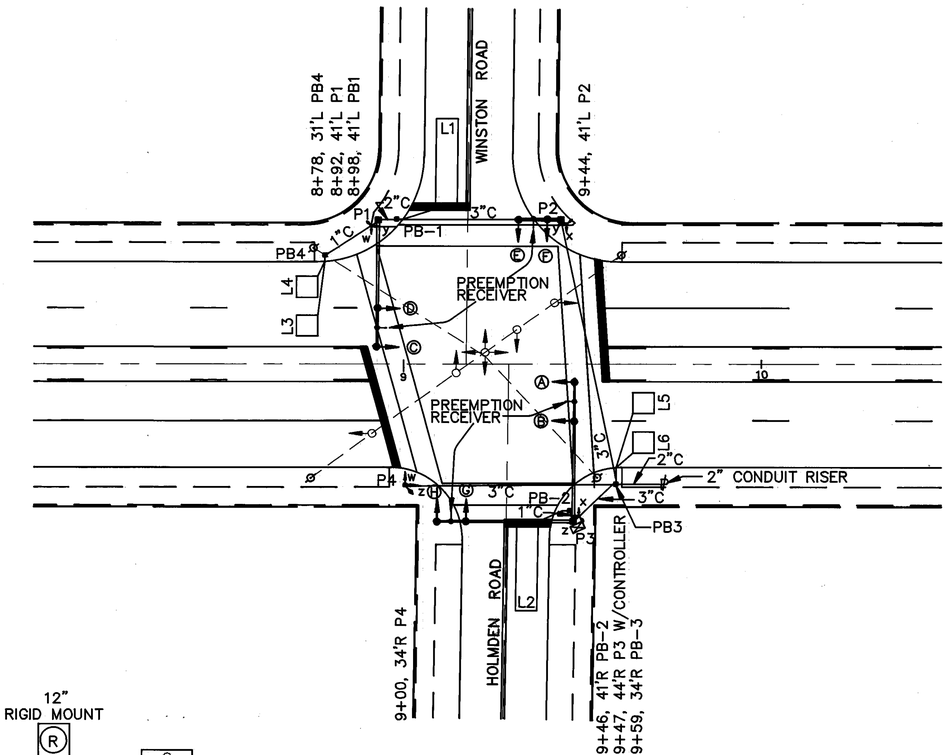
CHANNEL 1 = ø1	(WESTBOUND ONLY)
CHANNEL 2 = ø1	(EASTBOUND ONLY)
CHANNEL 3 = ø2	(NORTHBOUND ONLY)
CHANNEL 4 = ø2	(SOUTHBOUND ONLY)

PREEMPT NOTES:

1. ACTIVE WALK INDICATIONS SHALL IMMEDIATELY GO TO "DON'T WALK" UPON RECEIVING PREEMPTION SIGNAL.
2. IF PHASE ACTIVE CONFLICTS WITH PREEMPT PHASE CALLED, IT SHALL IMMEDIATELY TIME ITS YELLOW AND ALL RED CLEARANCES.
3. IF ACTIVE PHASE = THE PREEMPT PHASE, THEN THE PHASE SHALL HOLD FOR THE DURATION OF THE PREEMPT SIGNAL.
4. AFTER RELEASE FROM PREEMPT, YELLOW AND ALL RED CLEARANCE SHALL BE DISPLAYED AND RETURN PHASE SHALL BE Ø1
5. IF PREEMPT PHASES = RETURN PHASE Ø1 THEN YELLOW AND ALL RED CLEARANCE AFTER PREEMPT SHALL NOT BE DISPLAYED.

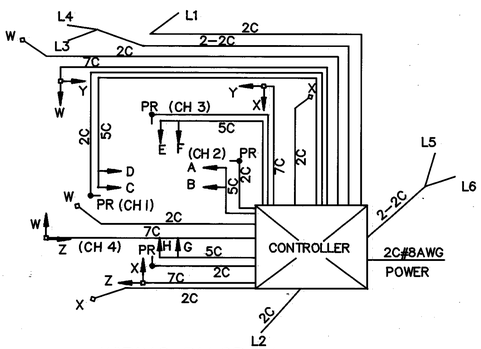
LOOP No.	SIZE	TURNS No.	MODE	LOCATION 1st CORNER	DELAY	EXTEND	PHASE ASSOC.
L–1	6X25	2	PRESENCE	STA.9+09 44'L	5 SEC	–	Ø2
L–2	6X25	2	PRESENCE	STA.9+32 44'R	5 SEC	–	Ø2
L–3	6x6	3	PULSE/PRESENCE	STA.8+70 8'L	–	–	SYSTEM
L–4	6x6	3	PULSE/PRESENCE	STA.8+70 19'L	–	–	SYSTEM
L–5	6x6	3	PULSE/PRESENCE	STA.9+64 8'R	–	–	SYSTEM
L–6	6x6	3	PULSE/PRESENCE	STA.9+64 19'R	–	–	SYSTEM

DETECTOR CHART



SIGNAL HEADS

P1 – SIGNAL SUPPORT, TYPE TC–81.20 DESIGN 3 POLE, 36' ARM
P2 – SIGNAL SUPPORT, TYPE TC–81.20 DESIGN 1 POLE, 12' ARM
P3 – SIGNAL SUPPORT, TYPE TC–81.20 DESIGN 11 POLE, WITH MAST ARMS TC–81.20 DESIGN 11, 39 FEET AND TC–81.20 DESIGN 11, 39 FEET
P4 – PEDESTAL, 8', TRANSFORMER BASE



WIRING DIAGRAM

PR PREEMPTION RECEIVER

NOTE: LOOP LEAD–IN CABLE IS USED FOR PEDESTRIAN PUSHBUTTONS AND PREEMPTION WIRING.

SUMMARY OF QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION
625	4	EACH	GROUND ROD
625	4	EACH	PULL BOX, 713.08, 18"
625	169	LIN.FT.	TRENCH
625	68	LIN.FT.	TRENCH IN PAVED AREA, TYPE A
625	21	LIN.FT.	CONDUIT, 713.04, 1"
625	19	LIN.FT.	CONDUIT, 713.04, 2"
625	197	LIN.FT.	CONDUIT, 713.04, 3"
632	8	EACH	VEHICULAR SIGNAL HEAD, 3 SECT., 12" LENS, 1 WAY, AS PER PLAN
632	8	EACH	PEDESTRIAN SIGNAL HEAD, TYPE D2, AS PER PLAN
632	4	EACH	PEDESTRIAN PUSHBUTTON
632	6	EACH	LOOP DETECTOR UNITS, DELAY AND EXTENSION TYPE, AS PER PLAN
632	273	LIN.FT.	LOOP DETECTOR PAVEMENT CUTTING
632	6.0	C.Y.	CONCRETE FOR ANCHOR BASE FOUNDATION
632	1	EACH	SIGNAL SUPPORT, TYPE TC–81.20 DESIGN 3 POLE, 36' ARM
632	1	EACH	SIGNAL SUPPORT, TYPE TC–81.20 DESIGN 1 POLE, 12' ARM
632	1	EACH	SIGNAL SUPPORT, TYPE TC–12.30 DESIGN 6 POLE, WITH MAST ARMS
			TC–81.20 DESIGN 11, 39 FEET AND TC–81.20 DESIGN 11, 39 FEET
632	1	EACH	PEDESTAL, 8', TRANSFORMER BASE
632	1	EACH	CONDUIT RISER, 2" DIA.
632	3	EACH	CABLE SUPPORT ASSEMBLY
632	557	LIN.FT.	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG
632	427	LIN.FT.	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG
632	742	LIN.FT.	LOOP DETECTOR WIRE, TYPE E
632	1510	LIN.FT.	LOOP DETECTOR LEAD IN CABLE
632	75	LIN.FT.	POWER CABLE, 2–CONDUCTOR NO.8 AWG
632	1	EACH	POWER SERVICE, AS PER PLAN
632	8	EACH	COVERING OF VEHICULAR SIGNAL HEADS
632	1	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION
633	1	EACH	PREEMPTION EQUIPMENT, PHASE SELECTOR, AS PER PLAN
633	4	EACH	PREEMPTION EQUIPMENT, RECEIVING UNIT, AS PER PLAN
633	1	EACH	CONTROLLER, ACTUATED, 2/8 PHASE, LOCAL TYPE 170SV, AS PER PLAN

SUBSUMMARY: QUANTITIES CARRIED TO SHEET 254

STEPHEN HOVANCSEK & ASSOC., INC.

OHIO
F.H.W.A. REGION 5
298
426

CUYAHOGA COUNTY
U.S. ROUTE NO. 322
MAYFIELD ROAD

298

MAYFIELD ROAD

TRAFFIC SIGNAL IMPROVEMENTS

WINSTON/HOLMDEN SIGNAL SUPPORT DETAILS

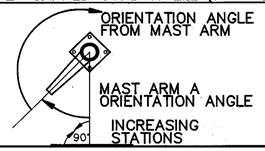
CALC. BY. ____ DATE ____
CHKD. BY. ____ DATE ____

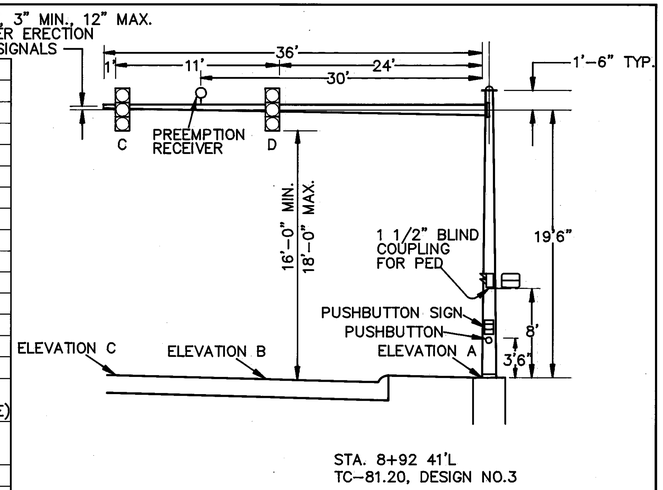
OHIO
F.H.W.A. REGION 5

299
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

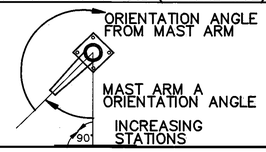
P1	POLE No.
3	DESIGN No.
21'	POLE HT.
8+92	STATION
41'L	OFFSET
36'	L (FT)
24'	L1 (FT)
11'	L2 (FT)
972.42	ELEVATION A
971.81	ELEVATION B
972.04	ELEVATION C
	ORIENTATION ANGLES
0°	MAST ARM A ORIENTATION ANGLE (DEGS)
180°Y	PEDESTRIAN SIGNAL
90°W	(1 1/2" BLIND COUPLING,8' FROM BOTTOM OF POLE)
	PEDESTRIAN PUSHBUTTON
180° W	3'–6" FROM BOTTOM OF POLE
180°	HANDHOLE
	2" CAPPED CONDUIT ELL (FUTURE USE)

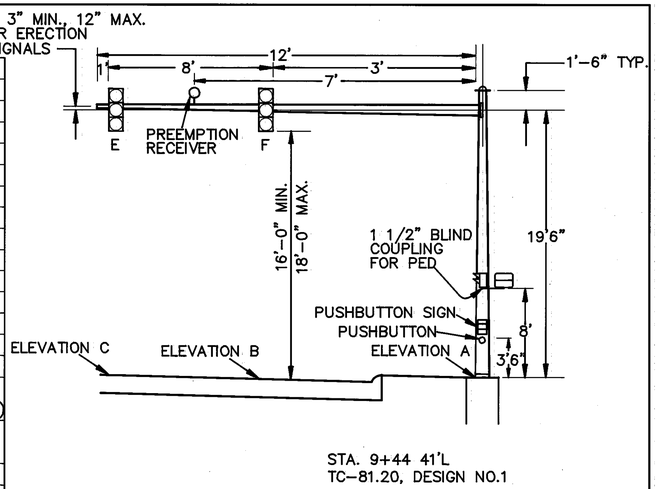




P1 SIGNAL SUPPORT DETAIL

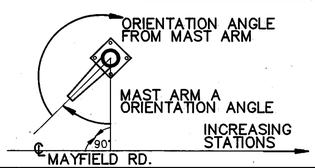
P2	POLE No.
1	DESIGN No.
21'	POLE HT.
9+44	STATION
41'L	OFFSET
12'	L (FT)
3'	L1 (FT)
8'	L2 (FT)
972.51	ELEVATION A
972.49	ELEVATION B
972.53	ELEVATION C
	ORIENTATION ANGLES
90°	MAST ARM A ORIENTATION ANGLE (DEGS)
270°Y	PEDESTRIAN SIGNAL
180°X	(1 1/2" BLIND COUPLING,8' FROM BOTTOM OF POLE)
270° X	PEDESTRIAN PUSHBUTTON
Y	3'–6" FROM BOTTOM OF POLE
180°	HANDHOLE
	2" CAPPED CONDUIT ELL (FUTURE USE)

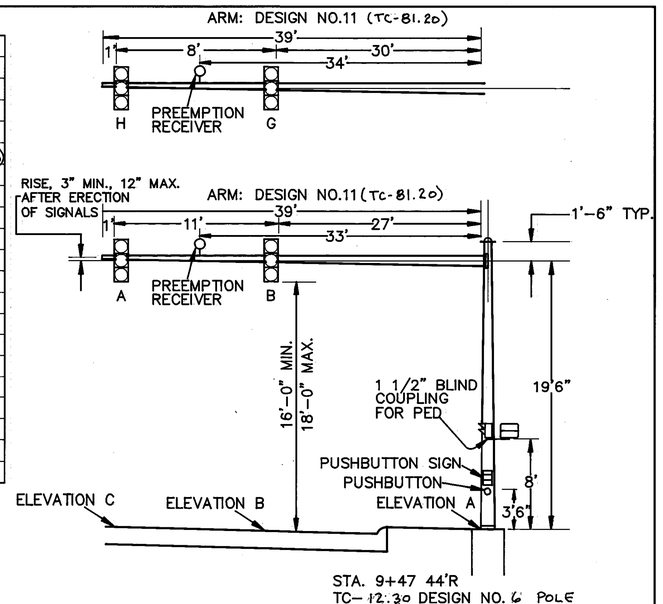




P2 SIGNAL SUPPORT DETAIL

P3	POLE No.				
6	DESIGN No. 12.30				
21'	POLE HT.				
9+47	STATION				
44'R	OFFSET				
MAST ARM A	39'	L (FT) (TC-81.20)	MAST ARM B	39'	L (FT) (TC-81.20)
	27'	L1 (FT)		30'	L1 (FT)
	11'	L2 (FT)		8'	L2 (FT)
973.04	ELEVATION A				
972.34	ELEVATION B				
972.57	ELEVATION C				
	ORIENTATION ANGLES				
0°	MAST ARM A ORIENTATION ANGLE (DEGS)				
270°	MAST ARM B				
180°	CONTROLLER				
90° X	PEDESTRIAN SIGNAL				
270°Z	(1 1/2" BLIND COUPLING, 8' FROM BOTTOM OF POLE)				
90°	X	PEDESTRIAN PUSHBUTTON			
	Z	3'–6" FROM BOTTOM OF POLE			
180°	HANDHOLE				
	2" CAPPED CONDUIT ELL (FUTURE USE)				





P3 SIGNAL SUPPORT DETAIL

MAYFIELD ROAD

299

	ø1	ø2	ø3	ø4
PERIOD				
MINIMUM GREEN (sec.)	25.0	–	–	–
INITIAL GREEN (sec.)	–	5.0	5.0	5.0
VEHICLE EXTENSION (sec.)	–	2.5	2.5	2.5
MAXIMUM GREEN I (sec.)	–	15.0	30.0	15.0
MAXIMUM GREEN II (sec.)	–	20.0	40.0	20.0
MINIMUM PEDESTRIAN WALK (sec.)	7.0	–	7.0	–
MINIMUM PEDESTRIAN FLASH DW (sec.)	16.0	–	15.0	–
MINIMUM YELLOW VEHICLE CLEARANCE (sec.)	3.0	3.0	3.0	3.0
ALL-RED VEHICLE CLEARANCE (sec.)	1.0	1.0	1.0	1.0
RECALL	ON	OFF	OFF	OFF
MEMORY	OFF	OFF	OFF	OFF

SIGNAL TIMING CHART

PREEMPT NOTES:

1. ACTIVE WALK INDICATIONS SHALL IMMEDIATELY GO TO "DON'T WALK" UPON RECEIVING PREEMPTION SIGNAL.
2. IF PHASE ACTIVE CONFLICTS WITH PREEMPT PHASE CALLED, IT SHALL IMMEDIATELY TIME ITS YELLOW AND ALL RED CLEARANCES.
3. IF ACTIVE PHASE = THE PREEMPT PHASE, THEN THE PHASE SHALL HOLD FOR THE DURATION OF THE PREEMPT SIGNAL.
4. AFTER RELEASE FROM PREEMPT, YELLOW AND ALL RED CLEARANCE SHALL BE DISPLAYED AND RETURN PHASE SHALL BE Ø1
5. IF PREEMPT PHASES = RETURN PHASE Ø1 THEN YELLOW AND ALL RED CLEARANCE AFTER PREEMPT SHALL NOT BE DISPLAYED.

PREEMPT CHANNELS

CHANNEL 1 = Ø1	(WB ONLY)
CHANNEL 2 = Ø1	(EB ONLY)
CHANNEL 3 = Ø3	(NB ONLY)
CHANNEL 4 = Ø3	(SB ONLY)

GRAPHIC SCALE

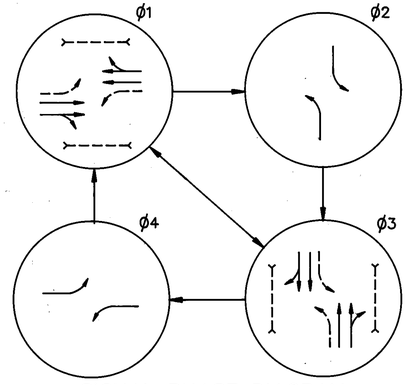
20 0 10 20 40 80

(IN FEET)

LOOP No.	SIZE	TURNS No.	MODE	LOCATION 1st CORNER	DELAY	EXTEND	PHASE ASSOC.
L1	6x40	2	PRESENCE	STA.24+30 3'R	5 SEC.	–	Ø4
L2	6x40	2	PRESENCE	STA.26+00 3'R	5 SEC.	–	Ø4
L3	8x40	2–4–2	PRESENCE	STA.25+24 48'L	5 SEC.	–	Ø2
L4	8x40	2–4–2	PRESENCE	STA.25+35 51'R	5 SEC.	–	Ø2
L5	8x40	2–4–2	PRESENCE	STA.25+47 51'R	0 SEC.	–	Ø3
L6	8x40	2–4–2	PRESENCE	STA.25+59 51'R	5 SEC.	–	Ø3
L7	8x40	2–4–2	PRESENCE	STA.25+13 48'L	0 SEC.	–	Ø3
L8	8x40	2–4–2	PRESENCE	STA.25+01 48'L	5 SEC.	–	Ø3
L9	6x6	3	PULSE/PRESENCE	STA.26+43 8'L	–	–	SYSTEM
L10	6x6	3	PULSE/PRESENCE	STA.26+43 19'L	–	–	SYSTEM
L11	6x6	3	PULSE/PRESENCE	STA.24+67 8'R	–	–	SYSTEM
L12	6x6	3	PULSE/PRESENCE	STA.24+67 19'R	–	–	SYSTEM

DETECTOR CHART

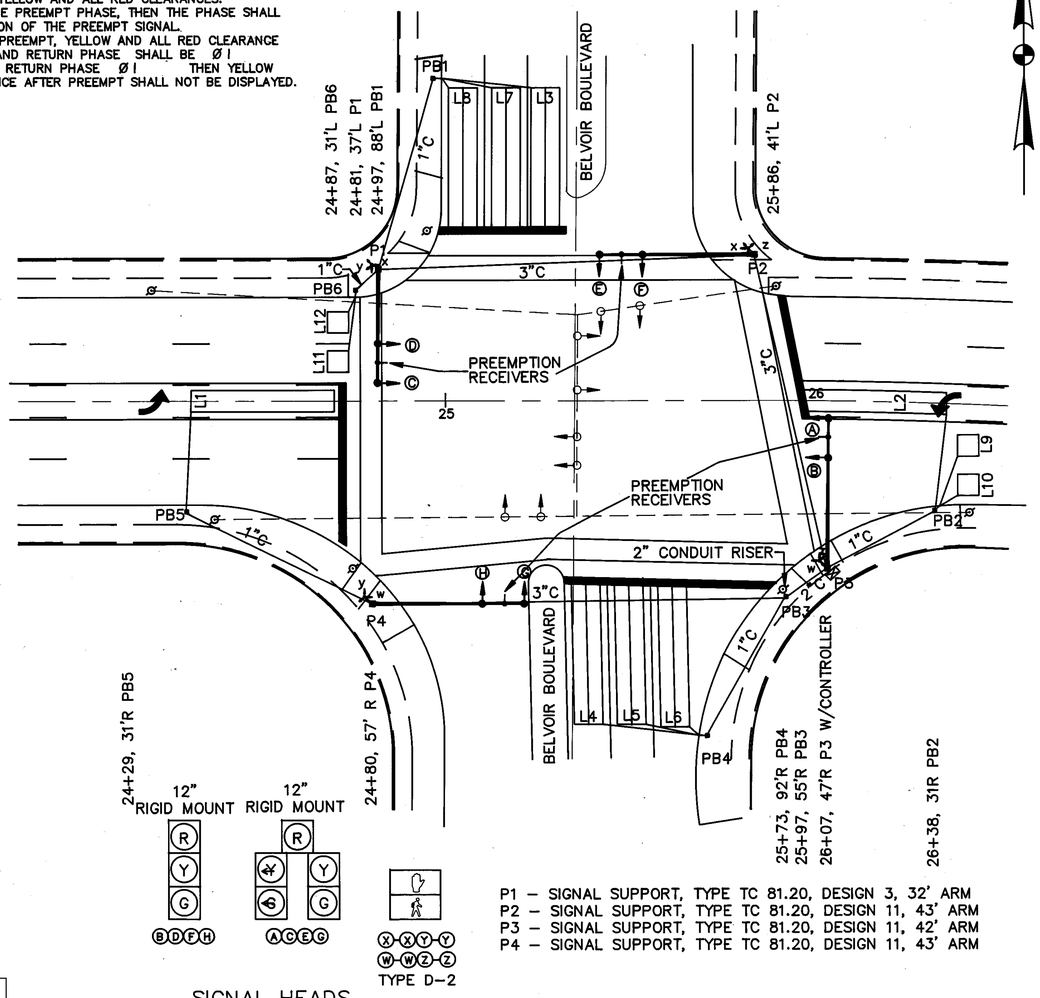
RECALL – DWELL



SIGNAL PHASE DIAGRAM

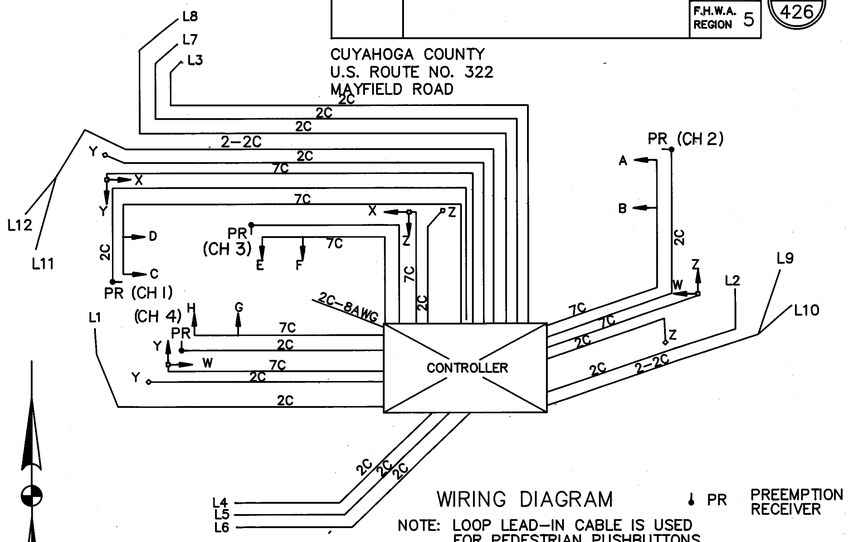
	PHASE ø 1				PHASE ø 2			PHASE ø 3				PHASE ø 4					
	ROW	PEDESTRIAN CLEARANCE	VEHICLE CLEARANCE–Y	VEHICLE CLEARANCE–R	ROW	VEHICLE CLEARANCE–Y	VEHICLE CLEARANCE–R	ROW	PEDESTRIAN CLEARANCE	VEHICLE CLEARANCE–Y	VEHICLE CLEARANCE–R	ROW	VEHICLE CLEARANCE–Y	VEHICLE CLEARANCE–R	DWELL	FLASH
Ⓐ	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	G	Y
Ⓑ	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	G	Y
Ⓒ	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	G	Y
Ⓓ	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	G	Y
Ⓔ	R	R	R	R	R	R	R	G	G	Y	R	R	R	R	R	R
Ⓕ	R	R	R	R	R	R	R	G	G	Y	R	R	R	R	R	R
Ⓖ	R	R	R	R	R	R	R	G	G	Y	R	R	R	R	R	R
Ⓗ	R	R	R	R	R	R	R	G	G	Y	R	R	R	R	R	R
w–w	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OFF
x–x	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OFF
y–y	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	OFF
z–z	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	OFF

SIGNAL SEQUENCE DIAGRAM



SIGNAL HEADS

P1 – SIGNAL SUPPORT, TYPE TC 81.20, DESIGN 3, 32' ARM
P2 – SIGNAL SUPPORT, TYPE TC 81.20, DESIGN 11, 43' ARM
P3 – SIGNAL SUPPORT, TYPE TC 81.20, DESIGN 11, 42' ARM
P4 – SIGNAL SUPPORT, TYPE TC 81.20, DESIGN 11, 43' ARM



WIRING DIAGRAM PR PREEMPTION RECEIVER

NOTE: LOOP LEAD–IN CABLE IS USED FOR PEDESTRIAN PUSHBUTTONS AND PREEMPTION WIRING.

SUMMARY OF QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION
625	4	EACH	GROUND ROD
625	6	EACH	PULL BOX, 713.08, 18"
625	357	LIN.FT.	TRENCH
625	172	LIN.FT.	TRENCH IN PAVED AREA, TYPE A
625	201	LIN.FT.	CONDUIT, 713.04, 1"
625	16	LIN.FT.	CONDUIT, 713.04, 2"
625	312	LIN.FT.	CONDUIT, 713.04, 3"
632	4	EACH	VEHICULAR SIGNAL HEAD, 3 SECT., 12" LENS, 1 WAY, AS PER PLAN
632	4	EACH	VEHICULAR SIGNAL HEAD, 5 SECT., 12" LENS, 1 WAY, AS PER PLAN
632	8	EACH	PEDESTRIAN SIGNAL HEAD, TYPE D2, AS PER PLAN
632	4	EACH	PEDESTRIAN PUSHBUTTON
632	12	EACH	LOOP DETECTOR UNITS, DELAY AND EXTENSION TYPE, AS PER PLAN
632	1275	LIN.FT.	LOOP DETECTOR PAVEMENT CUTTING
632	9.7	C.Y.	CONCRETE FOR ANCHOR BASE FOUNDATION
632	1	EACH	SIGNAL SUPPPORT, TYPE TC–81.20, DESIGN 3, 32' ARM
632	1	EACH	SIGNAL SUPPPORT, TYPE TC–81.20, DESIGN 11, 42' ARM
632	2	EACH	SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 11, 43' ARM
632	1	EACH	CONDUIT RISER, 2" DIA.
632	4	EACH	CABLE SUPPORT ASSEMBLY
632	1302	LIN.FT.	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG
632	3297	LIN.FT.	LOOP DETECTOR WIRE, TYPE E
632	3087	LIN.FT.	LOOP DETECTOR LEAD IN CABLE
632	61	LIN.FT.	POWER CABLE, 2–CONDUCTOR NO.8 AWG
632	1	EACH	POWER SERVICE, AS PER PLAN
632	8	EACH	COVERING OF VEHICULAR SIGNAL HEADS
632	1	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION
633	1	EACH	PREEMPTION EQUIPMENT, PHASE SELECTOR, AS PER PLAN
633	4	EACH	PREEMPTION EQUIPMENT, RECEIVING UNIT, AS PER PLAN
633	1	EACH	CONTROLLER, ACTUATED, 2/8 PHASE, LOCAL TYPE 170SV, AS PER PLAN

SUBSUMMARY: QUANTITIES CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY SHEET # SHEET 254

CUYAHOGA COUNTY
U.S. ROUTE NO. 322
MAYFIELD ROAD

OHIO
F.H.W.A. REGION 5
300
426

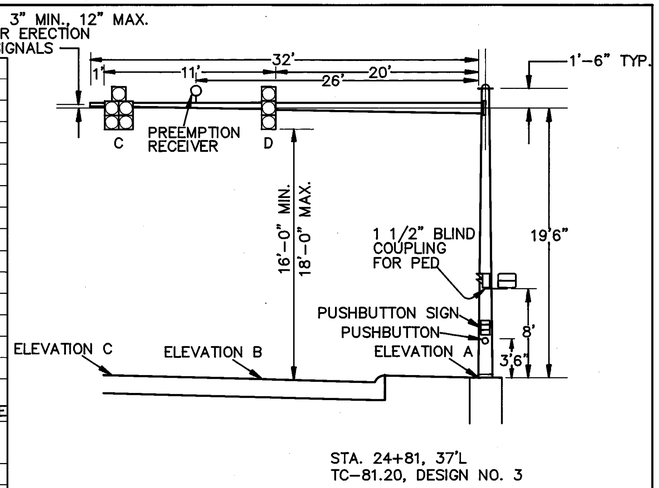
STEPHEN HOVANCSEK & ASSOC., INC.

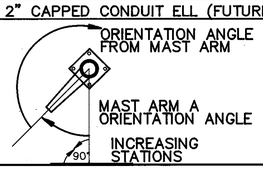
BELVOIR BLVD. SIGNAL SUPPORT DETAILS

CALC. BY. DATE
CHKD. BY. DATE
OHIO
F.H.W.A. REGION 5
301 / 426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

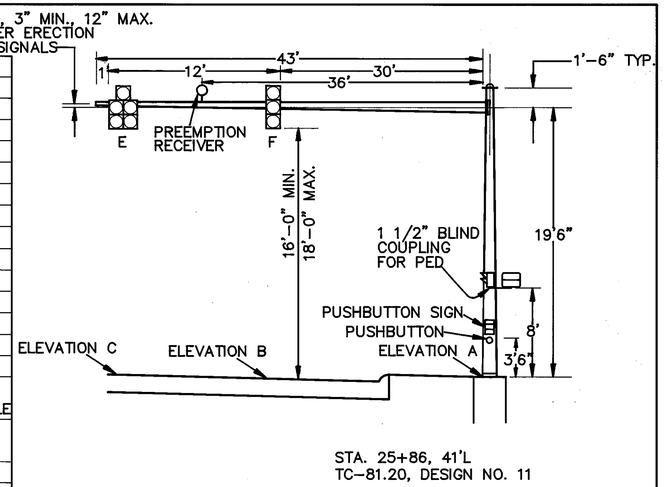
P1	POLE No.
3	DESIGN No.
21'	POLE HT.
24+81	STATION
37'L	OFFSET
32'	L (FT)
20'	L1 (FT)
11'	L2 (FT)
959.97	ELEVATION A
959.49	ELEVATION B
959.72	ELEVATION C
	ORIENTATION ANGLES
0°	MAST ARM A ORIENTATION ANGLE (DEGS)
90° Y	PEDESTRIAN SIGNAL
180° X	(1 1/2" BLIND COUPLING,8' FROM BOTTOM OF POLE
	PEDESTRIAN PUSHBUTTON
90° Y	3'–6" FROM BOTTOM OF POLE
180°	HANDHOLE
	2" CAPPED CONDUIT ELL (FUTURE USE)

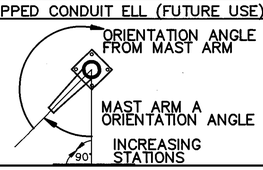




P1 SIGNAL SUPPORT DETAIL

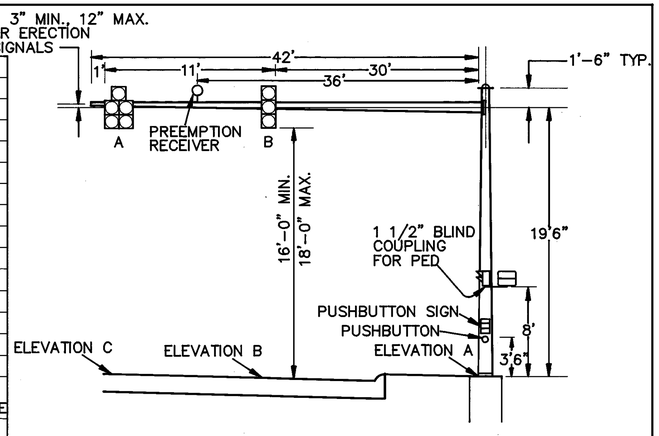
P2	POLE No.
11	DESIGN No.
21'	POLE HT.
25+86	STATION
41'L	OFFSET
43'	L (FT)
30'	L1 (FT)
12'	L2 (FT)
961.67	ELEVATION A
959.98	ELEVATION B
959.74	ELEVATION C
	ORIENTATION ANGLES
90°	MAST ARM A ORIENTATION ANGLE (DEGS)
90° X	PEDESTRIAN SIGNAL
270° Z	(1 1/2" BLIND COUPLING,8' FROM BOTTOM OF POLE
	PEDESTRIAN PUSHBUTTON
270° Z	3'–6" FROM BOTTOM OF POLE
180°	HANDHOLE
	2" CAPPED CONDUIT ELL (FUTURE USE)

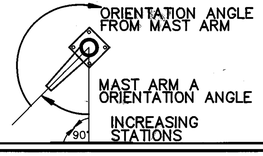




P2 SIGNAL SUPPORT DETAIL

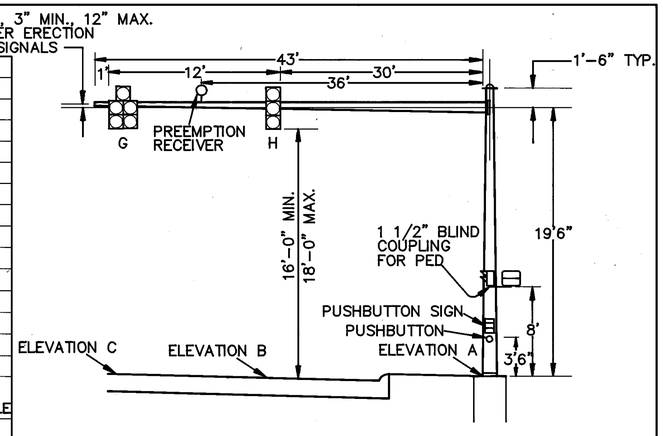
P3	POLE No.
11	DESIGN No.
21'	POLE HT.
26+07	STATION
47'R	OFFSET
42'	L (FT)
30'	L1 (FT)
11'	L2 (FT)
962.63	ELEVATION A
961.84	ELEVATION B
962.07	ELEVATION C
	ORIENTATION ANGLES
0°	MAST ARM A ORIENTATION ANGLE (DEGS)
135°	CONTROLLER
0° Z	PEDESTRIAN SIGNAL
270° W	(1 1/2" BLIND COUPLING,8' FROM BOTTOM OF POLE
	PEDESTRIAN PUSHBUTTON
270° Z	3'–6" FROM BOTTOM OF POLE
180°	HANDHOLE
	2" CAPPED CONDUIT ELL (FUTURE USE)

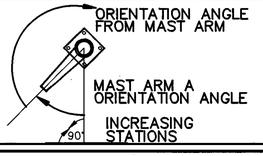




P3 SIGNAL SUPPORT DETAIL

P4	POLE No.
11	DESIGN No.
21'	POLE HT.
24+80	STATION
57'R	OFFSET
43'	L (FT)
30'	L1 (FT)
12'	L2 (FT)
960.19	ELEVATION A
958.93	ELEVATION B
959.09	ELEVATION C
	ORIENTATION ANGLES
90°	MAST ARM A ORIENTATION ANGLE (DEGS)
0° Y	PEDESTRIAN SIGNAL
90° W	(1 1/2" BLIND COUPLING,8' FROM BOTTOM OF POLE
	PEDESTRIAN PUSHBUTTON
270° Y	3'–6" FROM BOTTOM OF POLE
180°	HANDHOLE
	2" CAPPED CONDUIT ELL (FUTURE USE)





P4 SIGNAL SUPPORT DETAIL

	Ø1	Ø2
PERIOD		
MINIMUM GREEN (sec.)	40.0	–
INITIAL GREEN (sec.)	–	5.0
VEHICLE EXTENSION (sec.)	–	3.0
MAXIMUM GREEN I (sec.)	–	25.0
MAXIMUM GREEN II (sec.)	–	35.0
MINIMUM PEDESTRIAN WALK (sec.)	31.0	7.0
MINIMUM PEDESTRIAN FLASH DW (sec.)	9.0	13.0
MINIMUM YELLOW VEHICLE CLEARANCE (sec.)	3.0	3.0
ALL–RED VEHICLE CLEARANCE (sec.)	2.0	2.0
RECALL	ON	OFF
MEMORY	OFF	OFF

SIGNAL TIMING CHART

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

PREEMPT CHANNELS

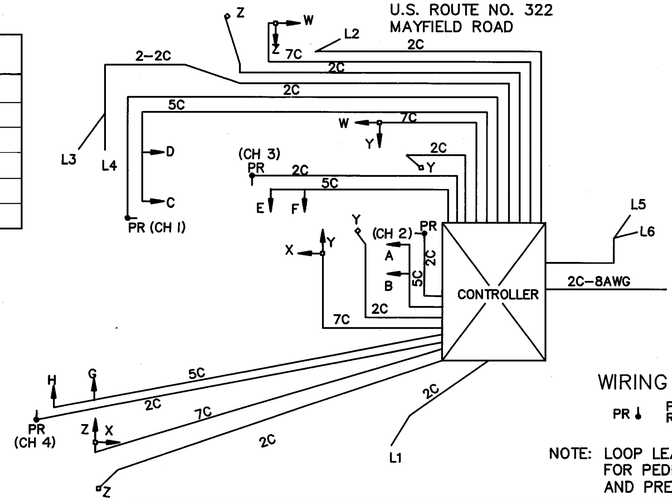
CHANNEL 1 = Ø1	(WB ONLY)
CHANNEL 2 = Ø1	(EB ONLY)
CHANNEL 3 = Ø2	(NB ONLY)
CHANNEL 4 = Ø2	(SB ONLY)

LOOP No.	SIZE	TURNS No.	MODE	LOCATION 1st CORNER	DELAY	EXTEND	PHASE ASSOC.
L–1	6X25	2	PRESENCE	STA.36+87 44'R	5 SEC	–	Ø2
L–2	6X25	2	PRESENCE	STA.36+59 44'L	5 SEC	–	Ø2
L–3	6X6	3	PULSE/PRESENCE	STA.36+30 8'L	–	–	SYSTEM
L–4	6X6	3	PULSE/PRESENCE	STA.36+30 19'L	–	–	SYSTEM
L–5	6X6	3	PULSE/PRESENCE	STA.37+23 8'R	–	–	SYSTEM
L–6	6X6	3	PULSE/PRESENCE	STA.37+23 19'R	–	–	SYSTEM

DETECTOR CHART

PREEMPT NOTES:

1. ACTIVE WALK INDICATIONS SHALL IMMEDIATELY GO TO "DON'T WALK" UPON RECEIVING PREEMPTION SIGNAL.
2. IF PHASE ACTIVE CONFLICTS WITH PREEMPT PHASE CALLED, IT SHALL IMMEDIATELY TIME ITS YELLOW AND ALL RED CLEARANCES.
3. IF ACTIVE PHASE = THE PREEMPT PHASE, THEN THE PHASE SHALL HOLD FOR THE DURATION OF THE PREEMPT SIGNAL.
4. AFTER RELEASE FROM PREEMPT, YELLOW AND ALL RED CLEARANCE SHALL BE DISPLAYED AND RETURN PHASES SHALL BE Ø I
5. IF PREEMPT PHASES = RETURN PHASES Ø I THEN YELLOW AND ALL RED CLEARANCE AFTER PREEMPT SHALL NOT BE DISPLAYED.

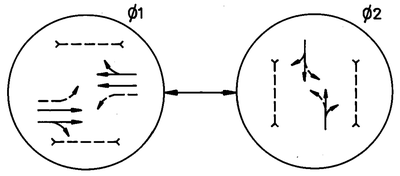


WIRING DIAGRAM

PR ↓ PREEMPTION RECEIVER

NOTE: LOOP LEAD–IN CABLE IS USED FOR PEDESTRIAN PUSHBUTTONS AND PREEMPTION WIRING.

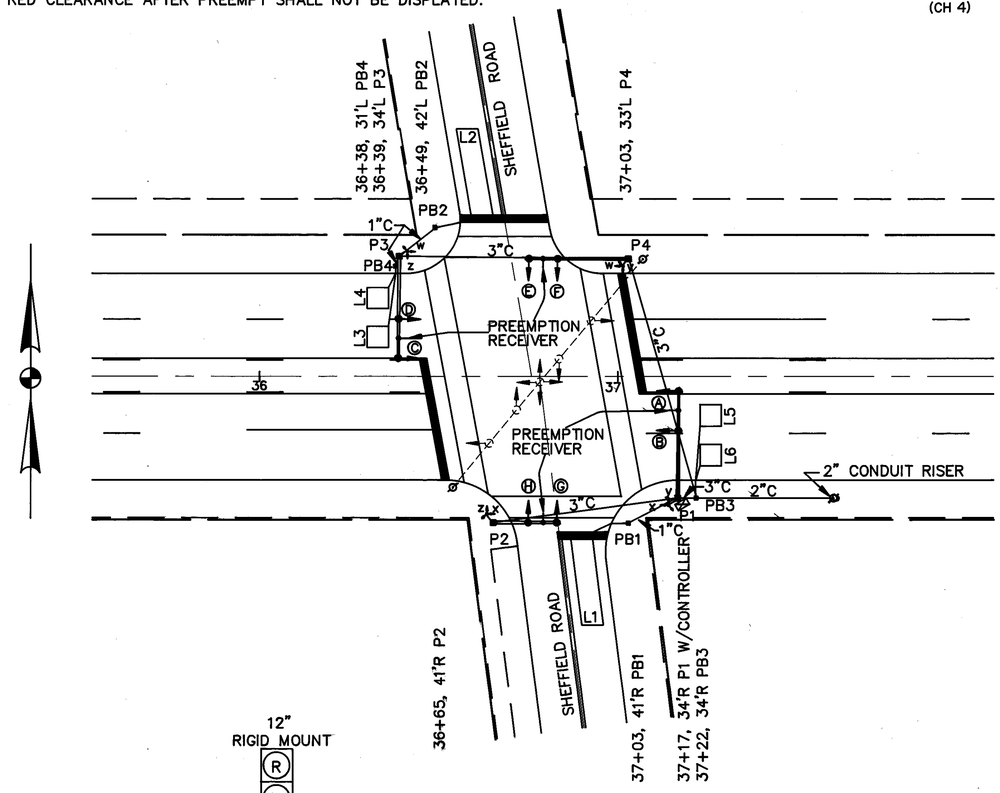
RECALL – DWELL



SIGNAL PHASE DIAGRAM

	PHASE Ø 1				PHASE Ø 2					
	ROW	PEDESTRIAN CLEARANCE	VEHICLE CLEARANCE–Y	VEHICLE CLEARANCE–R	ROW	PEDESTRIAN CLEARANCE	VEHICLE CLEARANCE–Y	VEHICLE CLEARANCE–R	DWELL	FLASH
Ⓐ	G	G	Y	R	R	R	R	R	G	Y
Ⓑ	G	G	Y	R	R	R	R	R	G	Y
Ⓒ	G	G	Y	R	R	R	R	R	G	Y
Ⓓ	G	G	Y	R	R	R	R	R	G	Y
Ⓔ	R	R	R	R	G	G	Y	R	R	R
Ⓕ	R	R	R	R	G	G	Y	R	R	R
Ⓖ	R	R	R	R	G	G	Y	R	R	R
Ⓗ	R	R	R	R	G	G	Y	R	R	R
w–w	W	FDW	DW	DW	DW	DW	DW	DW	DW	OFF
x–x	W	FDW	DW	DW	DW	DW	DW	DW	DW	OFF
y–y	DW	DW	DW	DW	W	FDW	DW	DW	DW	OFF
z–z	DW	DW	DW	DW	W	FDW	DW	DW	DW	OFF

SIGNAL SEQUENCE DIAGRAM



12" RIGID MOUNT

TYPE D–2

SIGNAL HEADS

P1 – SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 2, ARM 29'
P2 – SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 1, ARM 18'
P3 – SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 2, ARM 29'
P4 – SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 2, ARM 28'

SUMMARY OF QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION
625	4	EACH	GROUND ROD
625	4	EACH	PULL BOX, 713.08, 18"
625	126	LIN.FT.	TRENCH
625	136	LIN.FT.	TRENCH IN PAVED AREA, TYPE A
625	33	LIN.FT.	CONDUIT, 713.04, 1"
625	38	LIN.FT.	CONDUIT, 713.04, 2"
625	191	LIN.FT.	CONDUIT, 713.04, 3"
632	8	EACH	VEHICULAR SIGNAL HEAD, 3 SECT., 12" LENS, 1 WAY, AS PER PLAN
632	8	EACH	PEDESTRIAN SIGNAL HEAD, TYPE D2, AS PER PLAN
632	4	EACH	PEDESTRIAN PUSHBUTTON
632	6	EACH	LOOP DETECTOR UNITS, DELAY AND EXTENSION TYPE, AS PER PLAN
632	269	LIN.FT.	LOOP DETECTOR PAVEMENT CUTTING
632	6.0	C.Y.	CONCRETE FOR ANCHOR BASE FOUNDATION
632	1	EACH	SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 1 POLE, 18' ARM
632	1	EACH	SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 2 POLE, 28' ARM
632	2	EACH	SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 2 POLE, 29' ARM
632	1	EACH	CONDUIT RISER, 2" DIA.
632	4	EACH	CABLE SUPPORT ASSEMBLY
632	575	LIN.FT.	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG
632	379	LIN.FT.	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG
632	724	LIN.FT.	LOOP DETECTOR WIRE, TYPE E
632	1442	LIN.FT.	LOOP DETECTOR LEAD IN CABLE
632	90	LIN.FT.	POWER CABLE, 2–CONDUCTOR NO.8 AWG
632	1	EACH	POWER SERVICE, AS PER PLAN
632	8	EACH	COVERING OF VEHICULAR SIGNAL HEADS
632	1	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION
633	1	EACH	PREEMPTION EQUIPMENT, PHASE SELECTOR, AS PER PLAN
633	4	EACH	PREEMPTION EQUIPMENT, RECEIVING UNIT, AS PER PLAN
633	1	EACH	CONTROLLER, ACTUATED, 2/8 PHASE, LOCAL TYPE 170SV, AS PER PLAN

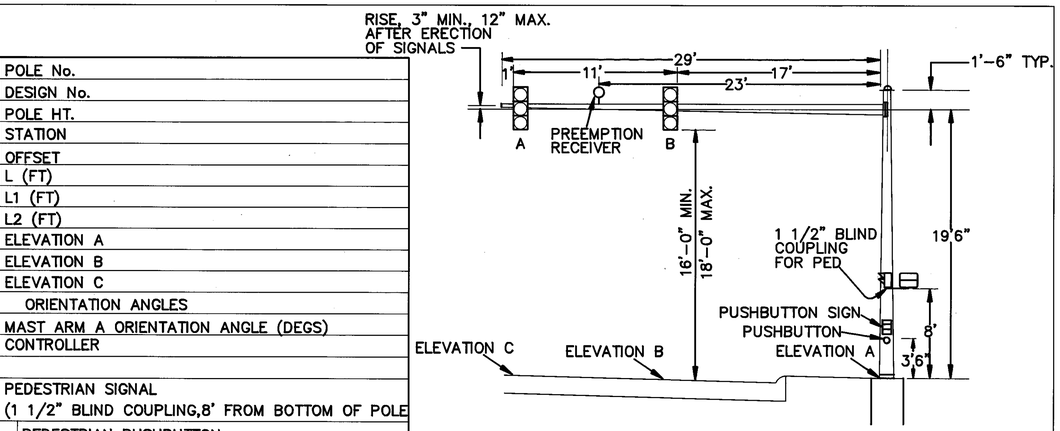
SUBSUMMARY: QUANTITIES CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY SHEET # SHEET 254

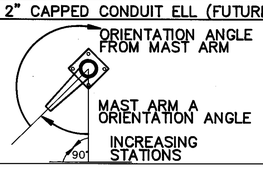
SHEFFIELD RD. SIGNAL SUPPORT DETAILS

CALC. BY. DATE	
CHKD. BY. DATE	
OHIO	
F.H.W.A. REGION 5	
303 / 426	

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

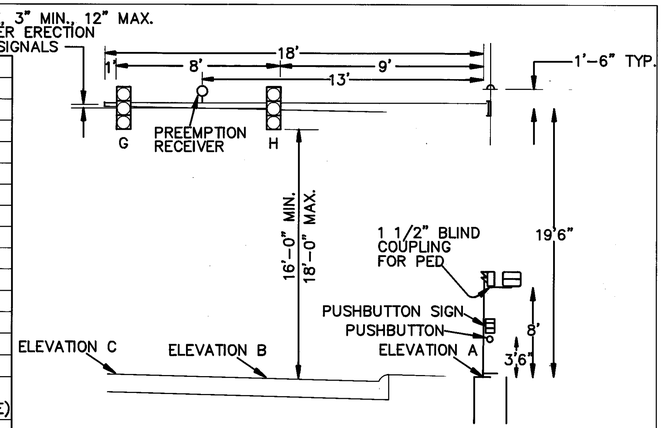
P1	POLE No.
2	DESIGN No.
21'	POLE HT.
37+17	STATION
34'R	OFFSET
29'	L (FT)
17'	L1 (FT)
11'	L2 (FT)
976.49	ELEVATION A
976.10	ELEVATION B
976.33	ELEVATION C
	ORIENTATION ANGLES
0°	MAST ARM A ORIENTATION ANGLE (DEGS)
165°	CONTROLLER
180°X	PEDESTRIAN SIGNAL
270°Y	(1 1/2" BLIND COUPLING,8' FROM BOTTOM OF POLE
	PEDESTRIAN PUSHBUTTON
270° Y	3'-6" FROM BOTTOM OF POLE
180°	HANDHOLE
	2" CAPPED CONDUIT ELL (FUTURE USE)

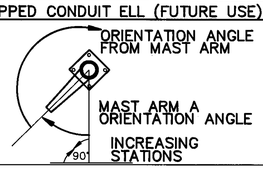




P1 SIGNAL SUPPORT DETAIL

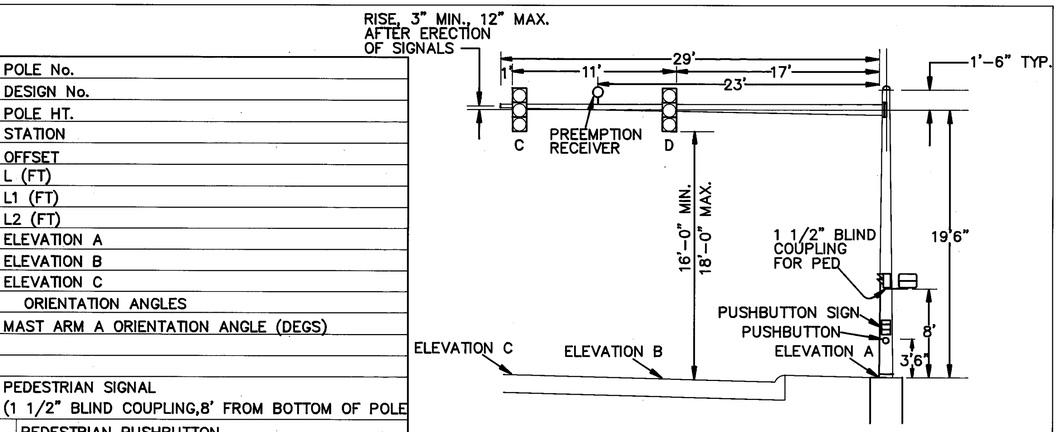
P2	POLE No.
1	DESIGN No.
21'	POLE HT.
36+65	STATION
41'R	OFFSET
18'	L (FT)
9'	L1 (FT)
8'	L2 (FT)
976.04	ELEVATION A
975.04	ELEVATION B
975.10	ELEVATION C
	ORIENTATION ANGLES
90°	MAST ARM A ORIENTATION ANGLE (DEGS)
270°X	PEDESTRIAN SIGNAL
180°Z	(1 1/2" BLIND COUPLING,8' FROM BOTTOM OF POLE)
	PEDESTRIAN PUSHBUTTON
270° Z	3'-6" FROM BOTTOM OF POLE
180°	HANDHOLE
	2" CAPPED CONDUIT ELL (FUTURE USE)

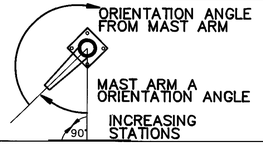




P2 SIGNAL SUPPORT DETAIL

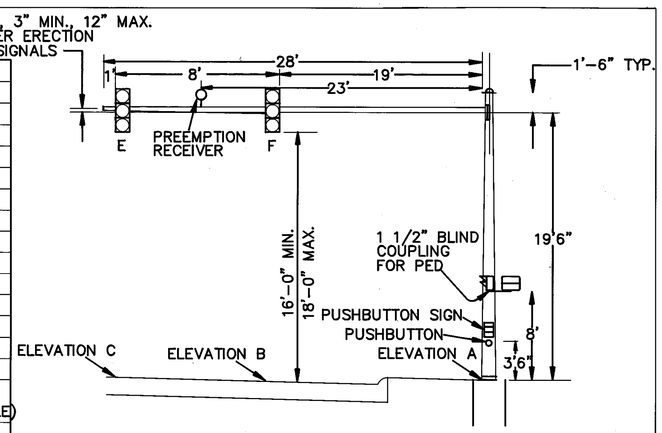
P3	POLE No.
2	DESIGN No.
21'	POLE HT.
36+39	STATION
34'L	OFFSET
29'	L (FT)
17'	L1 (FT)
11'	L2 (FT)
975.66	ELEVATION A
975.27	ELEVATION B
975.50	ELEVATION C
	ORIENTATION ANGLES
0°	MAST ARM A ORIENTATION ANGLE (DEGS)
180°W	PEDESTRIAN SIGNAL
270°Z	(1 1/2" BLIND COUPLING,8' FROM BOTTOM OF POLE
	PEDESTRIAN PUSHBUTTON
270° Z	3'-6" FROM BOTTOM OF POLE
180°	HANDHOLE
	2" CAPPED CONDUIT ELL (FUTURE USE)

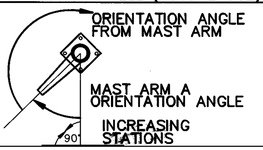




P3 SIGNAL SUPPORT DETAIL

P4	POLE No.
2	DESIGN No.
21'	POLE HT.
37+03	STATION
33'L	OFFSET
28'	L (FT)
19'	L1 (FT)
8'	L2 (FT)
976.14	ELEVATION A
975.26	ELEVATION B
975.12	ELEVATION C
	ORIENTATION ANGLES
90°	MAST ARM A ORIENTATION ANGLE (DEGS)
0°Y	PEDESTRIAN SIGNAL
90°W	(1 1/2" BLIND COUPLING,8' FROM BOTTOM OF POLE)
	PEDESTRIAN PUSHBUTTON
90° Y	3'-6" FROM BOTTOM OF POLE
180°	HANDHOLE
	2" CAPPED CONDUIT ELL (FUTURE USE)





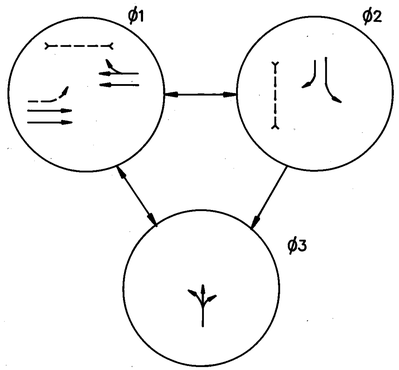
P4 SIGNAL SUPPORT DETAIL

CUYAHOGA COUNTY
U.S. ROUTE NO. 322
MAYFIELD ROAD

	Ø1	Ø2	Ø3
PERIOD			
MINIMUM GREEN (sec.)	40.0	–	–
INITIAL GREEN (sec.)	–	5.0	5.0
VEHICLE EXTENSION (sec.)	–	3.0	3.0
MAXIMUM GREEN I (sec.)	–	30.0	10.0
MAXIMUM GREEN II (sec.)	–	40.0	10.0
MINIMUM PEDESTRIAN WALK (sec.)	30.0	7.0	–
MINIMUM PEDESTRIAN FLASH DW (sec.)	9.0	13.0	–
MINIMUM YELLOW VEHICLE CLEARANCE (sec.)	3.0	3.0	3.0
ALL–RED VEHICLE CLEARANCE (sec.)	2.0	1.0	–
RECALL	ON	OFF	OFF
MEMORY	OFF	OFF	OFF

SIGNAL TIMING CHART

RECALL – DWELL



SIGNAL PHASE DIAGRAM

	PHASE Ø 1				PHASE Ø 2				PHASE Ø 2					
	ROW	PEDESTRIAN CLEARANCE	VEHICLE CLEARANCE–Y	VEHICLE CLEARANCE–R	ROW	PEDESTRIAN CLEARANCE	VEHICLE CLEARANCE–Y	VEHICLE CLEARANCE–R	ROW	VEHICLE CLEARANCE–Y	VEHICLE CLEARANCE–R	DWELL	FLASH
Ⓐ	G	G	Y	R	R	R	R	R	R	R	R	G	Y
Ⓑ	G	G	Y	R	R	R	R	R	R	R	R	G	Y
Ⓒ	G	G	Y	R	R	R	R	R	R	R	R	G	Y
Ⓓ	G	G	Y	R	R	R	R	R	R	R	R	G	Y
Ⓔ	R	R	R	R	R	R	R	R	G	Y	R	R	R
Ⓕ	R	R	R	R	R	R	R	R	G/G	Y	R	R	R
Ⓖ	R	R	R	R	G	G	Y	R	R	R	R	R	R
Ⓗ	R	R	R	R	G/G	G/G	Y	R	R	R	R	R	R
x–x	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OFF
y–y	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	OFF

SIGNAL SEQUENCE DIAGRAM

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)

PREEMPT CHANNELS

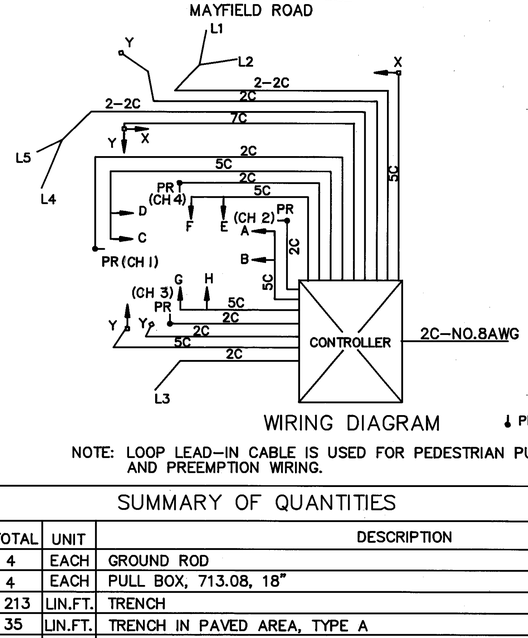
CHANNEL 1 = Ø1	(WESTBOUND ONLY)
CHANNEL 2 = Ø1	(EASTBOUND ONLY)
CHANNEL 3 = Ø2	
CHANNEL 4 = Ø3	

PREEMPT NOTES:

1. ACTIVE WALK INDICATIONS SHALL IMMEDIATELY GO TO "DON'T WALK" UPON RECEIVING PREEMPTION SIGNAL.
2. IF PHASE ACTIVE CONFLICTS WITH PREEMPT PHASE CALLED, IT SHALL IMMEDIATELY TIME ITS YELLOW AND ALL RED CLEARANCES.
3. IF ACTIVE PHASE = THE PREEMPT PHASE, THEN THE PHASE SHALL HOLD FOR THE DURATION OF THE PREEMPT SIGNAL.
4. AFTER RELEASE FROM PREEMPT, YELLOW AND ALL RED CLEARANCE SHALL BE DISPLAYED AND RETURN PHASE SHALL BE Ø 1
5. IF PREEMPT PHASES = RETURN PHASE Ø 1 THEN YELLOW AND ALL RED CLEARANCE AFTER PREEMPT SHALL NOT BE DISPLAYED.

LOOP No.	SIZE	TURNS No.	MODE	LOCATION 1st CORNER	DELAY	EXTEND	PHASE ASSOC.
L–1	6x25	2	PRESENCE	STA. 43+01 44'L	5 SEC	–	Ø2
L–2	6x25	2	PRESENCE	STA. 43+13 44'L	–	–	Ø2
L–3	6x15	2	PRESENCE	STA. 43+09 31'R	5 SEC	–	Ø3
L–4	6x6	3	PULSE/PRESENCE	STA. 42+67 8'L	–	–	SYSTEM
L–5	6x6	3	PULSE/PRESENCE	STA. 42+67 19'L	–	–	SYSTEM

DETECTOR CHART



WIRING DIAGRAM ↓PR PREEMPTION RECEIVER

NOTE: LOOP LEAD–IN CABLE IS USED FOR PEDESTRIAN PUSHBUTTONS AND PREEMPTION WIRING.

SIGNAL HEADS

P1 – SIGNAL SUPPORT, TYPE TC–81.20 DESIGN 4 POLE, WITH MAST ARMS TC–81.20 DESIGN 3, 36 FEET AND TC–81.20 DESIGN 2, 31 FEET
P2 – PEDESTAL, 8' TRANSFORMER BASE
P3 – SIGNAL SUPPORT, TYPE TC–81.20 DESIGN 4 POLE, WITH MAST ARMS TC–81.20 DESIGN 2, 29 FEET AND TC–81.20 DESIGN 2, 25 FEET
P4 – PEDESTAL, 8' TRANSFORMER BASE

SUMMARY OF QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION
625	4	EACH	GROUND ROD
625	4	EACH	PULL BOX, 713.08, 18"
625	213	LIN.FT.	TRENCH
625	35	LIN.FT.	TRENCH IN PAVED AREA, TYPE A
625	44	LIN.FT.	CONDUIT, 713.04, 1"
625	204	LIN.FT.	CONDUIT, 713.04, 3"
632	6	EACH	VEHICULAR SIGNAL HEAD, 3 SECT., 12" LENS, 1 WAY, AS PER PLAN
632	2	EACH	VEHICULAR SIGNAL HEAD, 4 SECT., 12" LENS, 1 WAY, AS PER PLAN
632	4	EACH	PEDESTRIAN SIGNAL HEAD, TYPE D2, AS PER PLAN
632	2	EACH	PEDESTRIAN PUSHBUTTON
632	5	EACH	LOOP DETECTOR UNITS, DELAY AND EXTENSION TYPE, AS PER PLAN
632	254	LIN.FT.	LOOP DETECTOR PAVEMENT CUTTING
632	6.2	C.Y.	CONCRETE FOR ANCHOR BASE FOUNDATION
632	1	EACH	SIGNAL SUPPORT, TYPE TC–81.20 DESIGN 4 POLE, WITH MAST ARMS
			TC–81.20 DESIGN 3, 36 FEET AND TC–81.20 DESIGN 2, 31 FEET
632	1	EACH	SIGNAL SUPPORT, TYPE TC–81.20 DESIGN 4 POLE, WITH MAST ARMS
			TC–81.20 DESIGN 2, 29 FEET AND TC–81.20 DESIGN 2, 25 FEET
632	2	EACH	PEDESTAL, 8', TRANSFORMER BASE
632	1	EACH	CONDUIT RISER, 2" DIA.
632	2	EACH	CABLE SUPPORT ASSEMBLY
632	801	LIN.FT.	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG
632	182	LIN.FT.	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG
632	624	LIN.FT.	LOOP DETECTOR WIRE, TYPE E
632	1553	LIN.FT.	LOOP DETECTOR LEAD IN CABLE
632	50	LIN.FT.	POWER CABLE, 2–CONDUCTOR NO.8 AWG
632	1	EACH	POWER SERVICE, AS PER PLAN
632	8	EACH	COVERING OF VEHICULAR SIGNAL HEADS
632	1	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION
633	1	EACH	PREEMPTION EQUIPMENT, PHASE SELECTOR, AS PER PLAN
633	4	EACH	PREEMPTION EQUIPMENT, RECEIVING UNIT, AS PER PLAN
633	1	EACH	CONTROLLER, ACTUATED, 2/8 PHASE, LOCAL TYPE 170SV, AS PER PLAN

SUBSUMMARY: QUANTITIES CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY SHEET # SHEET 254

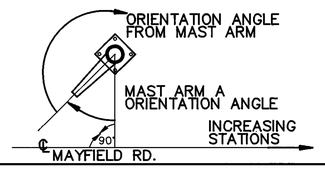
STEPHEN HOVANCSEK & ASSOC., INC.

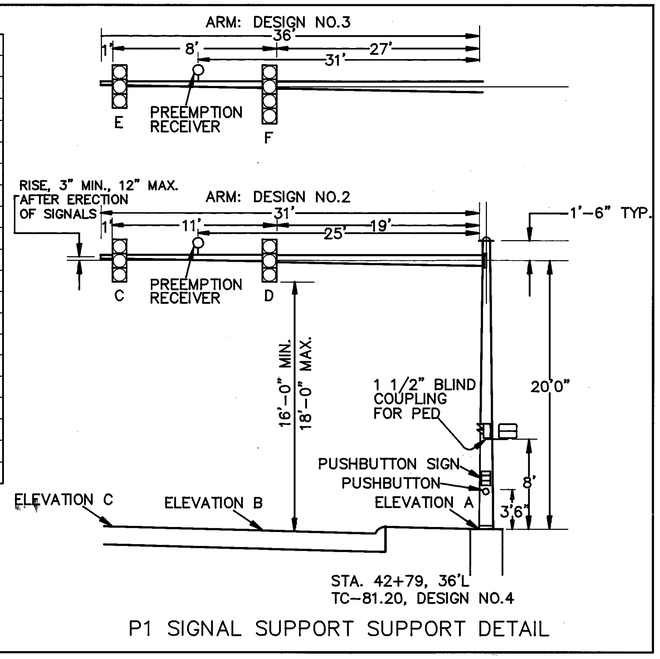
VICTORY DR. SIGNAL SUPPORT DETAILS

CALC. BY. DATE		OHIO	305
CHKD. BY. DATE		F.H.W.A. REGION 5	426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

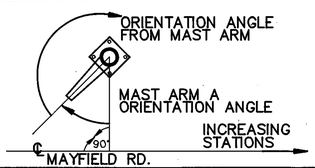
P1	POLE No.				
4	DESIGN No.				
21'	POLE HT.				
42+79	STATION				
36'L	OFFSET				
MAST ARM A	31'	L (FT)	MAST ARM B	36'	L (FT)
	19'	L1 (FT)		27'	L1 (FT)
	11'	L2 (FT)		8'	L2 (FT)
976.90	ELEVATION A				
976.45	ELEVATION B				
976.68	ELEVATION C				
	ORIENTATION ANGLES				
0°	MAST ARM A ORIENTATION ANGLE (DEGS)				
270°	MAST ARM B				
180°X	PEDESTRIAN SIGNAL				
270°Y	(1 1/2" BLIND COUPLING, 8' FROM BOTTOM OF POLE)				
	PEDESTRIAN PUSHBUTTON				
270° Y	3'-6" FROM BOTTOM OF POLE				
180°	HANDHOLE				
	2" CAPPED CONDUIT ELL (FUTURE USE)				

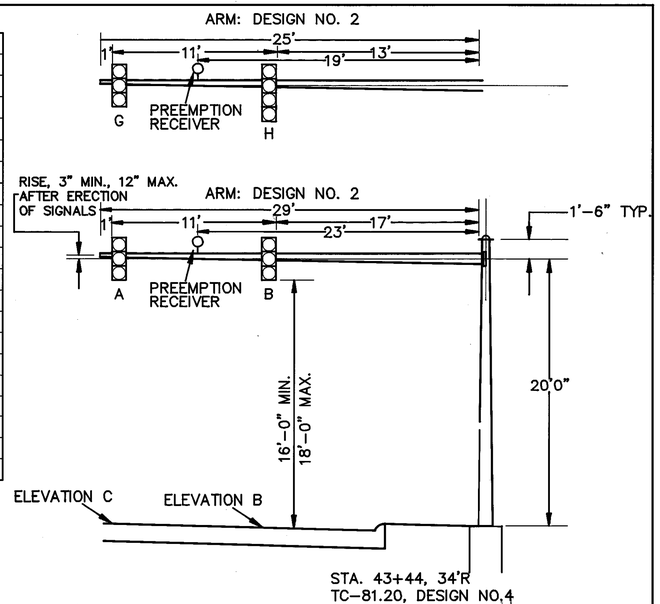




P1 SIGNAL SUPPORT SUPPORT DETAIL

P3	POLE No.				
4	DESIGN No.				
21'	POLE HT.				
43+44	STATION				
34'R	OFFSET				
MAST ARM A	29'	L (FT)	MAST ARM B	25'	L (FT)
	17'	L1 (FT)		13'	L1 (FT)
	11'	L2 (FT)		11'	L2 (FT)
976.13	ELEVATION A				
975.74	ELEVATION B				
975.97	ELEVATION C				
	ORIENTATION ANGLES				
0°	MAST ARM A ORIENTATION ANGLE (DEGS)				
270°	MAST ARM B				
135°	CONTROLLER				
180°	HANDHOLE				
	2" CAPPED CONDUIT ELL (FUTURE USE)				





P3 SIGNAL SUPPORT DETAIL

MAYFIELD ROAD

305

	Ø1	Ø2	Ø3	Ø4
PERIOD				
MINIMUM GREEN (sec.)	30.0	–	–	–
INITIAL GREEN (sec.)	5.0	5.0	5.0	5.0
VEHICLE EXTENSION (sec.)	2.5	2.5	2.5	2.5
MAXIMUM GREEN I (sec.)	30.0	10.0	30.0	10.0
MAXIMUM GREEN II (sec.)	50.0	15.0	40.0	15.0
MINIMUM PEDESTRIAN WALK (sec.)	7.0	–	7.0	–
MINIMUM PEDESTRIAN FLASH DW (sec.)			13.0	
MINIMUM YELLOW VEHICLE CLEARANCE (sec.)	3.0	3.0	3.0	3.0
ALL–RED VEHICLE CLEARANCE (sec.)	1.0	1.0	1.0	1.0
RECALL	ON	OFF	OFF	OFF
MEMORY	OFF	OFF	OFF	OFF

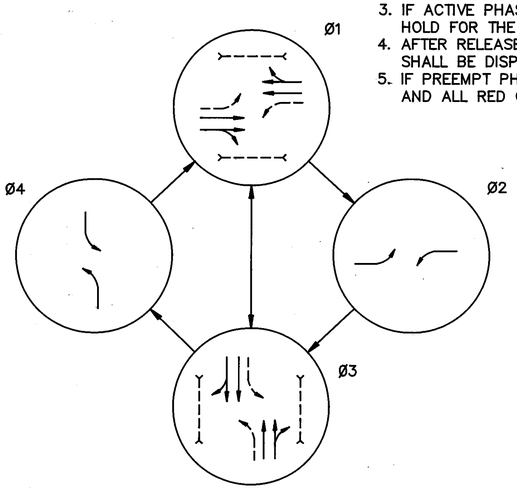
SIGNAL TIMING CHART

PREEMPT NOTES:

1. ACTIVE WALK INDICATIONS SHALL IMMEDIATELY GO TO "DON'T WALK" UPON RECEIVING PREEMPTION SIGNAL.
2. IF PHASE ACTIVE CONFLICTS WITH PREEMPT PHASE CALLED, IT SHALL IMMEDIATELY TIME ITS YELLOW AND ALL RED CLEARANCES.
3. IF ACTIVE PHASE = THE PREEMPT PHASE, THEN THE PHASE SHALL HOLD FOR THE DURATION OF THE PREEMPT SIGNAL.
4. AFTER RELEASE FROM PREEMPT, YELLOW AND ALL RED CLEARANCE SHALL BE DISPLAYED AND RETURN PHASE SHALL BE Ø I
5. IF PREEMPT PHASES = RETURN PHASE Ø I THEN YELLOW AND ALL RED CLEARANCE AFTER PREEMPT SHALL NOT BE DISPLAYED.

PREEMPT CHANNELS

CHANNEL 1 = Ø1	(WB ONLY)
CHANNEL 2 = Ø1	(EB ONLY)
CHANNEL 3 = Ø3	(NB ONLY)
CHANNEL 4 = Ø3	(SB ONLY)



SIGNAL PHASE DIAGRAM

	PHASE Ø 1				PHASE Ø 2			PHASE Ø 3				PHASE Ø 4					
	ROW	PEDESTRIAN CLEARANCE	VEHICLE CLEARANCE–Y	VEHICLE CLEARANCE–R	ROW	VEHICLE CLEARANCE–Y	VEHICLE CLEARANCE–R	ROW	PEDESTRIAN CLEARANCE	VEHICLE CLEARANCE–Y	VEHICLE CLEARANCE–R	ROW	VEHICLE CLEARANCE–Y	VEHICLE CLEARANCE–R	DWELL	FLASH
Ⓐ	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	G	Y
Ⓑ	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	G	Y
Ⓒ	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	G	Y
Ⓓ	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	G	Y
Ⓔ	R	R	R	R	R	R	R	G	G	Y	R	R	R	R	R	R
Ⓕ	R	R	R	R	R	R	R	G	G	Y	R	R	R	R	R	R
Ⓖ	R	R	R	R	R	R	R	G	G	Y	R	R	R	R	R	R
Ⓗ	R	R	R	R	R	R	R	G	G	Y	R	R	R	R	R	R
w–w	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OFF
x–x	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OFF
y–y	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	FDW	DW	DW	DW	DW	OFF
z–z	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	FDW	DW	DW	DW	DW	OFF

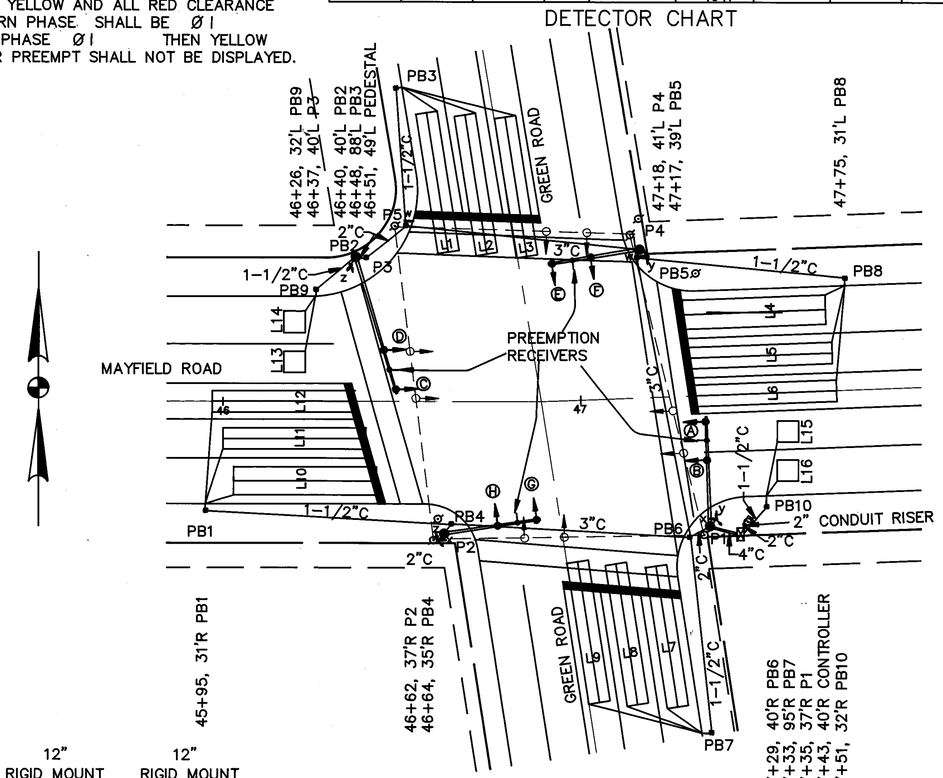
SIGNAL SEQUENCE DIAGRAM

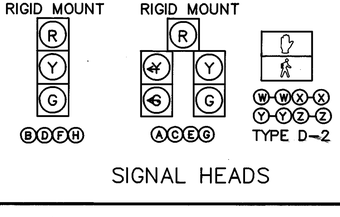
STEPHEN HOVANCSEK & ASSOC., INC.

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)

LOOP No.	SIZE	TURNS No.	MODE	LOCATION 1st CORNER	DELAY	EXTEND	PHASE ASSOC.
L1	6x40	2–4–2	PRESENCE	STA.46+55 80'L	5 SEC.		Ø3
L2	6x40	2–4–2	PRESENCE	STA.46+65 80'L	–		Ø3
L3	6x40	2–4–2	PRESENCE	STA.46+76 80'L	5 SEC.		Ø4
L4	8x40	2–4–2	PRESENCE	STA.47+28 19'L	5 SEC.		Ø1
L5	6x40	2–4–2	PRESENCE	STA.47+29 8'L	–		Ø1
L6	6x40	2–4–2	PRESENCE	STA.47+31 3'R	5 SEC.		Ø2
L7	6x40	2–4–2	PRESENCE	STA.47+17 48'R	5 SEC.		Ø3
L8	6x40	2–4–2	PRESENCE	STA.47+05 47'R	–		Ø3
L9	6x40	2–4–2	PRESENCE	STA.46+95 46'R	5 SEC.		Ø4
L10	8x40	2–4–2	PRESENCE	STA.46+03 19'R	5 SEC.		Ø1
L11	6x40	2–4–2	PRESENCE	STA.46+00 8'R	–		Ø1
L12	6x40	2–4–2	PRESENCE	STA.45+97 3'R	5 SEC.		Ø2
L13	6x6	3	PULSE/PRESENCE	STA.46+17 8'L	–		SYSTEM
L14	6x6	3	PULSE/PRESENCE	STA.46+17 19'L	–		SYSTEM
L15	6x6	3	PULSE/PRESENCE	STA.46+17 8'R	–		SYSTEM
L16	6x6	3	PULSE/PRESENCE	STA.46+17 19'R	–		SYSTEM

DETECTOR CHART





SIGNAL HEADS

P1 – SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 2, 30' ARM
P2 – SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 2, 27' ARM
P3 – SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 3, 38' ARM
P4 – SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 2, 25' ARM
P5 – PEDESTAL, 8', TRANSFORMER BASE

NOTE: CONTRACTOR TO UTILIZE EXISTING CONTROLLER FOUNDATION FOR NEW CONTROLLER.

OHIO
F.H.W.A. REGION 5
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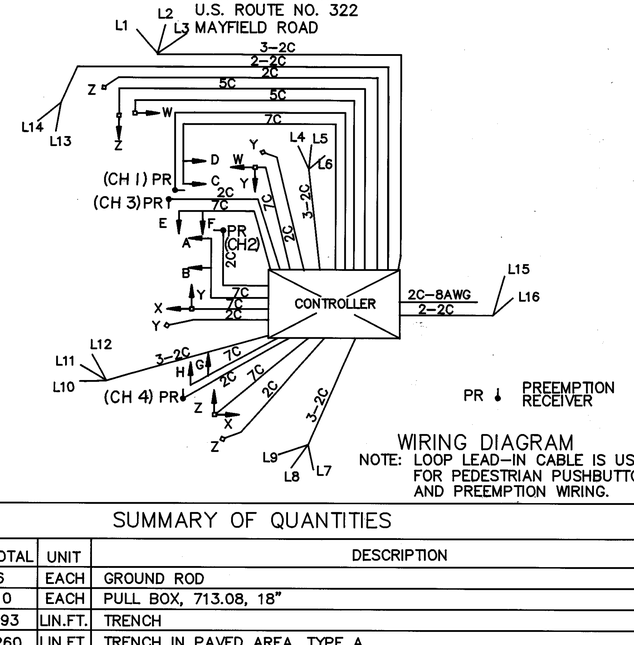
CUYAHOGA COUNTY
U.S. ROUTE NO. 322
MAYFIELD ROAD



WIRING DIAGRAM
NOTE: LOOP LEAD–IN CABLE IS USED FOR PEDESTRIAN PUSHBUTTONS AND PREEMPTION WIRING.

SUMMARY OF QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION
625	6	EACH	GROUND ROD
625	10	EACH	PULL BOX, 713.08, 18"
625	193	LIN.FT.	TRENCH
625	260	LIN.FT.	TRENCH IN PAVED AREA, TYPE A
625	192	LIN.FT.	CONDUIT, 713.04, 1–1/2"
625	39	LIN.FT.	CONDUIT, 713.04, 2"
625	213	LIN.FT.	CONDUIT, 713.04, 3"
625	18	LIN.FT.	CONDUIT, 714.04, 4"
632	4	EACH	VEHICULAR SIGNAL HEAD, 3 SECT., 12" LENS, 1 WAY, AS PER PLAN
632	4	EACH	VEHICULAR SIGNAL HEAD, 5 SECT., 12" LENS, 1 WAY, AS PER PLAN
632	8	EACH	PEDESTRIAN SIGNAL HEAD, TYPE D2, AS PER PLAN
632	4	EACH	PEDESTRIAN PUSHBUTTON
632	16	EACH	LOOP DETECTOR UNITS, DELAY AND EXTENSION TYPE, AS PER PLAN
632	1960	LIN.FT.	LOOP DETECTOR PAVEMENT CUTTING
632	6.6	C.Y.	CONCRETE FOR ANCHOR BASE FOUNDATION
632	1	EACH	SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 2, 25' ARM
632	1	EACH	SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 2, 27' ARM
632	1	EACH	SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 2, 30' ARM
632	1	EACH	SIGNAL SUPPORT, TYPE TC–81.20, DESIGN 3, 38' ARM
632	1	EACH	PEDESTAL, 8', TRANSFORMER BASE
632	1	EACH	CONDUIT RISER, 2" DIA.
632	4	EACH	CABLE SUPPORT ASSEMBLY
632	1037	LIN.FT.	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG
632	436	LIN.FT.	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG
632	5210	LIN.FT.	LOOP DETECTOR WIRE, TYPE E
632	3675	LIN.FT.	LOOP DETECTOR LEAD IN CABLE
632	47	LIN.FT.	POWER CABLE, 2–CONDUCTOR NO.8 AWG
632	1	EACH	POWER SERVICE, AS PER PLAN
632	8	EACH	COVERING OF VEHICULAR SIGNAL HEADS
632	1	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION
632	1	EACH	SIGNALIZATION MISC: PHONE DROP
633	1	EACH	PREEMPTION EQUIPMENT, PHASE SELECTOR, AS PER PLAN
633	4	EACH	PREEMPTION EQUIPMENT, RECEIVING UNIT, AS PER PLAN
633	1	EACH	CONTROLLER, ACTUATED, 2/8 PHASE, LOCAL TYPE 170SV, AS PER PLAN
633	1	EACH	CONTROLLER, SYSTEM, MASTER, TYPE 170SV, AS PER PLAN

SUBSUMMARY: QUANTITIES CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY SHEET & SHEET 254

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MAYFIELD ROAD

TRAFFIC SIGNAL IMPROVEMENTS

GREEN RD. SIGNAL SUPPORT DETAILS

OHIO
F.H.W.A. REGION 5
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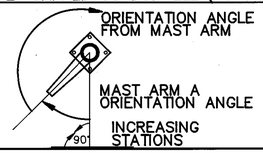
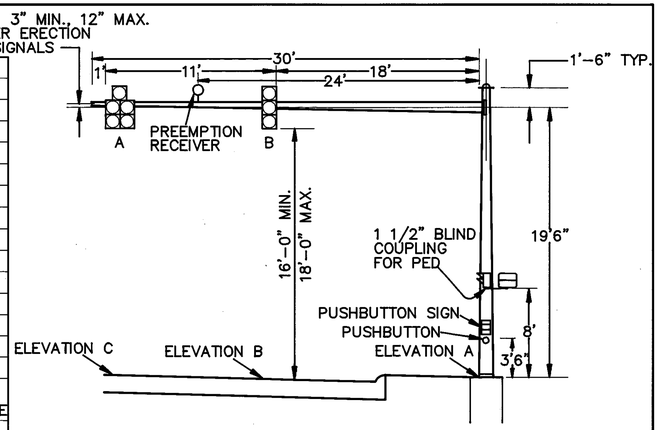
426

CUYAHOGA COUNTY
U.S. ROUTE No. 322
MAYFIELD ROAD

P1	POLE No.
2	DESIGN No.
21'	POLE HT.
47+35	STATION
37'R	OFFSET
30'	L (FT)
18'	L1 (FT)
11'	L2 (FT)
976.62	ELEVATION A
975.89	ELEVATION B
976.12	ELEVATION C
	ORIENTATION ANGLES
0°	MAST ARM A ORIENTATION ANGLE (DEGS)
180° X	PEDESTRIAN SIGNAL
90° Y	(1 1/2" BLIND COUPLING,8' FROM BOTTOM OF POLE
	PEDESTRIAN PUSHBUTTON
270° Y	3'-6" FROM BOTTOM OF POLE
180°	HANDHOLE
	2" CAPPED CONDUIT ELL (FUTURE USE)

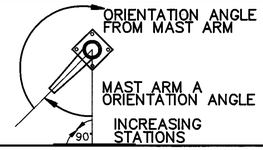


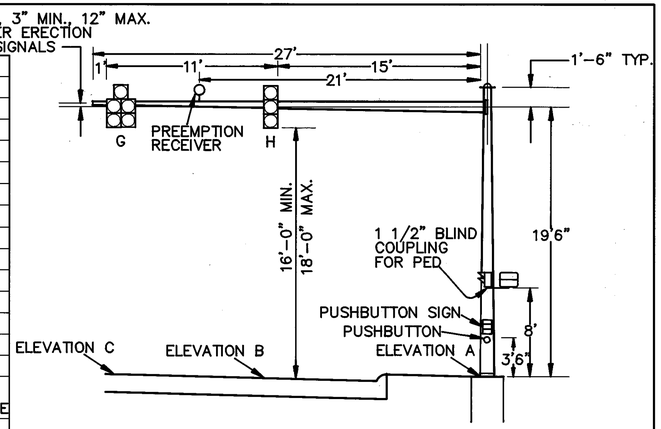


STA. 47+35, 37'R
TC-81.20, DESIGN NO.2

P1 SIGNAL SUPPORT DETAIL

P2	POLE No.
2	DESIGN No.
21'	POLE HT.
46+62	STATION
37'R	OFFSET
27'	L (FT)
15'	L1 (FT)
11'	L2 (FT)
975.62	ELEVATION A
974.73	ELEVATION B
974.88	ELEVATION C
	ORIENTATION ANGLES
80°	MAST ARM A ORIENTATION ANGLE (DEGS)
90° X	PEDESTRIAN SIGNAL
270° Y	(1 1/2" BLIND COUPLING,8' FROM BOTTOM OF POLE
	X PEDESTRIAN PUSHBUTTON
350° Z	3'-6" FROM BOTTOM OF POLE
180°	HANDHOLE
	2" CAPPED CONDUIT ELL (FUTURE USE)

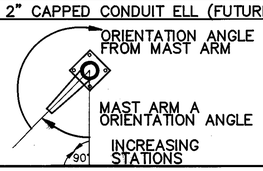


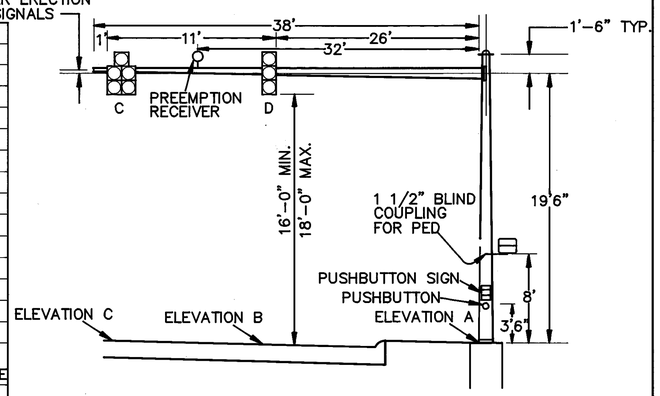


STA. 46+62, 37'R
TC-81.20, DESIGN NO. 2

P2 SIGNAL SUPPORT DETAIL

P3	POLE No.
3	DESIGN No.
21'	POLE HT.
46+37	STATION
40'L	OFFSET
38'	L (FT)
26'	L1 (FT)
11'	L2 (FT)
975.30	ELEVATION A
974.73	ELEVATION B
974.96	ELEVATION C
	ORIENTATION ANGLES
345°	MAST ARM A ORIENTATION ANGLE (DEGS)
0° Z	PEDESTRIAN SIGNAL
	(1 1/2" BLIND COUPLING,8' FROM BOTTOM OF POLE
	PEDESTRIAN PUSHBUTTON
0° Y	3'-6" FROM BOTTOM OF POLE
180°	HANDHOLE
	2" CAPPED CONDUIT ELL (FUTURE USE)

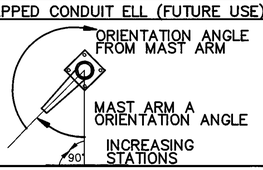


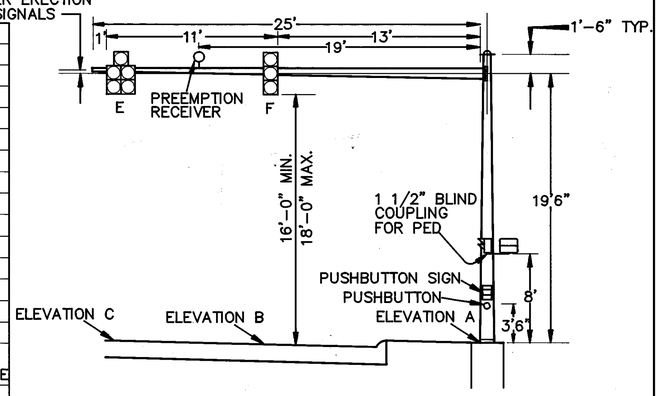


STA. 46+37, 40'L
TC-81.20, DESIGN NO. 3

P3 SIGNAL SUPPORT DETAIL

P4	POLE No.
2	DESIGN No.
21'	POLE HT.
47+18	STATION
41'L	OFFSET
25'	L (FT)
13'	L1 (FT)
11'	L2 (FT)
975.96	ELEVATION A
974.80	ELEVATION B
974.73	ELEVATION C
	ORIENTATION ANGLES
85°	MAST ARM A ORIENTATION ANGLE (DEGS)
0° Y	PEDESTRIAN SIGNAL
90° W	(1 1/2" BLIND COUPLING,8' FROM BOTTOM OF POLE
	PEDESTRIAN PUSHBUTTON
270° Y	3'-6" FROM BOTTOM OF POLE
180°	HANDHOLE
	2" CAPPED CONDUIT ELL (FUTURE USE)





STA. 47+18, 41'L
TC-81.20, DESIGN NO. 2

P4 SIGNAL SUPPORT DETAIL

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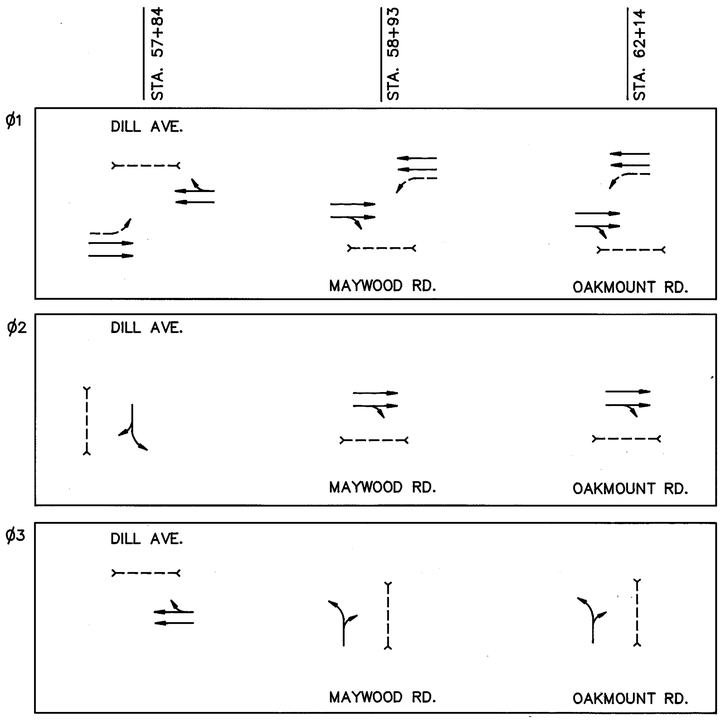
MAYFIELD ROAD

	PHASE Ø 1						PHASE Ø 2						PHASE Ø 3							
	RIGHT OF WAY	PEDESTRIAN CLEARANCE	VEHICLE CLEARANCE #1	VEHICLE CLEARANCE #2	VEHICLE CLEARANCE #3	VEHICLE CLEARANCE #4	RIGHT OF WAY	PEDESTRIAN CLEARANCE	VEHICLE CLEARANCE #1	VEHICLE CLEARANCE #2	VEHICLE CLEARANCE #3	VEHICLE CLEARANCE #4	RIGHT OF WAY	PEDESTRIAN CLEARANCE	VEHICLE CLEARANCE #1	VEHICLE CLEARANCE #2	VEHICLE CLEARANCE #3	VEHICLE CLEARANCE #4	DWELL	FLASH
Ⓐ Ⓑ	G	G	Y	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y
Ⓒ Ⓔ	G	G	G	G	G	G	G	G	G	Y	Y	R	R	R	R	R	R	R	G	Y
Ⓓ Ⓕ	G	G	Y	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y
Ⓖ Ⓗ	G	G	Y①	Y①	R①	R①	R	R	R	R	R	R	G	G	G	G	G	G	G	Y
Ⓙ Ⓚ	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	Y	R	R	R	R
Ⓛ Ⓜ	R	R	R	R	R	R	G	G	Y	Y	R	R	R	R	R	R	R	R	R	R
Ⓝ Ⓟ	G	G	G	G	G	G	G	G	G	Y	Y	R	R	R	R	R	R	R	G	Y
Ⓠ Ⓡ	G	G	G	Y	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y
Ⓢ Ⓣ	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	Y	R	R	R	R
u–u	W②	W③	W③	W③	W③	W②	FDW②	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	OFF
v–v	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	OFF
w–w	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	W	W	W	W	W	W	OFF
x–x	W②	W③	W③	W③	W③	W②	FDW②	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	OFF
y–y	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	OFF
z–z	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	OFF

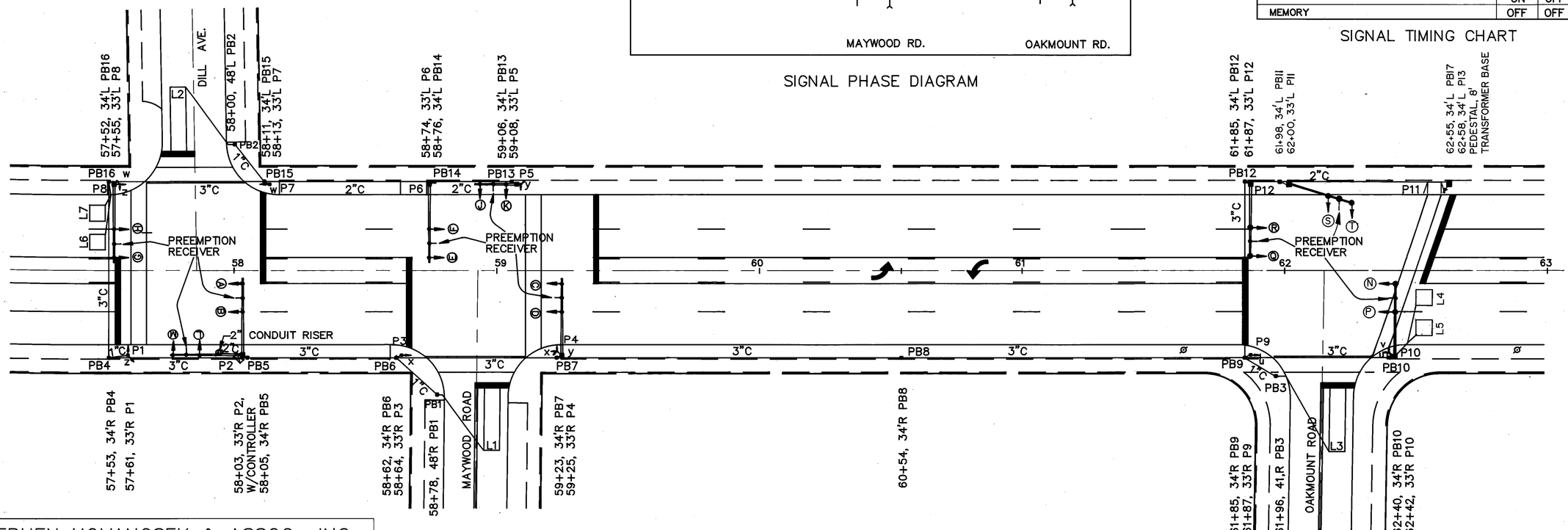
① G IF Ø3 NEXT
② FDW IF Ø3 NEXT
③ DW IF Ø3 NEXT

SIGNAL SEQUENCE DIAGRAM

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)



SIGNAL PHASE DIAGRAM



LOOP No.	SIZE	TURNS No.	MODE	LOCATION 1st CORNER	DELAY	EXTEND	PHASE ASSOC.
L–1	6'x25'	2	PRESENCE	STA.58+96 44'R	5 SEC.	–	Ø3
L–2	6'x25'	2	PRESENCE	STA.57+76 44'L	5 SEC.	–	Ø2
L–3	6'x25'	2	PRESENCE	STA.62+18 44'R	5 SEC.	–	Ø2
L–4	6'x 6'	3	PULSE/PRESENCE	STA.62+46 8'R	–	–	SYSTEM
L–5	6'x 6'	3	PULSE/PRESENCE	STA.62+46 19'L	–	–	SYSTEM
L–6	6'x 6'	3	PULSE/PRESENCE	STA.57+45 8'L	–	–	SYSTEM
L–7	6'x 6'	3	PULSE/PRESENCE	STA.57+45 19'L	–	–	SYSTEM

DETECTOR CHART

PERIOD	Ø1	Ø2	Ø3
MINIMUM GREEN (sec.)	–	10.0	10.0
INITIAL GREEN (sec.)	–	5.0	5.0
VEHICLE EXTENSION (sec.)	–	3.0	3.0
MAXIMUM GREEN I (sec.)	30.0	20.0	20.0
MAXIMUM GREEN II (sec.)	40.0	30.0	30.0
MINIMUM PEDESTRIAN WALK (sec.)	7.0	7.0	7.0
PEDESTRIAN FLASH DW (sec.)	9.0	13.0	13.0
VEHICLE CLEARANCE #1 (sec.)	1.5	1.5	1.5
VEHICLE CLEARANCE #2 (sec.)	1.5	1.5	1.5
VEHICLE CLEARANCE #3 (sec.)	1.5	1.5	1.5
VEHICLE CLEARANCE #4 (sec.)	1.0	1.0	1.0
RECALL	ON	OFF	OFF
MEMORY	OFF	OFF	OFF

SIGNAL TIMING CHART

OHIO
F.H.W.A. REGION 5
308
426

CUYAHOGA COUNTY
U.S. ROUTE NO. 322
MAYFIELD ROAD

MAYFIELD ROAD

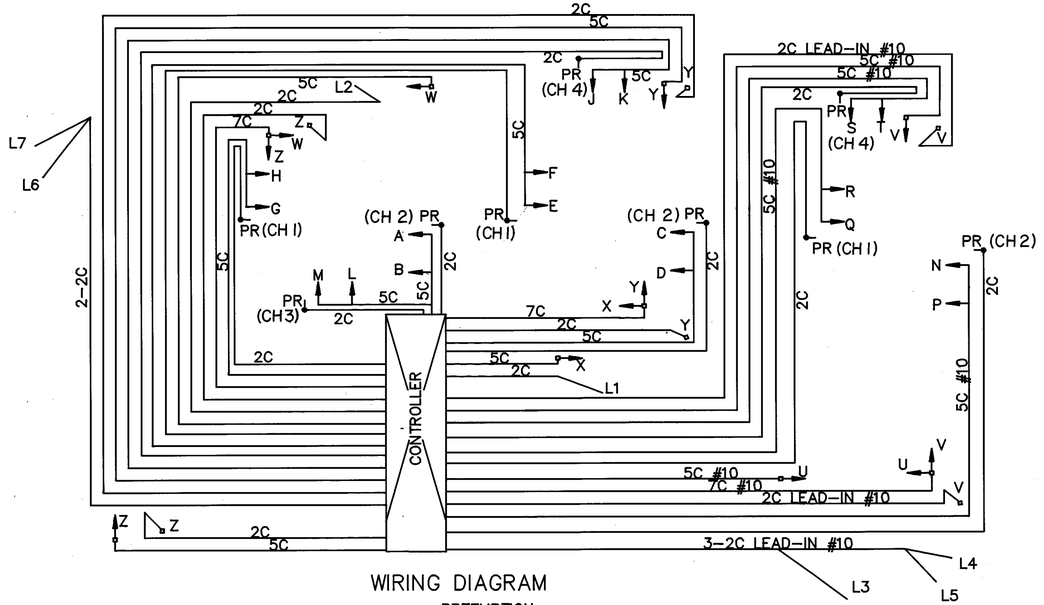
STEPHEN HOVANCSEK & ASSOC., INC.

TRAFFIC SIGNAL IMPROVEMENTS

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)



WIRING DIAGRAM

PR PREEMPTION RECEIVER

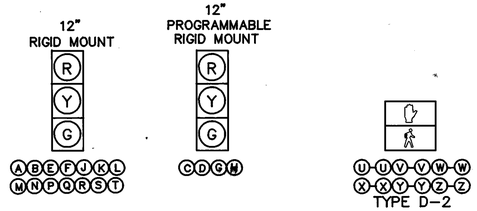
PREEMPT CHANNELS

NOTE: LOOP LEAD-IN CABLE IS USED FOR PEDESTRIAN PUSHBUTTONS AND PREEMPTION WIRING.

CHANNEL 1 = Ø1	(WESTBOUND ONLY)
CHANNEL 2 = Ø1	(EASTBOUND ONLY)
CHANNEL 3 = Ø2	
CHANNEL 4 = Ø3	

PREEMPT NOTES:

1. ACTIVE WALK INDICATIONS SHALL IMMEDIATELY GO TO "DON'T WALK" UPON RECEIVING PREEMPTION SIGNAL.
2. IF PHASE ACTIVE CONFLICTS WITH PREEMPT PHASE CALLED, IT SHALL IMMEDIATELY TIME ITS YELLOW AND ALL RED CLEARANCES.
3. IF ACTIVE PHASE = THE PREEMPT PHASE, THEN THE PHASE SHALL HOLD FOR THE DURATION OF THE PREEMPT SIGNAL.
4. AFTER RELEASE FROM PREEMPT, YELLOW AND ALL RED CLEARANCE SHALL BE DISPLAYED AND RETURN PHASE SHALL BE Ø1.
5. IF PREEMPT PHASES = RETURN PHASE Ø1 THEN YELLOW AND ALL RED CLEARANCE AFTER PREEMPT SHALL NOT BE DISPLAYED.



SIGNAL HEADS

OHIO

F.H.W.A. REGION 5

309 426

CUYAHOGA COUNTY
U.S. ROUTE NO. 322
MAYFIELD ROAD

SUMMARY OF QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION
625	13	EACH	GROUND ROD
625	17	EACH	PULL BOX, 713.08, 18"
625	792	LIN.FT.	TRENCH
625	136	LIN.FT.	TRENCH IN PAVED AREA, TYPE A
625	52	LIN.FT.	CONDUIT, 713.04, 1"
625	202	LIN.FT.	CONDUIT, 713.04, 2"
625	684	LIN.FT.	CONDUIT, 713.04, 3"
632	14	EACH	VEHICULAR SIGNAL HEAD, 3 SECT., 12" LENS, 1 WAY, AS PER PLAN
632	4	EACH	VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED, 3 SECTION,
			12" LENS, 1 WAY, AS PER PLAN
632	12	EACH	PEDESTRIAN SIGNAL HEAD, TYPE D2, AS PER PLAN
632	6	EACH	PEDESTRIAN PUSHBUTTON
632	7	EACH	LOOP DETECTOR UNITS, DELAY AND EXTENSION TYPE, AS PER PLAN
632	406	LIN.FT.	LOOP DETECTOR PAVEMENT CUTTING
632	14.9	C.Y.	CONCRETE FOR ANCHOR BASE FOUNDATION
632	1	EACH	SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 1, 15' ARM
632	1	EACH	SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 2, 26' ARM
632	4	EACH	SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 2, 28' ARM
632	1	EACH	SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 2, 29' ARM
632	1	EACH	SIGNAL SUPPORT, TYPE TC-81.20 DESIGN 4 POLE, WITH MAST ARMS,
			TC-81.20 DESIGN 2, 28 FEET AND TC-81.20 DESIGN 2, 28 FEET
632	5	EACH	PEDESTAL, 8', TRANSFORMER BASE
632	1	EACH	CONDUIT RISER, 2" DIA.
632	8	EACH	CABLE SUPPORT ASSEMBLY
632	2040	LIN.FT.	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG
632	2705	LIN.FT.	SIGNAL CABLE MISC.: 5 CONDUCTOR, NO. 10 AWG
632	326	LIN.FT.	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG
632	491	LIN.FT.	SIGNAL CABLE MISC.: 7 CONDUCTOR, NO. 10 AWG
632	1050	LIN.FT.	LOOP DETECTOR WIRE, TYPE E
632	2443	LIN.FT.	LOOP DETECTOR LEAD IN CABLE
632	3986	LIN.FT.	LOOP DETECTOR LEAD IN CABLE, NO. 10 AWG
632	116	LIN.FT.	POWER CABLE, 2-CONDUCTOR NO.8 AWG
632	1	EACH	POWER SERVICE, AS PER PLAN
632	18	EACH	COVERING OF VEHICULAR SIGNAL HEADS
632	3	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION
633	1	EACH	PREEMPTION EQUIPMENT, PHASE SELECTOR, AS PER PLAN
633	9	EACH	PREEMPTION EQUIPMENT, RECEIVING UNIT, AS PER PLAN
633	1	EACH	CONTROLLER, ACTUATED, 2/8 PHASE, LOCAL TYPE 170SV, AS PER PLAN

SUBSUMMARY: QUANTITIES CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY SHEET & SHEET 254

P1 – PEDESTAL, 8' TRANSFORMER BASE
P2 – SIGNAL SUPPORT, TYPE TC-81.20 DESIGN 4 POLE, WITH MAST ARMS, TC-81.20 DESIGN 2, 28 FEET AND TC-81.20 DESIGN 2, 28 FEET
P3 – PEDESTAL, 8' TRANSFORMER BASE
P4 – SIGNAL SUPPORT, TYPE TC-81.20 DESIGN 2, 28' ARM
P5 – SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 1, 15' ARM
P6 – SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 2, 28' ARM
P7 – PEDESTAL, 8' TRANSFORMER BASE
P8 – SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 2, 28' ARM
P9 – PEDESTAL, 8' TRANSFORMER BASE
P10 – SIGNAL SUPPORT, TYPE TC-81.20 DESIGN 2, 29' ARM
P11 – SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 2, 26' ARM
P12 – SIGNAL SUPPORT, TYPE TC-81.20, DESIGN 2, 28' ARM
P13 - PEDESTAL, 8' TRANSFORMER BASE

STEPHEN HOVANCSEK & ASSOC., INC.

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MAYFIELD ROAD

TRAFFIC SIGNAL IMPROVEMENTS

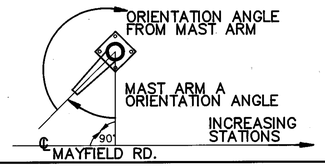
DILL/MAYWOOD/OAKMOUNT SIGNAL SUPPORT DETAILS

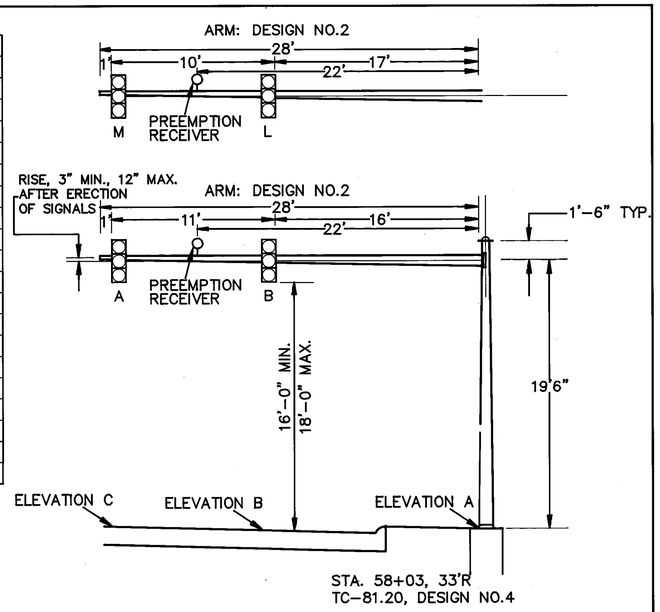
CALC. BY. DATE	
CHKD. BY. DATE	
OHIO	
F.H.W.A. REGION 5	

310
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

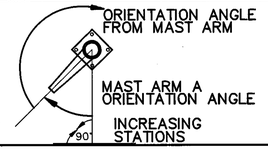
P2	POLE No.				
4	DESIGN No.				
21'	POLE HT.				
58+03	STATION				
33'R	OFFSET				
MAST ARM A	28'	L (FT)	MAST ARM B	28'	L (FT)
	16'	L1 (FT)		17'	L1 (FT)
	11'	L2 (FT)		10'	L2 (FT)
974.46	ELEVATION A				
974.10	ELEVATION B				
974.33	ELEVATION C				
	ORIENTATION ANGLES				
0°	MAST ARM A ORIENTATION ANGLE (DEGS)				
270°	MAST ARM B				
225°	CONTROLLER				
180°	HANDHOLE				
	2" CAPPED CONDUIT ELL (FUTURE USE)				

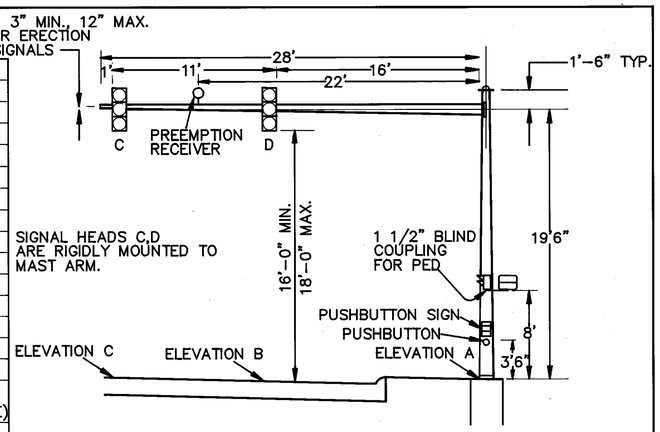




P2 SIGNAL SUPPORT DETAIL

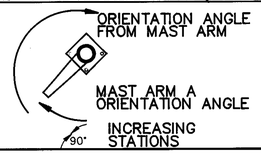
P4	POLE No.	
2	DESIGN No.	
21'	POLE HT.	
59+25	STATION	
33'	OFFSET	
28'	L (FT)	
16'	L1 (FT)	
11'	L2 (FT)	
975.93	ELEVATION A	
975.57	ELEVATION B	
975.80	ELEVATION C	
	ORIENTATION ANGLES	
0°	MAST ARM A ORIENTATION ANGLE (DEGS)	
180°X	PEDESTRIAN SIGNAL	
270°Y	(1 1/2" BLIND COUPLING,8' FROM BOTTOM OF POLE)	
	PEDESTRIAN PUSHBUTTON	
270°	Y 3'-6" FROM BOTTOM OF POLE	
180°	HANDHOLE	
	2" CAPPED CONDUIT ELL (FUTURE USE)	

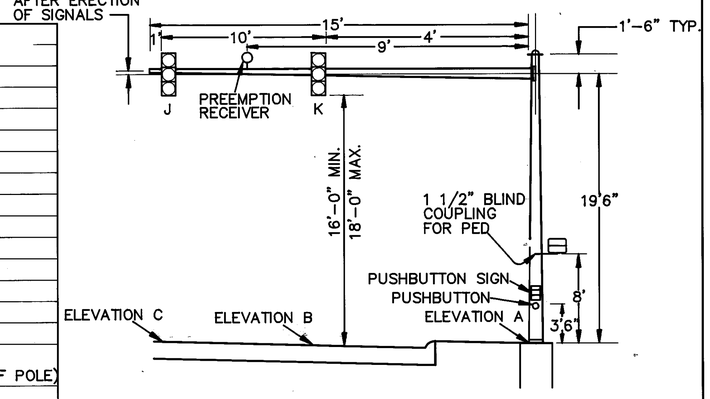




P4 SIGNAL SUPPORT DETAIL

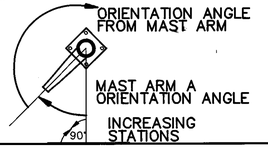
P5	POLE No.	
1	DESIGN No.	
21'	POLE HT.	
59+08	STATION	
33'L	OFFSET	
15'	L (FT)	
4'	L1 (FT)	
10'	L2 (FT)	
975.47	ELEVATION A	
975.55	ELEVATION B	
975.59	ELEVATION C	
	ORIENTATION ANGLES	
90°	MAST ARM A ORIENTATION ANGLE (DEGS)	
270Y	PEDESTRIAN SIGNAL	
	(1 1/2" BLIND COUPLING,8' FROM BOTTOM OF POLE)	
270	Y PEDESTRIAN PUSHBUTTON	
	3'-6" FROM BOTTOM OF POLE	
180°	HANDHOLE	
	2" CAPPED CONDUIT ELL (FUTURE USE)	

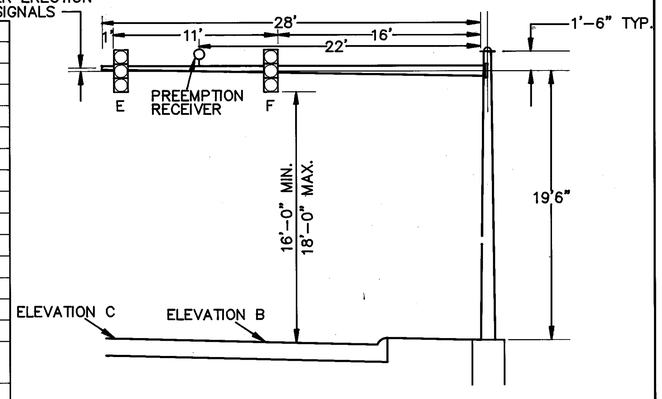




P5 SIGNAL SUPPORT DETAIL

P6	POLE No.	
2	DESIGN No.	
21'	POLE HT.	
58+74	STATION	
33'L	OFFSET	
28'	L (FT)	
16'	L1 (FT)	
11'	L2 (FT)	
975.32	ELEVATION A	
974.96	ELEVATION B	
975.19	ELEVATION C	
	ORIENTATION ANGLES	
0°	MAST ARM A ORIENTATION ANGLE (DEGS)	
180°	HANDHOLE	
	2" CAPPED CONDUIT ELL (FUTURE USE)	





P6 SIGNAL SUPPORT DETAIL

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MAYFIELD ROAD

DILL/MAYWOOD/OAKMOUNT SIGNAL SUPPORT DETAILS

CALC. BY. ____ DATE ____
CHKD. BY. ____ DATE ____

OHIO
F.H.W.A. REGION 5

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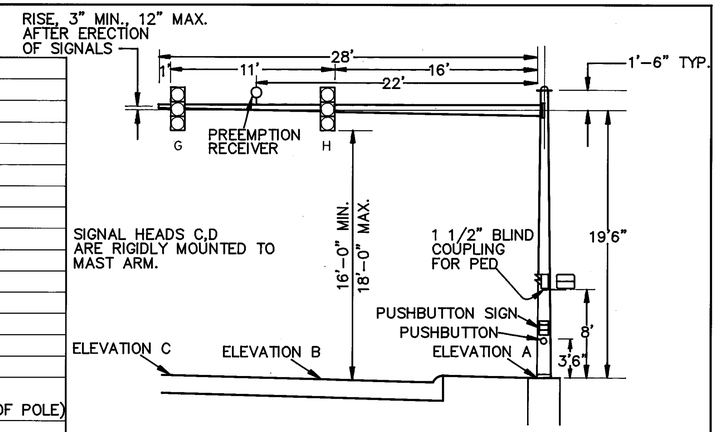
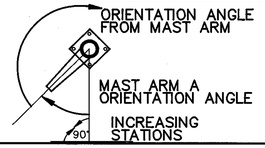
CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

P8	POLE No.
2	DESIGN No.
21'	POLE HT.
57+55	STATION
33'	OFFSET
28'	L (FT)
16'	L1 (FT)
11'	L2 (FT)
973.21	ELEVATION A
972.85	ELEVATION B
973.08	ELEVATION C
	ORIENTATION ANGLES
0°	MAST ARM A ORIENTATION ANGLE (DEGS)
180°W	PEDESTRIAN SIGNAL
270°Z	(1 1/2" BLIND COUPLING,8' FROM BOTTOM OF POLE)
	PEDESTRIAN PUSHBUTTON
270° Z	3'–6" FROM BOTTOM OF POLE
180°	HANDHOLE
	2" CAPPED CONDUIT ELL (FUTURE USE)

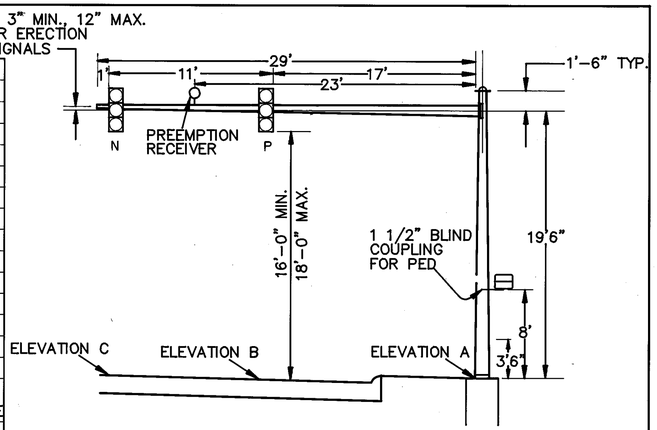


STA. 57+55, 33'L
TC–81.20, DESIGN 2

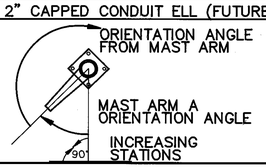


P8 SIGNAL SUPPORT DETAIL

P10	POLE No.
2	DESIGN No.
21'	POLE HT.
62+42	STATION
34'R	OFFSET
29'	L (FT)
17'	L1 (FT)
11'	L2 (FT)
974.69	ELEVATION A
974.30	ELEVATION B
974.53	ELEVATION C
	ORIENTATION ANGLES
0°	MAST ARM A ORIENTATION ANGLE (DEGS)
270°	PEDESTRIAN SIGNAL
	(1 1/2" BLIND COUPLING,8' FROM BOTTOM OF POLE
180° V	PEDESTRIAN PUSHBUTTON
	3'–6" FROM BOTTOM OF POLE
180°	HANDHOLE
	2" CAPPED CONDUIT ELL (FUTURE USE)

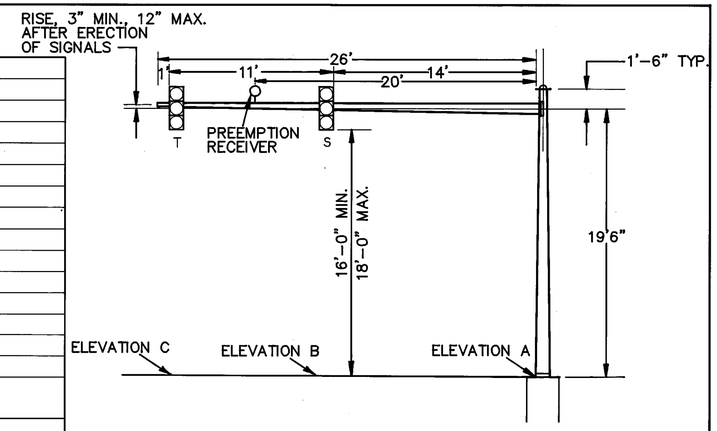


STA. 62+42, 33'R
TC–81.20, DESIGN NO.2

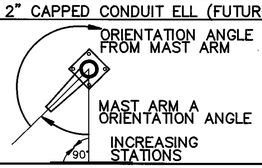


P10 SIGNAL SUPPORT DETAIL

P11	POLE No.
2	DESIGN No.
21'	POLE HT.
62+00	STATION
33'L	OFFSET
26'	L (FT)
14'	L1 (FT)
11'	L2 (FT)
974.50	ELEVATION A
974.17	ELEVATION B
974.30	ELEVATION C
	ORIENTATION ANGLES
280°	MAST ARM A ORIENTATION ANGLE (DEGS)
180°	HANDHOLE
	2" CAPPED CONDUIT ELL (FUTURE USE)

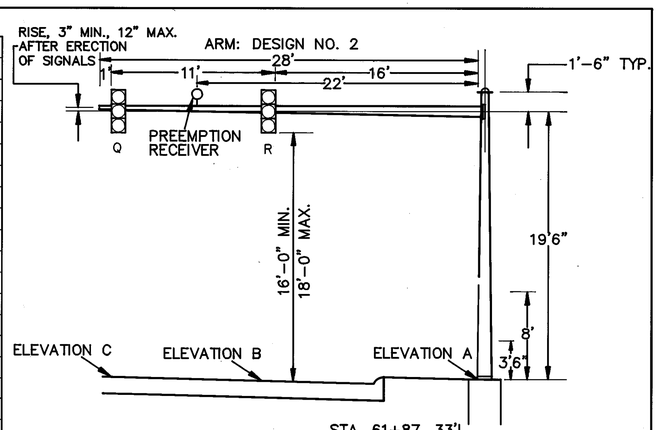


STA. 62+00, 33'L
TC–81.20, DESIGN NO.2

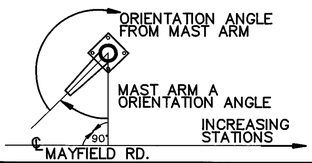


P11 SIGNAL SUPPORT DETAIL

P12	POLE No.		
2	DESIGN No.		
21'	POLE HT.		
61+87	STATION		
33'L	OFFSET		
MAST ARM A	28'	L (FT)	MAST ARM B
	16'	L1 (FT)	
	11'	L2 (FT)	
974.33	ELEVATION A		
973.97	ELEVATION B		
974.20	ELEVATION C		
	ORIENTATION ANGLES		
0°	MAST ARM A ORIENTATION ANGLE (DEGS)		
	MAST ARM B		
180°	HANDHOLE		
	2" CAPPED CONDUIT ELL (FUTURE USE)		



STA. 61+87, 33'L
TC–81.20, DESIGN NO.2



P12 SIGNAL SUPPORT DETAIL

MAYFIELD ROAD

311

	OHIO
	F.H.W.A. REGION 5

312
426

CUYAHOGA COUNTY
U.S. ROUTE NO. 322
MAYFIELD ROAD

	ø1	ø2
PERIOD		
MINIMUM GREEN (sec.)	40.0	–
INITIAL GREEN (sec.)	–	5.0
VEHICLE EXTENSION (sec.)	–	2.5
MAXIMUM GREEN I (sec.)	–	25.0
MAXIMUM GREEN II (sec.)	–	35.0
MINIMUM PEDESTRIAN WALK (sec.)	35.0	7.0
MINIMUM PEDESTRIAN FLASH DW (sec.)	5.0	16.0
MINIMUM YELLOW VEHICLE CLEARANCE (sec.)	3.0	3.0
ALL–RED VEHICLE CLEARANCE (sec.)	1.0	1.0
RECALL	ON	OFF
MEMORY	OFF	OFF

SIGNAL TIMING CHART

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)

PREEMPT CHANNELS

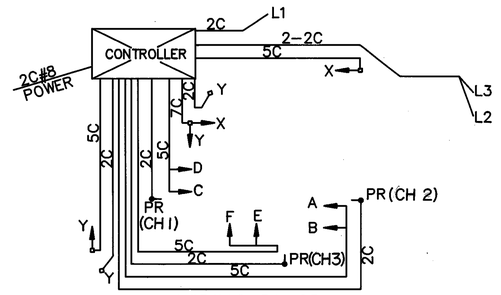
CHANNEL 1 = ø1 (WESTBOUND ONLY)
CHANNEL 2 = ø1 (EASTBOUND ONLY)
CHANNEL 3 = ø2

PREEMPT NOTES:

1. ACTIVE WALK INDICATIONS SHALL IMMEDIATELY GO TO "DON'T WALK" UPON RECEIVING PREEMPTION SIGNAL.
2. IF PHASE ACTIVE CONFLICTS WITH PREEMPT PHASE CALLED, IT SHALL IMMEDIATELY TIME ITS YELLOW AND ALL RED CLEARANCES.
3. IF ACTIVE PHASE = THE PREEMPT PHASE, THEN THE PHASE SHALL HOLD FOR THE DURATION OF THE PREEMPT SIGNAL.
4. AFTER RELEASE FROM PREEMPT, YELLOW AND ALL RED CLEARANCE SHALL BE DISPLAYED AND RETURN PHASE SHALL BE ø1 .
5. IF PREEMPT PHASES = RETURN PHASE ø1 THEN YELLOW AND ALL RED CLEARANCE AFTER PREEMPT SHALL NOT BE DISPLAYED.

LOOP No.	SIZE	TURNS No.	MODE	LOCATION 1st CORNER	DELAY	EXTEND	PHASE ASSOC.
L–1	6x25	2	PRESENCE	STA.73+27 44'L	5 SEC.		ø2
L–2	6x6	3	PULSE/PRESENCE	STA.74+47 8'L	–	–	SYSTEM
L–3	6x6	3	PULSE/PRESENCE	STA.74+47 19'L	–	–	SYSTEM

DETECTOR CHART

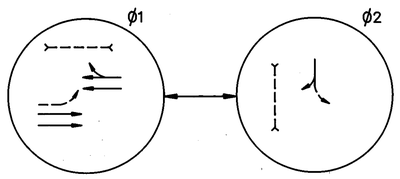


WIRING DIAGRAM

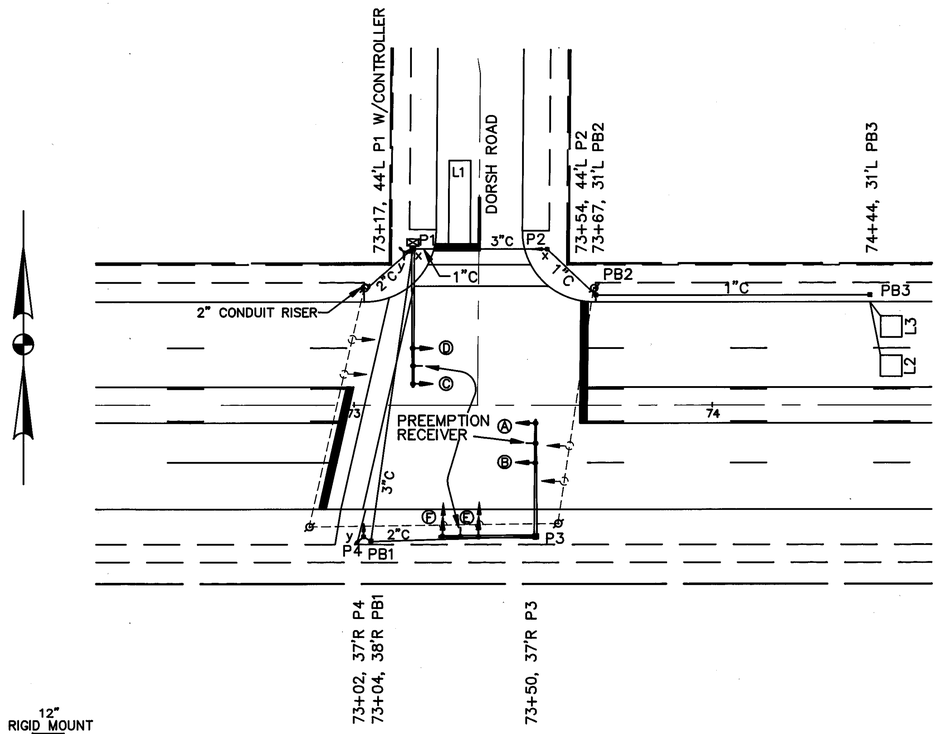
↓ PR PREEMPTION RECEIVER

NOTE: LOOP LEAD–IN CABLE IS USED FOR PEDESTRIAN PUSHBUTTONS AND PREEMPTION WIRING.

RECALL – DWELL

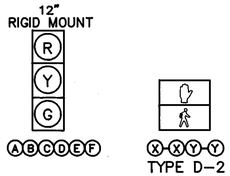


SIGNAL PHASE DIAGRAM



PHASE ø 1					PHASE ø 2					
	ROW	PEDESTRIAN CLEARANCE	VEHICLE CLEARANCE–Y	VEHICLE CLEARANCE–R	ROW	PEDESTRIAN CLEARANCE	VEHICLE CLEARANCE–Y	VEHICLE CLEARANCE–R	DWELL	FLASH
Ⓐ	G	G	Y	R	R	R	R	R	G	Y
Ⓑ	G	G	Y	R	R	R	R	R	G	Y
Ⓒ	G	G	Y	R	R	R	R	R	G	Y
Ⓓ	G	G	Y	R	R	R	R	R	G	Y
Ⓔ	R	R	R	R	G	G	Y	R	R	R
Ⓕ	R	R	R	R	G	G	Y	R	R	R
x–x	W	FDW	DW	DW	DW	DW	DW	DW	DW	OFF
y–y	DW	DW	DW	DW	W	FDW	DW	DW	DW	OFF

SIGNAL SEQUENCE DIAGRAM



SIGNAL HEADS

P1 – SIGNAL SUPPORT, TYPE TC–81.20 DESIGN 11 POLE, 39' ARM
P2 – PEDESTAL, 8' TRANSFORMER BASE
P3 – SIGNAL SUPPORT, TYPE TC–81.20 DESIGN 4 POLE, WITH MAST ARMS TC–81.20 DESIGN 3, 32 FEET AND TC–81.20 DESIGN 2, 27 FEET
P4 – PEDESTAL, 8' TRANSFORMER BASE

SUMMARY OF QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION
625	4	EACH	GROUND ROD
625	3	EACH	PULL BOX, 713.08, 18"
625	223	LIN.FT.	TRENCH
625	60	LIN.FT.	TRENCH IN PAVED AREA, TYPE A
625	95	LIN.FT.	CONDUIT, 713.04, 1"
625	67	LIN.FT.	CONDUIT, 713.04, 2"
625	121	LIN.FT.	CONDUIT, 713.04, 3"
632	6	EACH	VEHICULAR SIGNAL HEAD, 3 SECT., 12" LENS, 1 WAY, AS PER PLAN
632	4	EACH	PEDESTRIAN SIGNAL HEAD, TYPE D2, AS PER PLAN
632	2	EACH	PEDESTRIAN PUSHBUTTON
632	3	EACH	LOOP DETECTOR UNITS, DELAY AND EXTENSION TYPE, AS PER PLAN
632	134	LIN.FT.	LOOP DETECTOR PAVEMENT CUTTING
632	6.3	C.Y.	CONCRETE FOR ANCHOR BASE FOUNDATION
632	1	EACH	SIGNAL SUPPORT, TYPE TC–81.20 DESIGN 11 POLE, 39' ARM
632	1	EACH	SIGNAL SUPPORT, TYPE TC–81.20 DESIGN 4 POLE, WITH MAST ARMS TC–81.20 DESIGN 3, 32 FEET AND TC–81.20 DESIGN 2, 27 FEET
632	2	EACH	PEDESTAL, 8', TRANSFORMER BASE
632	1	EACH	CONDUIT RISER, 2" DIA.
632	2	EACH	CABLE SUPPORT ASSEMBLY
632	688	LIN.FT.	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG
632	14	LIN.FT.	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG
632	380	LIN.FT.	LOOP DETECTOR WIRE, TYPE E
632	848	LIN.FT.	LOOP DETECTOR LEAD IN CABLE
632	58	LIN.FT.	POWER CABLE, 2–CONDUCTOR NO.8 AWG
632	1	EACH	POWER SERVICE, AS PER PLAN
632	6	EACH	COVERING OF VEHICULAR SIGNAL HEADS
632	1	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION
633	1	EACH	PREEMPTION EQUIPMENT, PHASE SELECTOR, AS PER PLAN
633	3	EACH	PREEMPTION EQUIPMENT, RECEIVING UNIT, AS PER PLAN
633	1	EACH	CONTROLLER, ACTUATED, 2\8 PHASE, LOCAL TYPE 170SV, AS PER PLAN

SUBSUMMARY: QUANTITIES CARRIED TO TRAFFIC CONTROL GENERAL SUMMARY SHEET # SHEET 254

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STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD

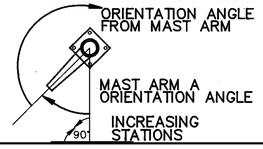
TRAFFIC SIGNAL IMPROVEMENTS

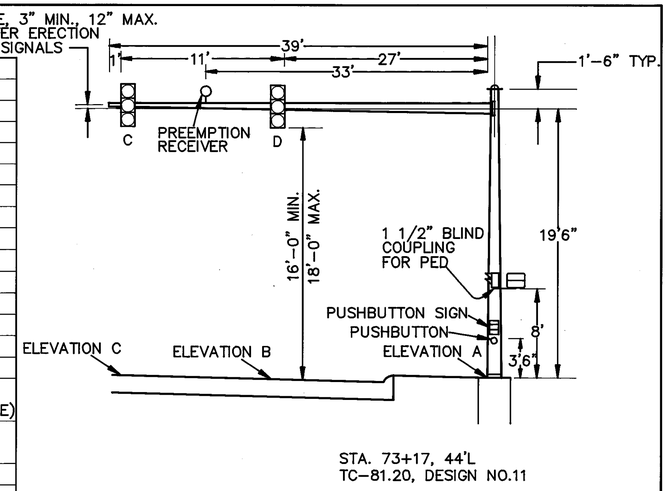
DORSH RD. SIGNAL SUPPORT DETAILS

CALC. BY. DATE	
CHKD. BY. DATE	
OHIO	
F.H.W.A. REGION 5	
313 / 426	

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

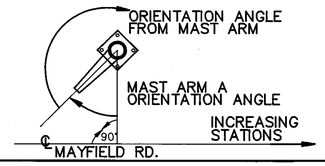
P1	POLE No.
11	DESIGN No.
21'	POLE HT.
73+17	STATION
44'L	OFFSET
39'	L (FT)
27'	L1 (FT)
11'	L2 (FT)
963.73	ELEVATION A
963.19	ELEVATION B
963.42	ELEVATION C
	ORIENTATION ANGLES
0°	MAST ARM A ORIENTATION ANGLE (DEGS)
180°	CONTROLLER
0° X 90° Y	PEDESTRIAN SIGNAL (1 1/2" BLIND COUPLING,8' FROM BOTTOM OF POLE)
	PEDESTRIAN PUSHBUTTON
90° Y	3'–6" FROM BOTTOM OF POLE
180°	HANDHOLE
	2" CAPPED CONDUIT ELL (FUTURE USE)

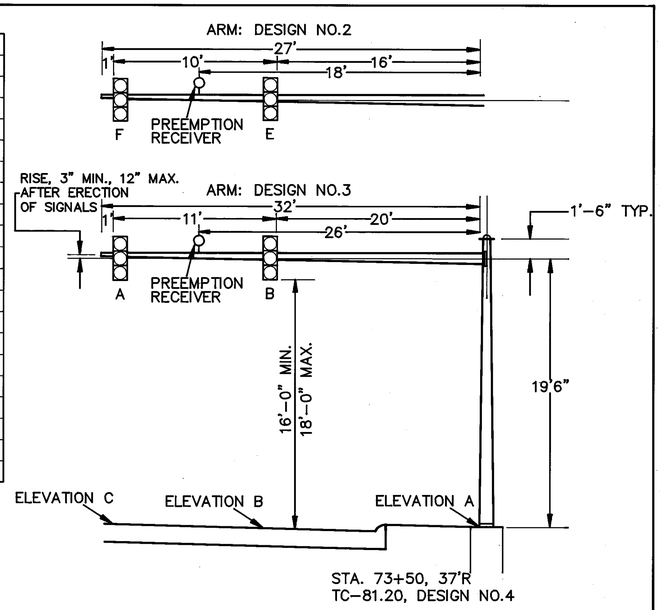




P1 SIGNAL SUPPORT DETAIL

P3	POLE No.			
4	DESIGN No.			
21'	POLE HT.			
73+50	STATION			
37'R	OFFSET			
MAST ARM A	32'	L (FT)	MAST ARM B	27' L (FT)
	20'	L1 (FT)		16' L1 (FT)
	11'	L2 (FT)		10' L2 (FT)
965.23	ELEVATION A			
964.75	ELEVATION B			
964.98	ELEVATION C			
	ORIENTATION ANGLES			
0°	MAST ARM A ORIENTATION ANGLE (DEGS)			
270°	MAST ARM B			
180°	HANDHOLE			
	2" CAPPED CONDUIT ELL (FUTURE USE)			





P3 SIGNAL SUPPORT DETAIL

313

MAYFIELD ROAD

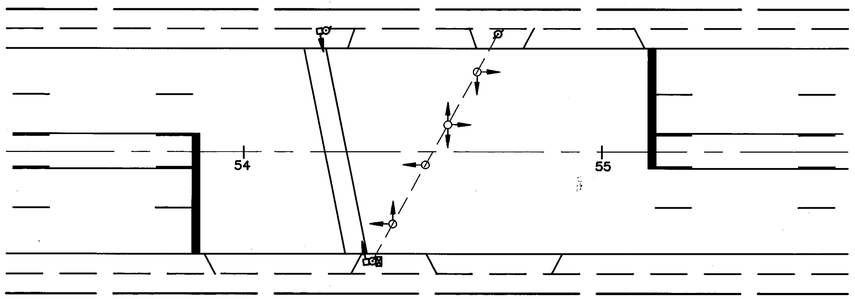
GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)

CALC. BY. DATE		OHIO
CHKD. BY. DATE		F.H.W.A. REGION 5

314
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

MAYMORE
SHOPPING CENTER



✳ TRAFFIC SIGNAL INSTALLATION TO BE TOTALLY REMOVED

632 1 EACH "REMOVAL OF TRAFFIC SIGNAL INSTALLATION"
QUANTITY CARRIED TO TRAFFIC CONTROL SUMMARY SHEET 254

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD RD. - MAYMORE SHOPPING CENTER

TRAFFIC SIGNAL IMPROVEMENTS

CALC. BY: DATE:	CUY-322-8.66 CUYAHOGA COUNTY	OHIO
CHK'D. BY: DATE:		FHWA REGION 5
		FEDERAL PROJECT

315
426

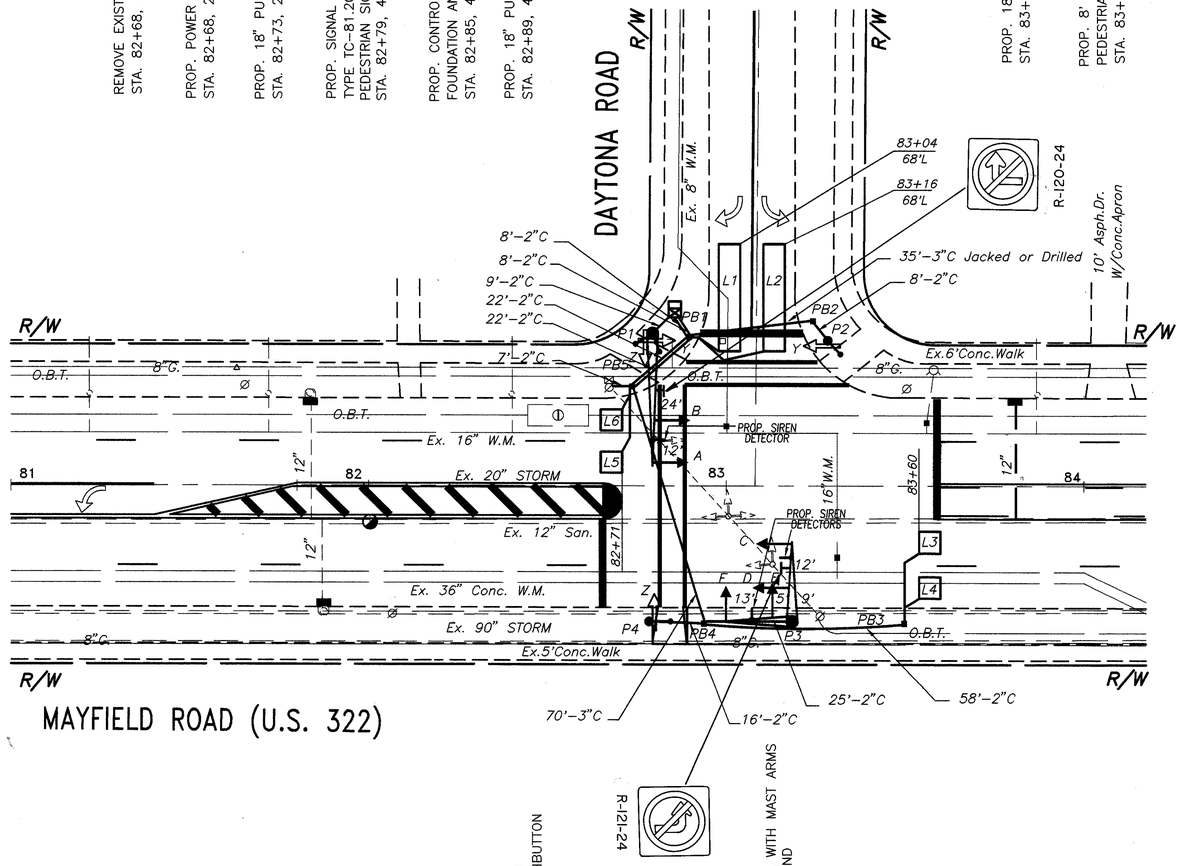
SIGNALS

R Y G

A, B, C, D, E & F
ALL HEADS ARE 12" POLY
SIGNALS C & D TO HAVE TUNNEL VISORS

DONT WALK
WALK

Y – Y
Z – Z
TYPE "A–2"



MAYFIELD ROAD (U.S. 322)

N

20 10 0 10 20

SCALE

THE UNDERGROUND UTILITIES ARE SHOWN ACCORDING TO INFORMATION FURNISHED BY THE UTILITIES CONCERNED. THEIR ACCURACY IS NOT GUARANTEED, THEREFORE THEY SHOULD BE RECHECKED BEFORE UNDERGROUND CONSTRUCTION BEGINS.

Rev	Date	By	Remarks

TRAFF-PRO
CONSULTANTS, INC.
28917 Euclid Avenue
Wickliffe, Ohio 44092
(216) 944-6444

CITY OF LYNDHURST
U.S. RT. 322 & DAYTONA RD.

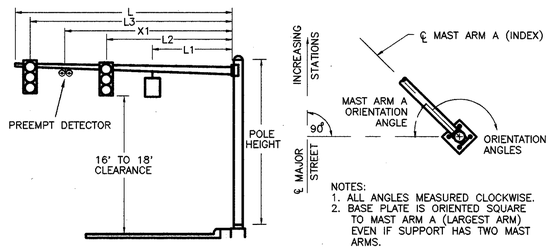
DRAWN BY: J.A.T. DATE 11-19-91
CHECKED BY: M.W.S. DATE 05-18-93
DRAWING NO. 315LYND.DWG SHEET 315 OF 426

TRAFFIC CONTROL PLAN

CALC. BY: DATE:	CUY-322-8.66 CUYAHOGA COUNTY	OHIO
CHKD. BY: DATE:		FHWA REGION 5
		FEDERAL PROJECT

317
426

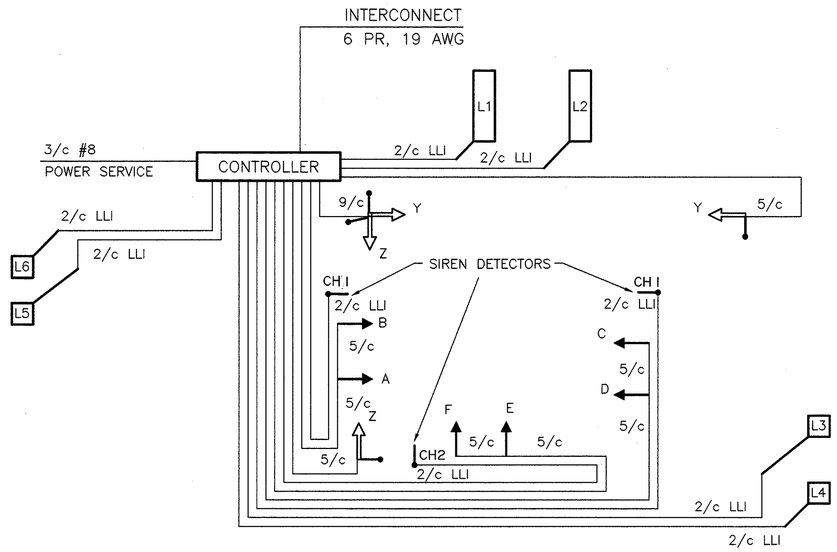
ORIENTATION ANGLE CHART



NOTES:
1. ALL ANGLES MEASURED CLOCKWISE.
2. BASE PLATE IS ORIENTED SQUARE TO MAST ARM A (LARGEST ARM) EVEN IF SUPPORT HAS TWO MAST ARMS.

SUPPORT NO.	DESIGN NO.	FOUNDATION STATION	FOUNDATION OFFSET	SIGNAL SUPPORT TYPE TC-81.20 L (FT.)	L 1 (FT.)	L 2 (FT.)	L 3 (FT.)	X 1 (FT.)	MAST ARM A ANGLE (DEG.)	ORIENTATION ANG. (DEG.) FROM MAST ARM A: MAST ARM B	PEDESTRIAN SIGNALS	PEDESTRIAN PUSHBUTTONS	HANDHOLE	LUMINAIRE BRACKET	
P1	4	82+79	43'L	37	21	24	36	30	0		0/90	0/90	180		
P2	PED	83+28	41'L						0		0	300	180		
P3	3	83+18	38'R	22	18	9	21	14	0						DESIGN 1 ARM
				19		5	18	12		270					DESIGN 1 ARM
P4	PED	82+77	38'R								0	90	180		

WIRING DIAGRAM

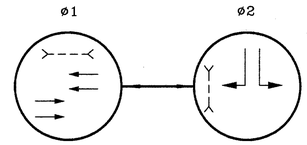


PREEMPT CHANNELS

CHANNEL 1 = ø1
CHANNEL 2 = ø2

PREEMPT NOTES:
1. ACTIVE WALK INDICATIONS SHALL IMMEDIATELY GO TO "DONT WALK" UPON RECEIVING PREEMPTION SIGNAL.
2. IF PHASE ACTIVE CONFLICTS WITH PREEMPT PHASE CALLED, IT SHALL IMMEDIATELY TIME ITS YELLOW AND ALL RED CLEARANCES.
3. IF ACTIVE PHASE = THE PREEMPT PHASE, THEN THE PHASE SHALL HOLD FOR THE DURATION OF THE PREEMPT SIGNAL.
4. AFTER RELEASE FROM PREEMPT, YELLOW AND ALL RED CLEARANCE SHALL BE DISPLAYED AND RETURN PHASES SHALL BE ø1.
5. IF PREEMPT PHASES = RETURN PHASES (ø1) THEN YELLOW AND ALL RED CLEARANCE AFTER PREEMPT SHALL NOT BE DISPLAYED.

PHASING DIAGRAM



SIGNAL DISPLAY CHART

SIGNAL HEAD	ø1 R/W		ø1 CLEAR		ø2 R/W		ø2 CLEAR		FLASH
A	G	G	Y	R	R	R	R	R	Y
B	G	G	Y	R	R	R	R	R	Y
C	G	G	Y	R	R	R	R	R	Y
D	G	G	Y	R	R	R	R	R	Y
E	R	R	R	R	G	G	Y	R	R
F	R	R	R	R	G	G	Y	R	R
Y-Y	W	FDW	DW	DW	DW	DW	DW	DW	DARK
Z-Z	DW	DW	DW	DW	W	FDW	DW	DW	DARK

COORDINATION TIMING

	DIAL 1	DIAL 2	DIAL 3
CYCLE LENGTH	105 SEC	105 SEC	120 SEC
PHASE 1 SPLIT	77 %	77 %	80 %
PHASE 2 SPLIT	23 %	23 %	20 %
PERMISSIVE	15 %	15 %	15 %
OFFSET	77 %	77 %	81 %
TIME OF DAY SCHEDULE	ALL OTHER TIMES	6:30AM TO 9:00AM MON-SAT	3:30PM TO 6:30PM MON-SAT

NOTES:
1. PHASE SPLITS SHALL INCLUDE ALL GREEN PLUS YELLOW & ALL RED
2. PERMISSIVES SHALL START AT THE ZERO POINT OF THE CYCLE
3. OFFSETS SHALL BE REFERENCED TO THE BEGINNING OF PHASE 1 YELLOW

LOOP DETECTOR CHART

LOOP #	SIZE	# TURNS	MODE	DELAY	AMP #	PHASE
L1	6' x 30'	2	PRESENCE	8	1	2
L2	6' x 30'	2	PRESENCE	0	2	2
L3	6' x 6'	3	PRESENCE	0	3	SYSTEM
L4	6' x 6'	3	PRESENCE	0	4	SYSTEM
L5	6' x 6'	3	PRESENCE	0	5	SYSTEM
L6	6' x 6'	3	PRESENCE	0	6	SYSTEM

SIGNAL TIMING

INTERVAL	ø1	ø2
INITIAL	28	8.0
PASSAGE	–	3.0
YELLOW	3.6	3.1
RED CLEAR	1.2	1.9
MAX I	65	24
MAX II	85	35
WALK	7	7
PED CLEAR	11	16
RECALL	PED	NONE
MEMORY	ON	ON

Rev	Date	By	Remarks

TRAFF-PRO CONSULTANTS, INC.
28917 Euclid Avenue
Wickliffe, Ohio 44092
(216) 944-6444

CITY OF LYNDHURST
U.S. RT. 322 & DAYTONA RD.
CHARTS

DRAWN BY: J.A.T. DATE 11-18-91
CHECKED BY: M.W.S. DATE 5-18-93
DRAWING NO. 317LYND.DWG SHEET 317 OF 426

TRAFFIC CONTROL PLAN

CALC. BY: ____ DATE: ____	CUY–322–8.66 CUYAHOGA COUNTY	OHIO
CHKD. BY: ____ DATE: ____		FHWA REGION 5
		FEDERAL PROJECT

318
426

PROP. POWER SERVICE
STA. 86+91, 27'L

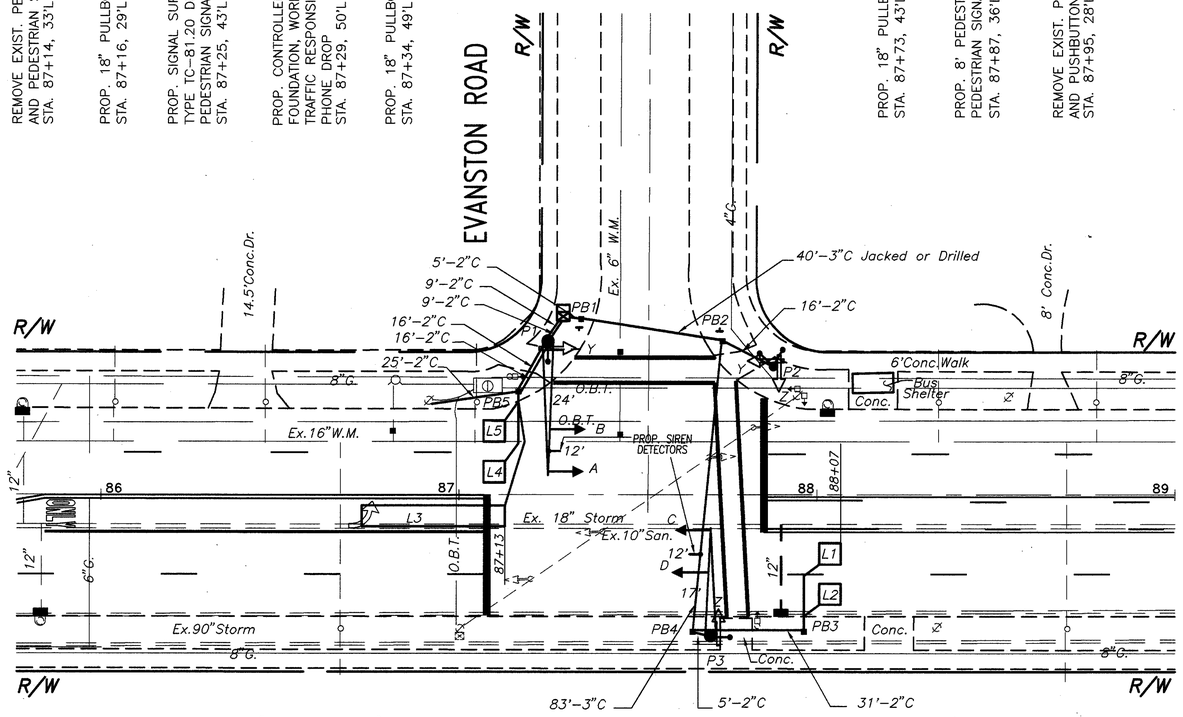
REMOVE EXIST. PEDESTAL AND PEDESTRIAN SIGNAL
STA. 87+14, 33'L

PROP. 18" PULLBOX, PB5
STA. 87+16, 29'L

PROP. SIGNAL SUPPORT, P1, TYPE TC–81.20 DES. 4, WITH 37' ARM AND PEDESTRIAN SIGNAL AND PUSHBUTTON
STA. 87+25, 43'L

PROP. CONTROLLER WITH FOUNDATION, WORK PAD, TRAFFIC RESPONSIVE MASTER AND PHONE DROP
STA. 87+29, 50'L

PROP. 18" PULLBOX, PB1
STA. 87+34, 49'L



MAYFIELD ROAD (U.S. 322)

REMOVE EXIST. CONTROLLER
STA. 87+00, 40'R

PROP. 18" PULLBOX, PB4
STA. 87+65, 39'R

PROP. SIGNAL SUPPORT, P3, TYPE TC–81.20 DES. 2, WITH 30' ARM AND PEDESTRIAN SIGNAL AND PUSHBUTTON
STA. 87+70, 40'R

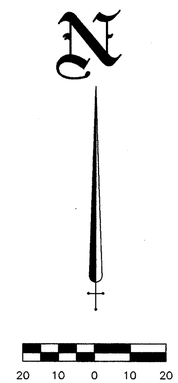
REMOVE EXIST. PEDESTAL, PEDESTRIAN SIGNAL AND PUSHBUTTON
STA. 87+84, 37'R

PROP. 18" PULLBOX, PB3
STA. 87+96,39'R

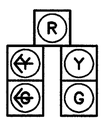
PROP. 18" PULLBOX, PB2
STA. 87+73, 43'L

PROP. 8' PEDESTAL, P2, WITH PEDESTRIAN SIGNALS AND PUSHBUTTONS
STA. 87+87, 36'L

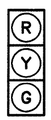
REMOVE EXIST. PEDESTRIAN SIGNALS AND PUSHBUTTON
STA. 87+95, 28'L



SIGNALS



C



A, B & D



Y – Y
Z – Z
TYPE "A–2"

ALL HEADS ARE 12" POLY

THE UNDERGROUND UTILITIES ARE SHOWN ACCORDING TO INFORMATION FURNISHED BY THE UTILITIES CONCERNED. THEIR ACCURACY IS NOT GUARANTEED, THEREFORE THEY SHOULD BE RECHECKED BEFORE UNDERGROUND CONSTRUCTION BEGINS.

Rev	Date	By	Remarks

TRAFF-PRO
CONSULTANTS, INC.
28917 Euclid Avenue
Wickliffe, Ohio 44092
(216) 944–6444

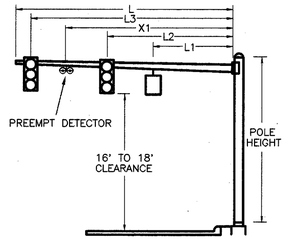
CITY OF LYNDHURST
U.S. RT. 322 & EVANSTON RD.

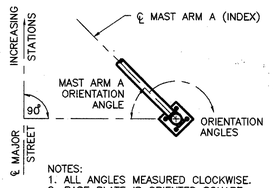
DRAWN BY: J.A.T. DATE 11–20–91
CHECKED BY: M.W.S. DATE 05–18–93
DRAWING NO. 318LYND.DWG SHEET 318 OF 426

TRAFFIC CONTROL PLAN

CALC. BY: DATE:	CUY-322-8.66 CUYAHOGA COUNTY	OHIO
CHKD. BY: DATE:		FHWA REGION 5
		FEDERAL PROJECT

319
426

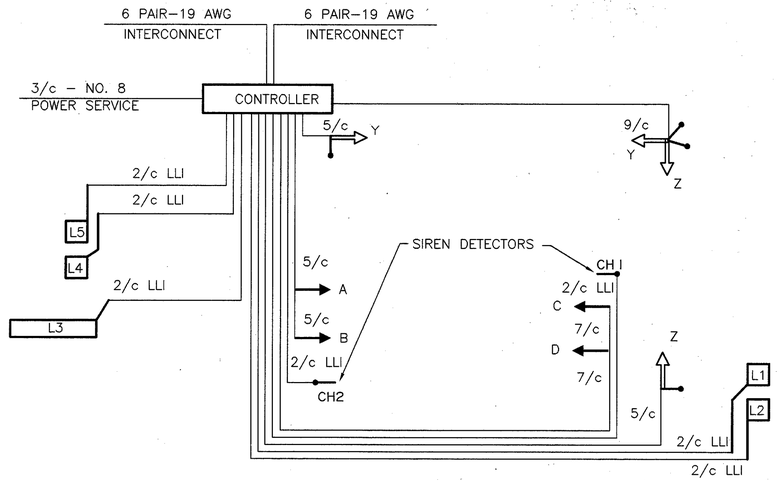




NOTES:
1. ALL ANGLES MEASURED CLOCKWISE.
2. BASE PLATE IS ORIENTED SQUARE TO MAST ARM A (LARGEST ARM) EVEN IF SUPPORT HAS TWO MAST ARMS.

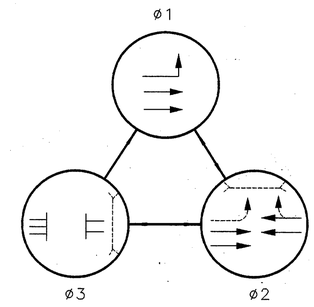
SUPPORT NO.	DESIGN NO.	FOUNDATION STATION	FOUNDATION OFFSET	SIGNAL SUPPORT TYPE TC-81.20 L (FT.)	L 1 (FT.)	L 2 (FT.)	L 3 (FT.)	X 1 (FT.)	MAST ARM A ANGLE (DEG.)	ORIENTATION ANG. (DEG.) FROM MAST ARM A: MAST ARM B	PEDESTRIAN SIGNALS	PEDESTRIAN PUSHBUTTONS	HANDHOLE	LUMINAIRE BRACKET
P1	4	87+25	43'L	37	24	36		28	0		0	0	180	
P2	PED	87+87	36'L								90 / 180	90 / 180	180	
P3	2	87+70	40'R	30	17	29		23	0		90	90	180	

ORIENTATION ANGLE CHART



WIRING DIAGRAM





PHASING DIAGRAM

NOTES:
1. PHASE SPLITS SHALL INCLUDE ALL GREEN PLUS YELLOW & ALL RED
2. PERMISSIVES SHALL START AT THE ZERO POINT OF THE CYCLE
3. OFFSETS SHALL BE REFERENCED TO THE BEGINNING OF PHASE 2 YELLOW

INTERVAL	ø1	ø2	ø3
INITIAL	7	19	24
PASSAGE	2.5	–	–
YELLOW	3.6	3.6	3.0
RED CLEAR	1.0	1.0	1.0
MAX I	13	57	28
MAX II	20	83	28
WALK	–	7	7
PED CLEAR	–	11	18
RECALL	NONE	PED	NONE
MEMORY	OFF	ON	ON

SIGNAL TIMING

PREEMPT CHANNELS

CHANNEL 1 = EASTBOUND (ø1 + OL-A)
CHANNEL 2 = WESTBOUND ONLY (ø2)

PREEMPT NOTES:
1. ACTIVE WALK INDICATIONS SHALL IMMEDIATELY GO TO "DONT WALK" UPON RECEIVING PREEMPTION SIGNAL.
2. IF PHASE ACTIVE CONFLICTS WITH PREEMPT PHASE CALLED, IT SHALL IMMEDIATELY TIME ITS YELLOW AND ALL RED CLEARANCES.
3. IF ACTIVE PHASE = THE PREEMPT PHASE, THEN THE PHASE SHALL HOLD FOR THE DURATION OF THE PREEMPT SIGNAL.
4. AFTER RELEASE FROM PREEMPT, YELLOW AND ALL RED CLEARANCE SHALL BE DISPLAYED AND RETURN PHASES SHALL BE ø2.
5. IF PREEMPT PHASES = RETURN PHASES (ø2) THEN YELLOW AND ALL RED CLEARANCE AFTER PREEMPT SHALL NOT BE DISPLAYED.

	DIAL 1	DIAL 2	DIAL 3
CYCLE LENGTH	105 SEC	105 SEC	120 SEC
PHASE 1 SPLIT	12 %	20 %	11 %
PHASE 2 SPLIT	61 %	53 %	62 %
PHASE 3 SPLIT	27 %	27 %	27 %
PERMISSIVE	10%	10%	10%
OFFSET	46 %	30 %	48 %
TIME OF DAY SCHEDULE	ALL OTHER TIMES	6:30AM TO 9:00AM MON-SAT	3:30PM TO 6:30PM MON-SAT

COORDINATION TIMING

SIGNAL HEAD	ø1 R/W	ø1 CLEAR		ø2 R/W		ø2 CLEAR		ø3 R/W		ø3 CLEAR		FLASH
A	R	R	R	G	G	Y	R	R	R	R	R	Y
B	R	R	R	G	G	Y	R	R	R	R	R	Y
C	~~G~~/G	~~Y~~/Y	R	G	G	Y	R	R	R	R	R	Y
D	G	Y	R	G	G	Y	R	R	R	R	R	Y
Y-Y	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DARK
Z-Z	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DARK

SIGNAL DISPLAY CHART

LOOP #	SIZE	# TURNS	MODE	DELAY	AMP #	PHASE
L1	6' x 6'	3	PRESENCE	0	1	SYSTEM
L2	6' x 6'	3	PRESENCE	0	2	SYSTEM
L3	6' x 40'	2	PRESENCE	0	3	1
L4	6' x 6'	3	PRESENCE	0	4	SYSTEM
L5	6' x 6'	3	PRESENCE	0	5	SYSTEM

LOOP DETECTOR CHART

Rev	Date	By	Remarks

TRAFF-PRO
CONSULTANTS, INC.
28917 Euclid Avenue
Wickliffe, Ohio 44092
(216) 944-6444

CITY OF LYNDHURST
U.S. RT. 322 & EVANSTON RD.
CHARTS

DRAWN BY: J.A.T. DATE 11-20-91
CHECKED BY: M.W.S. DATE 8-14-92
DRAWING NO. 319LYND.DWG SHEET 319 OF 426

TRAFFIC CONTROL PLAN

CALC. BY: _____ DATE: _____

CHK. BY: _____ DATE: _____

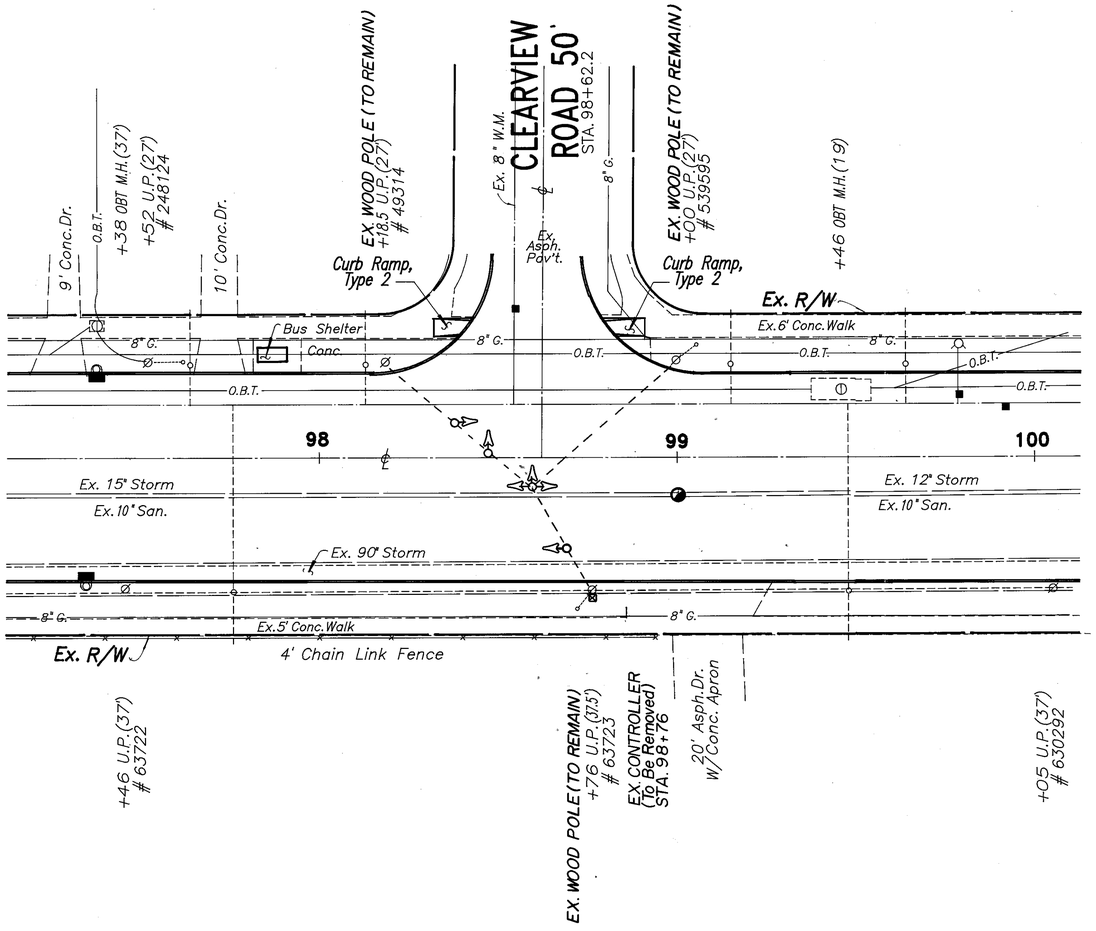
FHWA REGION	STATE	PROJECT	
5	OHIO		

320
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

N

0 5 10 20 40 60
SCALE IN FEET



* TRAFFIC SIGNAL INSTALLATION TO BE TOTALLY REMOVED

TELEDYNE ROST 1-42-1109

TRAFFIC SIGNAL PLAN – MAYFIELD ROAD AND CLEARVIEW ROAD

CALC. BY: DATE:	CUY-322-8.66	OHIO
CHKD. BY: DATE:	CUYAHOGA COUNTY	FHWA REGION 5
		FEDERAL PROJECT

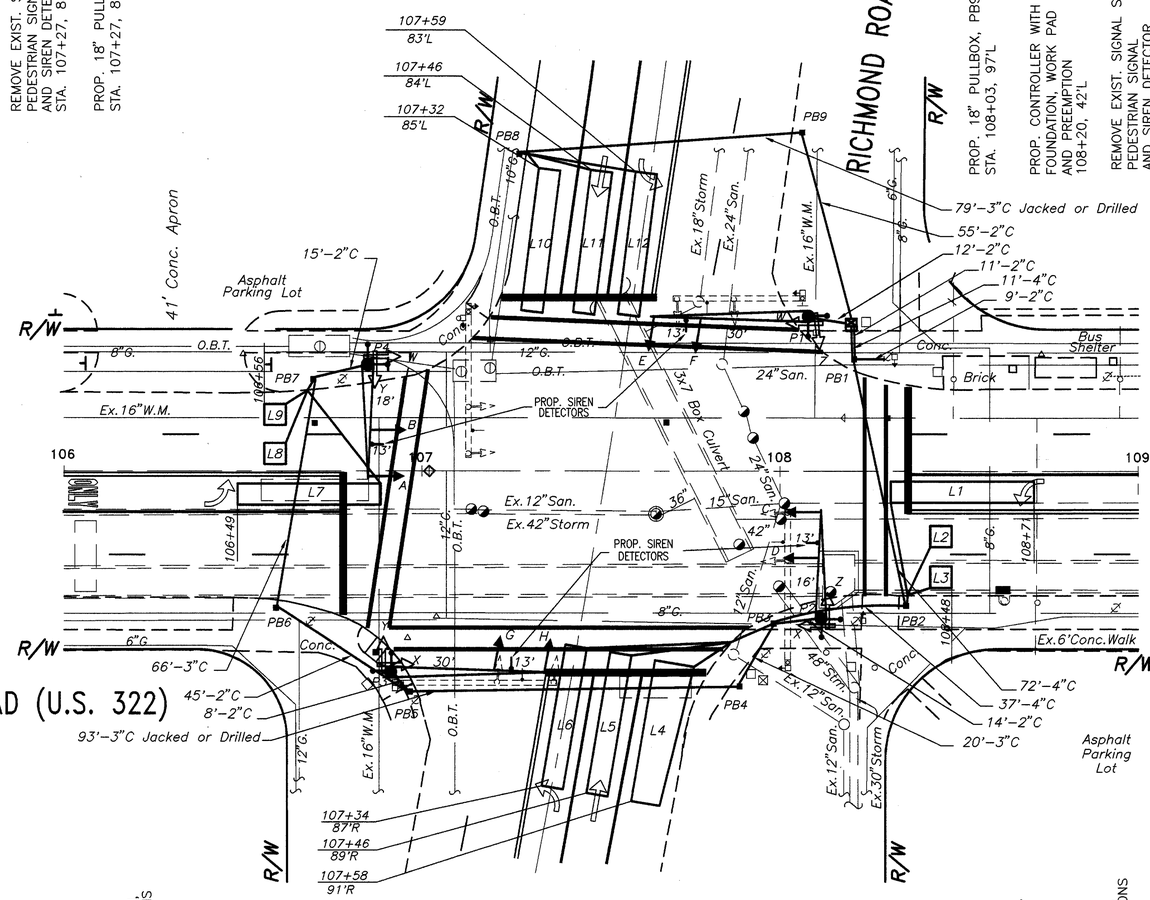
321
426

PROP. 18" PULLBOX, PB7
STA. 106+71, 27'L

PROP. SIGNAL SUPPORT P4, TYPE TC-81.20 DES. 3, WITH 32' ARM, PEDESTRIAN SIGNALS, PUSHBUTTONS AND SIREN DETECTOR
STA. 106+88, 30'L

REMOVE EXIST. SIGNAL SUPPORT, PEDESTRIAN SIGNALS AND SIREN DETECTOR
STA. 107+27, 88'L

PROP. 18" PULLBOX, PB8
STA. 107+27, 88'L

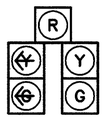


N

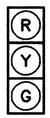
20 10 0 10 20

SCALE

SIGNALS



A, C, E & H



B, D, F & G

TYPE "A-2"



W - W
X - X
Y - Y
Z - Z

ALL HEADS ARE 12" POLY

PROP. 18" PULLBOX, PB9
STA. 108+03, 97'L

PROP. CONTROLLER WITH FOUNDATION, WORK PAD AND PREEMPTION
108+20, 42'L

REMOVE EXIST. SIGNAL SUPPORT, PEDESTRIAN SIGNAL AND SIREN DETECTOR
STA. 108+06, 49'L

PROP. SIGNAL SUPPORT, P1
TYPE TC-81.20 DES. 11, 44' ARM, PEDESTRIAN SIGNALS, PUSHBUTTONS AND SIREN DETECTOR
STA. 108+07, 43'L

PROP. 18" PULLBOX, PB1
STA. 108+21, 32'L

REMOVE EXIST. PULLBOX
STA. 108+24, 42'L

PROP. POWER SERVICE
STA. 108+30, 32'L

REMOVE EXIST. PEDESTRIAN SIGNAL
STA. 108+31, 32'L

REMOVE EXIST. PULLBOX
STA. 108+44, 28'L

THE UNDERGROUND UTILITIES ARE SHOWN ACCORDING TO INFORMATION FURNISHED BY THE UTILITIES CONCERNED. THEIR ACCURACY IS NOT GUARANTEED, THEREFORE THEY SHOULD BE RECHECKED BEFORE UNDERGROUND CONSTRUCTION BEGINS.

PROP. 18" PULLBOX, PB6
STA. 106+58, 40'R

REMOVE EXIST. PULLBOX
STA. 106+85, 60'R

PROP. SIGNAL SUPPORT P3, TYPE TC-81.20 DES. 11, 44' ARM, PEDESTRIAN SIGNALS, PUSHBUTTONS AND SIREN DETECTOR
STA. 106+93, 58'R

REMOVE EXIST. SIGNAL SUPPORT, PEDESTRIAN SIGNALS AND SIREN DETECTOR
STA. 106+94, 60'R

PROP. 18" PULLBOX, PB5
STA. 106+97, 63'R

PROP. 18" PULLBOX, PB4
STA. 107+88, 63'R

REMOVE EXIST. PULLBOX
STA. 107+92, 57'R

REMOVE EXIST. CONTROLLER AND FOUNDATION
STA. 107+93, 57'R

PROP. 18" PULLBOX, PB3
STA. 107+94, 44'R

REMOVE EXIST. SIGNAL SUPPORT, PEDESTRIAN SIGNAL AND SIREN DETECTOR
STA. 108+02, 54'R

PROP. SIGNAL SUPPORT, P2, TYPE TC-81.20 DES. 3, 30'ARM, PEDESTRIAN SIGNALS, PUSHBUTTONS AND SIREN DETECTOR
STA. 108+12, 43'R

REMOVE EXIST. PULLBOX
STA. 108+20, 55'R

REMOVE EXIST. PEDESTRIAN SIGNAL
STA. 108+22 42'R

PROP. 18" PULLBOX, PB2
STA. 108+36, 39'R

Rev	Date	By	Remarks

TRAFF-PRO CONSULTANTS, INC.
28917 Euclid Avenue
Wickliffe, Ohio 44092
(216) 944-6444

CITY OF LYNDHURST
U.S. RT. 322 & RICHMOND RD.

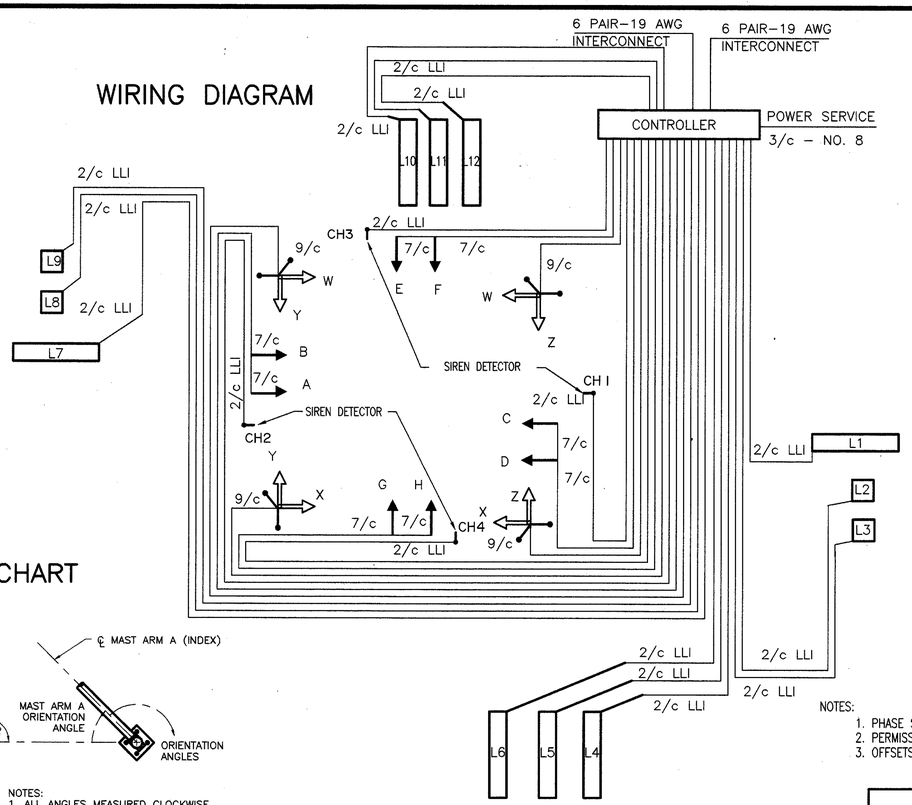
DRAWN BY: J.A.T. DATE 12-5-91
CHECKED BY: M.W.S. DATE 05-18-93
DRAWING NO. 321LYND.DWG SHEET 321 OF 426

TRAFFIC CONTROL PLAN

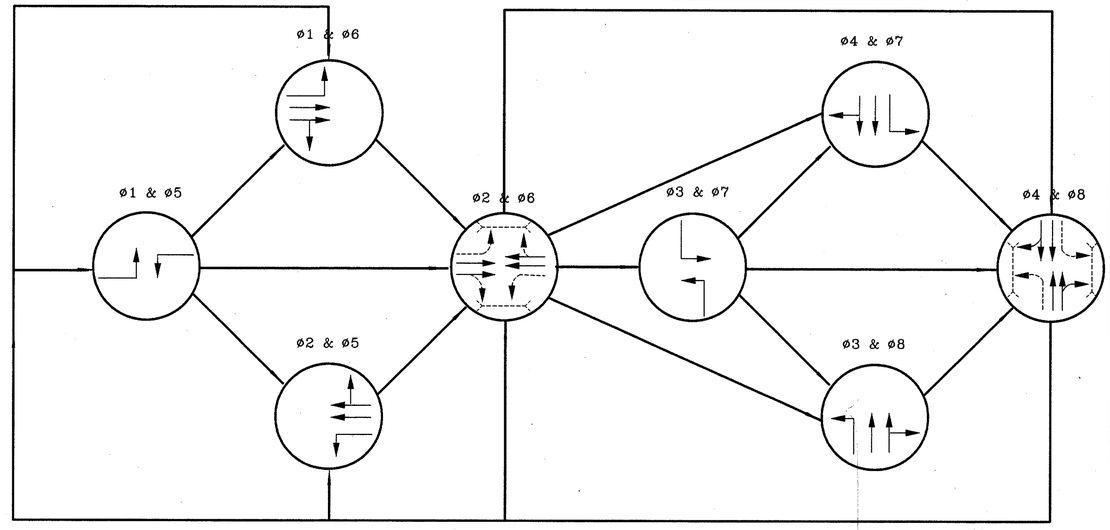
CALC. BY: DATE:	CUY-322-8.66 CUYAHOGA COUNTY	OHIO
CHKD. BY: DATE:		FHWA REGION 5
		FEDERAL PROJECT

322
426

WIRING DIAGRAM

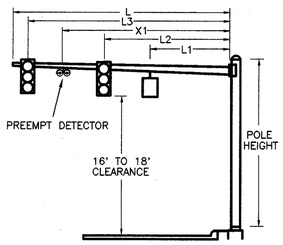


PHASING DIAGRAM



NOTES:
1. PHASE SPLITS SHALL INCLUDE ALL GREEN PLUS YELLOW & ALL RED
2. PERMISSIVES SHALL START AT THE ZERO POINT OF THE CYCLE
3. OFFSETS SHALL BE REFERENCED TO THE BEGINNING OF PHASES 2 & 6 YELLOW

ORIENTATION ANGLE CHART



NOTES:
1. ALL ANGLES MEASURED CLOCKWISE.
2. BASE PLATE IS ORIENTED SQUARE TO MAST ARM A (LARGEST ARM) EVEN IF SUPPORT HAS TWO MAST ARMS.

SUPPORT NO.	DESIGN NO.	FOUNDATION STATION	FOUNDATION OFFSET	SIGNAL SUPPORT TYPE TC-81.20 L (FT.)	L1 (FT.)	L2 (FT.)	L3 (FT.)	X1 (FT.)	MAST ARM A ANGLE (DEC.)	ORIENTATION ANG. (DEG.) FROM MAST ARM A: MAST ARM B	PEDESTRIAN SIGNALS	PEDESTRIAN PUSHBUTTONS	HANDHOLE	LUMINAIRE BRACKET
P1	11	108+07	43'L	44	29	43		36	90		180/270	180/270	180	
P2	3	108+12	43'R	30	17	29		23	0		90/180	90/180	180	
P3	11	106+93	57'R	44	29	43		36	90		180/270	180/270	180	
P4	3	106+88	30'L	32	20	31		26	0		180/270	180/270	180	

PREEMPT CHANNELS

CHANNEL 1 = ø1 & ø6
CHANNEL 2 = ø2 & ø5
CHANNEL 3 = ø3 & ø8
CHANNEL 4 = ø4 & ø7

PREEMPT NOTES:
1. ACTIVE WALK INDICATIONS SHALL IMMEDIATELY GO TO "DONT WALK" UPON RECEIVING PREEMPTION SIGNAL.
2. IF PHASE ACTIVE CONFLICTS WITH PREEMPT PHASE CALLED, IT SHALL IMMEDIATELY TIME ITS YELLOW AND ALL RED CLEARANCES.
3. IF ACTIVE PHASE = THE PREEMPT PHASE, THEN THE PHASE SHALL HOLD FOR THE DURATION OF THE PREEMPT SIGNAL.
4. AFTER RELEASE FROM PREEMPT, YELLOW AND ALL RED CLEARANCE SHALL BE DISPLAYED AND RETURN PHASES SHALL BE ø2 + ø6.
5. IF PREEMPT PHASES = RETURN PHASES (ø2 + ø6) THEN YELLOW AND ALL RED CLEARANCE AFTER PREEMPT SHALL NOT BE DISPLAYED.

COORDINATION TIMING

	DIAL 1	DIAL 2	DIAL 3
CYCLE LENGTH	105 SEC	105 SEC	120 SEC
PHASE 1 SPLIT	14 %	13 %	13 %
PHASE 2 SPLIT	43 %	36 %	41 %
PHASE 3 SPLIT	15 %	18 %	18 %
PHASE 4 SPLIT	30 %	34 %	30 %
PHASE 5 SPLIT	13 %	13 %	16 %
PHASE 6 SPLIT	44 %	36 %	37 %
PHASE 7 SPLIT	15 %	20 %	16 %
PHASE 8 SPLIT	30 %	33 %	33 %
PERMISSIVE	5%	5%	5%
OFFSET	84 %	77 %	74 %
TIME OF DAY SCHEDULE	ALL OTHER TIMES	6:30AM TO 9:00AM MON-SAT	3:30PM TO 6:30PM MON-SAT

SIGNAL TIMING

INTERVAL	ø1	ø2	ø3	ø4	ø5	ø6	ø7	ø8
INITIAL	7	31	7	10	7	31	7	10
PASSAGE	2.5	–	2.5	3.0	2.5	–	2.5	3.0
YELLOW	3.6	3.7	3.6	3.6	3.6	3.7	3.6	3.6
RED CLEAR	1.9	2.0	1.6	1.6	1.9	2.0	1.6	1.6
MAX I	13	37	19	36	13	37	19	34
MAX II	15	48	20	39	19	44	19	39
WALK	–	7	–	7	–	7	–	7
PED CLEAR	–	23	–	19	–	23	–	19
RECALL	NONE	PED	NONE	NONE	NONE	PED	NONE	NONE
MEMORY	OFF	ON	OFF	ON	OFF	ON	OFF	ON

SIGNAL DISPLAY CHART

SIGNAL HEAD	ø1 & ø5 R/W	ø1 & ø5 CLEAR		ø1 & ø6 R/W	ø1 & ø6 CLEAR		ø2 & ø5 R/W	ø2 & ø5 CLEAR		ø2 & ø6 R/W	ø2 & ø6 CLEAR		ø3 & ø7 R/W	ø3 & ø7 CLEAR		ø3 & ø8 R/W	ø3 & ø8 CLEAR		ø4 & ø7 R/W	ø4 & ø7 CLEAR		ø4 & ø8 R/W	ø4 & ø8 CLEAR		FLASH
A	⟲	↺①	R①	R	R	R	G/⟲	Y/↺	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R
B	R	R	R	R	R	R	G	Y	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R
C	⟲	↺②	R②	G/⟲	Y/↺	R	R	R	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R
D	R	R	R	G	Y	R	R	R	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R
E	R	R	R	R	R	R	R	R	R	R	R	R	R	⟲	↺③	R③	G/⟲	Y/↺	R	R	R	R	G	G	Y	R	R
F	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	G	G	Y	R	R
G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	G	Y	R	R
H	R	R	R	R	R	R	R	R	R	R	R	R	R	⟲	↺④	R④	R	R	R	G/⟲	Y/↺	R	G	G	Y	R	R
W-W	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DARK
X-X	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DARK
Y-Y	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DARK
Z-Z	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DARK

1. REMAINS ⟲ IF ø2 & ø5 NEXT
2. REMAINS ⟲ IF ø1 & ø6 NEXT
3. REMAINS ⟲ IF ø3 & ø8 NEXT
4. REMAINS ⟲ IF ø4 & ø7 NEXT

LOOP DETECTOR CHART

LOOP #	SIZE	# TURNS	MODE	DELAY	AMP #	PHASE
L1	6' x 40'	2	PRESENCE	0	1	5
L2	6' x 6'	3	PRESENCE	0	2	SYSTEM
L3	6' x 6'	3	PRESENCE	0	3	SYSTEM
L4	11'x8'x40'	2	PRESENCE	8	4	8
L5	6' x 40'	2	PRESENCE	0	5	8
L6	6' x 40'	2	PRESENCE	0	6	3
L7	6' x 40'	2	PRESENCE	0	7	1
L8	6' x 6'	3	PRESENCE	0	8	SYSTEM
L9	6' x 6'	3	PRESENCE	0	9	SYSTEM
L10	6' x 40'	2	PRESENCE	8	10	4
L11	6' x 40'	2	PRESENCE	0	11	4
L12	6' x 40'	2	PRESENCE	0	12	7

Rev.	Date	By	Remarks

TRAFF-PRO
CONSULTANTS, INC.
28917 Euclid Avenue
Wickliffe, Ohio 44092
(216) 944-6444

CITY OF LYNDHURST
U.S. RT. 322 & RICHMOND RD.
CHARTS

DRAWN BY: J.A.T. DATE 12-2-91
CHECKED BY: M.W.S. DATE 05-18-93
DRAWING NO. 322LYND.DWG SHEET 322 OF 426

TRAFFIC CONTROL PLAN

CALC. BY: DATE:	CUY–322–8.66 CUYAHOGA COUNTY	OHIO
CHKD. BY: DATE:		FHWA REGION 5
		FEDERAL PROJECT

323
426

PROP. 18" PULLBOX, PB6
STA. 114+12, 27'L

PROP. SIGNAL SUPPORT P1,
TYPE TC–81.20 DES. 3, POLE, WITH MAST ARMS
TYPE TC–81.20 DES. 2, 26' AND
TYPE TC–81.20 DES. 1, 20'
STA. 114+20, 31'L

PROP. CONTROLLER WITH FOUNDATION
STA. 114+30, 32'L

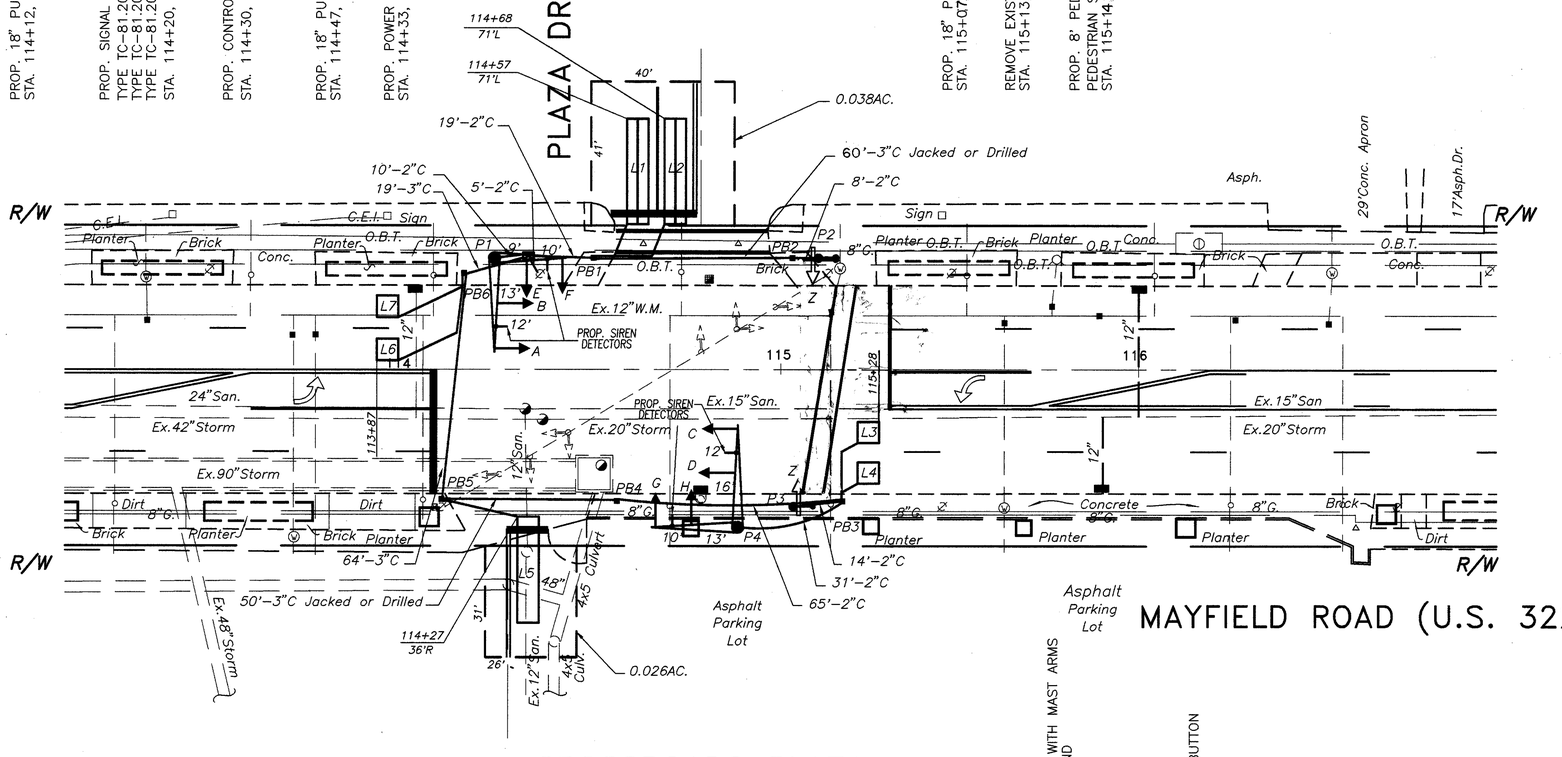
PROP. 18" PULLBOX, PB1
STA. 114+47, 31'L

PROP. POWER SERVICE
STA. 114+33, 27'L

PROP. 18" PULLBOX, PB2
STA. 115+07, 31'L

REMOVE EXIST. WOOD POLE
STA. 115+13, 27'L

PROP. 8' PEDESTAL, P2, WITH
PEDESTRIAN SIGNAL AND PUSHBUTTON
STA. 115+14, 31'L



MAYFIELD ROAD (U.S. 322)

CROSSROADS PLAZA

REMOVE EXIST. CONTROLLER
STA. 114+06, 39'R

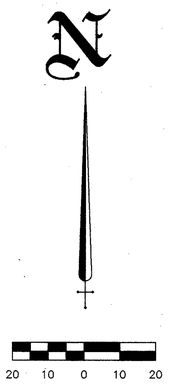
PROP. 18" PULLBOX, PB5
STA. 114+06, 37'R

PROP. 18" PULLBOX, PB4
STA. 114+54, 37'R

PROP. SIGNAL SUPPORT P4,
TYPE TC–81.20 DES. 3, POLE, WITH MAST ARMS
TYPE TC–81.20 DES. 2, 29' AND
TYPE TC–81.20 DES. 1, 24'
STA. 114+88, 44'R

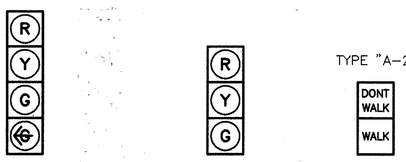
PROP. 8' PEDESTAL, P3, WITH
PEDESTRIAN SIGNAL AND PUSHBUTTON
STA. 115+04, 38'R

PROP. 18" PULLBOX, PB3
STA. 115+17, 37'R



THE UNDERGROUND UTILITIES ARE SHOWN ACCORDING TO INFORMATION FURNISHED BY THE UTILITIES CONCERNED. THEIR ACCURACY IS NOT GUARANTEED, THEREFORE THEY SHOULD BE RECHECKED BEFORE UNDERGROUND CONSTRUCTION BEGINS.

SIGNALS



ALL HEADS ARE 12" POLY

Rev	Date	By	Remarks

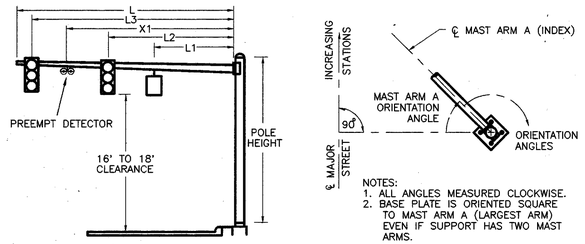
TRAFF-PRO
CONSULTANTS, INC.
28917 Euclid Avenue
Wickliffe, Ohio 44092
(216) 944–6444

CITY OF LYNDHURST
U.S. RT. 322 & CROSSROADS PLAZA

DRAWN BY: J.A.T. DATE 11–27–91
CHECKED BY: M.W.S. DATE 05–18–93
DRAWING NO. 323LYND.DWG SHEET 323 OF 426

TRAFFIC CONTROL PLAN

CALC. BY: DATE:	CUY-322-8.66 CUYAHOGA COUNTY	OHIO
CHKD. BY: DATE:		FHWA REGION 5
		FEDERAL PROJECT



NOTES:
1. ALL ANGLES MEASURED CLOCKWISE.
2. BASE PLATE IS ORIENTED SQUARE TO MAST ARM A (LARGEST ARM) EVEN IF SUPPORT HAS TWO MAST ARMS.

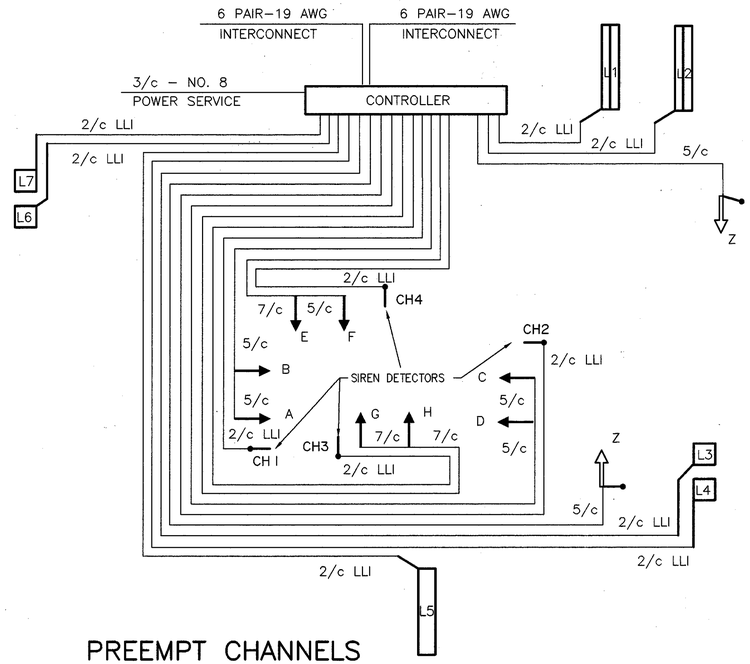
SUPPORT NO.	DESIGN NO.	FOUNDATION STATION	FOUNDATION OFFSET	SIGNAL SUPPORT TYPE TC-81.20 L (FT.)	L 1 (FT.)	L 2 (FT.)	L 3 (FT.)	X 1 (FT.)	MAST ARM A ANGLE (DEG.)	ORIENTATION ANG. (DEG.) FROM MAST ARM A: MAST ARM B	PEDESTRIAN SIGNALS	PEDESTRIAN PUSHBUTTONS	HANDHOLE	LUMINAIRE BRACKET	
P1	3	114+20	31'L	26	13	25		19	0				180		DESIGN 2 ARM
				20	9	19		14		270					DESIGN 1 ARM
P2	PED	115+10	31'L								270	270	180		
P3	PED	115+04	38'R								270	270	180		
P4	3	114+88	44'R	29	16	28		22	0				180		DESIGN 2 ARM
				24	13	23		18		270					DESIGN 1 ARM

ORIENTATION ANGLE CHART

INTERVAL	ø1	ø2	ø3
INITIAL	8.0	8.0	8.0
PASSAGE	–	3.0	3.0
YELLOW	3.6	3.1	3.1
RED CLEAR	1.6	1.9	1.4
MAX I	62	12	26
MAX II	63	23	27
WALK	–	–	7
PED CLEAR	–	–	15
RECALL	MIN	NONE	NONE
MEMORY	ON	OFF	OFF

SIGNAL TIMING

WIRING DIAGRAM

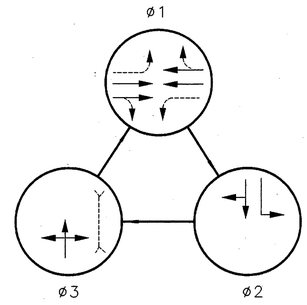


PREEMPT CHANNELS

CHANNEL 1 = ø1 (WESTBOUND ONLY)
CHANNEL 2 = ø1 (EASTBOUND ONLY)
CHANNEL 3 = ø2 (SOUTHBOUND)
CHANNEL 4 = ø3 (NORTHBOUND)

PREEMPT NOTES:
1. ACTIVE WALK INDICATIONS SHALL IMMEDIATELY GO TO "DONT WALK" UPON RECEIVING PREEMPTION SIGNAL.
2. IF PHASE ACTIVE CONFLICTS WITH PREEMPT PHASE CALLED, IT SHALL IMMEDIATELY TIME ITS YELLOW AND ALL RED CLEARANCES.
3. IF ACTIVE PHASE = THE PREEMPT PHASE, THEN THE PHASE SHALL HOLD FOR THE DURATION OF THE PREEMPT SIGNAL.
4. AFTER RELEASE FROM PREEMPT, YELLOW AND ALL RED CLEARANCE SHALL BE DISPLAYED AND RETURN PHASES SHALL BE ø1.
5. IF PREEMPT PHASES = RETURN PHASES (ø1) THEN YELLOW AND ALL RED CLEARANCE AFTER PREEMPT SHALL NOT BE DISPLAYED.





PHASING DIAGRAM

NOTES:
1. PHASE SPLITS SHALL INCLUDE ALL GREEN PLUS YELLOW & ALL RED
2. PERMISSIVES SHALL START AT THE ZERO POINT OF THE CYCLE
3. OFFSETS SHALL BE REFERENCED TO THE BEGINNING OF PHASE 1 YELLOW

	DIAL 1	DIAL 2	DIAL 3
CYCLE LENGTH	105 SEC	105 SEC	120 SEC
PHASE 1 SPLIT	59 %	62 %	49 %
PHASE 2 SPLIT	16 %	12 %	23 %
PHASE 3 SPLIT	25 %	26 %	28 %
PERMISSIVE	10%	10%	10%
OFFSET	2 %	4 %	98 %
TIME OF DAY SCHEDULE	ALL OTHER TIMES	6:30AM TO 9:00AM MON-SAT	3:30PM TO 6:30PM MON-SAT

COORDINATION TIMING

SIGNAL HEAD	ø1 R/W	ø1 CLEAR		ø2 R/W	ø2 CLEAR		ø3 R/W		ø3 CLEAR		FLASH
A	G	Y	R	R	R	R	R	R	R	R	Y
B	G	Y	R	R	R	R	R	R	R	R	Y
C	G	Y	R	R	R	R	R	R	R	R	Y
D	G	Y	R	R	R	R	R	R	R	R	Y
E	R	R	R	R	R	R	G/G	G/G	Y	R	R
F	R	R	R	R	R	R	G	G	Y	R	R
G	R	R	R	G	Y	R	R	R	R	R	R
H	R	R	R	G/G	Y	R	R	R	R	R	R
Z-Z	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DARK

SIGNAL DISPLAY CHART

LOOP #	SIZE	# TURNS	MODE	DELAY	AMP #	PHASE
L1	6' x 30'	2-4-2	PRESENCE	8	1	2
L2	6' x 30'	2-4-2	PRESENCE	0	2	2
L3	6' x 6'	3	PRESENCE	0	3	SYSTEM
L4	6' x 6'	3	PRESENCE	0	4	SYSTEM
L5	6' x 30'	2	PRESENCE	8	5	3
L6	6' x 6'	3	PRESENCE	0	6	SYSTEM
L7	6' x 6'	3	PRESENCE	0	7	SYSTEM

LOOP DETECTOR CHART

Rev	Date	By	Remarks

TRAFF-PRO CONSULTANTS, INC.
28917 Euclid Avenue
Wickliffe, Ohio 44092
(216) 944-6444

CITY OF LYNDHURST
U.S. RT. 322 & CROSSROADS PLAZA
CHARTS

DRAWN BY: J.A.T. DATE 12-2-91
CHECKED BY: M.W.S. DATE 05-18-93
DRAWING NO. 324LYND.DWG SHEET 324 OF 426

CALC. BY: _____ DATE: _____
CHK. BY: _____ DATE: _____

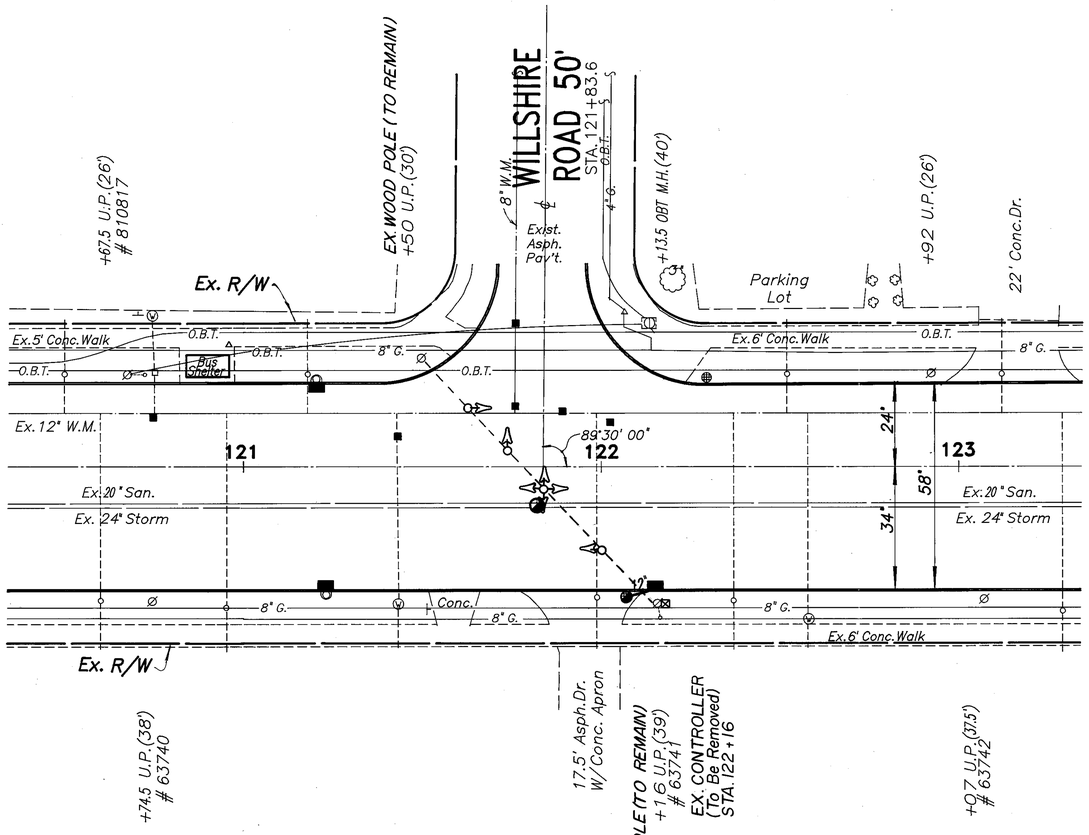
FHWA REGION	STATE	PROJECT	
5	OHIO		

325
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

0 5 10 20 40 60
SCALE IN FEET

N



* TRAFFIC SIGNAL INSTALLATION TO BE TOTALLY REMOVED

TELEVYNE POST 141-139

TRAFFIC SIGNAL PLAN – MAYFIELD ROAD AND WILLSHIRE ROAD

CALC. BY:	DATE:
CHK. BY:	DATE:

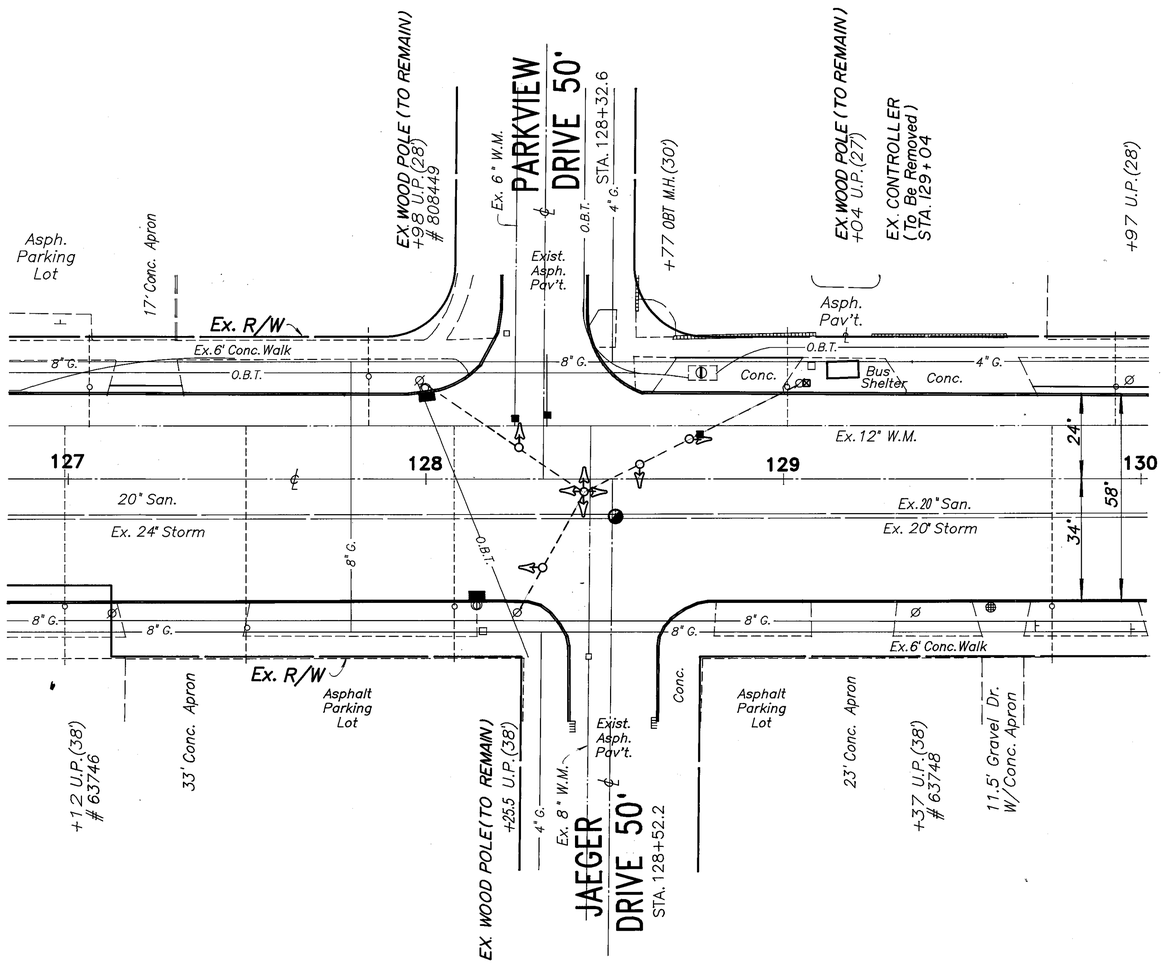
FHWA REGION	STATE	PROJECT	
5	OHIO		

326
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

0 5 10 20 40 60
SCALE IN FEET

N



* TRAFFIC SIGNAL INSTALLATION TO BE TOTALLY REMOVED

TELEDYNE POST H41139

TRAFFIC SIGNAL PLAN – MAYFIELD ROAD, PARKVIEW ROAD AND JAEGER ROAD

CALC. BY: _____ DATE: _____
CHK. BY: _____ DATE: _____

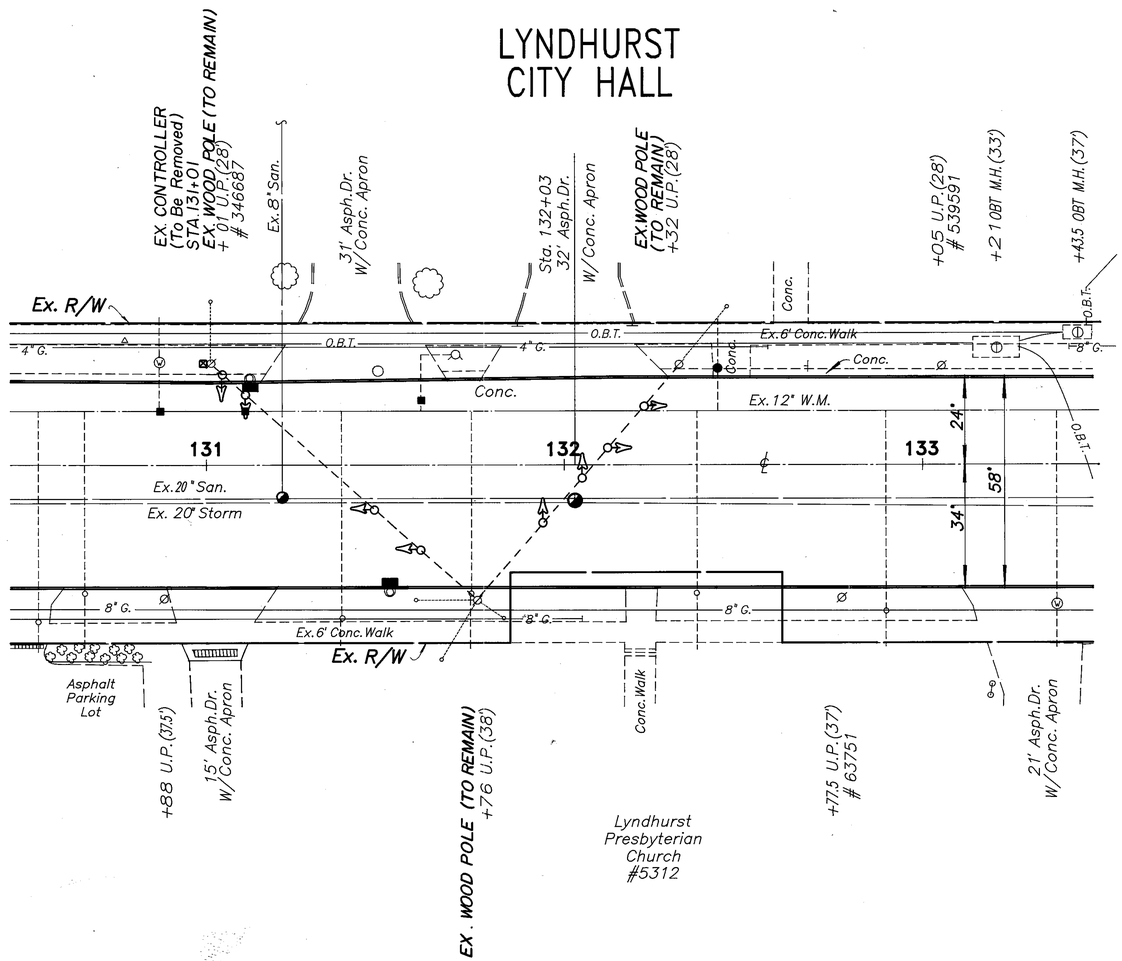
FHWA REGION	STATE	PROJECT	
5	OHIO		

327
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

0 5 10 20 40 60
SCALE IN FEET

N



*TRAFFIC SIGNAL INSTALLATION TO BE TOTALLY REMOVED

TELEPHONE POST 14x100

TRAFFIC SIGNAL PLAN – MAYFIELD ROAD AND LYNDHURST CITY HALL

CALC. BY: DATE:	CUY–322–8.66 CUYAHOGA COUNTY	OHIO
CHKD. BY: DATE:		FHWA REGION 5
		FEDERAL PROJECT

328
426

PROP. 18" PULLBOX, PB5
STA. 134+88, 29'L

PROP. CONTROLLER, WITH FOUNDATION AND WORK PAD
STA. 134+98, 31'L

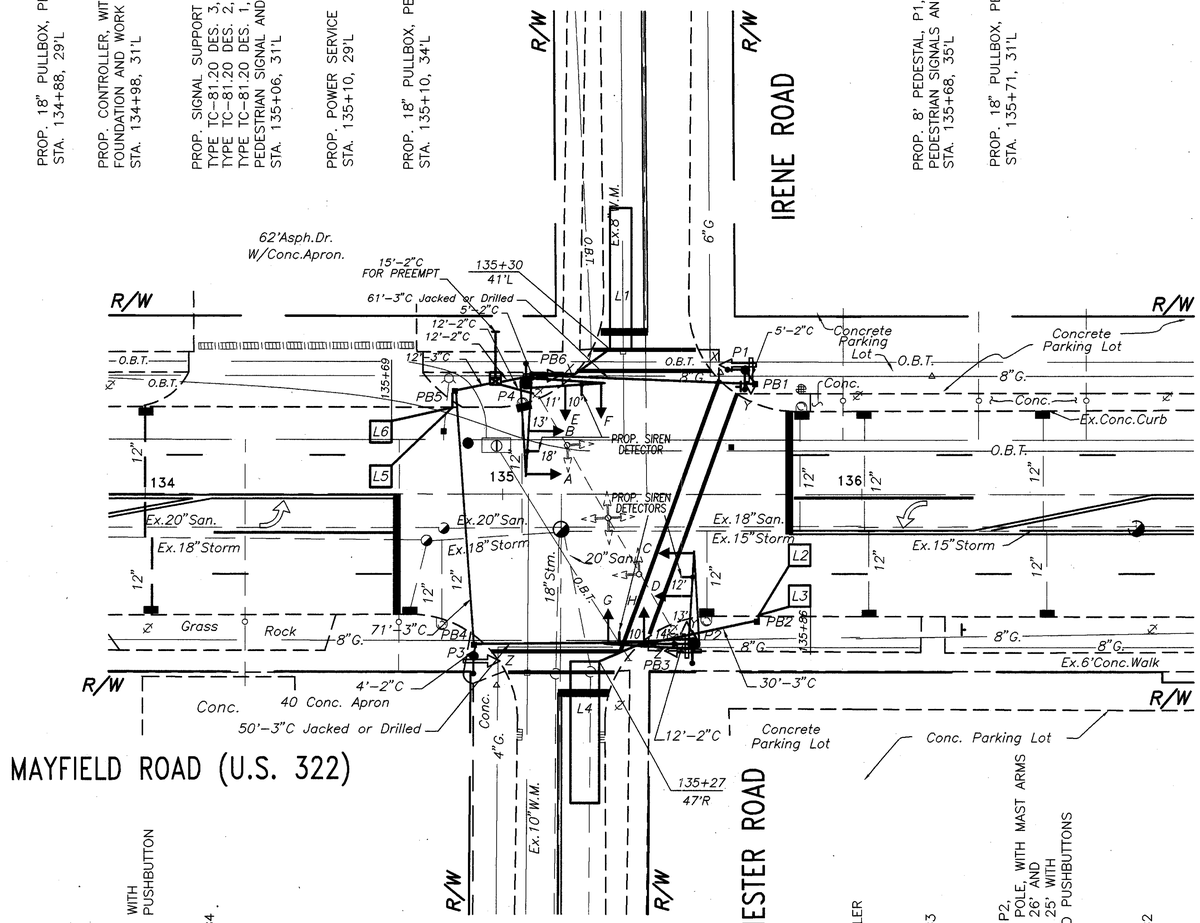
PROP. SIGNAL SUPPORT P4, TYPE TC–81.20 DES. 3, POLE, WITH MAST ARMS
TYPE TC–81.20 DES. 2, 26' AND
TYPE TC–81.20 DES. 1, 22' WITH
PEDESTRIAN SIGNAL AND PUSHBUTTON
STA. 135+06, 31'L

PROP. POWER SERVICE
STA. 135+10, 29'L

PROP. 18" PULLBOX, PB6
STA. 135+10, 34'L

PROP. 8' PEDESTAL, P1, WITH
PEDESTRIAN SIGNALS AND PUSHBUTTONS
STA. 135+68, 35'L

PROP. 18" PULLBOX, PB1
STA. 135+71, 31'L



PROP. 8' PEDESTAL, P3, WITH
PEDESTRIAN SIGNAL AND PUSHBUTTON
STA. 134+92, 46'R

PROP. 18" PULLBOX, PB4
STA. 134+92, 37'R

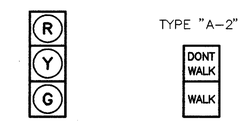
REMOVE EXIST. CONTROLLER
STA. 135+48, 41'R

PROP. 18" PULLBOX, PB3
STA. 135+42, 42'R

PROP. SIGNAL SUPPORT P2,
TYPE TC–81.20 DES. 4, POLE, WITH MAST ARMS
TYPE TC–81.20 DES. 2, 26', AND
TYPE TC–81.20 DES. 2, 25' WITH
PEDESTRIAN SIGNALS AND PUSHBUTTONS
STA. 135+53, 42'R

PROP. 18" PULLBOX, PB2
STA. 135+72, 36'R

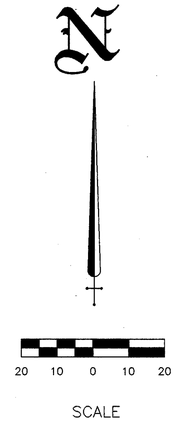
SIGNALS



A, B, C, D,
E, F, G & H

X – X
Y – Y
Z – Z

ALL HEADS ARE 12" POLY



THE UNDERGROUND UTILITIES ARE SHOWN ACCORDING TO INFORMATION FURNISHED BY THE UTILITIES CONCERNED. THEIR ACCURACY IS NOT GUARANTEED, THEREFORE THEY SHOULD BE RECHECKED BEFORE UNDERGROUND CONSTRUCTION BEGINS.

Rev	Date	By	Remarks

TRAFF-PRO
CONSULTANTS, INC.
28917 Euclid Avenue
Wickliffe, Ohio 44092
(216) 944–6444

CITY OF LYNDHURST
U.S. RT. 322 & IRENE/WINCHESTER

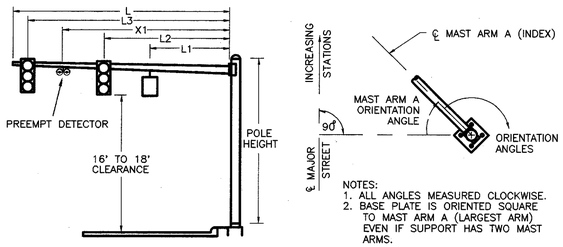
DRAWN BY: J.A.T. DATE 12–5–91
CHECKED BY: M.W.S. DATE 05–18–93
DRAWING NO. 328LYND.DWG SHEET 328 OF 426

TRAFFIC CONTROL PLAN

CALC. BY: DATE:	CUY-322-8.66 CUYAHOGA COUNTY	OHIO FHWA REGION 5
CHKD. BY: DATE:		FEDERAL PROJECT

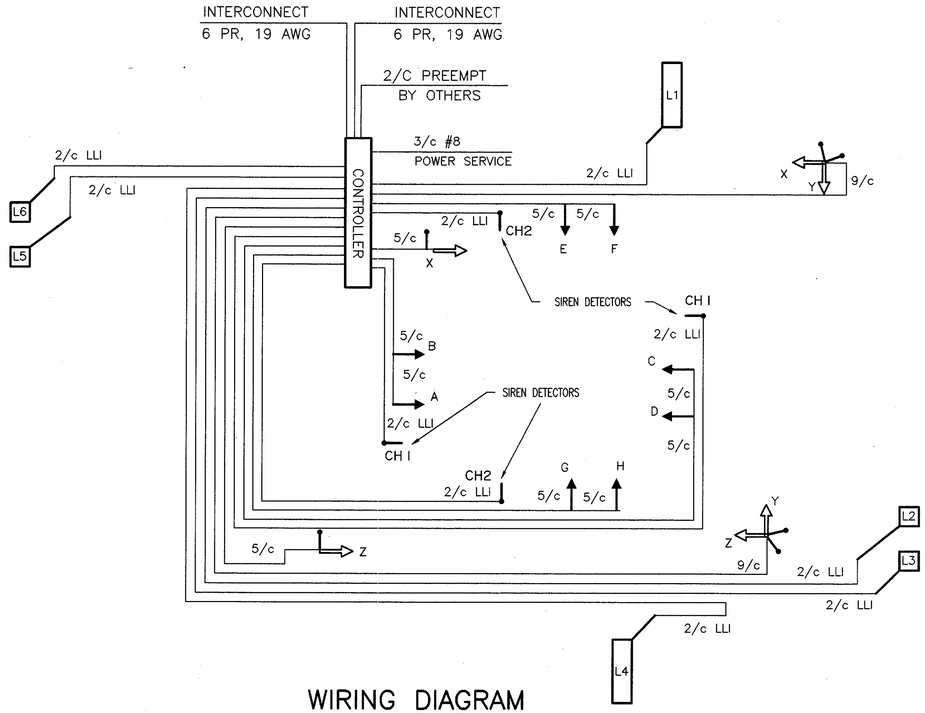
329 / 426

ORIENTATION ANGLE CHART



NOTES:
1. ALL ANGLES MEASURED CLOCKWISE.
2. BASE PLATE IS ORIENTED SQUARE TO MAST ARM A (LARGEST ARM) EVEN IF SUPPORT HAS TWO MAST ARMS.

SUPPORT NO.	DESIGN NO.	FOUNDATION STATION	FOUNDATION OFFSET	SIGNAL SUPPORT TYPE TC-81.20 L (FT.)	L1 (FT.)	L2 (FT.)	L3 (FT.)	X1 (FT.)	MAST ARM A ANGLE (DEG.)	ORIENTATION ANG. (DEG.) FROM MAST ARM A: MAST ARM B	PEDESTRIAN SIGNALS	PEDESTRIAN PUSHBUTTONS	HANDHOLE	LUMINAIRE BRACKET	
P1	PED	135+68	35'L								180/270	180/270	180		
P2	4	135+53	42'R	26	13	25		19	0		180/270	180/270	180		DESIGN 2 ARM
				25	14	24		20		270					DESIGN 2 ARM
P3	PED	134+92	46'R								180/270	180/270	180		
P4	3	135+06	31'L	26	13	25		19	0		180/270	180	180		DESIGN 2 ARM
				22	11	21		16		270					DESIGN 1 ARM



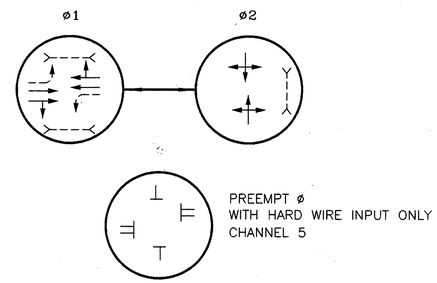
WIRING DIAGRAM

PREEMPT CHANNELS

CHANNEL 1 = ø1 (WESTBOUND & EASTBOUND)
CHANNEL 2 = ø2 (NORTHBOUND & SOUTHBOUND)

PREEMPT NOTES:
1. ACTIVE WALK INDICATIONS SHALL IMMEDIATELY GO TO "DONT WALK" UPON RCEIVING PREEMPTION SIGNAL.
2. IF PHASE ACTIVE CONFLICTS WITH PREEMPT PHASE CALLED, IT SHALL IMMEDIATELY TIME ITS YELLOW AND ALL RED CLEARANCES.
3. IF ACTIVE PHASE = THE PREEMPT PHASE, THEN THE PHASE SHALL HOLD FOR THE DURATION OF THE PREEMPT SIGNAL.
4. AFTER RELEASE FROM PREEMPT, YELLOW AND ALL RED CLEARANCE SHALL BE DISPLAYED AND RETURN PHASES SHALL BE ø1.
5. IF PREEMPT PHASES = RETURN PHASES (ø1) THEN YELLOW AND AND ALL RED CLEARANCE AFTER PREEMPT SHALL NOT BE DISPLAYED.

PHASING DIAGRAM



SIGNAL DISPLAY CHART

SIGNAL HEAD	ø1 R/W		ø1 CLEAR		ø2 R/W		ø2 CLEAR		FLASH	PREEMPT
A	G	G	Y	R	R	R	R	R	Y	R
B	G	G	Y	R	R	R	R	R	Y	R
C	G	G	Y	R	R	R	R	R	Y	R
D	G	G	Y	R	R	R	R	R	Y	R
E	R	R	R	R	G	G	Y	R	R	R
F	R	R	R	R	G	G	Y	R	R	R
G	R	R	R	R	G	G	Y	R	R	R
H	R	R	R	R	G	G	Y	R	R	R
X-X	W	FDW	DW	DW	DW	DW	DW	DW	DARK	DW
Y-Y	DW	DW	DW	DW	W	FDW	DW	DW	DARK	DW
Z-Z	W	FDW	DW	DW	DW	DW	DW	DW	DARK	DW

COORDINATION TIMING

	DIAL 1	DIAL 2	DIAL 3
CYCLE LENGTH	105 SEC	105 SEC	120 SEC
PHASE 1 SPLIT	70 %	70 %	74%
PHASE 2 SPLIT	30 %	30 %	26 %
PERMISSIVE	15 %	15 %	15 %
OFFSET	48 %	41 %	43 %
TIME OF DAY SCHEDULE	ALL OTHER TIMES	6:30AM TO 9:00AM MON-SAT	3:30PM TO 6:30PM MON-SAT

NOTES:
1. PHASE SPLITS SHALL INCLUDE ALL GREEN PLUS YELLOW & ALL RED
2. PERMISSIVES SHALL START AT THE ZERO POINT OF THE CYCLE
3. OFFSETS SHALL BE REFERENCED TO THE BEGINNING OF PHASE 1 YELLOW

LOOP DETECTOR CHART

LOOP #	SIZE	# TURNS	MODE	DELAY	AMP #	PHASE
L1	6' x 40'	2	PRESENCE	8	1	2
L2	6' x 6'	3	PRESENCE	0	2	SYSTEM
L3	6' x 6'	3	PRESENCE	0	3	SYSTEM
L4	8' x 40'	2	PRESENCE	8	4	2
L5	6' x 6'	3	PRESENCE	0	5	SYSTEM
L6	6' x 6'	3	PRESENCE	0	6	SYSTEM

SIGNAL TIMING

INTERVAL	ø1	ø2
INITIAL	16	8
PASSAGE	–	3.0
YELLOW	3.6	3.1
RED CLEAR	1.6	1.9
MAX I	74	31
MAX II	89	31
WALK	7	7
PED CLEAR	8	19
RECALL	MIN	NONE
MEMORY	ON	OFF

Rev	Date	By	Remarks

TRAFF-PRO CONSULTANTS, INC.
28917 Euclid Avenue
Wickliffe, Ohio 44092
(216) 944-6444

CITY OF LYNDHURST
U.S. RT. 322 & IRENE/WINCHESTER
CHARTS

DRAWN BY: J.A.T. DATE 11-18-91
CHECKED BY: M.W.S. DATE 05-18-93
DRAWING NO. 329LYND.DWG SHEET 329 OF 426

TRAFFIC CONTROL PLAN

CALC. BY:	DATE:
CHK. BY:	DATE:

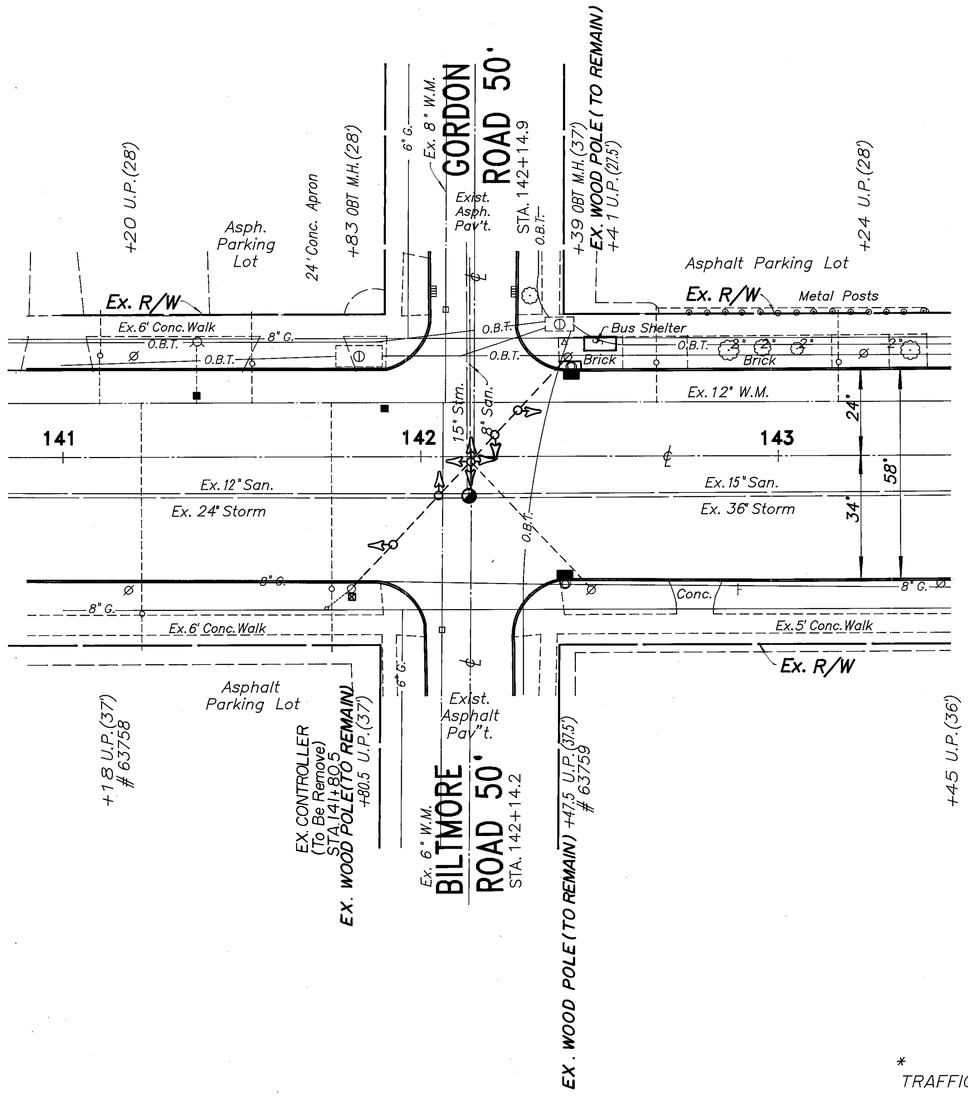
FHWA REGION	STATE	PROJECT	
5	OHIO		

330
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

0 5 10 20 40 60
SCALE IN FEET

N



* TRAFFIC SIGNAL INSTALLATION TO BE TOTALLY REMOVED

TRAFFIC SIGNAL PLAN – MAYFIELD ROAD, BILTMORE ROAD AND GORDON ROAD

TRAFFIC PLOT 04/11/09

CALC. BY: _____ DATE: _____
CHK. BY: _____ DATE: _____

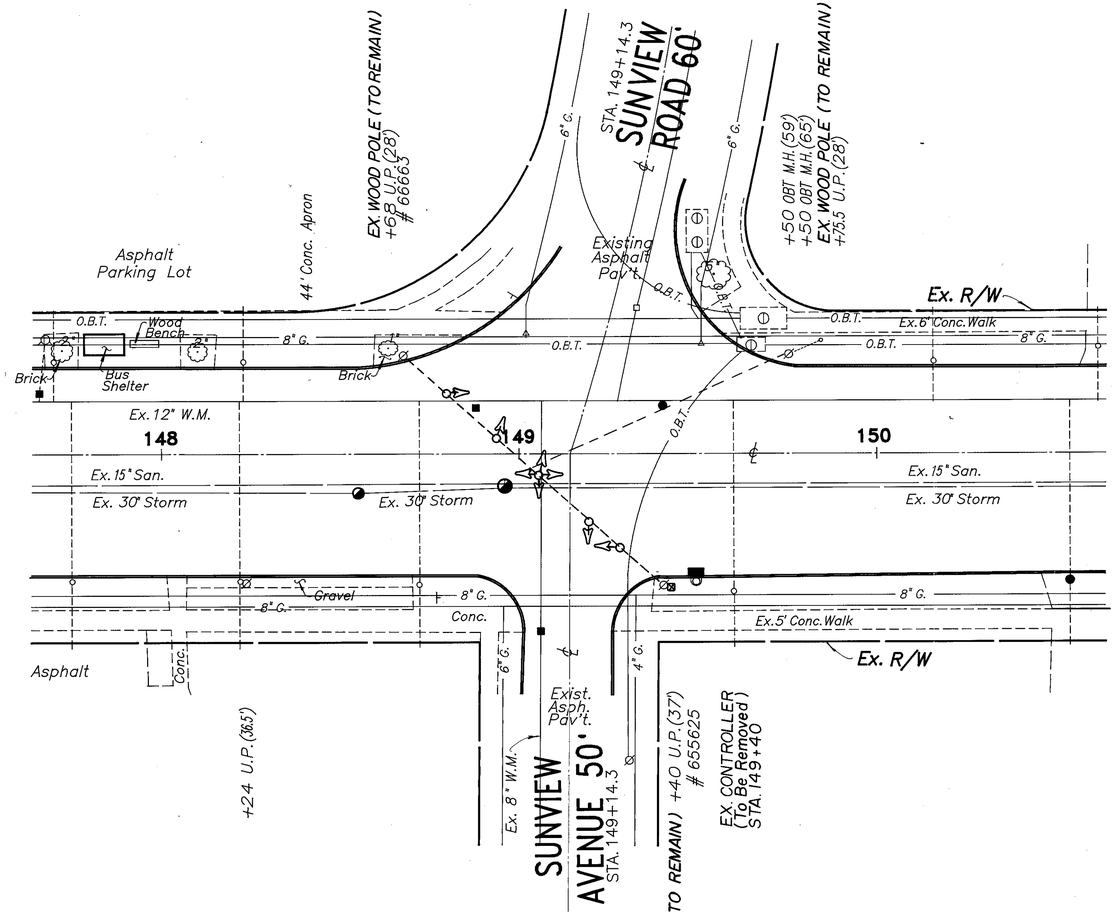
FHWA REGION	STATE	PROJECT	
5	OHIO		

331
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

0 5 10 20 40 60
SCALE IN FEET

N



* TRAFFIC SIGNAL INSTALLATION TO BE TOTALLY REMOVED

TELEPHONE POST 1-4-11.DGN

TRAFFIC SIGNAL PLAN – MAYFIELD ROAD AND SUNVIEW ROAD

CALC. BY: DATE:	CUY-322-8.66 CUYAHOGA COUNTY	OHIO
CHKD. BY: DATE:		FHWA REGION 5
		FEDERAL PROJECT

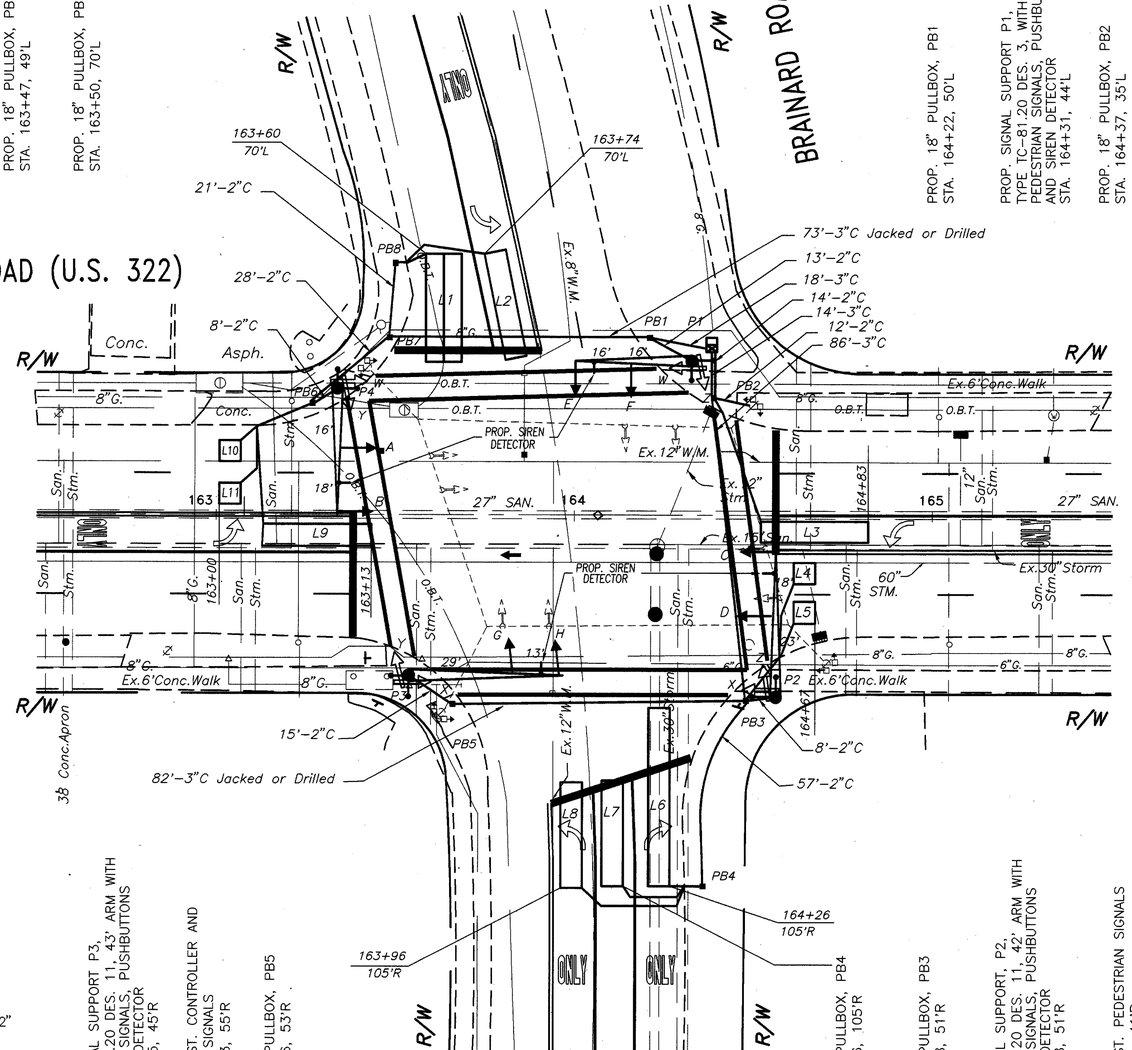
PROP. 18" PULLBOX, PB6
STA. 163+28, 32'L

PROP. SIGNAL SUPPORT, P4, TYPE TC-81.20 DES. 4, WITH 35' ARM, PEDESTRIAN SIGNALS, PUSHBUTTONS AND SIREN DETECTOR
STA. 163+34, 36'L

REMOVE EXIST. PEDESTRIAN SIGNALS
STA. 163+42, 42'L

PROP. 18" PULLBOX, PB7
STA. 163+47, 49'L

PROP. 18" PULLBOX, PB8
STA. 163+50, 70'L



PROP. 18" PULLBOX, PB1
STA. 164+22, 50'L

PROP. SIGNAL SUPPORT P1, TYPE TC-81.20 DES. 3, WITH 33' ARM, PEDESTRIAN SIGNALS, PUSHBUTTONS AND SIREN DETECTOR
STA. 164+31, 44'L

PROP. 18" PULLBOX, PB2
STA. 164+37, 35'L

PROP. CONTROLLER WITH FOUNDATION, WORK PAD AND PREEMPTION
STA. 164+39, 46'L

PROP. POWER SERVICE
STA. 164+50,31'L

REMOVE EXIST. PEDESTRIAN SIGNALS
STA. 164+50, 31'L

N

20 10 0 10 20

SCALE

PROP. SIGNAL SUPPORT P3, TYPE TC-81.20 DES. 11, 43' ARM WITH PEDESTRIAN SIGNALS, PUSHBUTTONS AND SIREN DETECTOR
STA. 163+55, 45'R

REMOVE EXIST. CONTROLLER AND PEDESTRIAN SIGNALS
STA. 163+63, 55'R

PROP. 18" PULLBOX, PB5
STA. 163+66, 53'R

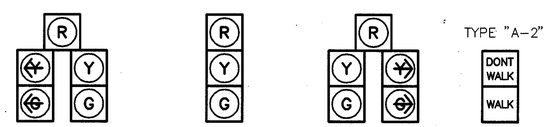
PROP. 18" PULLBOX, PB4
STA. 164+36, 105'R

PROP. 18" PULLBOX, PB3
STA. 164+48, 51'R

PROP. SIGNAL SUPPORT, P2, TYPE TC-81.20 DES. 11, 42' ARM WITH PEDESTRIAN SIGNALS, PUSHBUTTONS AND SIREN DETECTOR
STA. 164+58, 51'R

REMOVE EXIST. PEDESTRIAN SIGNALS
STA. 164+71, 41'R

SIGNALS



ALL HEADS ARE 12" POLY

THE UNDERGROUND UTILITIES ARE SHOWN ACCORDING TO INFORMATION FURNISHED BY THE UTILITIES CONCERNED. THEIR ACCURACY IS NOT GUARANTEED, THEREFORE THEY SHOULD BE RECHECKED BEFORE UNDERGROUND CONSTRUCTION BEGINS.

Rev	Date	By	Remarks

TRAFF-PRO
CONSULTANTS, INC.
28917 Euclid Avenue
Wickliffe, Ohio 44092
(216) 944-6444

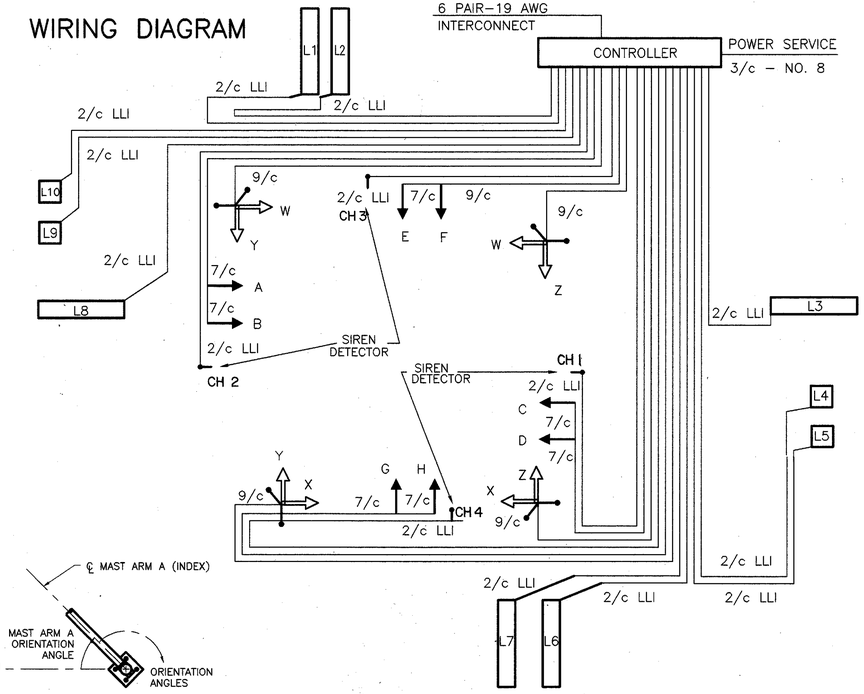
CITY OF LYNDHURST
U.S. RT. 322 & BRAINARD RD.

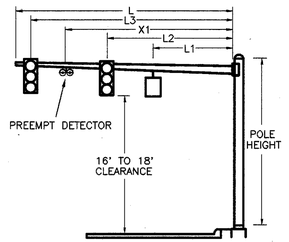
DRAWN BY: J.A.T. DATE 12-4-91
CHECKED BY: M.W.S. DATE 05-18-93
DRAWING NO. 332LYND.DWG SHEET 332 OF 426

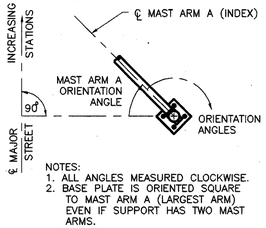
TRAFFIC CONTROL PLAN

CALC. BY: DATE:	CUY–322–8.66 CUYAHOGA COUNTY	OHIO
CHKD. BY: DATE:		FHWA REGION 5
		FEDERAL PROJECT

WIRING DIAGRAM







NOTES:
1. ALL ANGLES MEASURED CLOCKWISE.
2. BASE PLATE IS ORIENTED SQUARE TO MAST ARM A (LARGEST ARM) EVEN IF SUPPORT HAS TWO MAST ARMS.

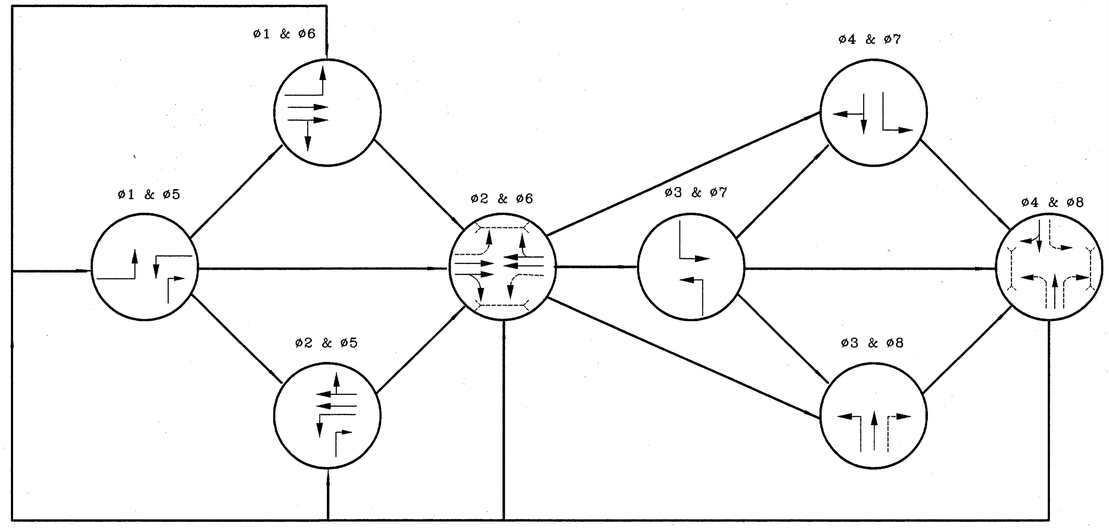
SUPPORT NO.	DESIGN NO.	FOUNDATION STATION	FOUNDATION OFFSET	SIGNAL SUPPORT TYPE TC–81.20 L (FT.)	L 1 (FT.)	L 2 (FT.)	L 3 (FT.)	X 1 (FT.)	MAST ARM A ANGLE (DEG.)	ORIENTATION ANG. (DEG.) FROM MAST ARM A MAST ARM B	PEDESTRIAN SIGNALS	PEDESTRIAN PUSHBUTTONS	HANDHOLE	LUMINAIRE BRACKET
P1	3	164+31	44'L	33	16	32		24	90		180/270	180/270	180	
P2	11	164+58	51'R	42	23	41		32	0		0/270	0/270	180	
P3	11	163+55	45'R	43	29	42		36	90		90/180	90/180	180	
P4	4	163+34	36'L	35	16	34		25	0		180/270	180/270	180	

ORIENTATION ANGLE CHART

PREEMPT CHANNELS

CHANNEL 1 = ø1 & ø6
CHANNEL 2 = ø2 & ø5
CHANNEL 3 = ø3 & ø8
CHANNEL 4 = ø4 & ø7

PREEMPT NOTES:
1. ACTIVE WALK INDICATIONS SHALL IMMEDIATELY GO TO "DONT WALK" UPON RECEIVING PREEMPTION SIGNAL.
2. IF PHASE ACTIVE CONFLICTS WITH PREEMPT PHASE CALLED, IT SHALL IMMEDIATELY TIME ITS YELLOW AND ALL RED CLEARANCES.
3. IF ACTIVE PHASE = THE PREEMPT PHASE, THEN THE PHASE SHALL HOLD FOR THE DURATION OF THE PREEMPT SIGNAL.
4. AFTER RELEASE FROM PREEMPT, YELLOW AND ALL RED CLEARANCE SHALL BE DISPLAYED AND RETURN PHASES SHALL BE ø2 + ø6.
5. IF PREEMPT PHASES = RETURN PHASES (ø2 + ø6) THEN YELLOW AND ALL RED CLEARANCE AFTER PREEMPT SHALL NOT BE DISPLAYED.



PHASING DIAGRAM

NOTES:
1. PHASE SPLITS SHALL INCLUDE ALL GREEN PLUS YELLOW & ALL RED
2. PERMISSIVES SHALL START AT THE ZERO POINT OF THE CYCLE
3. OFFSETS SHALL BE REFERENCED TO THE BEGINNING OF PHASE 2 & 6 YELLOW

	DIAL 1	DIAL 2	DIAL 3
CYCLE LENGTH	105 SEC	105 SEC	120 SEC
PHASE 1 SPLIT	13 %	12 %	11 %
PHASE 2 SPLIT	46 %	46 %	51 %
PHASE 3 SPLIT	13 %	13 %	12 %
PHASE 4 SPLIT	28 %	29 %	26 %
PHASE 5 SPLIT	12 %	12 %	10 %
PHASE 6 SPLIT	46 %	46 %	52 %
PHASE 7 SPLIT	13 %	13 %	11 %
PHASE 8 SPLIT	28 %	29 %	27 %
PERMISSIVE	5%	5%	5%
OFFSET	85 %	86 %	84 %
TIME OF DAY SCHEDULE	ALL OTHER TIMES	6:30AM TO 9:00AM MON–SAT	3:30PM TO 6:30PM MON–SAT

COORDINATION TIMING

INTERVAL	ø1	ø2	ø3	ø4	ø5	ø6	ø7	ø8
INITIAL	7	30	7	10	7	30	7	10
PASSAGE	2.5	–	2.5	3.0	2.5	–	2.5	3.0
YELLOW	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
RED CLEAR	1.4	1.6	1.4	1.4	1.4	1.6	1.4	1.4
MAX I	12	49	13	31	12	49	13	31
MAX II	13	62	14	31	12	63	13	32
WALK	–	7	–	7	–	7	–	7
PED CLEAR	–	22	–	18	–	22	–	18
RECALL	NONE	PED	NONE	NONE	NONE	PED	NONE	NONE
MEMORY	OFF	ON	OFF	ON	OFF	ON	OFF	ON

SIGNAL TIMING

1. REMAINS ⊕ / R IF ø2 & ø5 NEXT
2. REMAINS ⊕ / R IF ø1 & ø6 NEXT
3. REMAINS ⊕ / R IF ø3 & ø8 NEXT
4. REMAINS ⊕ / R IF ø4 & ø7 NEXT

SIGNAL HEAD	ø1 & ø5 R/W	ø1 & ø5 CLEAR		ø1 & ø6 R/W	ø1 & ø6 CLEAR		ø2 & ø5 R/W	ø2 & ø5 CLEAR		ø2 & ø6 R/W		ø2 & ø6 CLEAR		ø3 & ø7 R/W	ø3 & ø7 CLEAR		ø3 & ø8 R/W	ø3 & ø8 CLEAR		ø4 & ø7 R/W	ø4 & ø7 CLEAR		ø4 & ø8 R/W		ø4 & ø8 CLEAR		FLASH
A	R	R	R	R	R	R	G	Y	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
B	⊕ / R	⊕ / R①	R①	R	R	R	G / ⊕	G / ⊕	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
C	⊕ / R	⊕ / R②	R②	G / ⊕	G / ⊕	R	R	R	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
D	R	R	R	G	Y	R	R	R	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
E	R	R	R	R	R	R	R	R	R	R	R	R	R	⊕ / R	⊕ / R③	R③	G / ⊕	G / ⊕	R	R	R	R	G	G	Y	R	R	R
F	R / ⊕	R / ⊕	R	R	R	R	R / ⊕	R / ⊕	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	G	G	Y	R	R	R
G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	G	Y	R	R	R
H	R	R	R	R	R	R	R	R	R	R	R	R	R	⊕ / R	⊕ / R④	R④	R	R	R	G / ⊕	G / ⊕	R	G	G	Y	R	R	R
W–W	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DARK
X–X	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DARK
Y–Y	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DARK
Z–Z	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DARK

SIGNAL DISPLAY CHART

LOOP #	SIZE	# TURNS	MODE	DELAY	AMP #	PHASE
L1	10' x 30'	2–4–2	PRESENCE	8	1	4
L2	6' x 30'	2	PRESENCE	0	2	7
L3	6' x 30'	2	PRESENCE	0	3	5
L4	6' x 6'	3	PRESENCE	0	4	SYSTEM
L5	6' x 6'	3	PRESENCE	0	5	SYSTEM
L6	6' x 50'	2	PRESENCE	8	6	8
L7	6' x 30'	2	PRESENCE	0	7	8
L8	6' x 30'	2	PRESENCE	0	7	3
L9	6' x 30'	2	PRESENCE	0	8	1
L10	6' x 6'	3	PRESENCE	0	9	SYSTEM
L11	6' x 6'	3	PRESENCE	0	10	SYSTEM

LOOP DETECTOR CHART

Rev	Date	By	Remarks

TRAFF-PRO CONSULTANTS, INC.
28917 Euclid Avenue
Wickliffe, Ohio 44092
(216) 944–6444

CITY OF LYNDHURST
U.S. RT. 322 & BRAINARD RD.
CHARTS

DRAWN BY: J.A.T. DATE 12–2–91
CHECKED BY: M.W.S. DATE 05–18–93
DRAWING NO. 333LYND.DWG SHEET 333 OF 426

TRAFFIC CONTROL PLAN

CALC. BY: _____	DATE: _____
CHK. BY: _____	DATE: _____

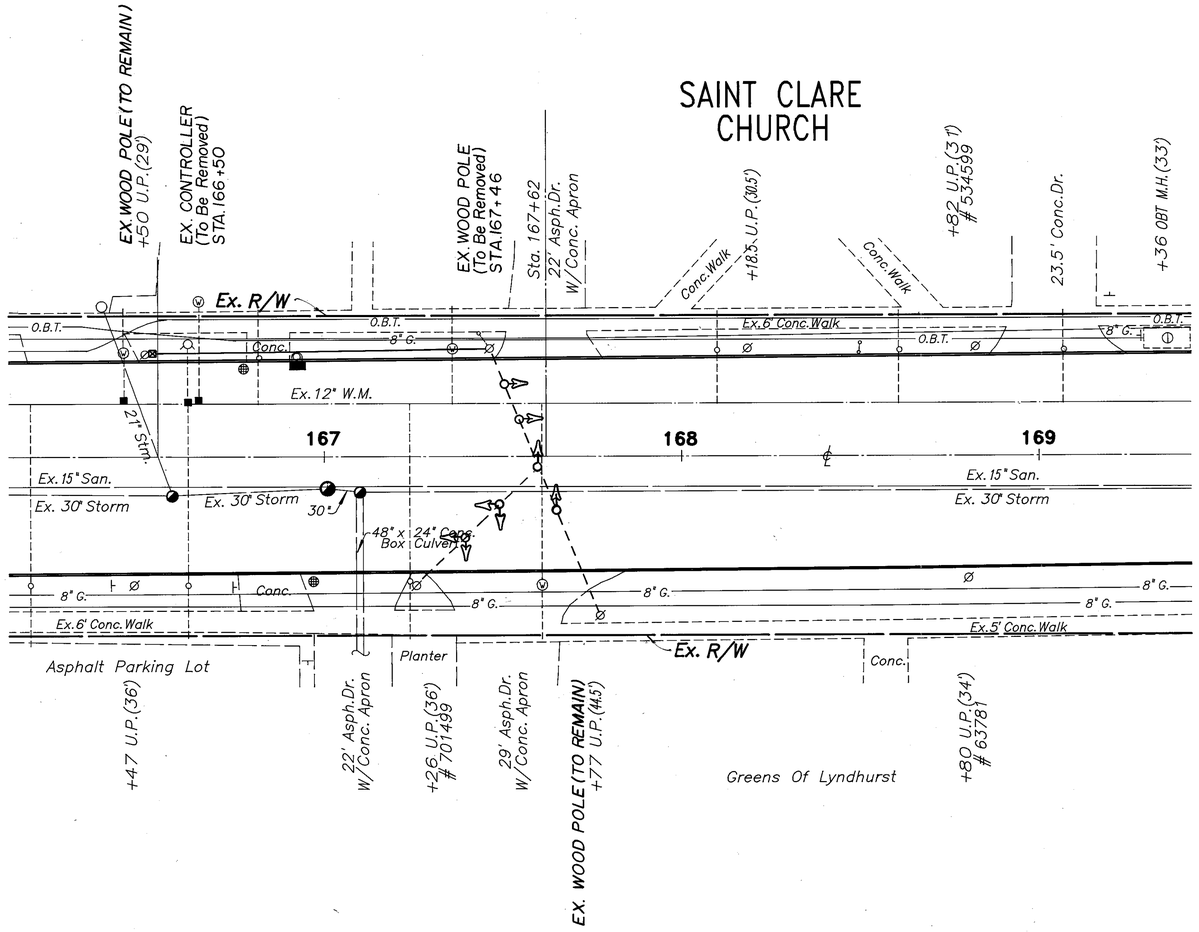
FHWA REGION	STATE	PROJECT	
5	OHIO		

334
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

0 5 10 20 40 60
SCALE IN FEET

N

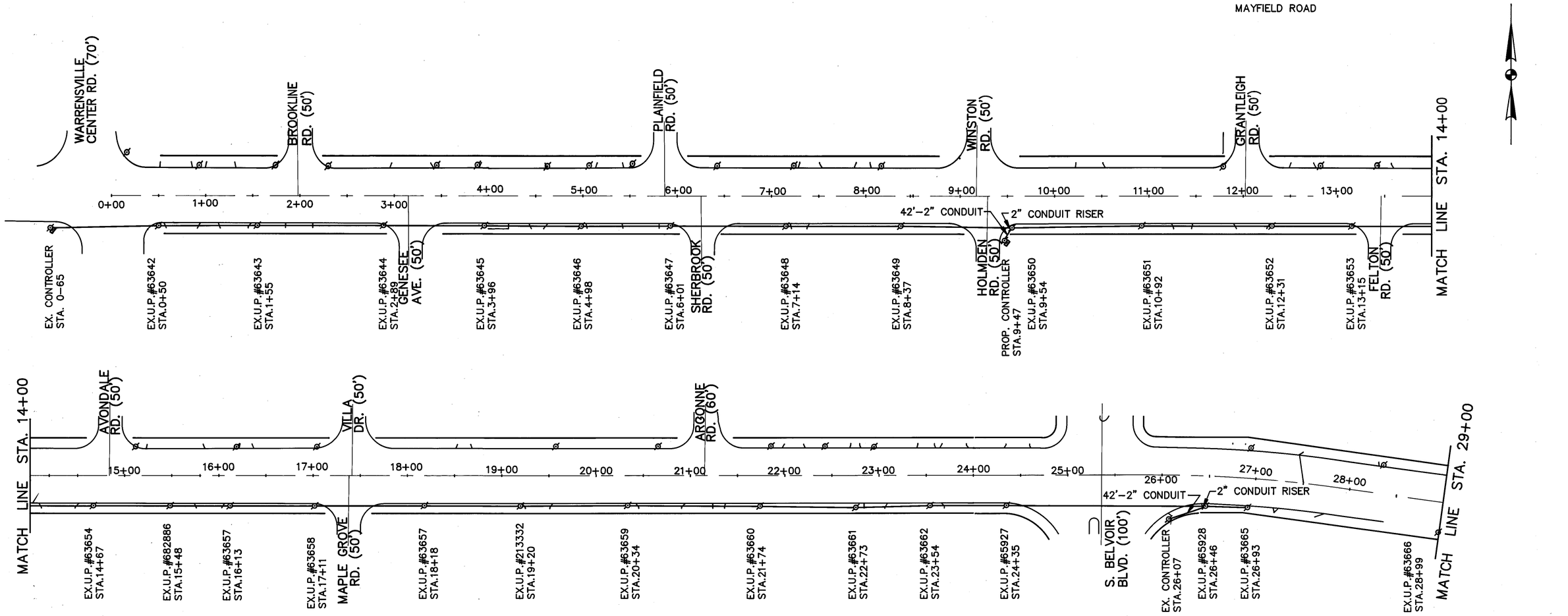


*TRAFFIC SIGNAL INSTALLATION TO BE TOTALLY REMOVED

TRAFFIC SIGNAL PLAN – MAYFIELD ROAD AND ST. CLARE CHURCH

OHIO
F.H.W.A. REGION 5
335
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD



NEW INTERCONNECT 6 PRS. NO. 19 AWG. REA (PE–38)

INTERCONNECT QUANTITIES

ITEM	DESCRIPTION	UNIT	STA. 0+00 TO STA. 29+00	STA. 29+00 TO STA. 59+00	STA. 59+00 TO STA. 74+00	TOTAL
632	INTERCONNECT CABLE, INTEGRAL MESSENGER WIRE TYPE, 6 PAIR, NO.19 AWG SOLID, REA (PE–38) AS PER PLAN	LIN.FT.	3182	3428	1498	8108
632	TRENCH	LIN.FT.	–	31	–	31
632	TRENCH IN PAVED AREA, TYPE A	LIN.FT.	56	20	–	76
632	CONDUIT, 2", 713.04	LIN.FT.	56	51	–	107
632	CONDUIT RISER, 2" DIAMETER	EACH	2	1	–	3
632	REMOVAL OF EXISTING INTERCONNECT [redacted]	LIN.FT.	2965	3000	1387	7352

GRAPHIC SCALE
50 0 50 100 200
(IN FEET)

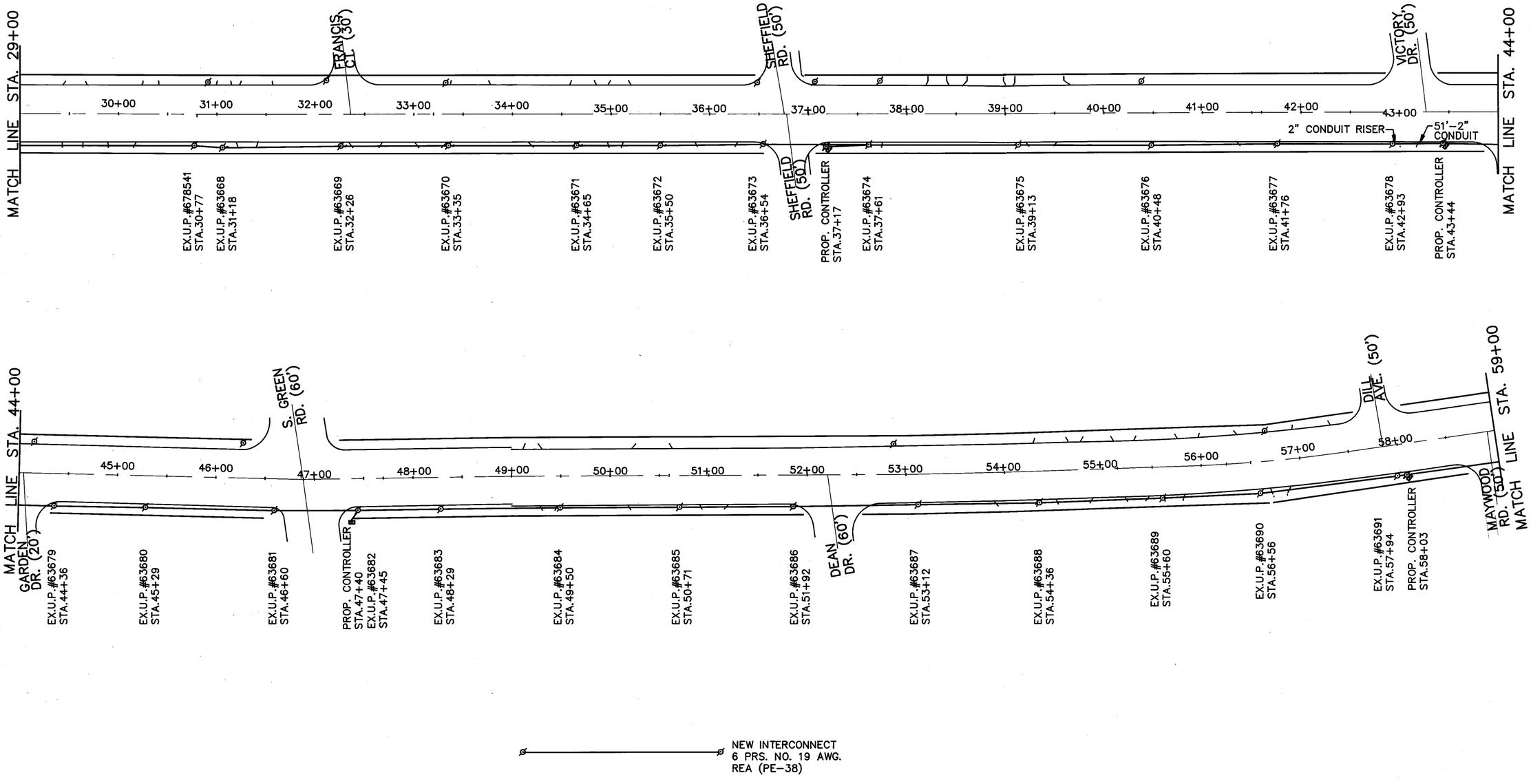
STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD

INTERCONNECT PLAN STA. 0+00 TO STA. 29+00

OHIO
F.H.W.A. REGION 5
336
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



NEW INTERCONNECT
6 PRS. NO. 19 AWG.
REA (PE-38)

GRAPHIC SCALE
50 0 50 100 150
(IN FEET)

MAYFIELD ROAD

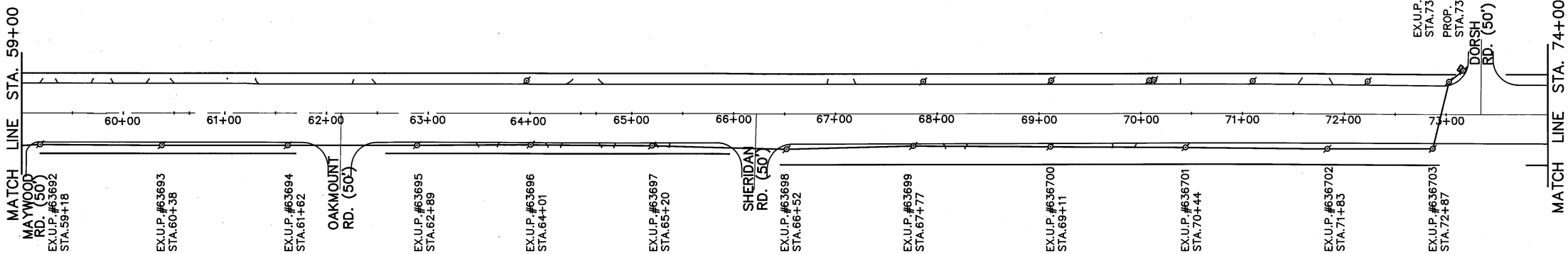
STEPHEN HOVANCSEK & ASSOC., INC.

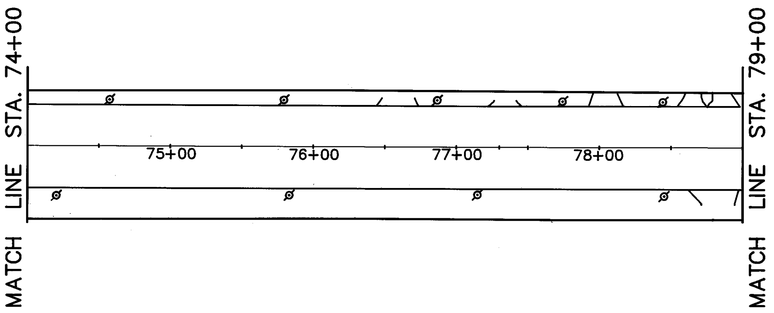
INTERCONNECT PLAN STA. 29+00 TO STA. 59+00

OHIO
F.H.W.A. REGION 5

337
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD





NEW INTERCONNECT
6 PRS. NO. 19 AWG.
REA (PE-38)

GRAPHIC SCALE
(IN FEET)

MAYFIELD ROAD

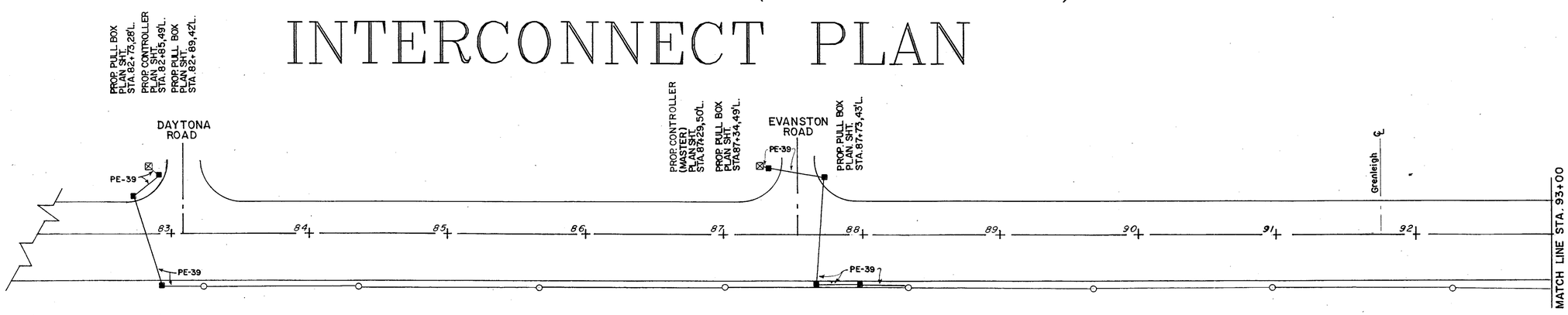
STEPHEN HOVANCSEK & ASSOC., INC.

INTERCONNECT PLAN STA. 59+00 TO STA. 79+00

CALC. BY: DATE:	CUY-322-8.66	OHIO
CHKD. BY: DATE:		FHWA REGION 5
		FEDERAL PROJECT

338
426

MAYFIELD ROAD (U.S. 322)
INTERCONNECT PLAN



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SCALE

Rev	Date	By	Remarks

TRAFF-PRO
CONSULTANTS, INC.
28917 Euclid Avenue
Wickliffe, Ohio 44092
(216) 944-8444

CITY OF LYNDHURST
MAYFIELD RD. (U.S. 322)
INTERCONNECT PLAN

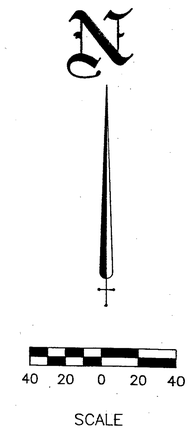
DRAWN BY: _____ DATE _____
CHECKED BY: _____ DATE _____
DRAWING NO. _____ SHEET ___ OF ___

TRAFFIC CONTROL PLAN

CALC. BY: DATE:	CUY-322-8.66	OHIO
CHKD. BY: DATE:		FHWA REGION 5
		FEDERAL PROJECT

339
426

MAYFIELD ROAD (U.S. 322)
INTERCONNECT PLAN



Rev.	Date	By	Remarks

TRAFF-PRO
CONSULTANTS, INC.
28917 Euclid Avenue
Wickliffe, Ohio 44092
(216) 944-8444

CITY OF LYNDHURST
MAYFIELD RD. (U.S. 322)
INTERCONNECT PLAN

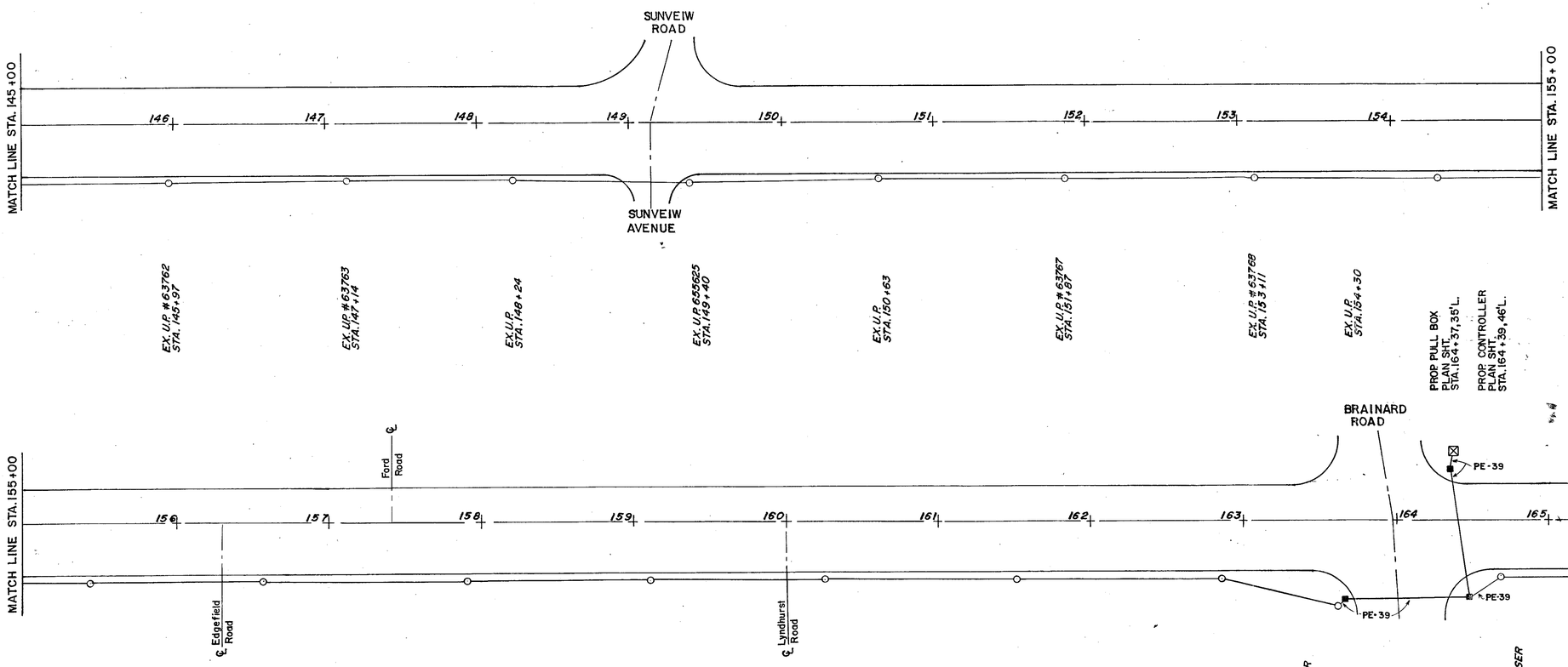
DRAWN BY: _____ DATE _____
CHECKED BY: _____ DATE _____
DRAWING NO. _____ SHEET ___ OF ___

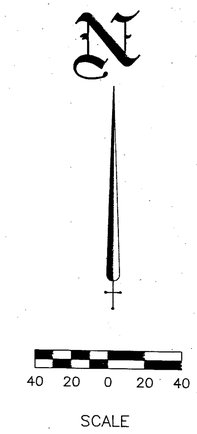
TRAFFIC CONTROL PLAN

CALC. BY: DATE:	CUY-322-8.66	OHIO
CHKD. BY: DATE: ✓		FHWA REGION 5
		FEDERAL PROJECT

340
426

MAYFIELD ROAD (U.S. 322)
INTERCONNECT PLAN





Rev	Date	By	Remarks

TRAFF-PRO
CONSULTANTS, INC.
28917 Euclid Avenue
Wickliffe, Ohio 44092
(216) 944-6444

CITY OF LYNDHURST
MAYFIELD RD. (U.S. 322)
INTERCONNECT PLAN

DRAWN BY: _____ DATE _____

CHECKED BY: _____ DATE _____

DRAWING NO. _____ SHEET ___ OF ___

TRAFFIC CONTROL PLAN

CALC. BY: DATE:	CUY-322-8.66	OHIO
CHKD. BY: DATE:		FHWA REGION 5
		FEDERAL PROJECT

341 342 426

INTERCONNECT QUANTITIES

ITEMS 632

MAYFIELD ROAD (S.R. 322) SYSYEM

INTERSECTION	CONNECTION	POLE NO.	6 PAIR PE-39 QTY (FT.)	6 PAIR PE-38 QTY (FT.)
MAYFIELD ROAD &	CONTROLLER STA 82+85, 49'L		10	
DAYTONA ROAD	PULLBOX STA 82+89, 42'L		13	
	PULLBOX STA 82+73, 28'L		27	
	PULLBOX STA 82+93, 38'R		75	
	POLE STA 83+26	63711	62	
	POLE STA 84+36	63712		115
	POLE STA 85+67	63713		131
	POLE STA 87+00	63714		133
MAYFIELD ROAD &	POLE STA 88+33	63715		138
EVANSTON ROAD	PULLBOX STA 87+96, 39'R		71	
	PULLBOX STA 87+65, 39'R		36	
	PULLBOX STA 87+73, 43'L		88	
	PULLBOX STA 87+34, 49'L		45	
	CONTROLLER STA 87+29, 50'L		15	
	PULLBOX STA 87+34, 49'L		15	
	PULLBOX STA 87+73, 43'L		45	
	PULLBOX STA 87+65, 39'R		88	
	PULLBOX STA 87+96, 39'R		36	
	POLE STA 88+33	63715	71	
	POLE STA 89+68	63716		140
	POLE STA 90+96	63717		128
	POLE STA 92+26	63718		130
	POLE STA 93+67	63719		141
	POLE STA 94+90	63720		123
	POLE STA 96+23	63721		133
	POLE STA 97+46	63722		123
	POLE STA 98+76	63723		130
	POLE STA 100+05	63724		129
	POLE STA 101+29			124
	POLE STA 102+72	63726		143
	POLE STA 103+98	63727		126
	POLE STA 105+31	63728		133
	POLE STA 106+98	235034		167
MAYFIELD ROAD &	POLE STA 107+96	659764		103
RICHMOND ROAD	PULL BOX STA 108+36, 39'R		75	
	PULL BOX STA 108+21, 32'L		77	
	CONTROLLER STA 108+20, 42'L		21	
	PULL BOX STA 108+21, 32'L		21	
	PULL BOX STA 108+36, 39'R		77	
	POLE STA 107+96	659764	75	
	POLE STA 108+94	63731		103
	POLE STA 110+29			135
	POLE STA 111+62	63733		133
	POLE STA 112+89	63734		127
TOTAL SHEET			1043	2988

MAYFIELD ROAD (S.R. 322) SYSYEM

INTERSECTION	CONNECTION	POLE NO.	6 PAIR PE-39 QTY (FT.)	6 PAIR PE-38 QTY (FT.)
MAYFIELD ROAD &	POLE STA 114+05			121
CROSSROADS PLAZA DRIVE	PULLBOX STA 114+06, 37'R		37	
	PULLBOX STA 114+12, 27'L		69	
	CONTROLLER STA 114+30, 32'L		29	
	PULLBOX STA 114+12, 27'L		29	
	PULLBOX STA 114+06, 37'R		69	
	POLE STA 114+05		37	
	POLE STA 115+45			145
	POLE STA 116+71	63737		126
	POLE STA 117+97			126
	POLE STA 119+35	63739		138
	POLE STA 120+74	63740		139
	POLE STA 122+16	63741		142
	POLE STA 123+07	63742		91
	POLE STA 124+11	63743		104
	POLE STA 125+13	63744		102
	POLE STA 126+21	63745		108
	POLE STA 127+12	63746		91
	POLE STA 128+25			113
	POLE STA 129+37	63748		112
	POLE STA 130+88			151
	POLE STA 131+76			88
	POLE STA 132+77	63751		101
	POLE STA 134+01			129
	PULL BOX STA 135+42, 42'R		50	
MAYFIELD ROAD &	PULL BOX STA 134+92, 37'R		125	
IRENE/WINCHESTER	PULL BOX STA 134+88, 29'L		76	
	CONTROLLER STA 134+98, 31'L		22	
	PULL BOX STA 134+88, 29'L		22	
	PULL BOX STA 134+92, 37'R		76	
	POLE STA 134+01		125	
	POLE STA 135+47	63753		151
	POLE STA 136+80	63754		133
	POLE STA 137+80	63755		100
	POLE STA 138+81	63756		101
	POLE STA 139+88			107
	POLE STA 141+18	63758		130
	POLE STA 142+47	63759		129
	POLE STA 143+45			98
	POLE STA 144+70			125
	POLE STA 145+97	63762		127
	POLE STA 147+14	63763		117
	POLE STA 148+24			110
	POLE STA 149+40	655625		116
	POLE STA 150+63			123
	POLE STA 151+87	63767		124
	POLE STA 153+11	63768		124
	POLE STA 154+30			119
	POLE STA 155+42	63770		112
	POLE STA 156+56			114
TOTAL SHEET			766	4387

MAYFIELD ROAD (S.R. 322) SYSYEM

INTERSECTION	CONNECTION	POLE NO.	6 PAIR PE-39 QTY (FT.)	6 PAIR PE-38 QTY (FT.)
	POLE STA 157+90			134
	POLE STA 159+11	63773		121
	POLE STA 160+26			115
	POLE STA 161+52			126
	POLE STA 162+86	63776		134
MAYFIELD ROAD &	POLE STA 163+63, 55'R			82
BRAINARD ROAD	PULL BOX STA 163+66, 53'R		38	
	PULL BOX STA 164+48, 51'R		87	
	PULL BOX STA 164+37, 35'L		91	
	CONTROLLER STA 164+39, 46'L		24	
TOTAL SHEET			240	712
GRAND TOTAL SHEET			**2049**	8087

ITEM 625

TRENCH SUB-SUMMARY

SHEET	TYPE	STATION TO STATION	QTY. IN FEET QTY. A	QTY. REG
	A	88+13 TO 88+27	14	
	A	107+96 TO 108+36	41	
	A	134+51 TO 134+92	41	
	REG	82+93 TO 83+26		33
	REG	87+96 TO 88+13		17
	REG	88+27 TO 88+33		6
	REG	114+05 TO 114+06		3
	REG	134+01 TO 134+51		50
	REG	163+63 TO 163+66		4
		TOTAL A	96	
		TOTAL REG.		113

ITEM 632

CONDUIT RISER SUB-SUMMARY

SHEET	SIZE	STATION	EACH
	2"	83+26	1
	2"	88+33	1
	2"	107+96	1
	2"	114+05	1
	2"	134+01	1
	2"	163+63	1
		TOTAL	6

ITEM 625

CONDUIT SUB-SUMMARY

SHEET	SIZE	STATION TO STATION	QTY. IN FEET
	2"	82+93 TO 83+26	33
	2"	87+96 TO 88+33	37
	2"	107+96 TO 108+36	41
	2"	114+05 TO 114+06	3
	2"	134+01 TO 134+92	91
	2"	163+63 TO 163+66	4
		TOTAL	209

SUMMARY OF PAVEMENT MARKING QUANTITIES

					642														
	ROADWAY	SIDE	STATION FROM	STATION TO	LANE LINE, TYPE 2	CENTER LINE, SOLID, DOUBLE, TYPE 2	CENTER LINE, BROKEN & SOLID, DOUBLE, TYPE 2		CHANNELIZING LINE, TYPE 2	STOP LINE, TYPE 2	CROSSWALK LINE, TYPE 2	TRANSVERSE LINE, YELLOW, TYPE 2	ISLAND MARKING, YELLOW, TYPE 2	LANE ARROW, TYPE 2	WORD ON PAVEMENT, 72", TYPE 2
					LIN.FT.	LIN.FT.	LIN.FT.		LIN.FT.	LIN.FT.	LIN.FT.	LIN.FT.	SQ.FT.	EACH	EACH
	BROOKLINE RD					15				12	78				
	GENESSEE AVE					15				17	79				
	PLAINFIELD RD					15				14	80				
	SHERBROOK AVE					15				16	80				
	WINSTON RD					15				16	90				
	HOLMDEN RD					15				16	73				
	GRANTLEIGH RD					15				14	81				
	FELTON RD					15				13	78				
	AVONDALE RD					15				14	78				
	MAPLEGROVE RD					15				15	83				
	VILLA RD					15				15	89				
	ARGONNE RD					15				15	84				
	BELVOIR BLVD				800	0			240	94	396				
	FRANCIS CT					0				26	77				
	SHEFFIELD RD					30				31	145				
	VICTORY DR					15			24	31	93				
	GARDEN DR					15				12	74				
	GREEN RD				880	470			402	62	240				
	DEAN RD					15				23	117				
	MAYWOOD RD					15				13	70				
	OAKMOUNT RD					15				13	72				
	SHERIDAN RD					15				15	82				
	DORSH RD					15				15	66				
	DILL RD					15				17	76				
			-5+00	0+00	900	185	610		85	35	130			1	1
	MAYFIELD ROAD		0+00	4+00	780	190	450		70	36	150	0	0	3	1
			4+00	9+00	1000	0	1000		0	38	154	0	0	4	
			9+00	14+00	1000	0	1000		0	35	135	0	0	4	
			14+00	19+00	1000	0	1000		0	0	0	0	0	4	
			19+00	24+00	1000	180	730		75	0	0	0	0	3	
			24+00	29+00	1000	335	150		235	80	310	0	0	3	2
			29+00	34+00	1000	0	1000		0	0	0	0	0	4	
			34+00	39+00	1000	0	1000		0	70	280	0	0	0	
			39+00	44+00	1000	290	400		0	70	130	37	39	0	1
			44+00	49+00	1000	420	0		300	70	270	26	39	4	2
			49+00	54+00	1000	100	900		0	0	0	0	0	4	
			54+00	59+00	1000	0	1000		0	110	130	0	0	2	
			59+00	64+00	1000	0	1000		0	110	250	0	0	2	
			64+00	69+00	1000	0	1000		0	0	0	0	0	4	
			69+00	74+00	1000	0	1000		0	70	130	0	0	2	
					17360	2500	12240								
					3.29 MI.	.47 MI.	2.32 MI.		1431	1242	4550	63	78	44	7
						2.79 MI.									

OHIO
F.H.W.A. REGION 5
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CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

MAYFIELD ROAD

SUMMARY OF PAVEMENT MARKING QUANTITIES

SUMMARY OF PAVEMENT MARKING QUANTITIES

FHWA REGION	STATE	PROJECT	
5	OHIO		

343
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

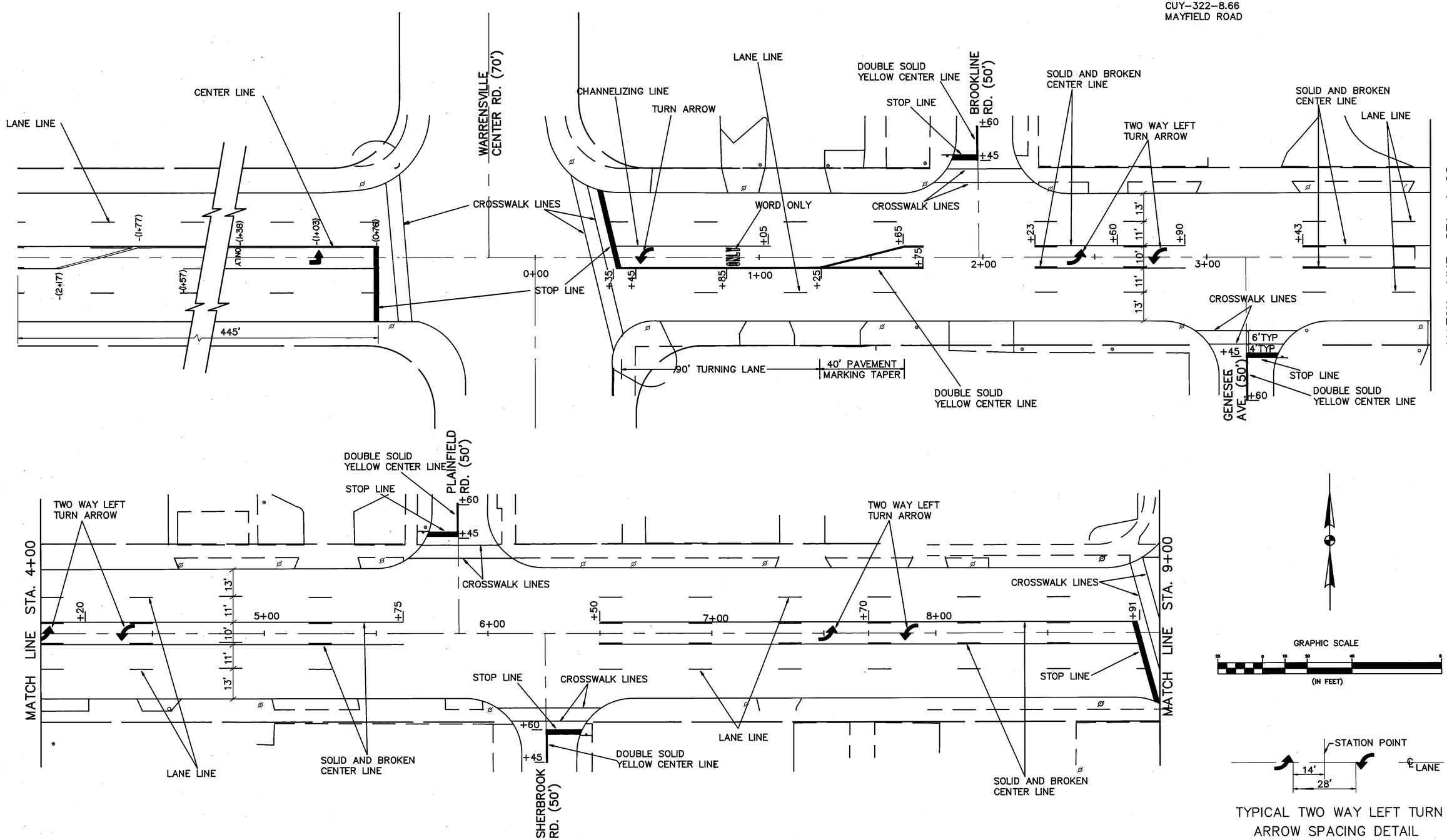
STATION		ITEM 642											
		Lane Lines, Type 2	Center Lines, Solid, Double, Type 2	Center Lines, Broken and Solid Double, Type 2	Channelizing Lines, Type 2	Stop Lines, Type 2	Crosswalk Lines, Type 2	Transverse Lines, Yellow, Type 2	Island Marking, Yellow, Type 2	Lane Arrow, Type 2	Word "ONLY" on Pavement, 72", Type 2		
From	To	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Sq. Ft.	Each	Each		
74+00	80+90	1380		1380						6			
80+90	81+40	100	50		50					1			
81+40	81+80	80	80					25					
81+80	82+65	170	170			25		80	40				
82+65	85+45	560		560		35	130						
85+45	85+85	80	80										
85+85	87+08	246	123		103	25				1	1		
87+08	103+63	3310		3310		45	140			16			
103+63	104+03	80	80										
104+03	106+78	550	275		255	45				5	1		
106+78	110+36	716	358		180	35	270			3	1		
110+36	110+76	80	80										
110+76	112+83	414		414						4			
112+83	113+23	80	80										
113+23	114+03	160	80		60	35				1	1		
114+03	116+10	414	207		60	35	120			1	1		
116+10	116+50	80	80										
116+50	133+30	3360		3360						20			
133+30	133+70	80	80										
133+70	134+80	220	110		80	35				1	1		
134+80	136+80	400	200		80	35	155			1	1		
136+80	137+20	80	80										
137+20	161+98	4956		4956						24			
161+98	162+38	80	80										
162+38	163+38	200	100		80	35				1	1		
163+38	166+31	586	293		155	35	290			2	1		
166+31	166+71	80	80										
166+71	175+80	1818		1818		70	120			10			
Totals This Section		20360	2766	15798	1103	490	1225	105	40	97	9		

INTERSECTION	ITEM 642											
	Lane Lines, Type 2	Center Lines, Solid, Double, Type 2	Center Lines, Broken and Solid Double, Type 2	Channelizing Lines, Type 2	Stop Lines, Type 2	Crosswalk Lines, Type 2	Transverse Lines, Yellow, Type 2	Island Marking, Yellow, Type 2	Lane Arrow, Type 2	Word "ONLY" on Pavement, 72", Type 2		
	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Sq. Ft.	Each	Each		
Parkside Circle		15			15	70						
Daytona Road					30	85						
Clubside Road		15			25	125						
Evanston Road						95						
Grenleigh Road		15			20	85						
Clearview Road		15			20	80						
Richmond Road	3366	1187	1250	220	95	385	110		2	2		
Crossroads Plaza S.C.						90						
Willshire Road		15			20	85						
Henning Drive		15			20	90						
Parkview Drive		15			15	80						
Jaeger Drive		15			15	70						
Winchester Road		15			15	70						
Irene Road		15			15	70						
Churchill Road		15			15	70						
Commodore Road		15			20	95						
Biltmore Road		15			15	75						
Gordon Road		15			15	75						
Sunview Road		15			45	205						
Edgefield Road		15			15	70						
Ford Road		15			15	70						
Lyndhurst Road		15			15	70						
Brainard Road	87	1101		542	95	350	80	40	10	5		
Iroquois Road		15			15	75						
Greens of Lyndhurst S.C.					25	95						
Totals This Section	3453	2573	1250	762	595	2730	190	40	12	7		
Totals Left Section	20360	2766	15798	1103	490	1225	105	40	97	9		
GRAND TOTALS	23,813	5339	17048	1865	1085	3955	295	80	109	16		
Miles	4.51	4.24										

MAYFIELD ROAD

OHIO
F.H.W.A. REGION 5
344
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD



TYPICAL TWO WAY LEFT TURN ARROW SPACING DETAIL

STEPHEN HOVANCSEK & ASSOC., INC.

PAVEMENT MARKING STA. 0+00 TO STA. 9+00

OHI
F.H.W.A. REGION 5
345
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

GRAPHIC SCALE
(IN FEET)

WINSTON RD. (50')
GRANTLEIGH RD. (50')
HOLMDEN RD. (50')
AVONDALE RD. (50')
VILLA DR. (50')
FELTON RD. (50')
MAPLE GROVE RD. (50')

MATCH LINE STA. 9+00
MATCH LINE STA. 14+00
MATCH LINE STA. 19+00

STOP LINE
DOUBLE SOLID YELLOW CENTER LINE
LANE LINE
TWO WAY LEFT TURN ARROW
SOLID AND BROKEN CENTER LINE
CROSSWALK LINE
6'TYP
4'TYP

+60
+45
+55
+67
+31
+75
+22
+71
+20
+59
+09
+80
+14

10+00
11+00
12+00
13+00
15+00
16+00
17+00
18+00

13'
11'
10'

* Indicates Signalized Intersection

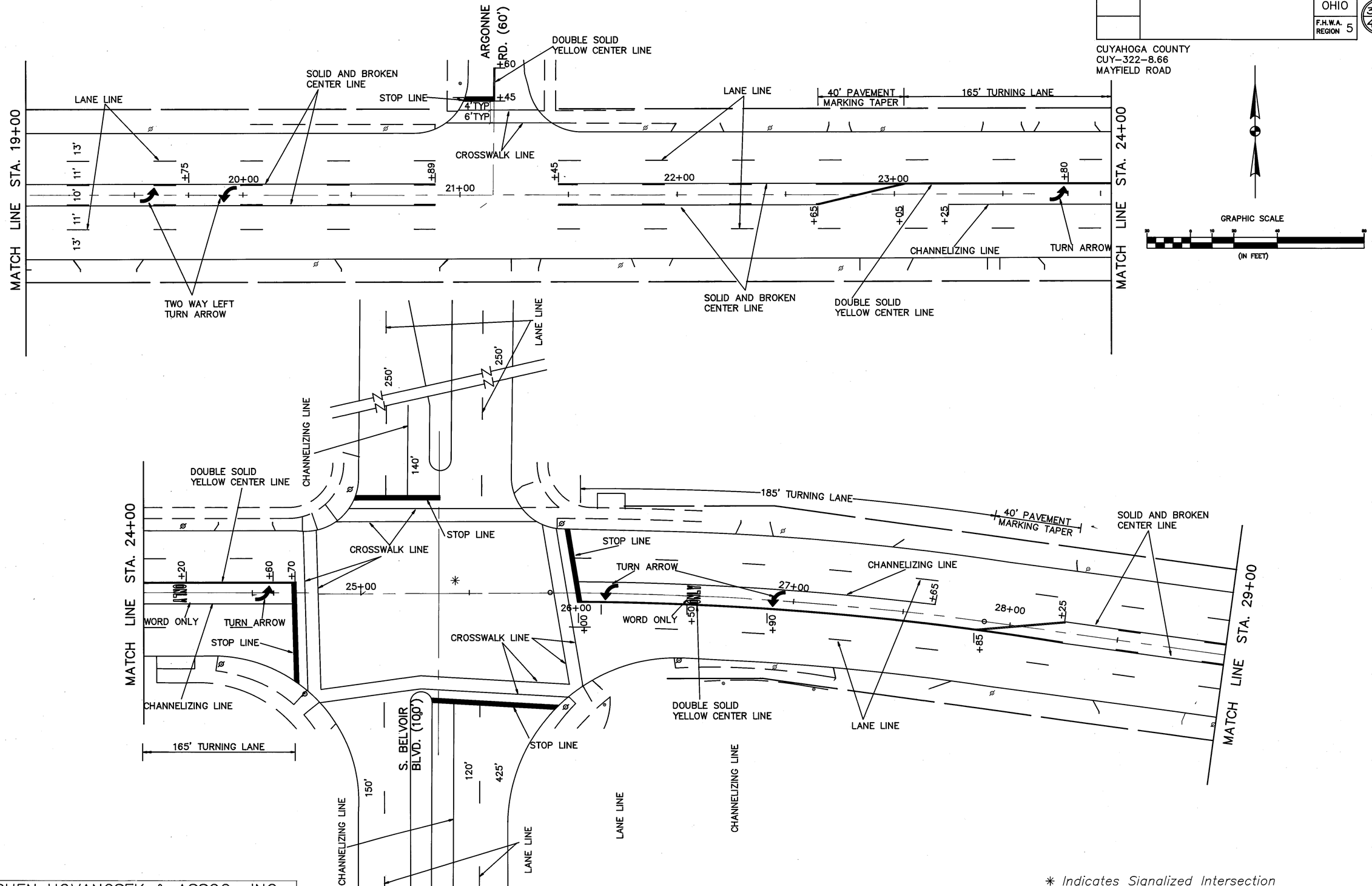
STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD

PAVEMENT MARKING STA. 9+00 TO STA. 19+00

OHIO
F.H.W.A. REGION 5
346
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



STEPHEN HOVANCSEK & ASSOC., INC.

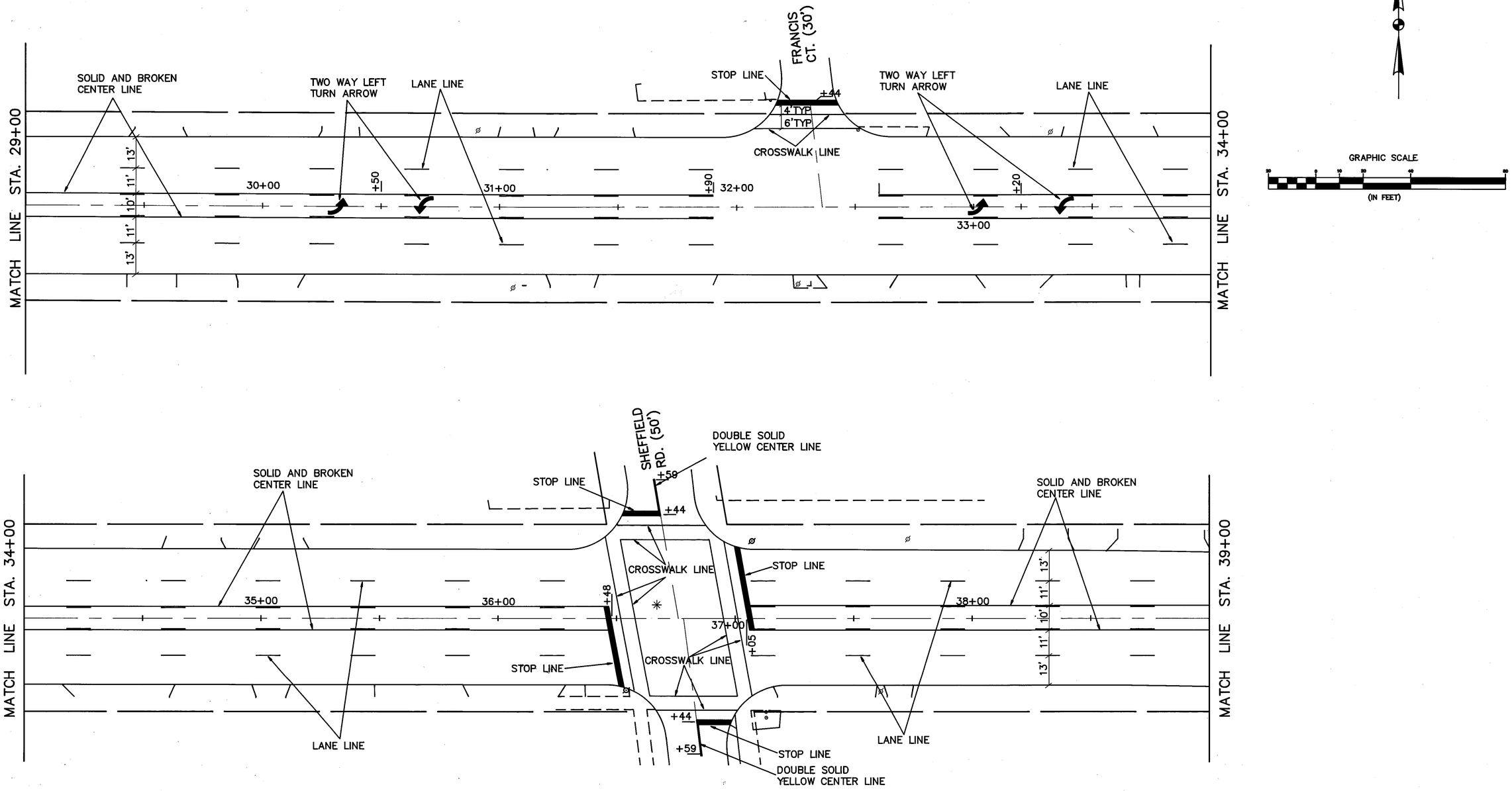
✳ *Indicates Signalized Intersection*

MAYFIELD ROAD

PAVEMENT MARKING STA. 19+00 TO STA. 29+00

OHIO
F.H.W.A. REGION 5
347
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



STEPHEN HOVANCSEK & ASSOC., INC.

✳ *Indicates Signalized Intersection*

PAVEMENT MARKING STA. 29+00 TO STA. 39+00

OHIO
F.H.W.A. REGION 5
348
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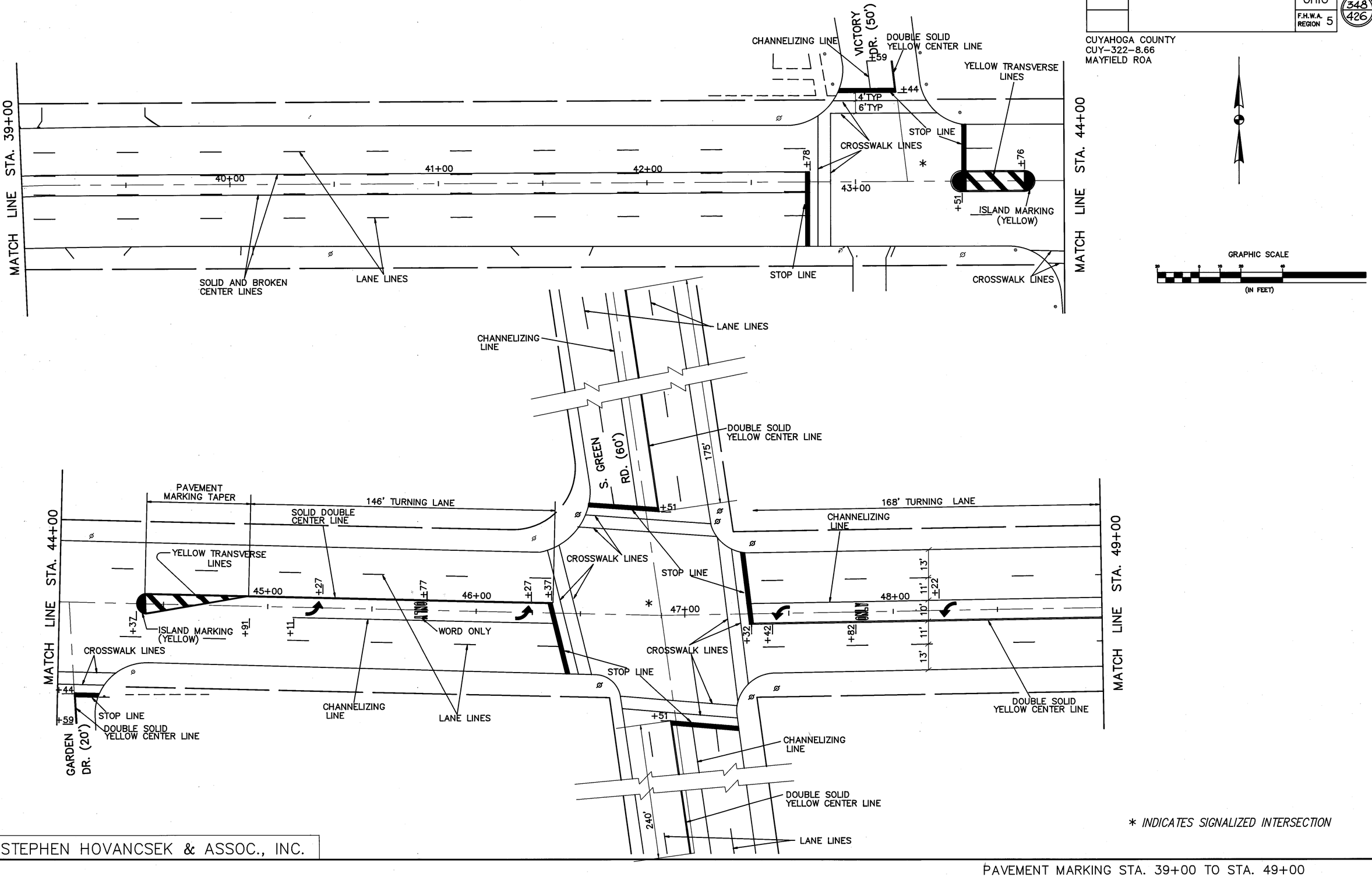
CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROA



GRAPHIC SCALE
20 0 10 20 40
(IN FEET)

* INDICATES SIGNALIZED INTERSECTION

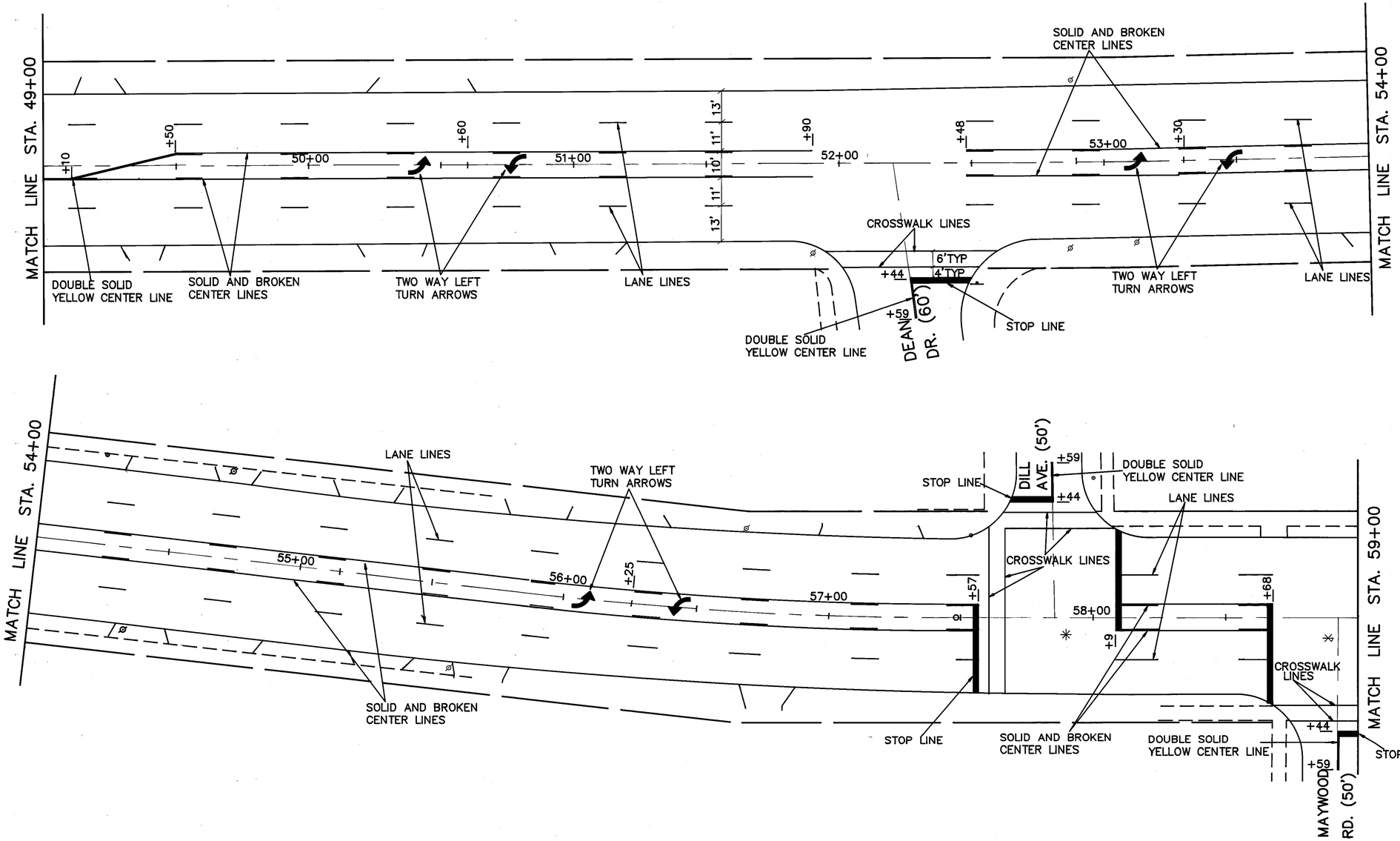
STEPHEN HOVANCSEK & ASSOC., INC.

PAVEMENT MARKING STA. 39+00 TO STA. 49+00

OHIO
F.H.W.A. REGION 5
349
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROA

GRAPHIC SCALE
(IN FEET)



* *Indicates Signalized Intersection*

STEPHEN HOVANCSEK & ASSOC., INC.

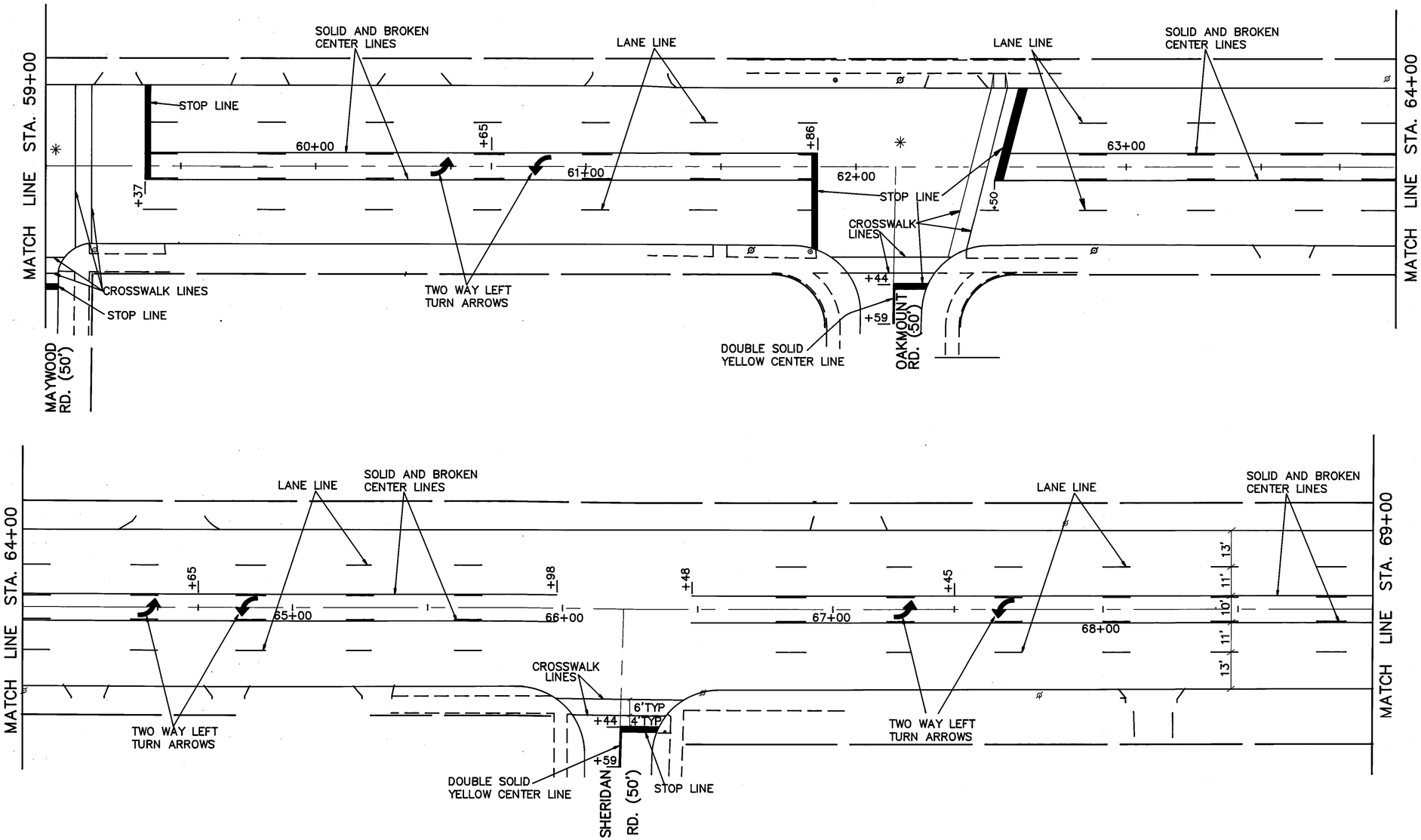
PAVEMENT MARKING STA. 49+00 TO STA. 59+00

MAYFIELD ROAD

OHIO
F.H.W.A. REGION 5
350
426

CUYAHOGA COUNTY
CUY-322-8.06
MAYFIELD ROAD

GRAPHIC SCALE
(IN FEET)



STEPHEN HOVANCSEK & ASSOC., INC.

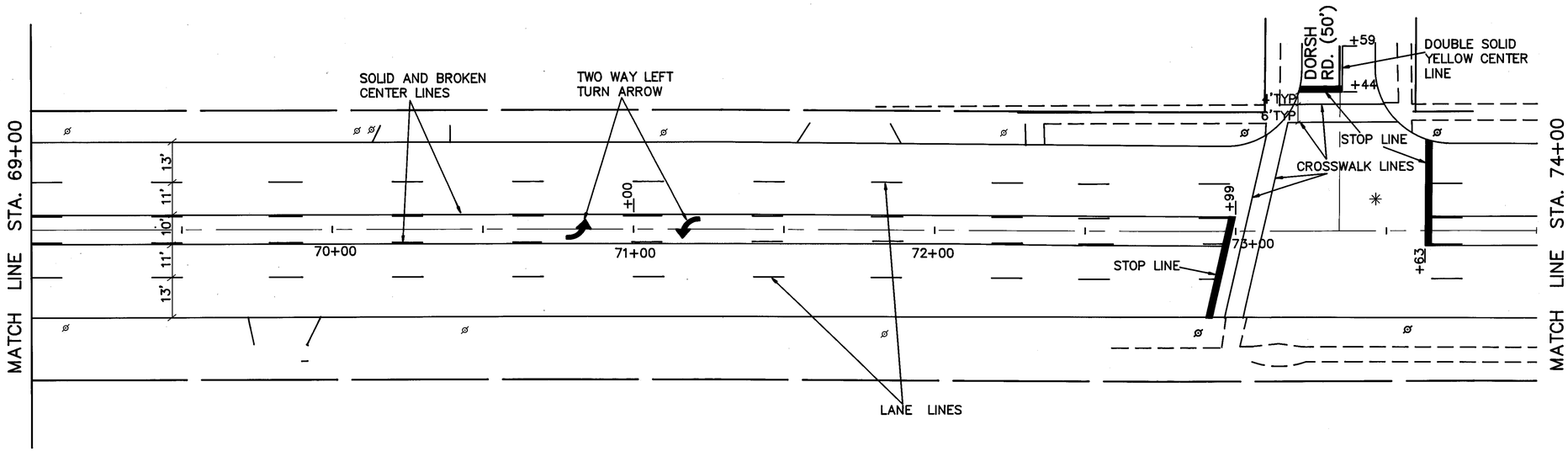
* *Indicates Signalized Intersection*

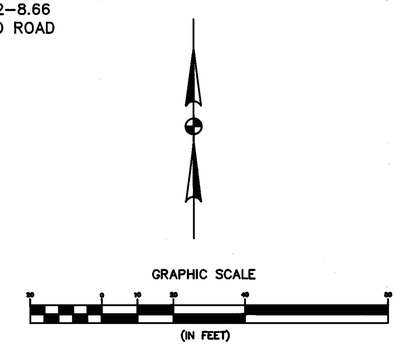
MAYFIELD ROAD

PAVEMENT MARKING STA. 59+00 TO STA. 69+00

OHIO
F.H.W.A. REGION 5
351
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD





* *Indicates Signalized Intersection*

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD

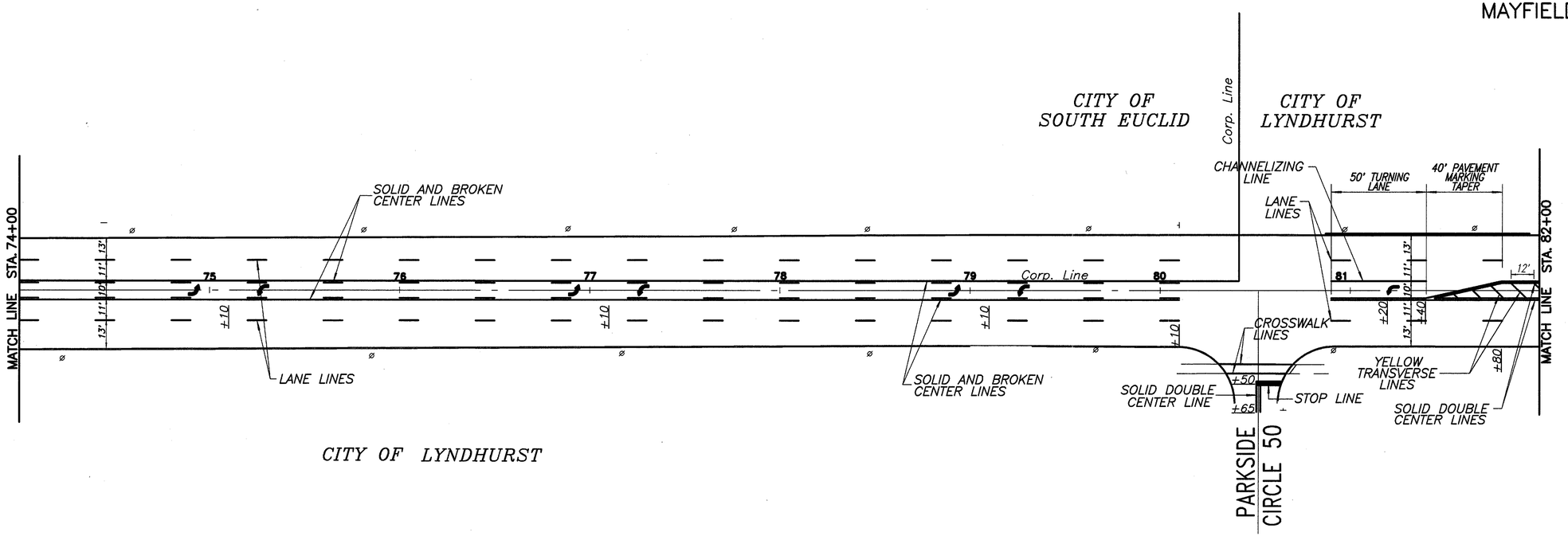
PAVEMENT MARKING STA. 69+00 TO STA. 74+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

352
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

0 5 10 30 60 90
Scale In Feet



MAYFIELD ROAD

PAVEMENT MARKING PLAN STA. 74+00 TO STA. 89+00

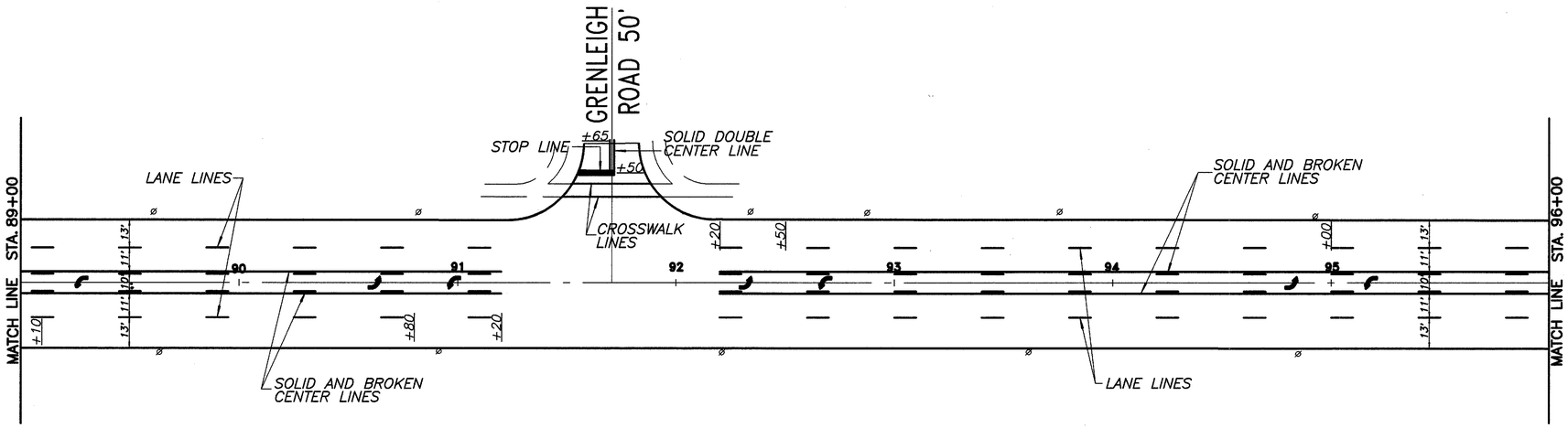
FHWA REGION	STATE	PROJECT	
5	OHIO		

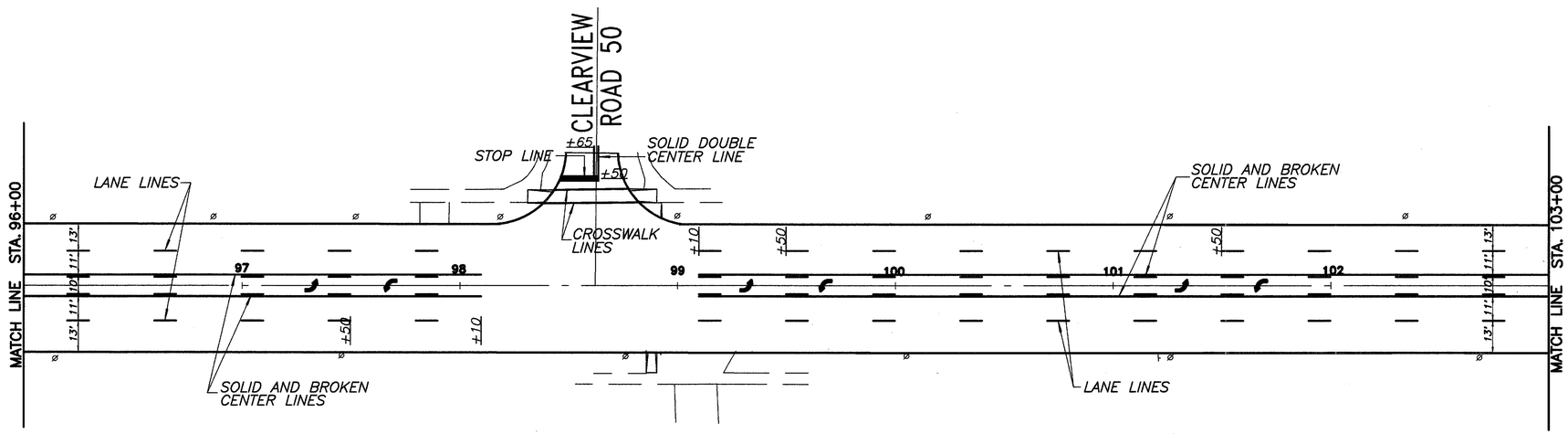
353
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

0 5 10 30 60 90
Scale In Feet

N





MAYFIELD ROAD

PAVEMENT MARKING PLAN STA. 89+00 TO STA. 103+00

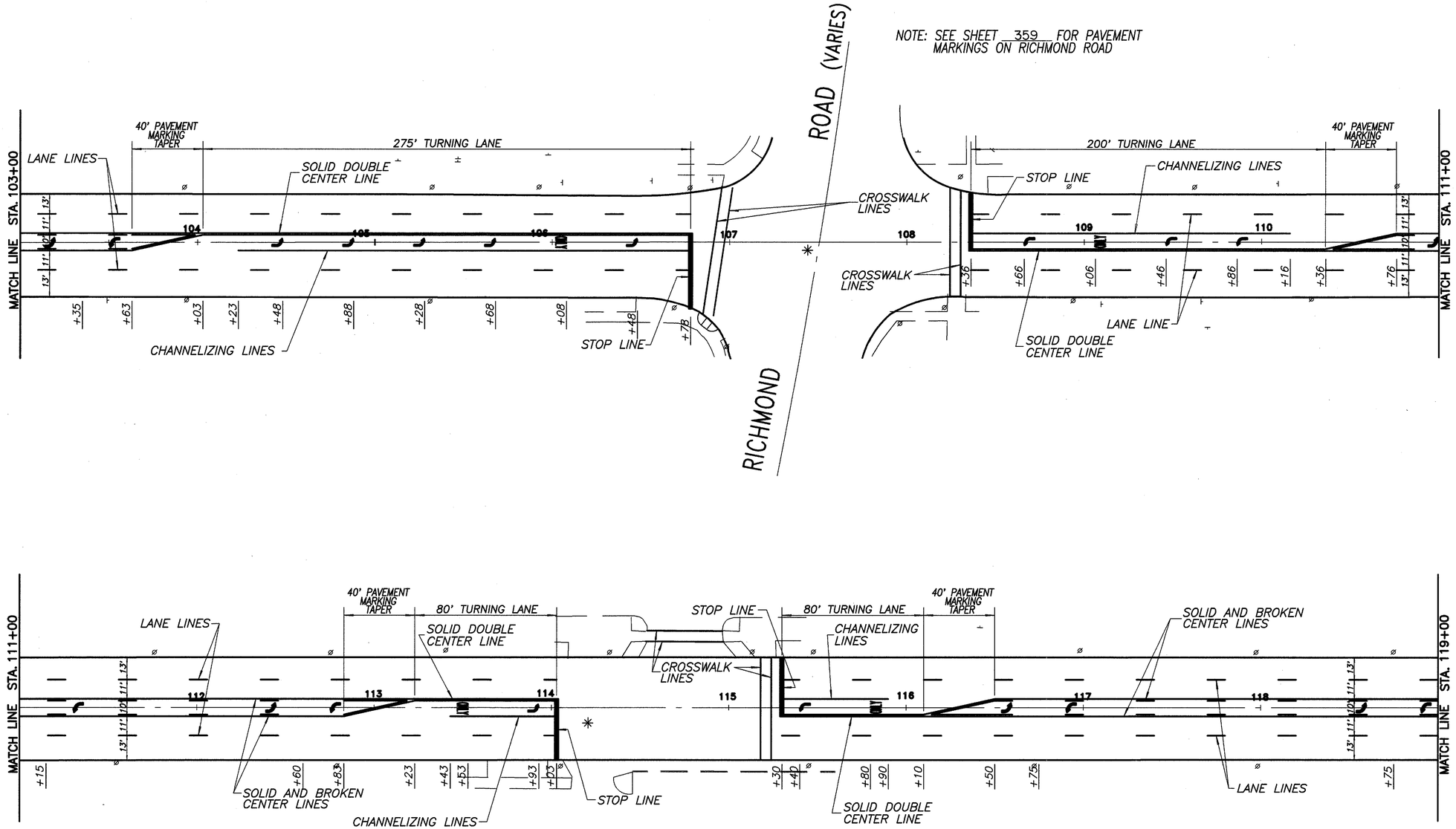
FHWA REGION	STATE	PROJECT	
5	OHIO		

354
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

0 5 10 30 60 90
Scale In Feet

NOTE: SEE SHEET 359 FOR PAVEMENT MARKINGS ON RICHMOND ROAD



CROSSROADS PLAZA

* Indicates Signalized Intersection

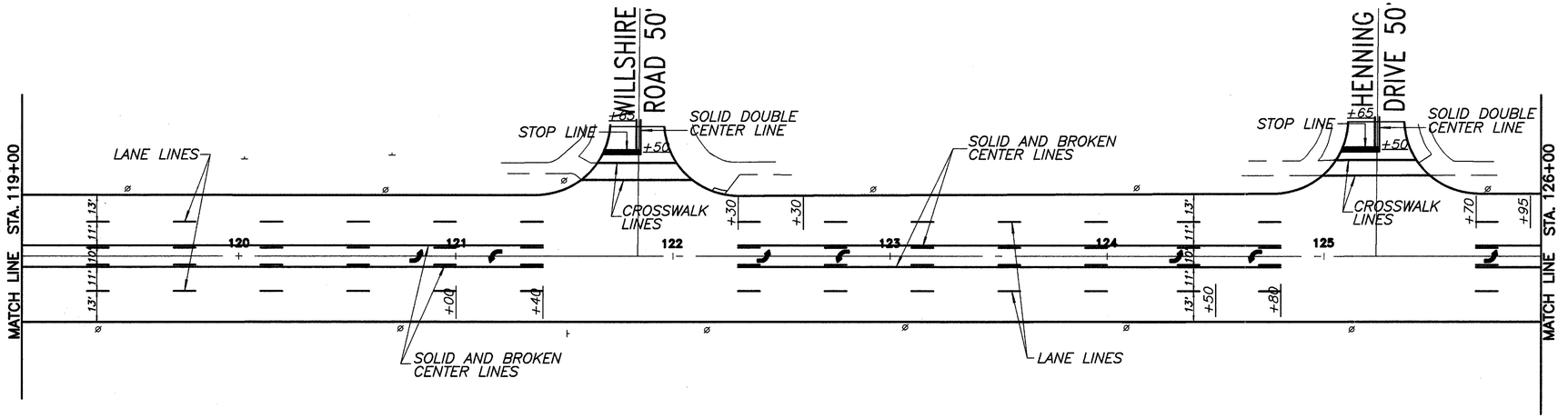
PAVEMENT MARKING PLAN STA. 103+00 TO STA. 119+00

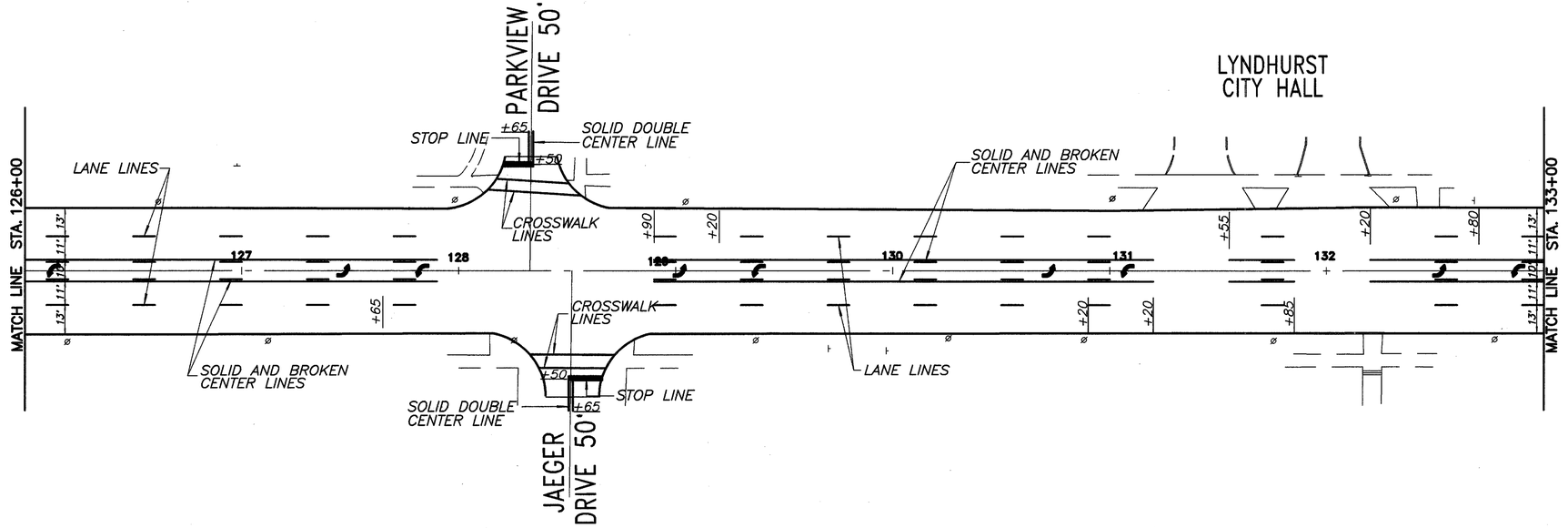
FHWA REGION	STATE	PROJECT	
5	OHIO		

355
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

0 5 10 30 60 90
Scale In Feet





MAYFIELD ROAD

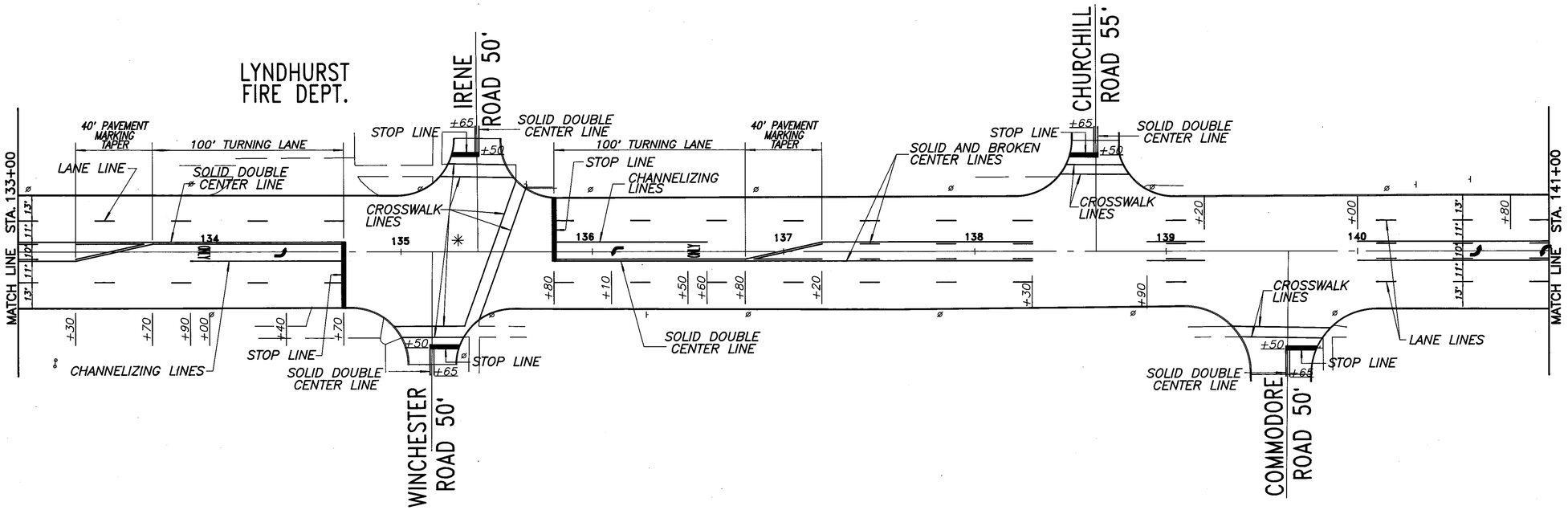
PAVEMENT MARKING PLAN STA. 119+00 TO STA. 133+00

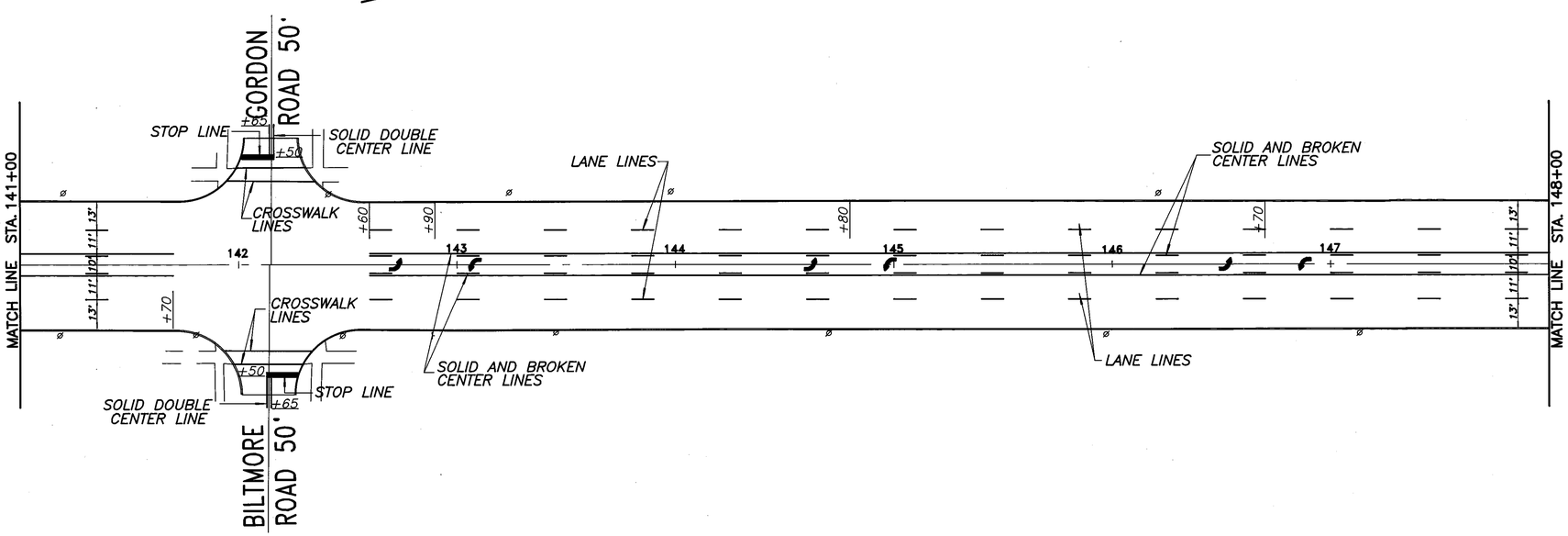
FHWA REGION	STATE	PROJECT	
5	OHIO		

356
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

0 5 10 30 60 90
Scale In Feet





✱ *Indicates Signalized Intersection*

MAYFIELD ROAD

PAVEMENT MARKING PLAN STA. 133+00 TO STA. 148+00

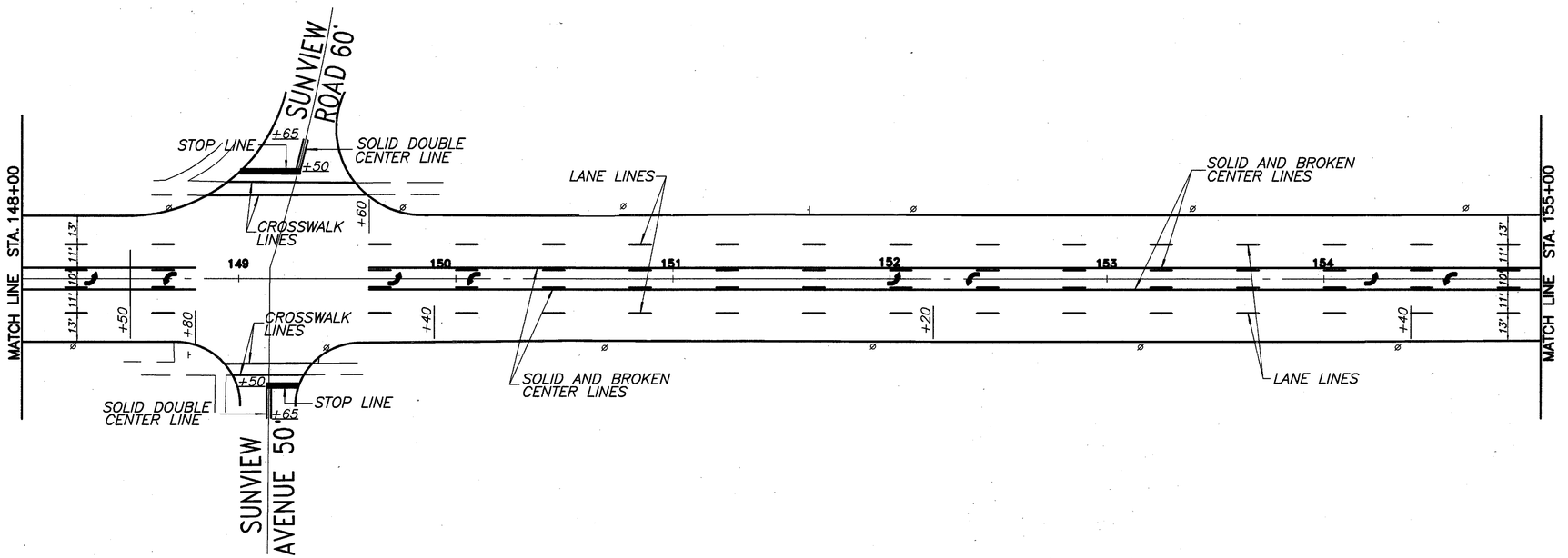
FHWA REGION	STATE	PROJECT	
5	OHIO		

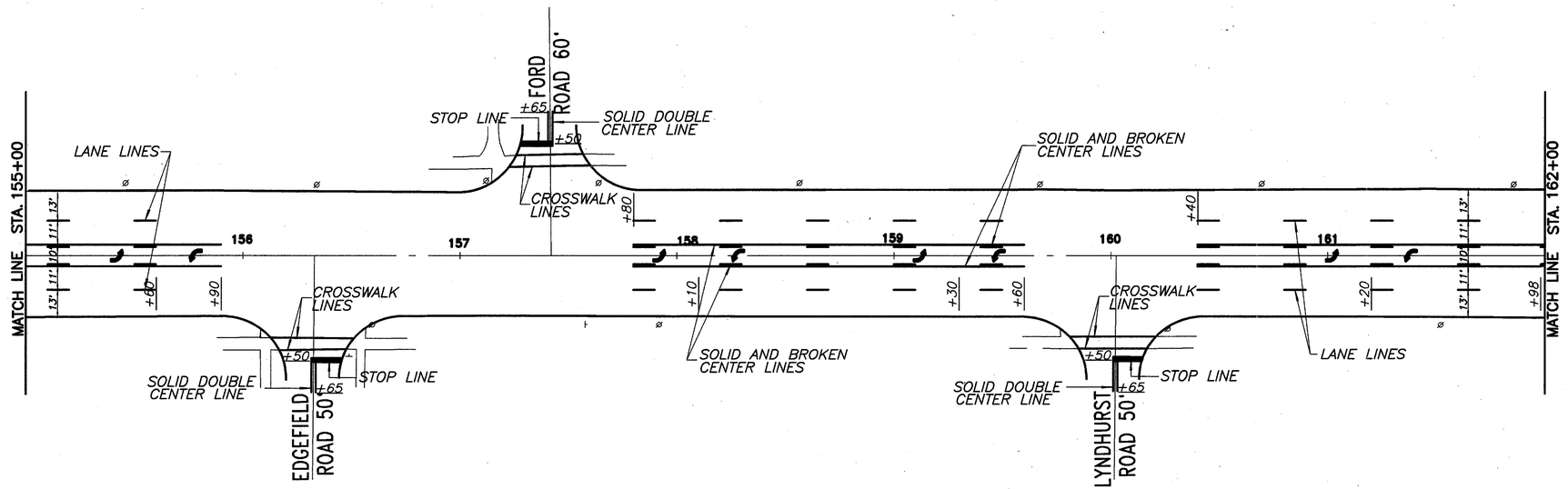
357
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

0 5 10 30 60 90
Scale In Feet

N





MAYFIELD ROAD

PAVEMENT MARKING PLAN STA. 148+00 TO STA. 162+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

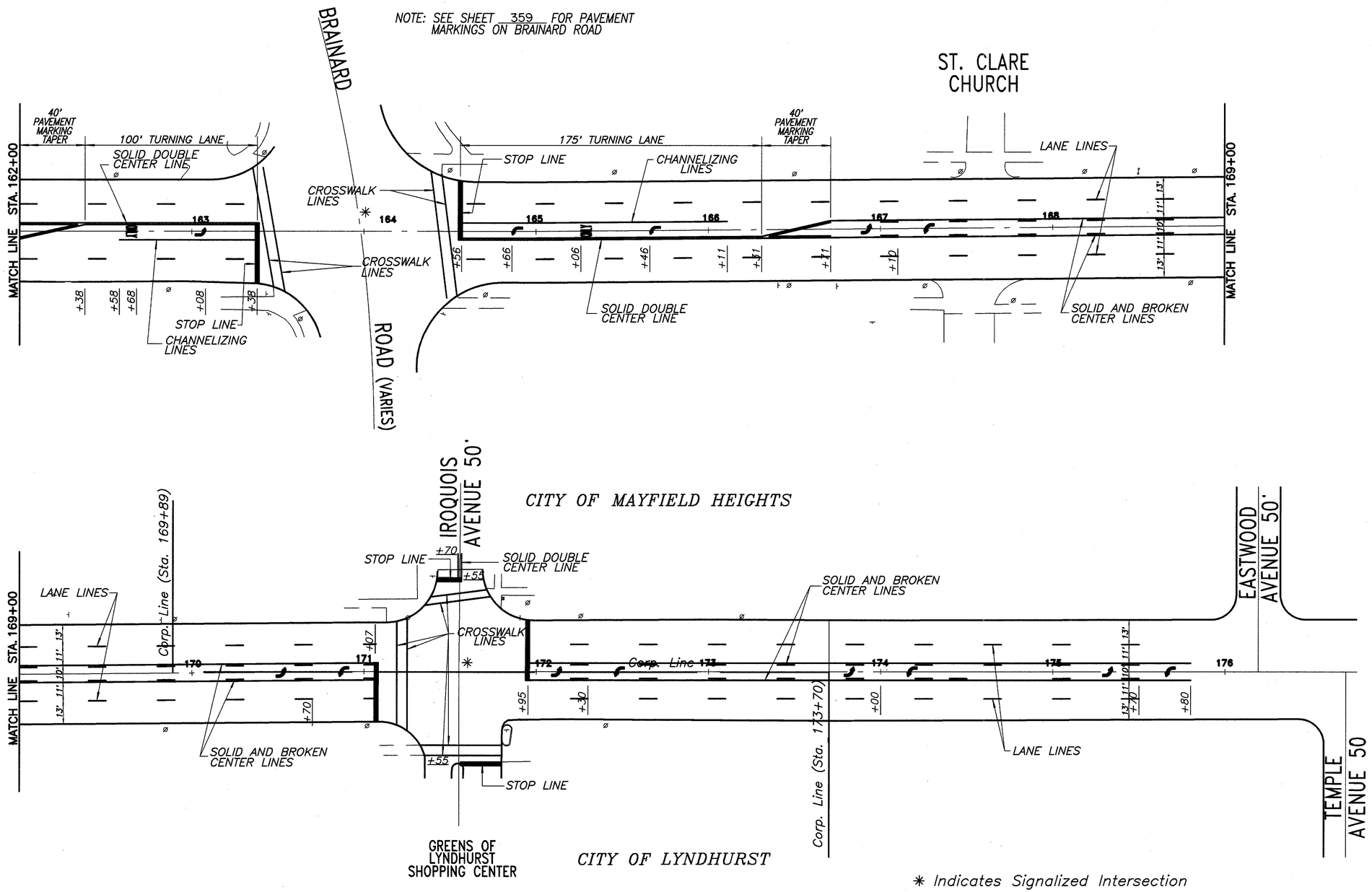
358
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

0 5 10 30 60 90
Scale In Feet

N

NOTE: SEE SHEET 359 FOR PAVEMENT MARKINGS ON BRAINARD ROAD



✳ Indicates Signalized Intersection

MAYFIELD ROAD

PAVEMENT MARKING PLAN STA. 162+00 TO STA. 176+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

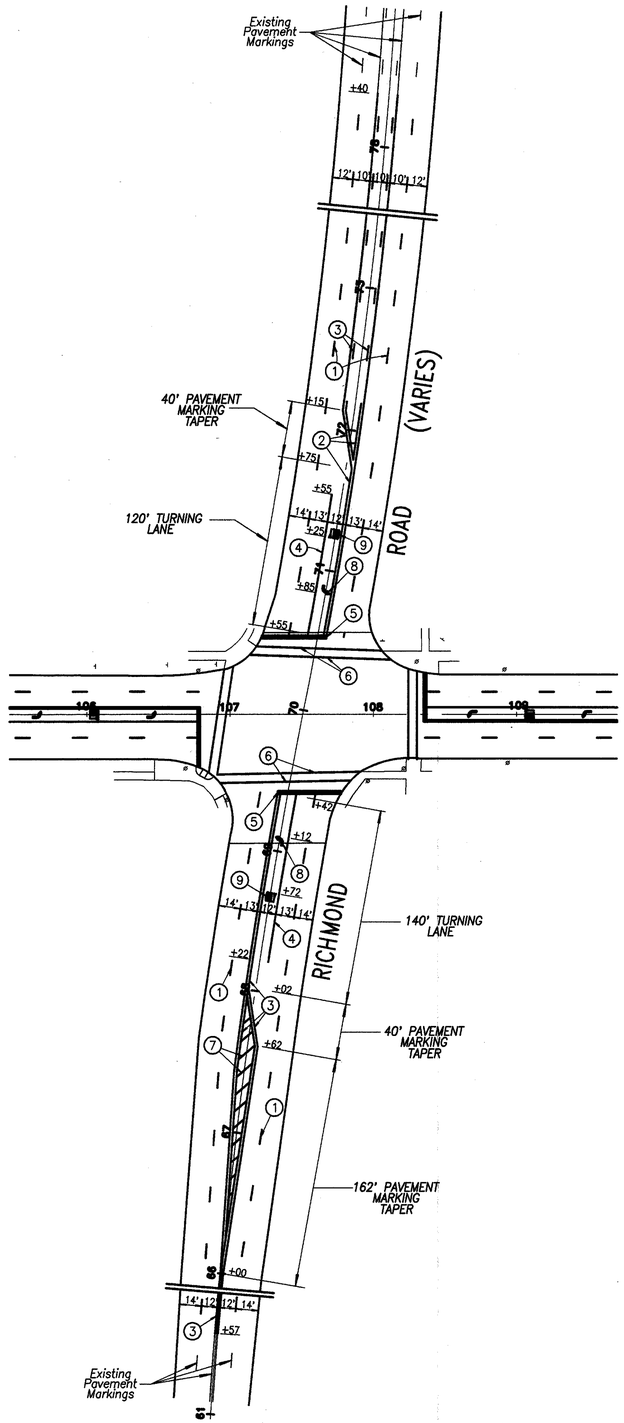
359
426

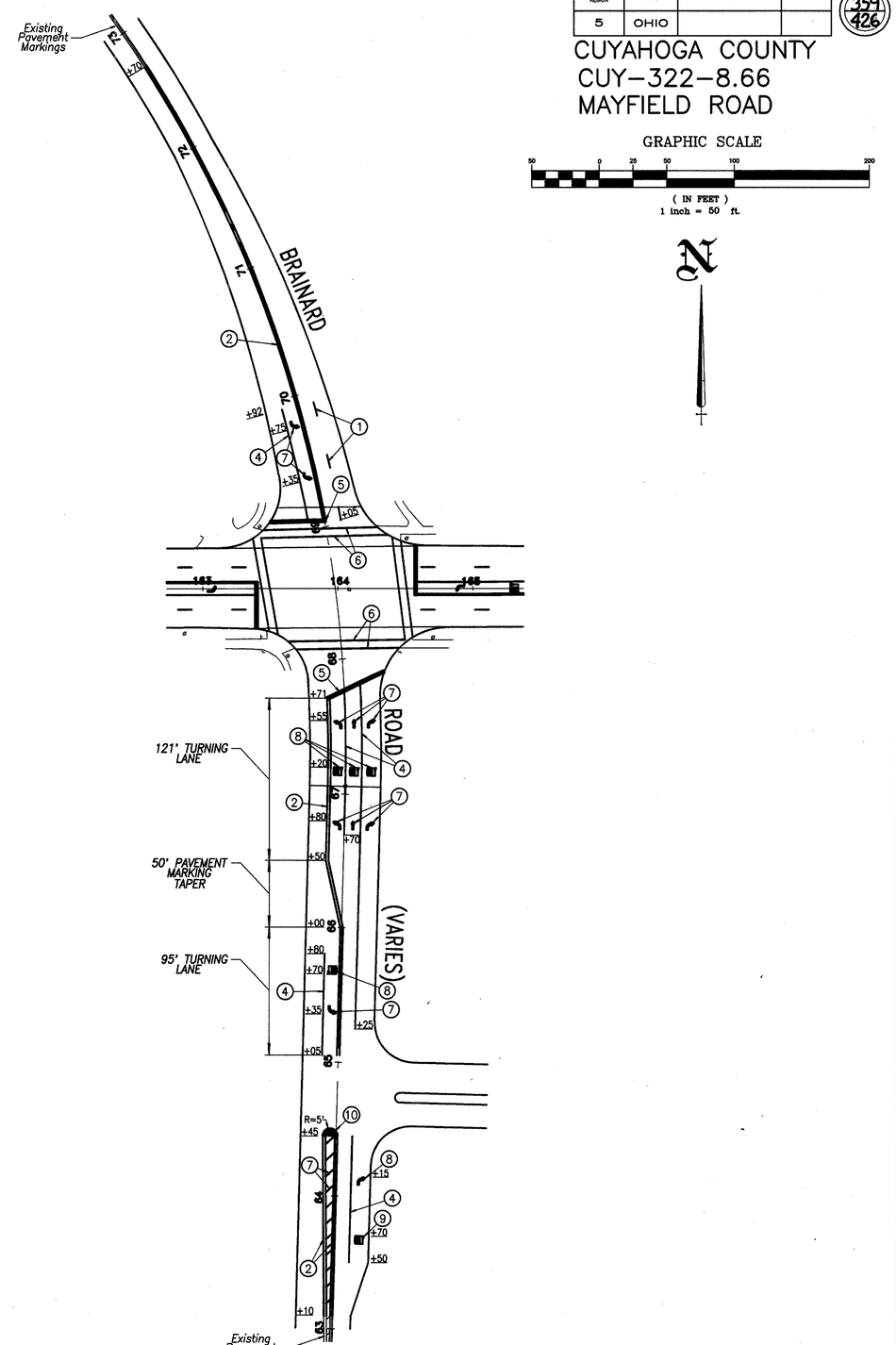
CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.





LEGEND

1. LANE LINES
2. SOLID DOUBLE CENTER LINE
3. SOLID AND BROKEN CENTER LINE
4. CHANNELIZING LINE
5. STOP LINE
6. CROSSWALK LINE
7. YELLOW TRANSVERSE LINES
8. LANE ARROW
9. WORD "ONLY" ON PAVEMENT
10. YELLOW ISLAND MARKING

MAYFIELD ROAD

PAVEMENT MARKINGS – RICHMOND ROAD & BRAINARD ROAD

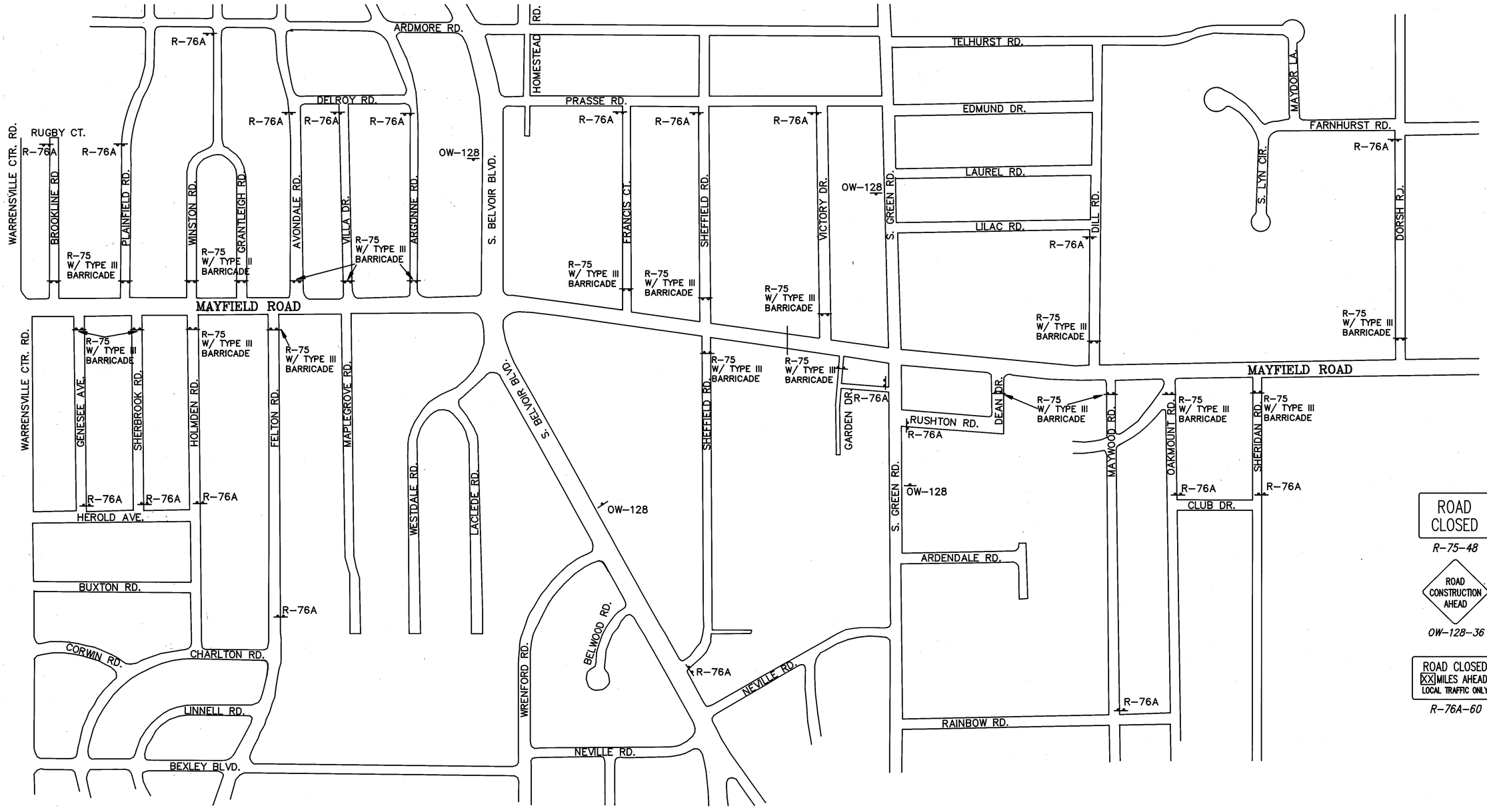
MAINTENANCE OF TRAFFIC PLAN
PHASE 2

CHKD. BY. ____ DATE ____		OHIO
CHKD. BY. ____ DATE ____		F.H.W.A. REGION

360
426

CUYAHOGA COUNTY
U.S. ROUTE No. 322
MAYFIELD ROAD

SECTION 1 | SECTION 2



ROAD CLOSED
R-75-48

ROAD CONSTRUCTION AHEAD
OW-128-36

ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY
R-76A-60

MAYFIELD ROAD

DETOUR PLAN – PHASE 2

1-3

GRAPHIC SCALE

400 0 200 400 800 1600

(IN FEET)
1 inch = 400 ft.

FHWA REGION	STATE	PROJECT	
5	OHIO		

361
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

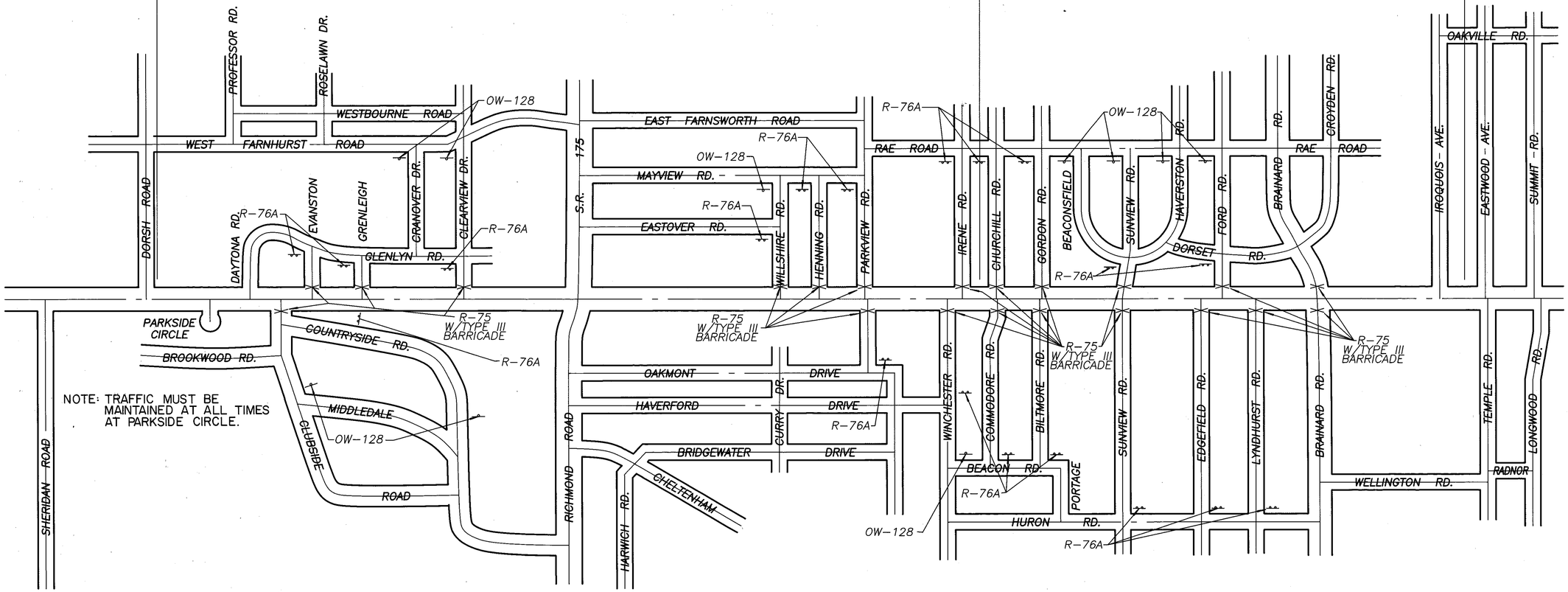
N

SECTION 3

PHASE 1 - STREETS ON NORTH SIDE
PHASE 2 - STREETS ON SOUTH SIDE

SECTION 4

PHASE 2 ONLY



NOTE: TRAFFIC MUST BE MAINTAINED AT ALL TIMES AT PARKSIDE CIRCLE.

ROAD CLOSED
R-75

ROAD CLOSED
MILES AHEAD
LOCAL TRAFFIC ONLY
R-76A

ROAD CONSTRUCTION AHEAD
OW-128

MAYFIELD ROAD

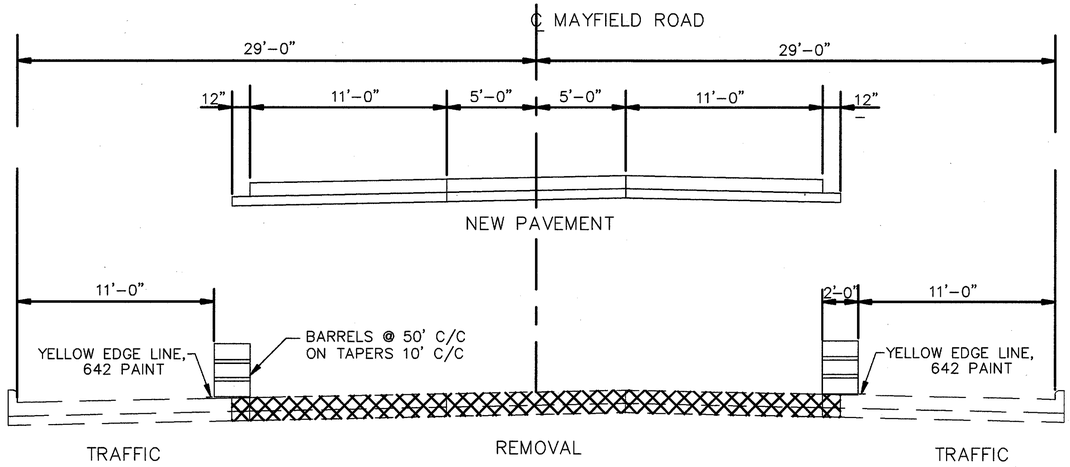
MAINTENANCE OF TRAFFIC PLAN

CALC. BY:	DATE:
CHK. BY:	DATE:

FHWA REGION	STATE	PROJECT	
5	OHIO		

362
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD



SEQUENCE OF CONSTRUCTION (PHASE 1)

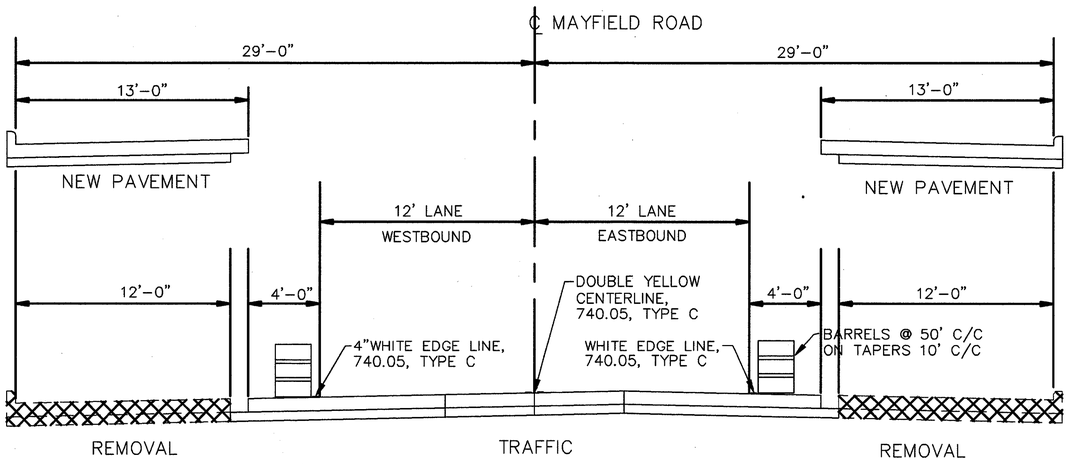
SECTION 1 – STA. 0+00 TO STA. 39+75
SECTION 2 – STA. 39+75 TO STA. 74+50
SECTION 4 – STA. 137+04 TO STA. 176+00

THE CONTRACTOR SHALL PREPARE THE OUTER LANES OF THE ROAD FOR SINGLE LANE TRAFFIC IN ACCORDANCE WITH THIS PLAN. ALL TRAFFIC WORK NOT OTHERWISE NOTED SHALL CONFORM TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

TWO–WAY TRAFFIC SHALL BE MAINTAINED ON THE OUTER LANES OF MAYFIELD ROAD.

THE CONTRACTOR SHALL REMOVE THE CONCRETE PAVEMENT, DO THE UTILITY WORK AND DRAINAGE REQUIRED AND REPLACE THE PAVEMENT IN THE THE CENTER OF THE ROAD. CASTINGS ARE TO BE BOXED OUT AND SET TO GRADE AS SOON AS POSSIBLE.

THE CONTRACTOR SHALL MAKE PROVISIONS FOR PEDESTRIAN CROSSING DURING THE CONSTRUCTION. LEFT TURNS FROM MAYFIELD ROAD SHALL BE PROHIBITED.



SEQUENCE OF CONSTRUCTION (PHASE 2)

SECTION 1 – STA. 0+00 TO STA. 39+75
SECTION 2 – STA. 39+75 TO STA. 74+50
SECTION 4 – STA. 137+04 TO STA. 176+00

THE CONTRACTOR SHALL PREPARE THE CENTER SECTION OF THE ROAD FOR SINGLE LANE TWO–WAY TRAFFIC IN ACCORDANCE WITH THIS PLAN. ALL TRAFFIC WORK NOT OTHERWISE NOTED SHALL CONFORM TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

TWO–WAY TRAFFIC SHALL BE MAINTAINED AND RESTRICTED TO THE CENTER LANES OF MAYFIELD RD.

THE CONTRACTOR SHALL REMOVE THE CONCRETE PAVEMENT, DO THE UTILITY WORK AND DRAINAGE REQUIRED AND REPLACE THE PAVEMENT ON THE NORTH AND SOUTH OUTER LANES OF THE ROAD. CASTINGS ARE TO BE BOXED OUT AND SET TO GRADE AS SOON AS POSSIBLE.

ALL OTHER INTERSECTIONS SHALL BE CLOSED ONLY DURING THE TIME THAT THE CONTRACTOR IS REMOVING PAVEMENT, DOING UTILITY WORK, AND REPLACING THE PAVEMENT.

THE CONTRACTOR SHALL MAKE PROVISIONS FOR PEDESTRIAN CROSSING DURING THE CONSTRUCTION.

THE CONTRACTOR SHALL REMOVE AND REPLACE ALL TWO (2) LANE DRIVES TO BUSINESSES, SCHOOLS, CHURCHES AND OFFICES IN TWO (2) PHASES SO THAT INGRESS AND EGRESS CAN BE MAINTAINED DURING CONSTRUCTION.

LEFT TURNS FROM MAYFIELD ROAD SHALL BE PROHIBITED.

THE FINAL STRIPING AND SIGNING SHALL BE DONE. THE LOOP DETECTORS WITHIN THE LANES UNDER CONSTRUCTION SHALL BE INSTALLED AND THE UPDATED TRAFFIC CONTROL SYSTEM SHALL BE ACTIVATED.

MAYFIELD ROAD

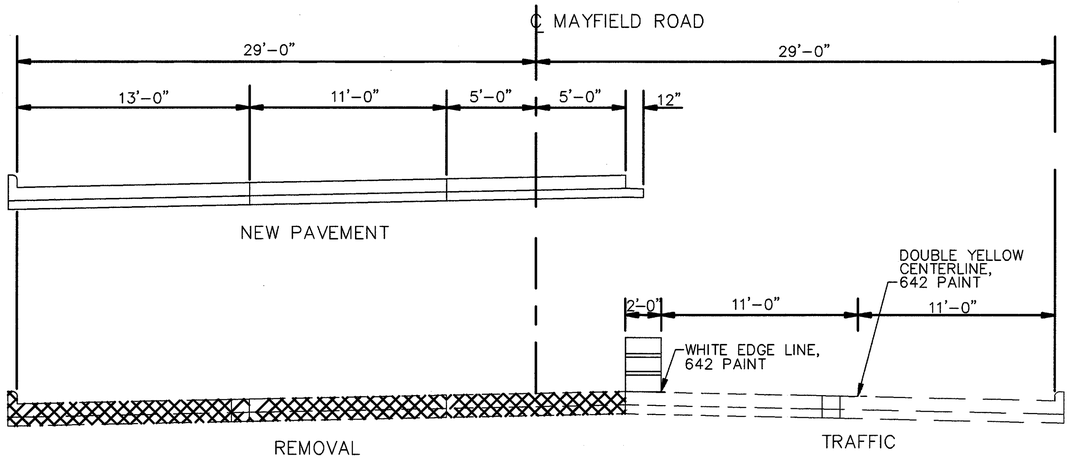
MAINTENANCE OF TRAFFIC TYPICAL SECTION

CALC. BY: _____	DATE: _____
CHK. BY: _____	DATE: _____

FHWA REGION	STATE	PROJECT	
5	OHIO		

363
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



SEQUENCE OF CONSTRUCTION (PHASE 1)

SECTION 3 – STA. 74+50 TO STA. 137+04

THE CONTRACTOR SHALL PREPARE THE EASTBOUND LANES FOR SINGLE LANE TWO-WAY TRAFFIC IN ACCORDANCE WITH THIS PLAN. ALL TRAFFIC WORK NOT OTHERWISE NOTED SHALL CONFORM TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

TWO-WAY TRAFFIC SHALL BE MAINTAINED AND RESTRICTED TO THE EASTBOUND LANES OF MAYFIELD RD.

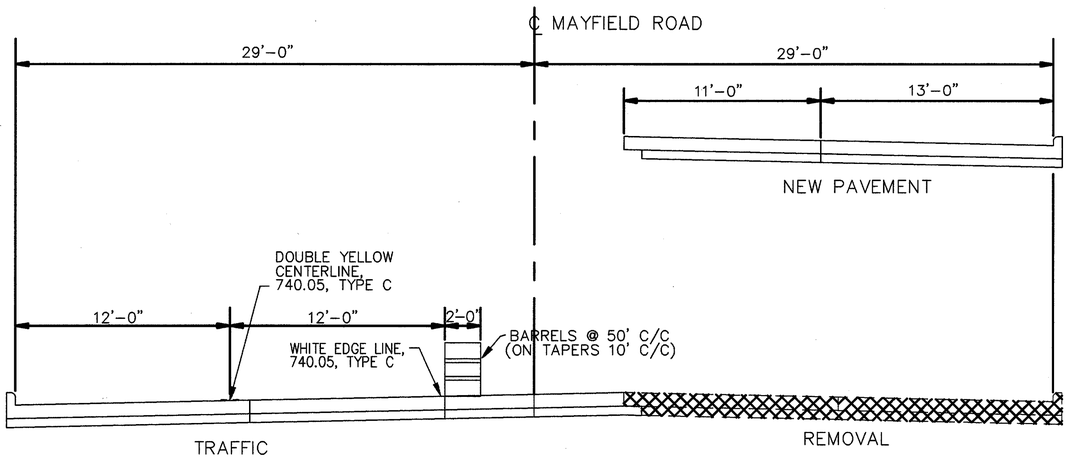
THE CONTRACTOR SHALL REMOVE THE CONCRETE PAVEMENT, DO THE UTILITY WORK AND DRAINAGE REQUIRED AND REPLACE THE PAVEMENT ON THE WESTBOUND AND CENTER LANES OF THE ROAD. CASTINGS ARE TO BE BOXED OUT AND SET TO GRADE AS SOON AS POSSIBLE.

INTERSECTIONS SHALL BE CLOSED ONLY DURING THE TIME THAT THE CONTRACTOR IS REMOVING PAVEMENT, DOING UTILITY WORK, AND REPLACING THE PAVEMENT.

THE CONTRACTOR SHALL MAKE PROVISIONS FOR PEDESTRIAN CROSSING DURING THE CONSTRUCTION.

THE CONTRACTOR SHALL REMOVE AND REPLACE ALL TWO (2) LANE DRIVES TO BUSINESSES, SCHOOLS, CHURCHES AND OFFICES IN TWO (2) PHASES SO THAT INGRESS AND EGRESS CAN BE MAINTAINED DURING CONSTRUCTION.

LEFT TURNS FROM MAYFIELD ROAD SHALL BE PROHIBITED.



SEQUENCE OF CONSTRUCTION (PHASE 2)

SECTION 3 – STA. 74+50 TO STA. 137+04

THE CONTRACTOR SHALL PREPARE THE WESTBOUND LANES FOR SINGLE LANE TWO-WAY TRAFFIC IN ACCORDANCE WITH THIS PLAN. ALL TRAFFIC WORK NOT OTHERWISE NOTED SHALL CONFORM TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

TWO-WAY TRAFFIC SHALL BE MAINTAINED AND RESTRICTED TO THE WESTBOUND LANES OF MAYFIELD RD.

THE CONTRACTOR SHALL REMOVE THE CONCRETE PAVEMENT, DO THE UTILITY WORK AND DRAINAGE REQUIRED AND REPLACE THE PAVEMENT ON THE EASTBOUND LANES OF THE ROAD. CASTINGS ARE TO BE BOXED OUT AND SET TO GRADE AS SOON AS POSSIBLE.

INTERSECTIONS SHALL BE CLOSED ONLY DURING THE TIME THAT THE CONTRACTOR IS REMOVING PAVEMENT, DOING UTILITY WORK, AND REPLACING THE PAVEMENT.

THE CONTRACTOR SHALL MAKE PROVISIONS FOR PEDESTRIAN CROSSING DURING THE CONSTRUCTION.

THE CONTRACTOR SHALL REMOVE AND REPLACE ALL TWO (2) LANE DRIVES TO BUSINESSES, SCHOOLS, CHURCHES AND OFFICES IN TWO (2) PHASES SO THAT INGRESS AND EGRESS CAN BE MAINTAINED DURING CONSTRUCTION.

LEFT TURNS FROM MAYFIELD ROAD SHALL BE PROHIBITED.

MAYFIELD ROAD

MAINTENANCE OF TRAFFIC TYPICAL SECTION

SUMMARY OF TEMPORARY PAVEMENT MARKINGS

CHKD. BY. DATE		OHIO	364 426
CHKD. BY. DATE		F.H.W.A. REGION 5	

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

	ROADWAY	SIDE	STATION FROM	STATION TO	614 TEMPORARY YELLOW EDGE LINES, CLASS 1, 740.05 TYPE C	614 TEMPORARY WHITE EDGE LINES, CLASS 1, 740.05 TYPE C	614 TEMPORARY YELLOW EDGE LINES, CLASS 1 642 PAINT	614 TEMPORARY WHITE EDGE LINES, CLASS 1 642 PAINT	614 TEMPORARY SOLID DOUBLE CENTERLINE, CLASS 1, 740.05, TYPE C	614 TEMPORARY SOLID DOUBLE CENTERLINE, CLASS 1, 642 PAINT	614 TEMPORARY STOP LINE, CLASS 1, 740.05, TYPE C	614 TEMPORARY STOP LINE, CLASS 1, 642 PAINT	614 TEMPORARY LANE ARROW, CLASS 1, 740.05 TYPE C	614 TEMPORARY CROSSWALK LINE, CLASS 1, 642 PAINT	614 TEMPORARY CROSSWALK LINE, CLASS 1, 740.05 TYPE C	614 TEMPORARY LANE LINE, CLASS 1, 642 PAINT	614 TEMPORARY SOLID DOUBLE CENTERLINE, CLASS 1, 642 PAINT	614 TEMPORARY CENTERLINE, BROKEN & SOLID, DOUBLE CLASS 1, 642 PAINT	614 TEMPORARY WORD ON PAVEMENT, 72" CLASS 1, 642 PAINT	614 TEMPORARY LANE ARROW CLASS 1, 642 PAINT	614 TEMPORARY CHANNELIZING LINE, CLASS 1, 642 PAINT	644 TEMPORARY PAVEMENT MARKING REMOVED	644 TEMPORARY PAVEMENT MARKING REMOVED
					LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH
	BROOKLINE RD											12		77										
	GENESSEE AVE											15		81										
	PLAINFIELD RD											15		78										
	SHERBROOK AVE											15		82										
	WINSTON RD											15		92										
	HOLMDEN RD											15		80										
	GRANTLEIGH RD											14		80										
	FELTON RD											13		80										
	AVONDALE RD											14		78										
	MAPLEGROVE RD											15		84										
	VILLA RD											15		89										
	ARGONNE RD											15		85										
	BELVOIR BLVD					2224			1350		210		2		1800									
	FRANCIS CT											15		75										
	SHEFFIELD RD											28		160										
	VICTORY DR											28		100										
	GARDEN DR											12		76										
	GREEN RD				1350	2410			1620		228	44	13	772	520									
	DEAN RD											23		117										
	MAYWOOD RD											12		78										
	OAKMOUNT RD											12		78										
	SHERIDAN RD											15		84										
	DORSH RD											15		80										
	DILL RD											17		82										
	MAYFIELD ROAD		-9+00	0+00	1200	645							4									200	1845	4
			0+00	4+00		700	692		350		36*			150*		780 *	190 *	450 *	3*	1*	70 *	1050	
			4+00	9+00		1000	1000		500		38*			154*		1000*		1000*	4*			1500	
			9+00	14+00		1000	1000		500		35*			134*		1000*		1000*	4*			1500	
			14+00	19+00		1000	1000		500							1000*		1000*	4*			1500	
			19+00	24+00		1000	1000		500							1000*	180 *	730 *	3*		75 *	1500	
			24+00	29+00		800	800		400		80*			310*		1000*	335*	150 *	3*	2*	235*	1200	
			29+00	34+00		1000	1000		500							1000*		1000*	4*			1500	
			34+00	39+00	400	1000	1000	400	500		70*			280*		1000*		1000*	0*			1900	
			39+00	44+00		1150	1950		575		70*			130*		1000*	290*	400 *	0*	1*		1725	
			44+00	49+00		814	814		407		70*			270*		1000*	420*	0 *	4*	2*	300*	1221	
			49+00	54+00		1000	1000		500							1000*	100 *	900 *	4*			1500	
			54+00	59+00		1000	1000		500		110*			130*		1000*		1000*	2*			1500	
			59+00	64+00		1000	1000		500		110*			250*		1000*		1000*	2*			1500	
			64+00	69+00		1000	1000		500							1000*		1000*	4*			1500	
			69+00	74+00		1000	1000		500		70*			130*		1000*		1000*	2*			1500	
			74+00	79+00		150	950	400	75													225		
					2,950	19,893	16,206	800	10,277							14,780	1,515	11,630	43	6	880	24,166	4
					0.56 MI.	3.77 MI.	3.07 MI.	0.15 MI.	1.95 MI.		1127	394	19	4,626	2,320	2.80 MI.	0.29 MI.	2.20 MI.					

NOTE: QUANTITIES MARKED WITH AN * SHALL BE PLACED AT FINAL MARKING POSITIONS AT THE COMPLETION OF EACH SECTION.

PAVEMENT MARKING QUANTITIES

SUMMARY OF TEMPORARY PAVEMENT MARKING QUANTITIES

FHWA REGION	STATE	PROJECT	
5	OHIO		

365
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

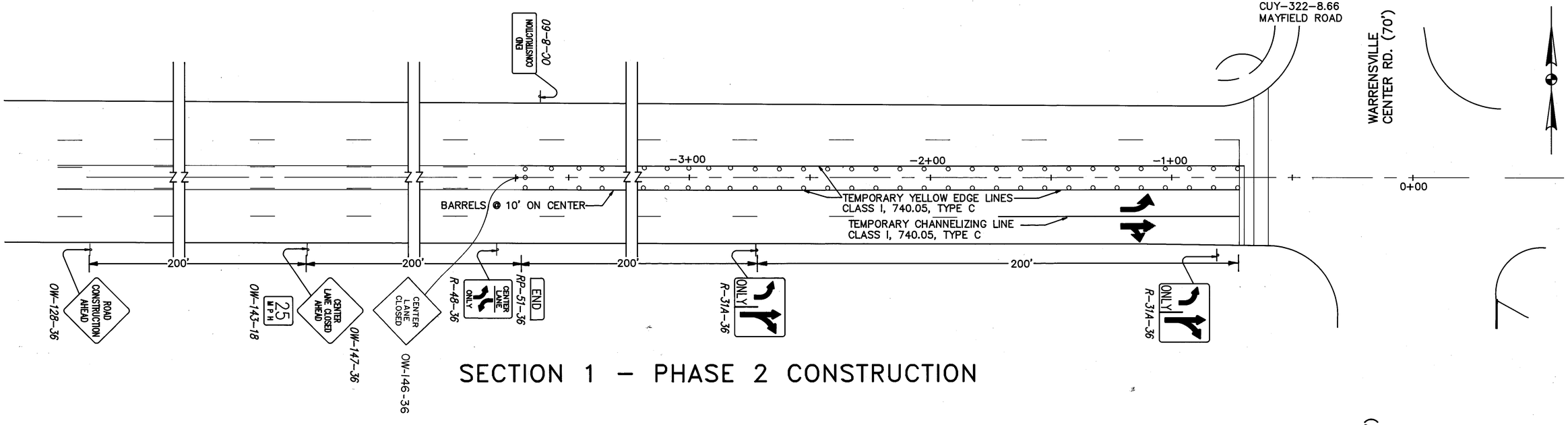
SHEET	SECTION	STATION		ITEM 614														644	644	622
				Temporary Lane Line, Class I, 740.05, Type C	Temp. Solid Double Center Line, Class I, 642 Paint	Temp. Solid Double Center Line, Class I, 740.05, Type C	Temporary Yellow Class I, Edge Lines, 642 Paint	Temporary White Edge Lines, Class I, 642 Paint	Temporary Yellow Edge Lines, Class I, 740.05, Type C	Temporary White Edge Lines, Class I, 740.05, Type C	Temporary Channelizing Line, Class I, 740.05, Type C	Temporary Stop Line, Class I, 642 Paint	Temporary Stop Line, Class I, 740.05, Type C	Temporary Crosswalk Lines, Class I, 740.05, Type C	Temporary Lane Arrow, Class I, 740.05, Type C	Temp. Word "ONLY" on Pavement, Class I, 740.05, Type C	Removal of Pavement Marking	Removal of Pavement Marking	Portable Concrete Barrier, 32"
		From	To	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Each	Each	Lin. Ft.	Each	Lin. Ft.
386	3	62+00	67+00																
387	3	67+00	74+00			220			1940	800							2960		
388	3	74+00	82+00		800	800		800		800							1600		
389	3	82+00	89+00		700	700		700		700		22	24				1424		
390	3	89+00	96+00		700	700		700		700							1400		
391	3	96+00	103+00		700	700		700		700							1400		
392	3	103+00	111+00		800	800		800		800							1600		
393	3	111+00	119+00		800	800		800		800							1600		
394	3	119+00	126+00		700	700		700		700							1400		
395	3	126+00	133+00		700	700		700		700							1400		
396	3	133+00	141+00		400	1600		400		1200							2800		
397	3	141+00	149+00			1000				400							1400		
398	4	133+00	141+00			640	800		240	1260	240		34		2	1	2414	3	
399	4	141+00	149+00			700	1400			1400		22					2100		
400	4	149+00	155+00			700	1400			1400		22					2100		
401	4	155+00	162+00			700	1400			1400							2100		
402	4	162+00	169+00			700	1400			1400		22					2100		
403	4	169+00	176+00				940		400	1340		22					1740		
		INTERSECTIONS																	
408	3	Richmond			400				4940	2770		44	60	700			8470		
409	3	Richmond			400				4160	2080	275		130	700	4		7345	4	
410	4	Brainard		1200	1200				1300	1200	400	44		700	8		5000	8	
411	4	Brainard		2000	1150				950	1600	180		110	700	4		3540	4	
422	2	50+00	60+00			2373				1706	3000	227							
422	2	PHASE I																	85
422	2	PHASE II																	490
422	2	PHASE III A																	180
422	2	PHASE IIIB																	60
		GRAND TOTALS		3200	9450	14533	7340	6300	13930	25856	4095	425	458	2800	18	1	55893	19	815
		Miles		0.61	1.79	2.75	2.58		754										

MAYFIELD ROAD

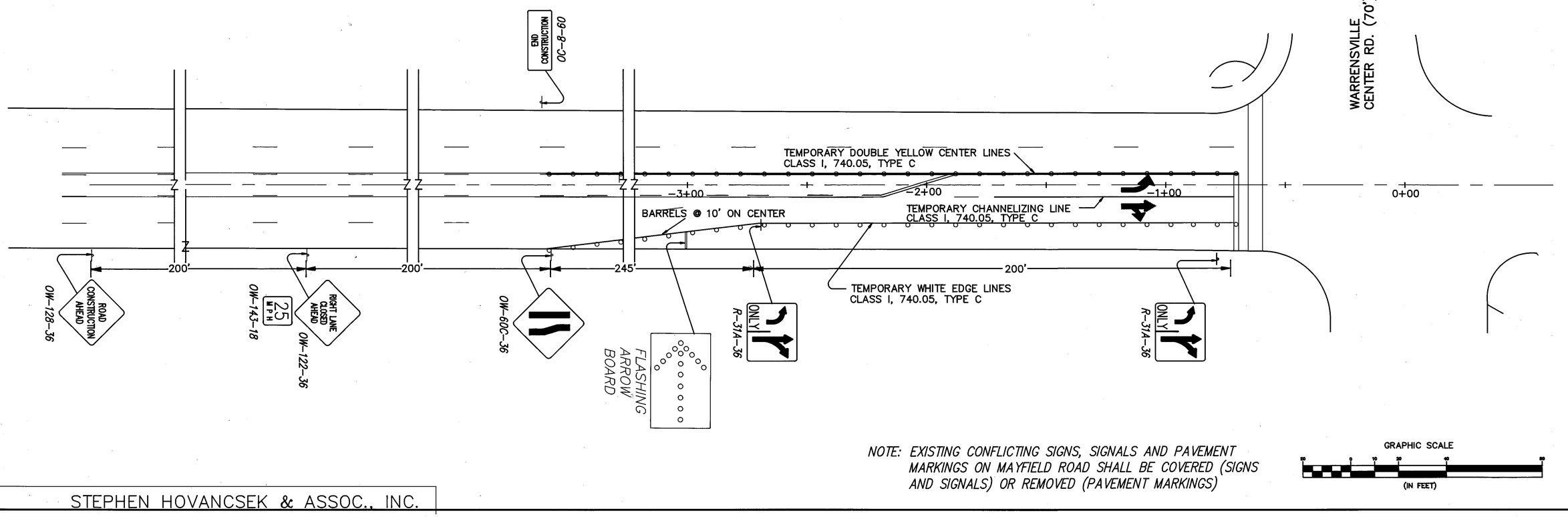
SECTION 1 – PHASE 1 CONSTRUCTION

OHIO
F.H.W.A. REGION 5
366
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



SECTION 1 – PHASE 2 CONSTRUCTION



NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

GRAPHIC SCALE
20 0 10 20 40 60
(IN FEET)

MAYFIELD ROAD

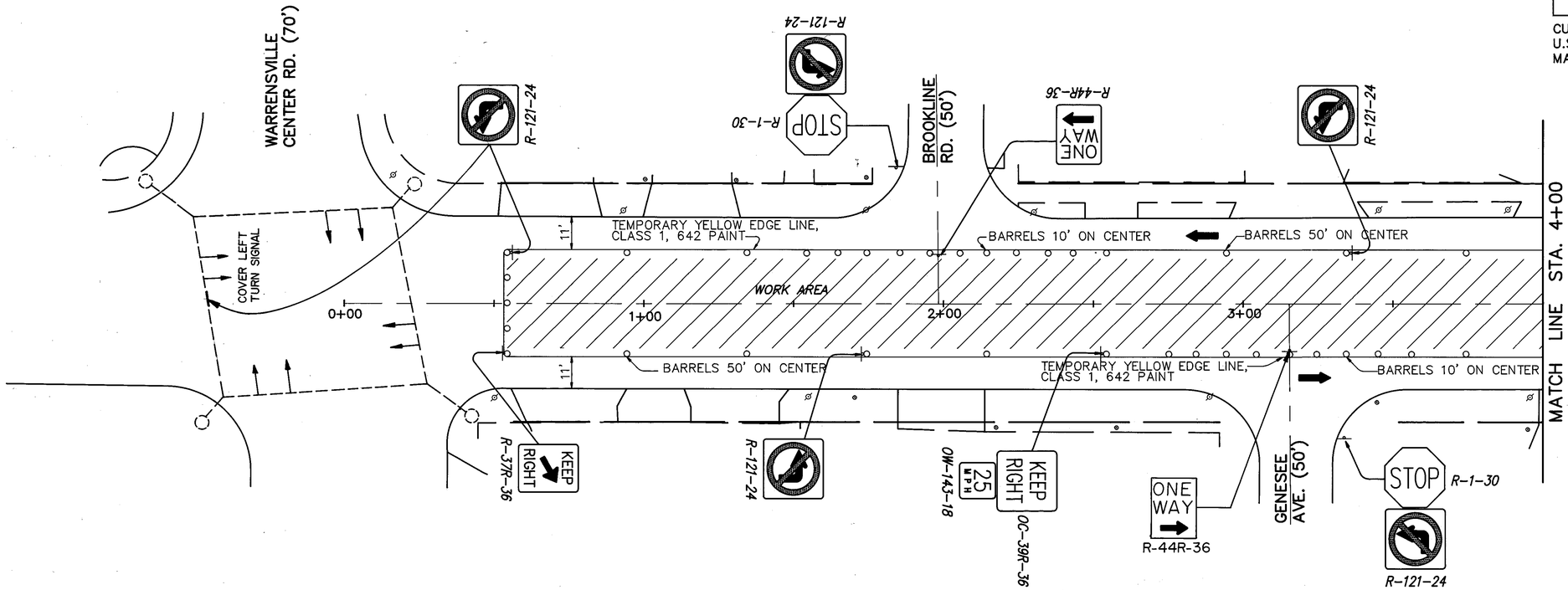
STEPHEN HOVANCSEK & ASSOC., INC.

SECTION 1 MAINTENANCE OF TRAFFIC STA. –9+00 TO STA. 0+00

SECTION 1 – PHASE 1 CONSTRUCTION

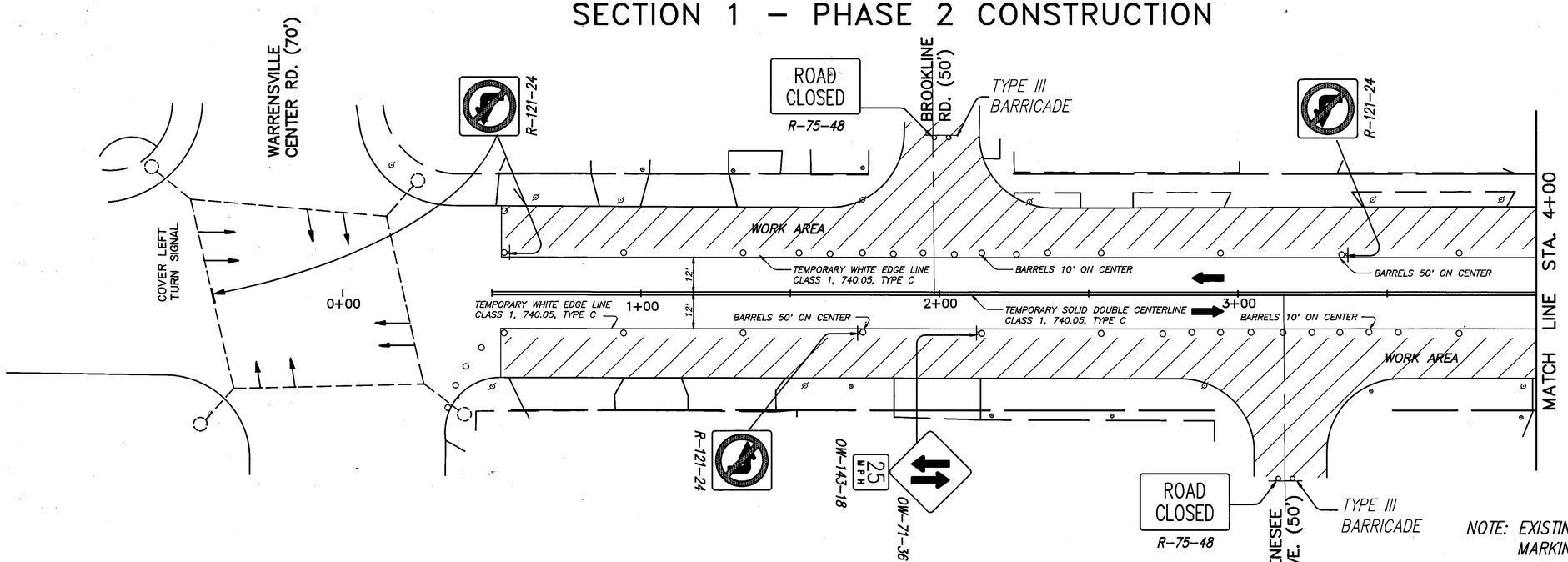
OHIO
F.H.W.A. REGION 5
367
426

CUYAHOGA COUNTY
U.S. ROUTE NO. 322
MAYFIELD ROAD



GRAPHIC SCALE
(IN FEET)

SECTION 1 – PHASE 2 CONSTRUCTION



NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

STEPHEN HOVANCSEK & ASSOC., INC.

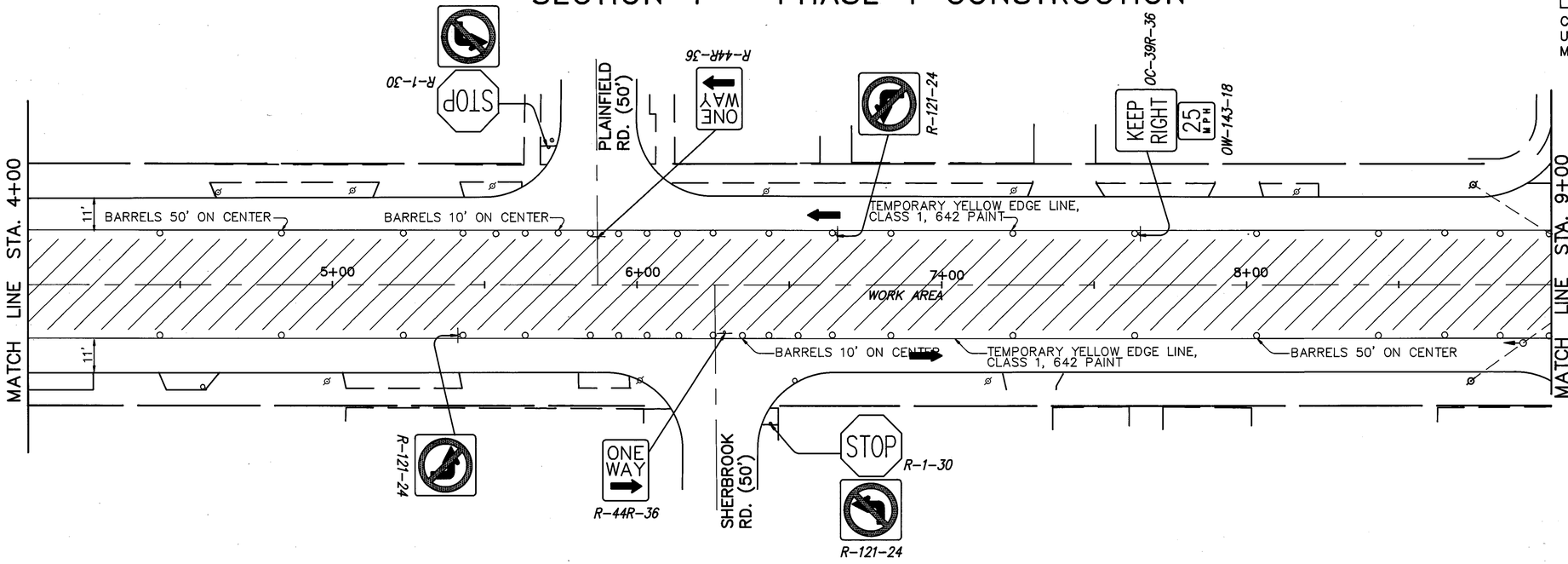
MAYFIELD ROAD

SECTION 1 MAINTENANCE OF TRAFFIC STA. 0+00 TO STA. 4+00

		OHIO	368
		F.H.W.A. REGION 5	426

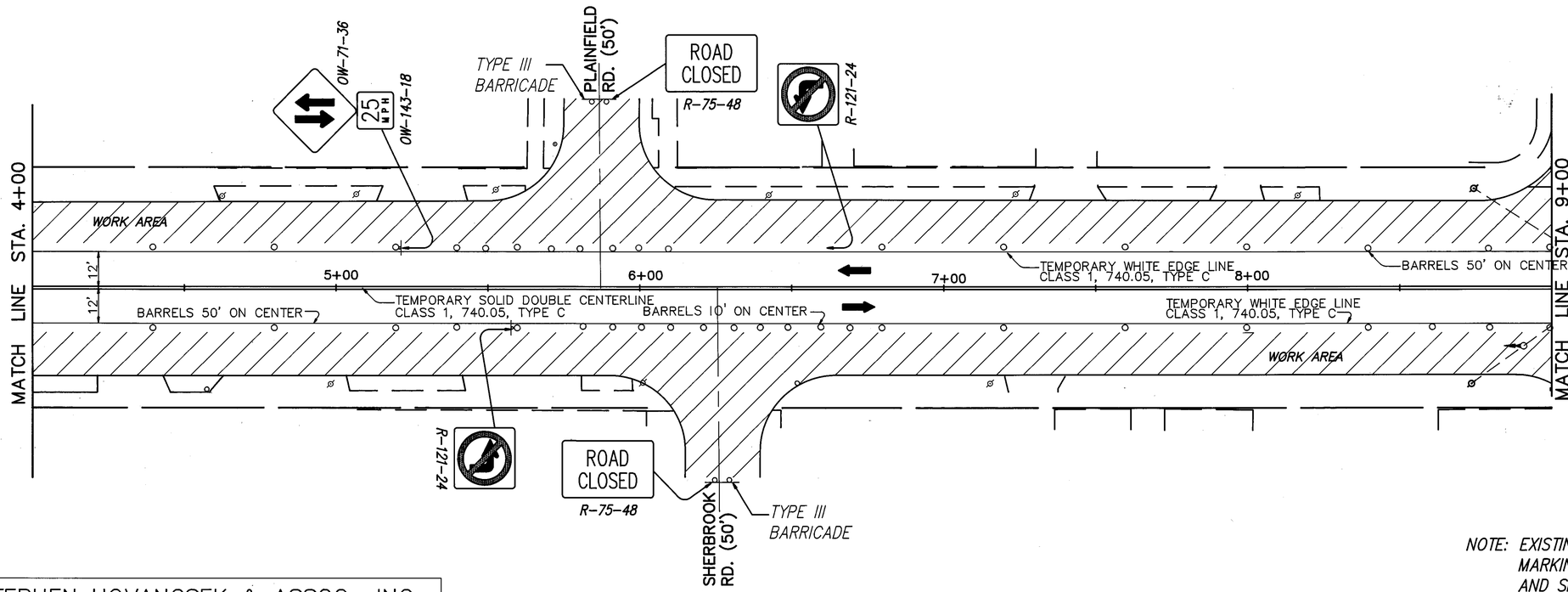
CUYAHOGA COUNTY
U.S. ROUTE NO. 322
MAYFIELD ROAD

SECTION 1 – PHASE 1 CONSTRUCTION



GRAPHIC SCALE
30 0 30 60 90
(IN FEET)

SECTION 1 – PHASE 2 CONSTRUCTION



NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

STEPHEN HOVANCSEK & ASSOC., INC.

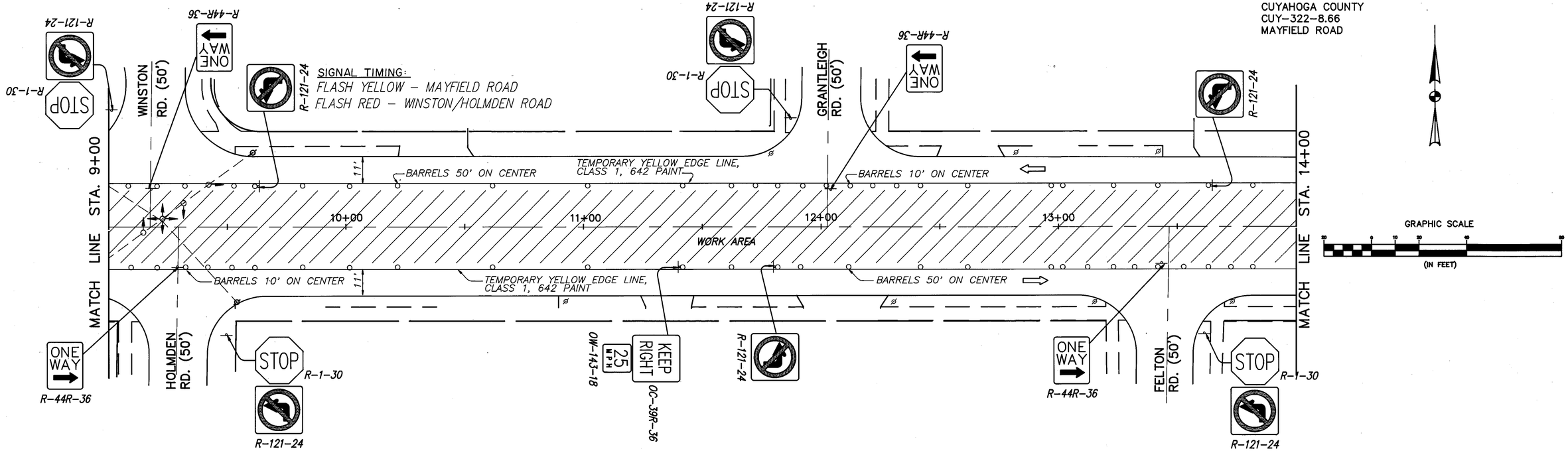
MAYFIELD ROAD

SECTION 1 MAINTENANCE OF TRAFFIC STA. 4+00 TO STA. 9+00

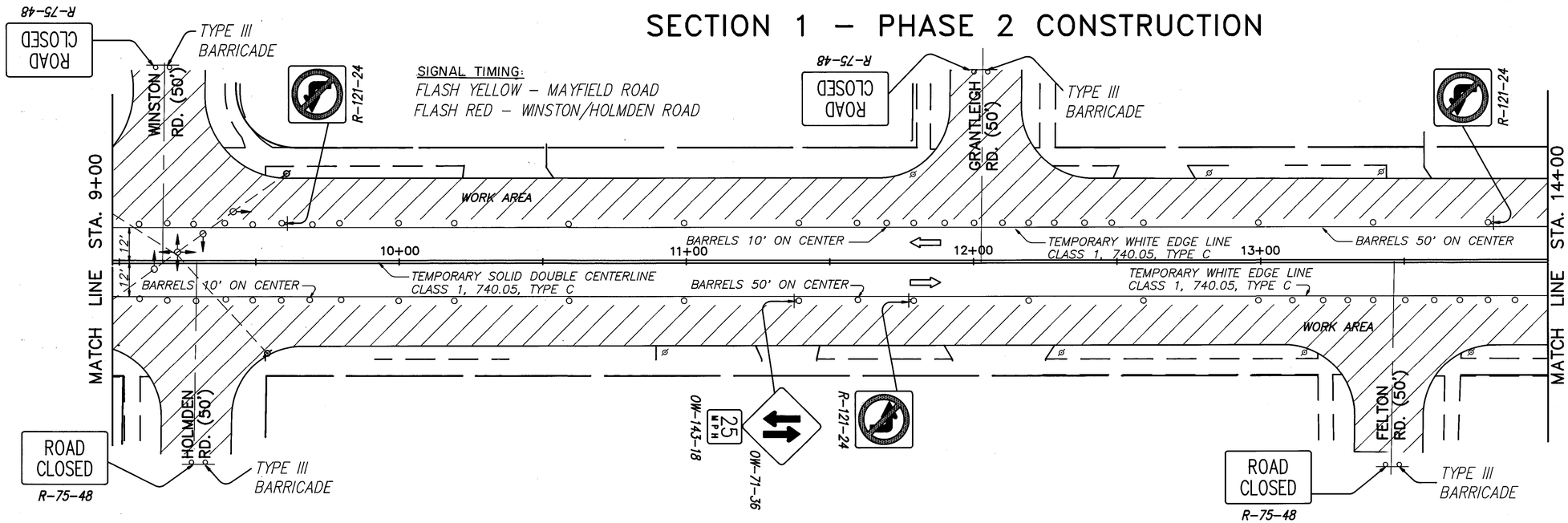
SECTION 1 – PHASE 1 CONSTRUCTION

OHIO
F.H.W.A. REGION 5
369
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD



SECTION 1 – PHASE 2 CONSTRUCTION



NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

STEPHEN HOVANCSEK & ASSOC., INC.

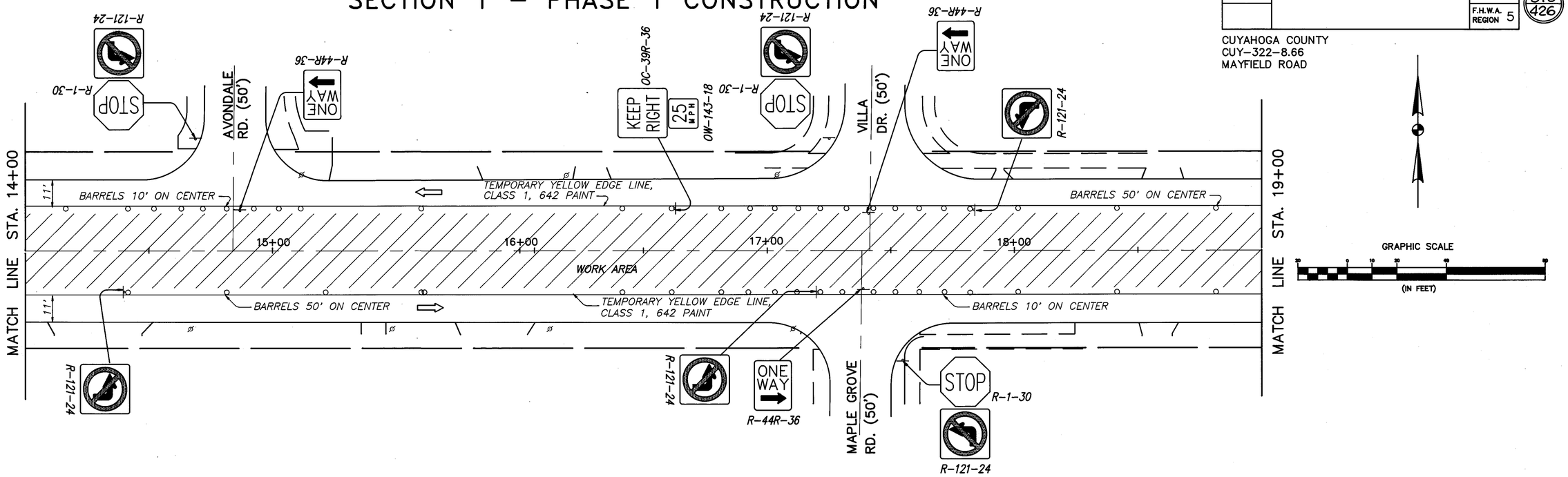
MAYFIELD ROAD

SECTION 1 MAINTENANCE OF TRAFFIC STA. 9+00 TO STA. 14+00

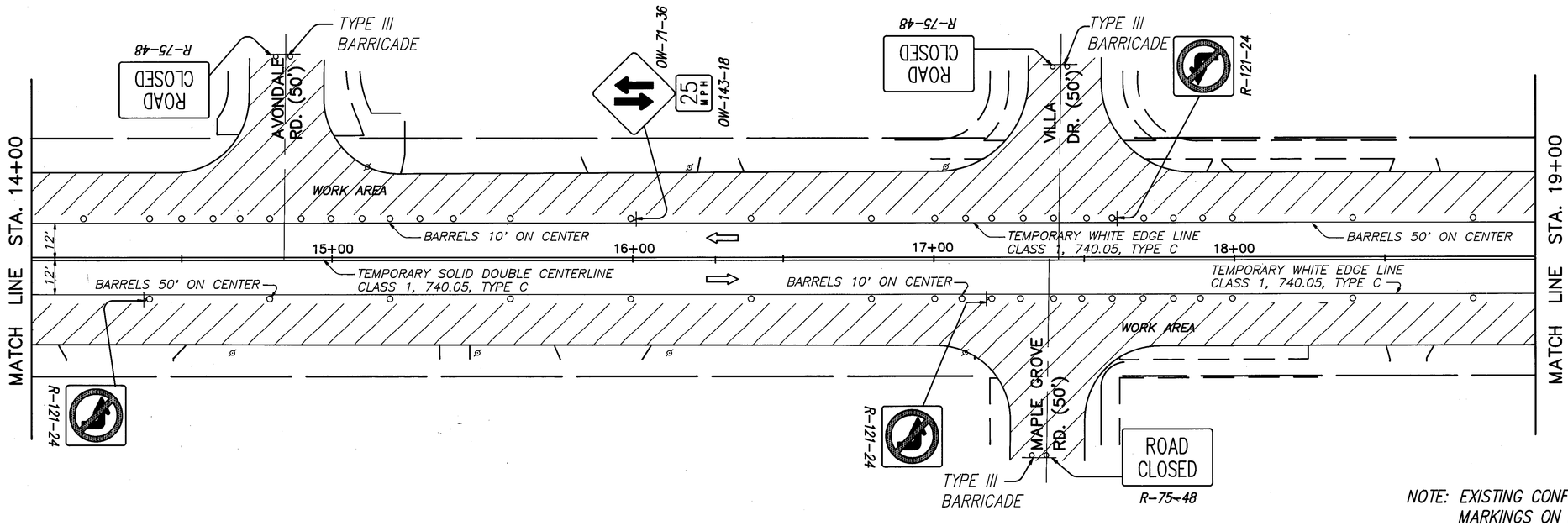
SECTION 1 – PHASE 1 CONSTRUCTION

OHIO
F.H.W.A. REGION 5
370
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD



SECTION 1 – PHASE 2 CONSTRUCTION



NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

STEPHEN HOVANCSEK & ASSOC., INC.

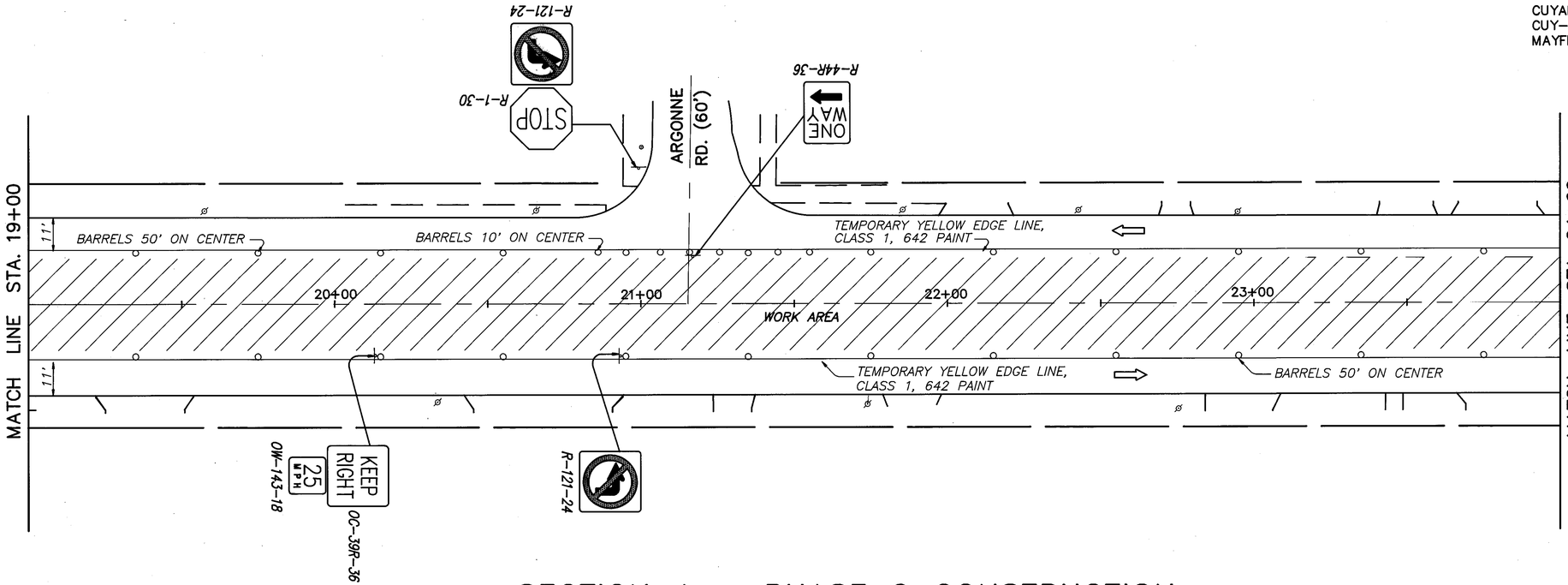
MAYFIELD ROAD

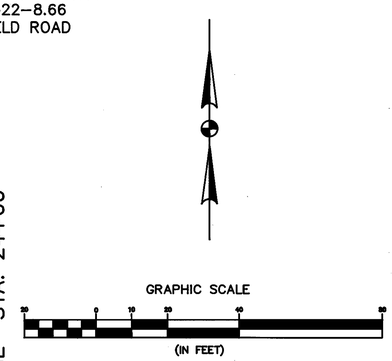
SECTION 1 MAINTENANCE OF TRAFFIC STA. 14+00 TO STA. 19+00

SECTION 1 – PHASE 1 CONSTRUCTION

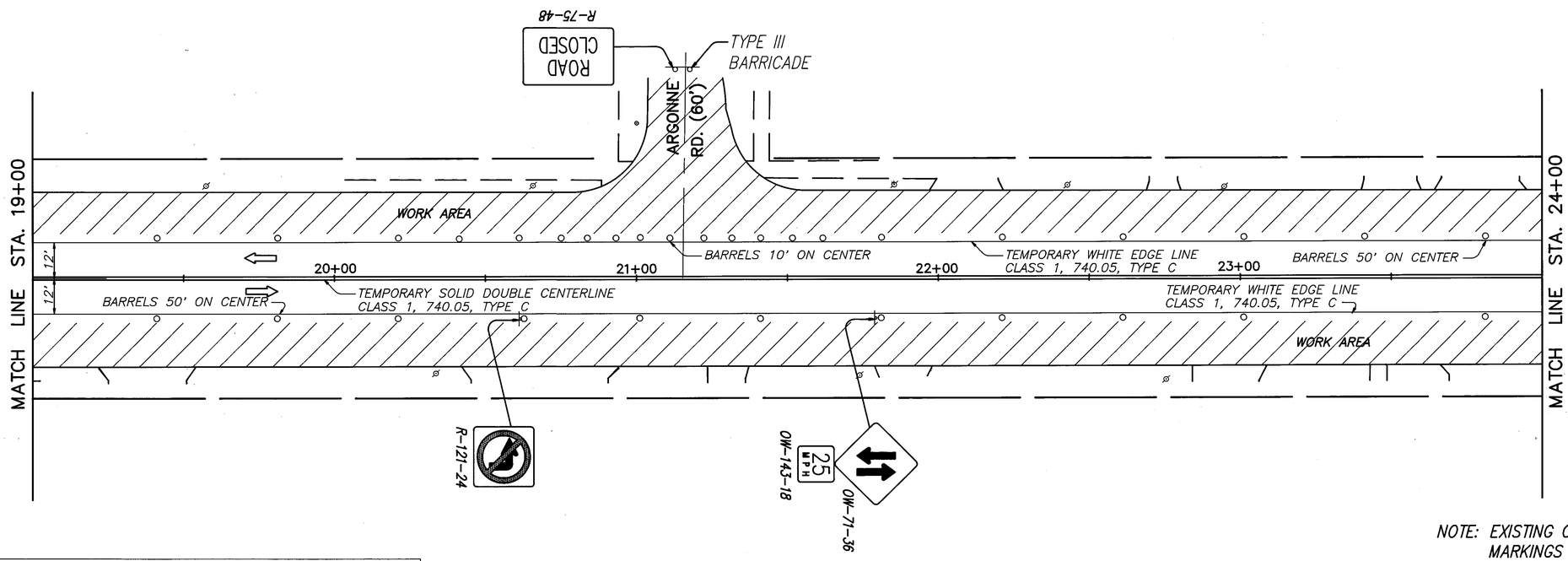
		OHIO	371
		F.H.W.A. REGION 5	426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD





SECTION 1 – PHASE 2 CONSTRUCTION



NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

STEPHEN HOVANCSEK & ASSOC., INC.

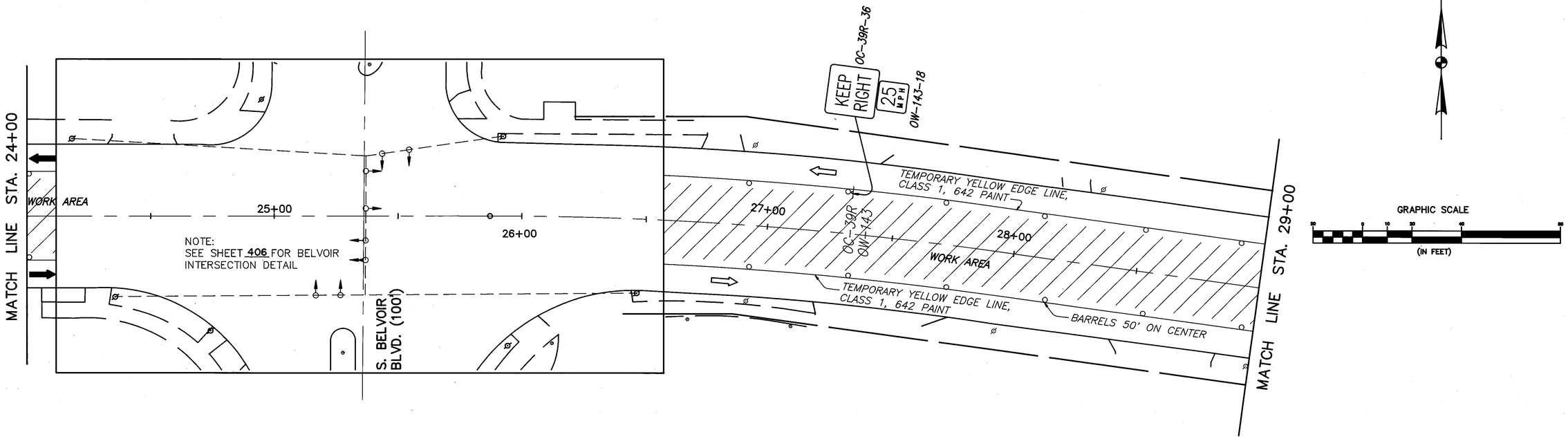
SECTION 1 MAINTENANCE OF TRAFFIC STA. 19+00 TO STA. 24+00

MAYFIELD ROAD

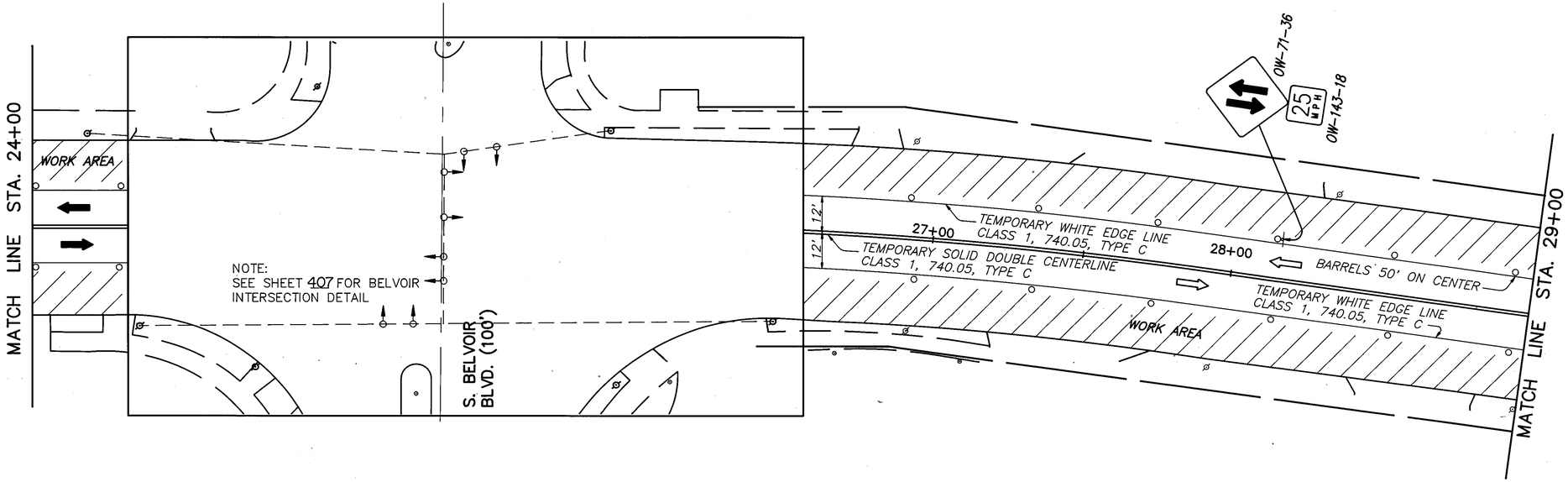
OHIO
F.H.W.A. REGION 5
372
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SECTION 1 – PHASE 1 CONSTRUCTION



SECTION 1 – PHASE 2 CONSTRUCTION



NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

STEPHEN HOVANCSEK & ASSOC., INC.

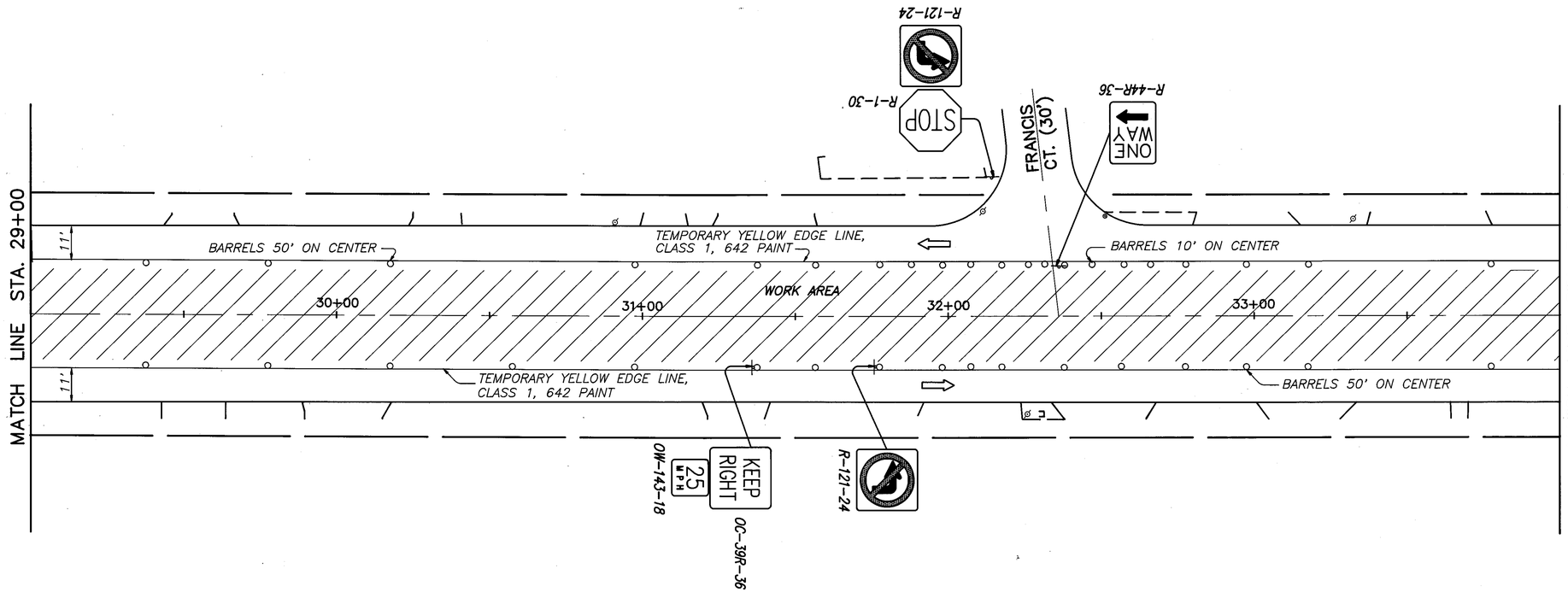
SECTION 1 MAINTENANCE OF TRAFFIC STA. 24+00 TO STA. 29+00

MAYFIELD ROAD

OHIO
F.H.W.A. REGION 5
373
426

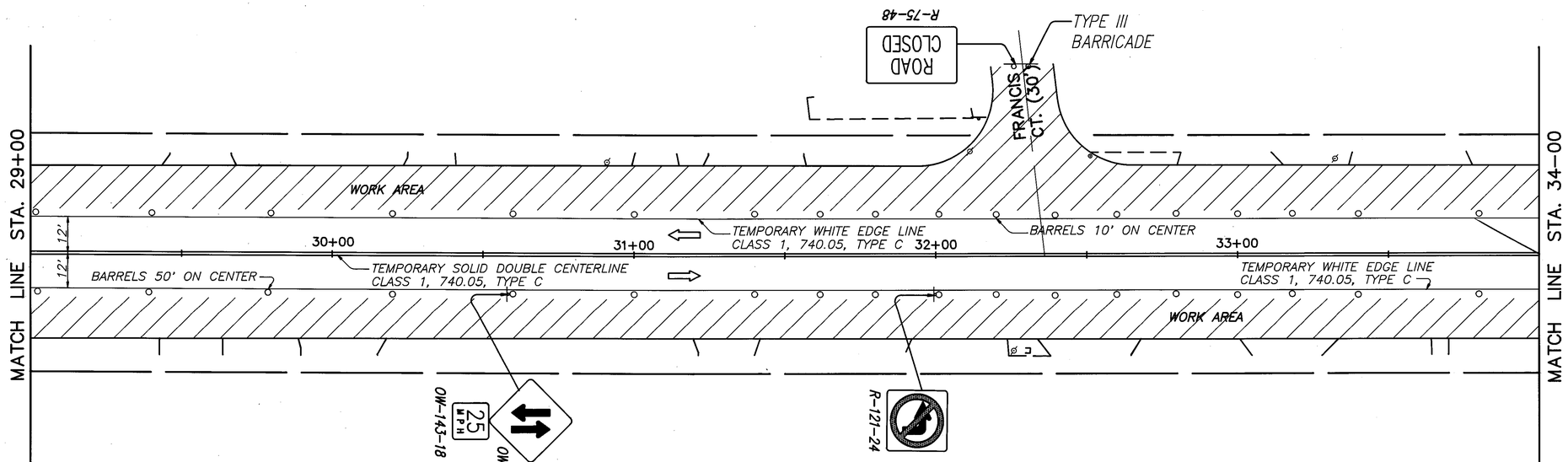
CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

SECTION 1 – PHASE 1 CONSTRUCTION



GRAPHIC SCALE
(IN FEET)

SECTION 1 – PHASE 2 CONSTRUCTION



NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

STEPHEN HOVANCSEK & ASSOC., INC.

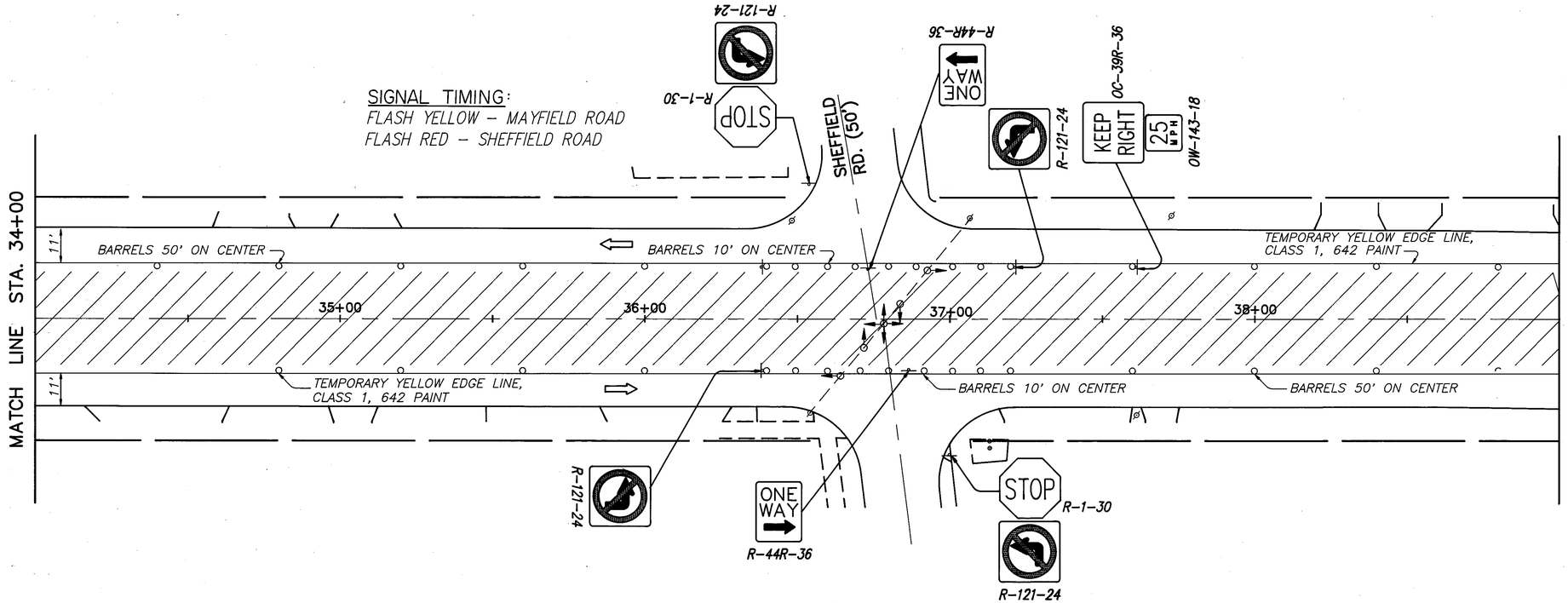
MAYFIELD ROAD

SECTION 1 MAINTENANCE OF TRAFFIC STA. 29+00 TO STA. 34+00

SECTION 1 – PHASE 1 CONSTRUCTION

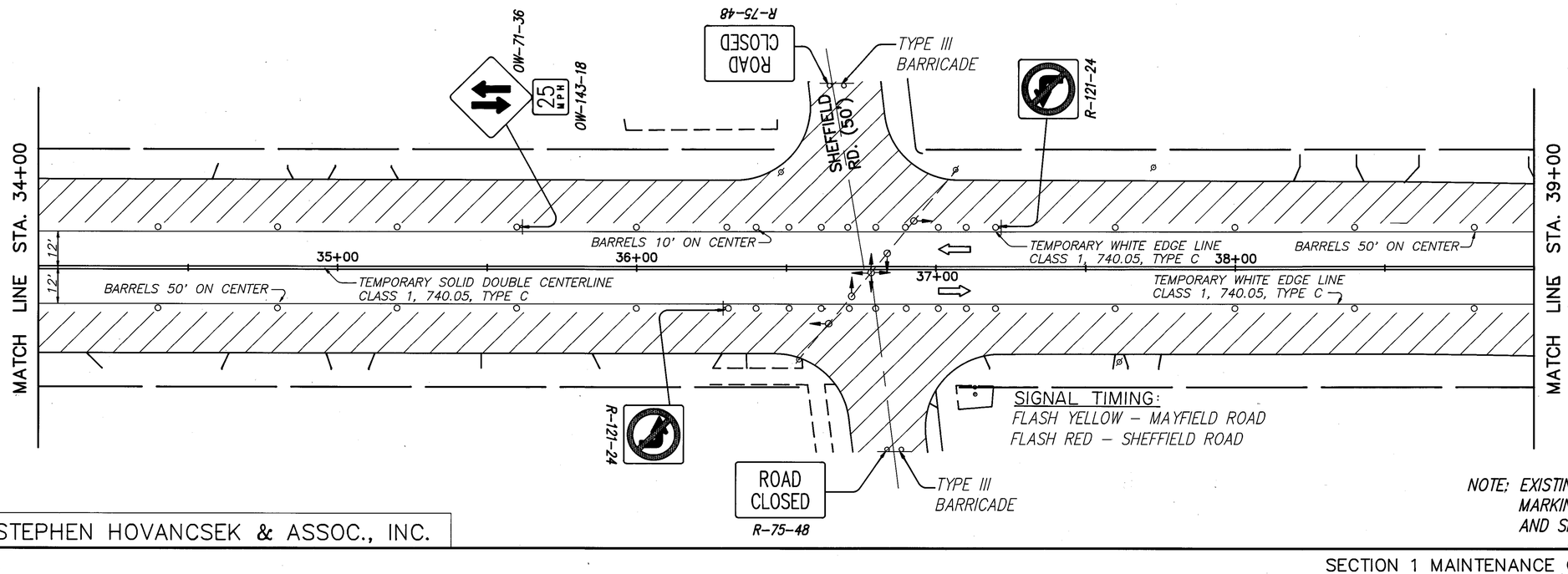
OHIO
F.H.W.A. REGION 5
374
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD



GRAPHIC SCALE
0 10 20 40 60
(IN FEET)

SECTION 1 – PHASE 2 CONSTRUCTION



NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

STEPHEN HOVANCSEK & ASSOC., INC.

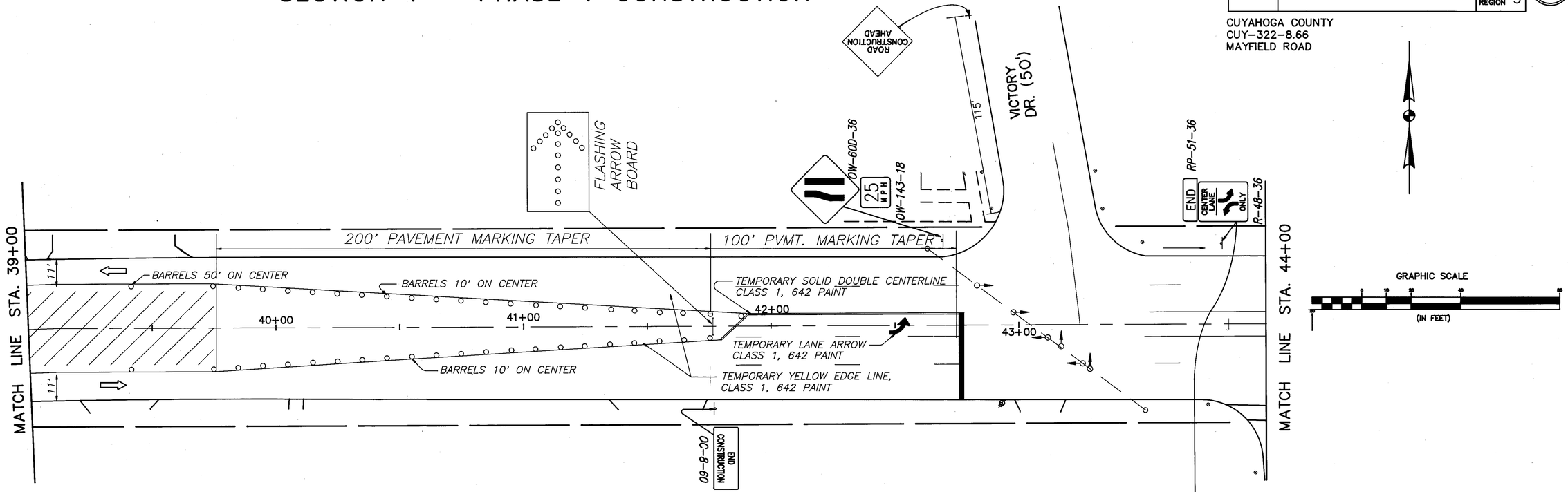
MAYFIELD ROAD

SECTION 1 MAINTENANCE OF TRAFFIC STA. 34+00 TO STA. 39+00

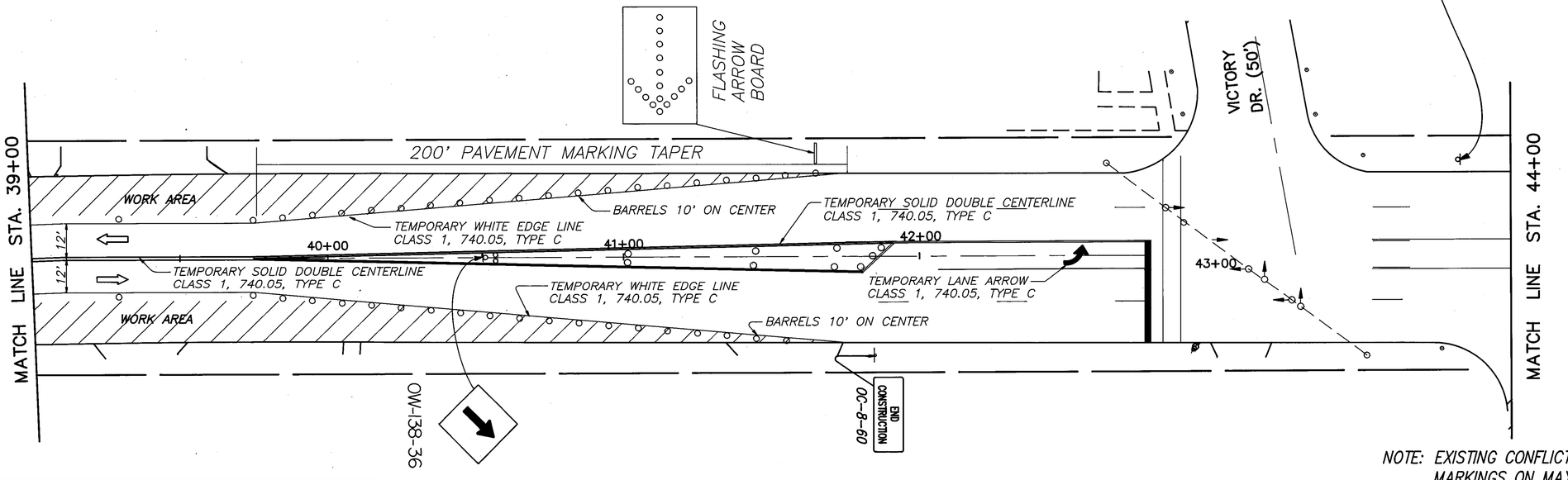
SECTION 1 – PHASE 1 CONSTRUCTION

OHIO
F.H.W.A. REGION 5
375
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD



SECTION 1 – PHASE 2 CONSTRUCTION



NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

STEPHEN HOVANCSEK & ASSOC., INC.

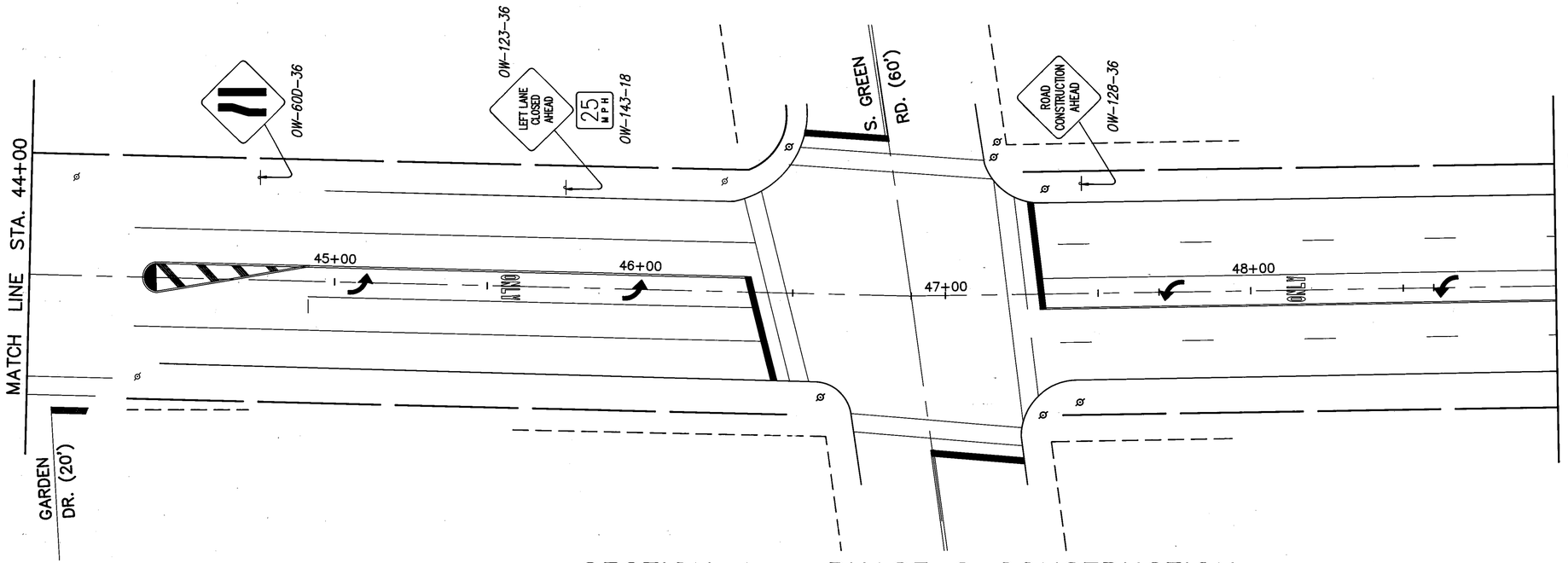
MAYFIELD ROAD

SECTION 1 MAINTENANCE OF TRAFFIC STA. 39+00 TO STA. 44+00

OHIO
F.H.W.A. REGION 5
376
426

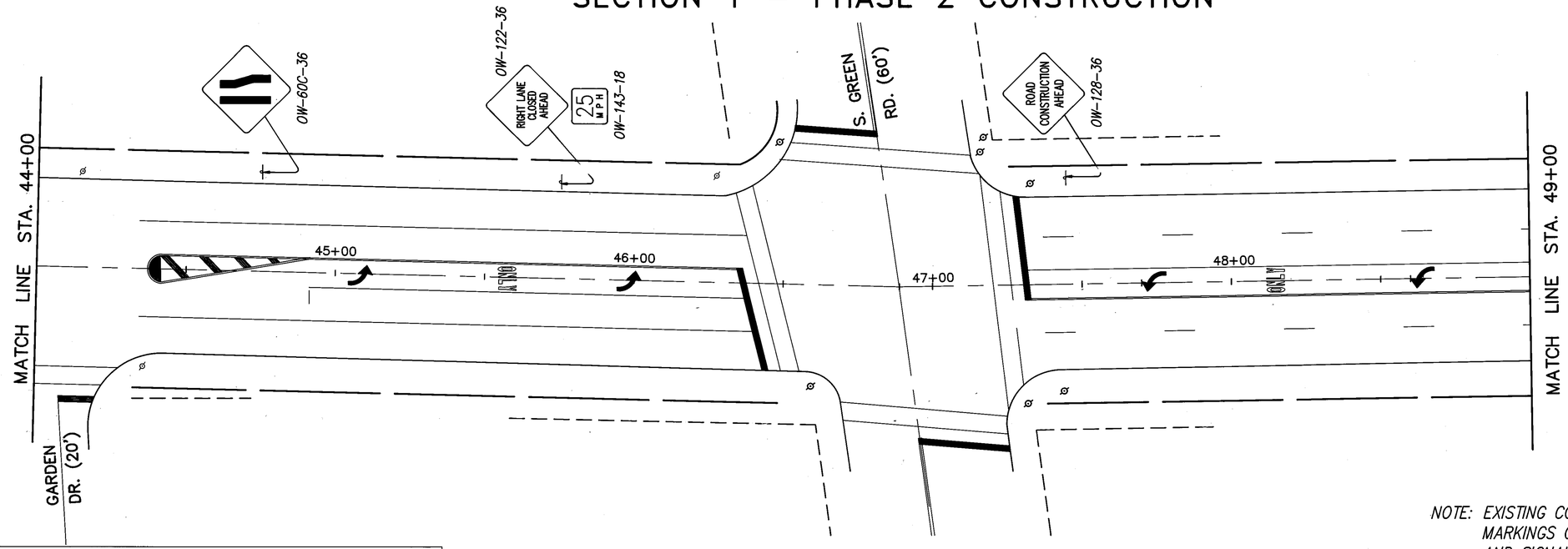
CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SECTION 1 – PHASE 1 CONSTRUCTION



GRAPHIC SCALE
0 10 20 40 80
(IN FEET)

SECTION 1 – PHASE 2 CONSTRUCTION



NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD

SECTION 1 MAINTENANCE OF TRAFFIC STA. 44+00 TO STA. 49+00

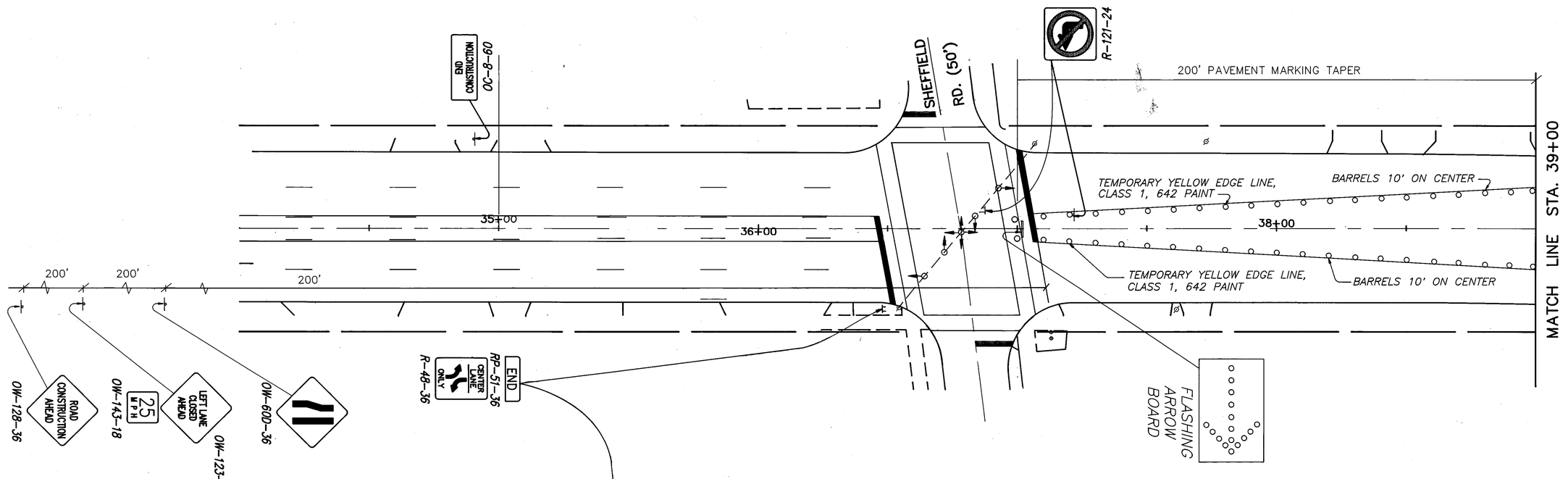
GRAPHIC SCALE

(IN FEET)

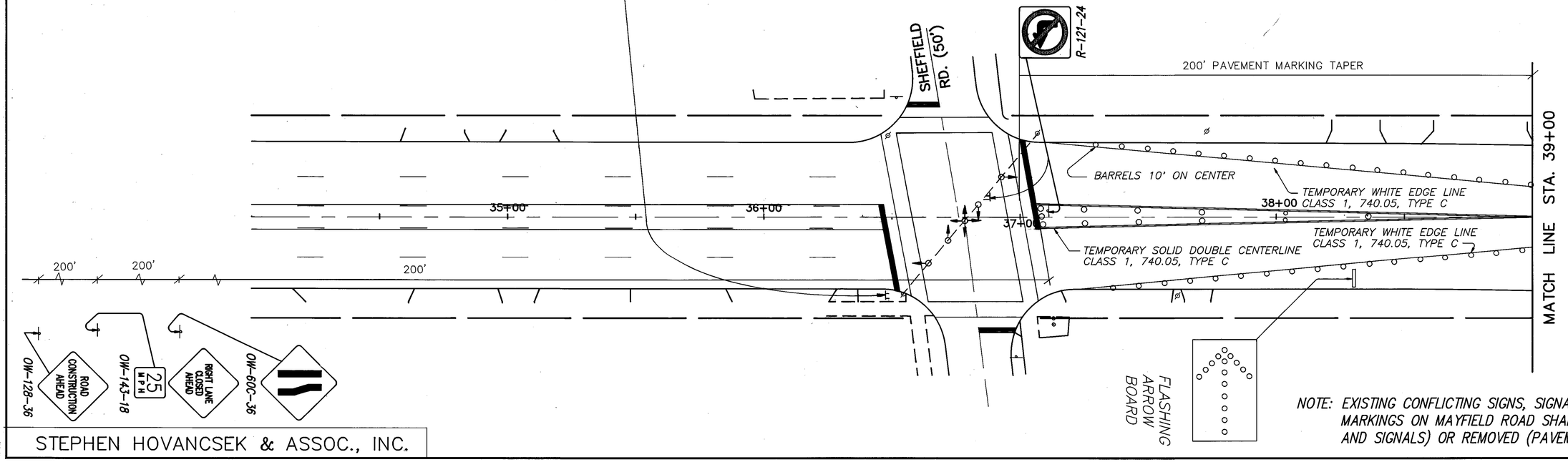
SECTION 2 – PHASE 1 CONSTRUCTION

OHIO
F.H.W.A. REGION 5
377
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD



SECTION 2 – PHASE 2 CONSTRUCTION



NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

STEPHEN HOVANCSEK & ASSOC., INC.

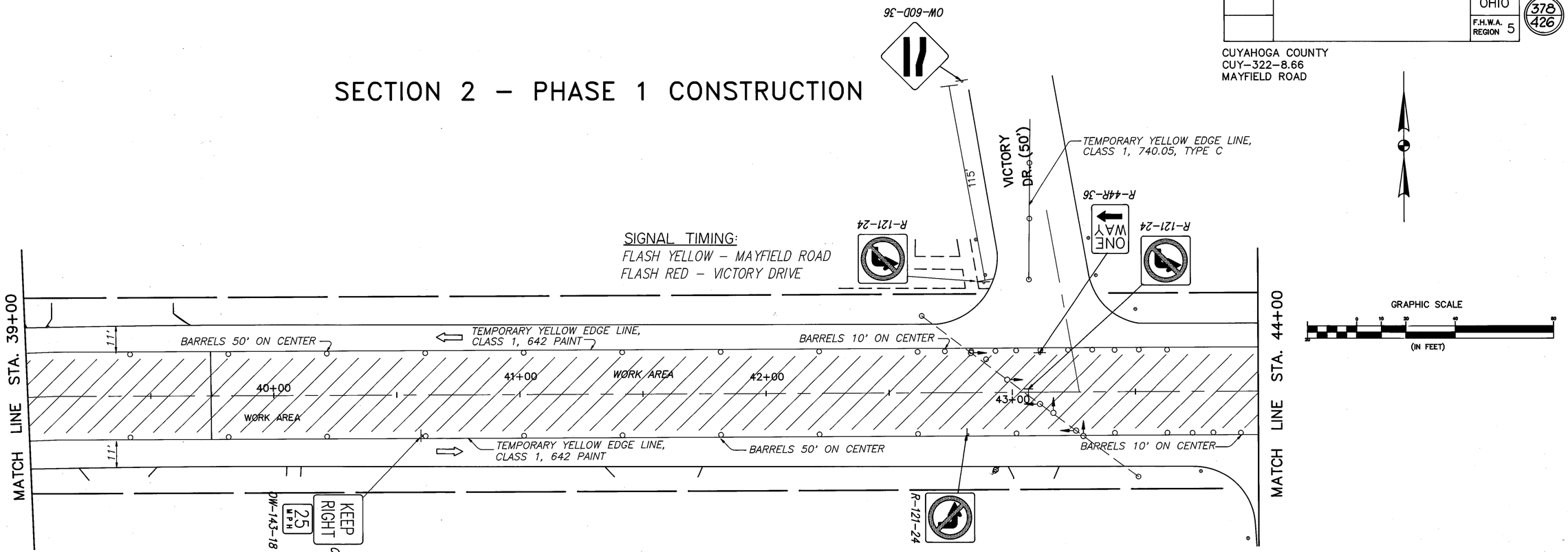
MAYFIED ROAD

SECTION 2 MAINTENANCE OF TRAFFIC STA. 34+00 TO STA. 39+00

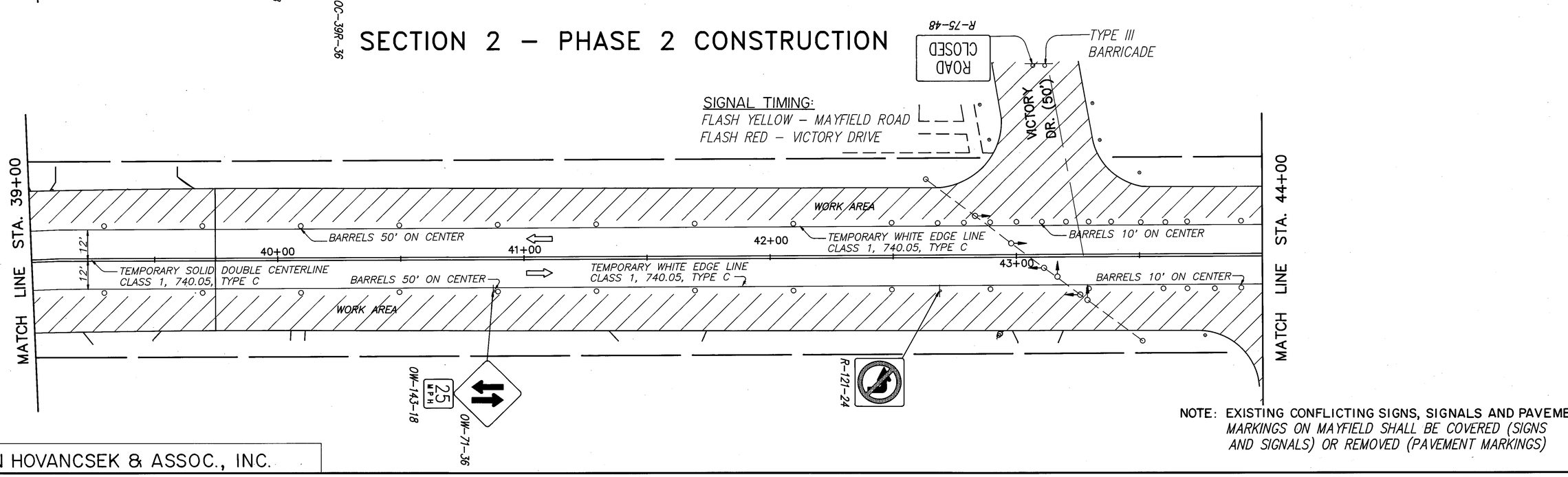
OHIO
F.H.W.A. REGION 5
378
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SECTION 2 – PHASE 1 CONSTRUCTION



SECTION 2 – PHASE 2 CONSTRUCTION



NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

MAYFIELD ROAD

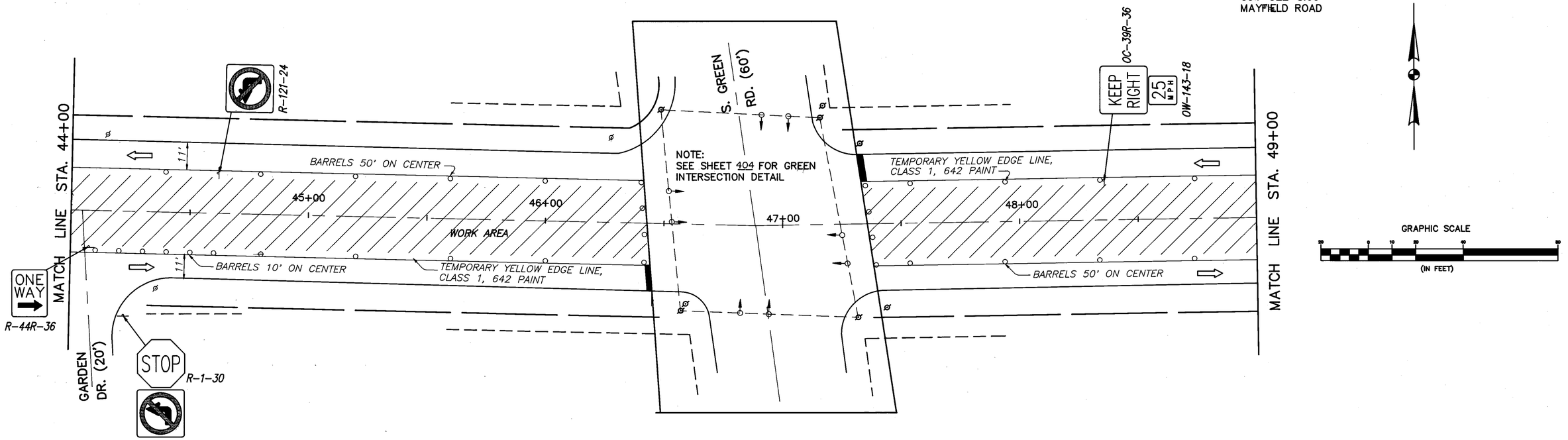
STEPHEN HOVANCSEK & ASSOC., INC.

SECTION 2 MAINTENANCE OF TRAFFIC STA. 39+00 TO STA. 44+00

SECTION 2 – PHASE 1 CONSTRUCTION

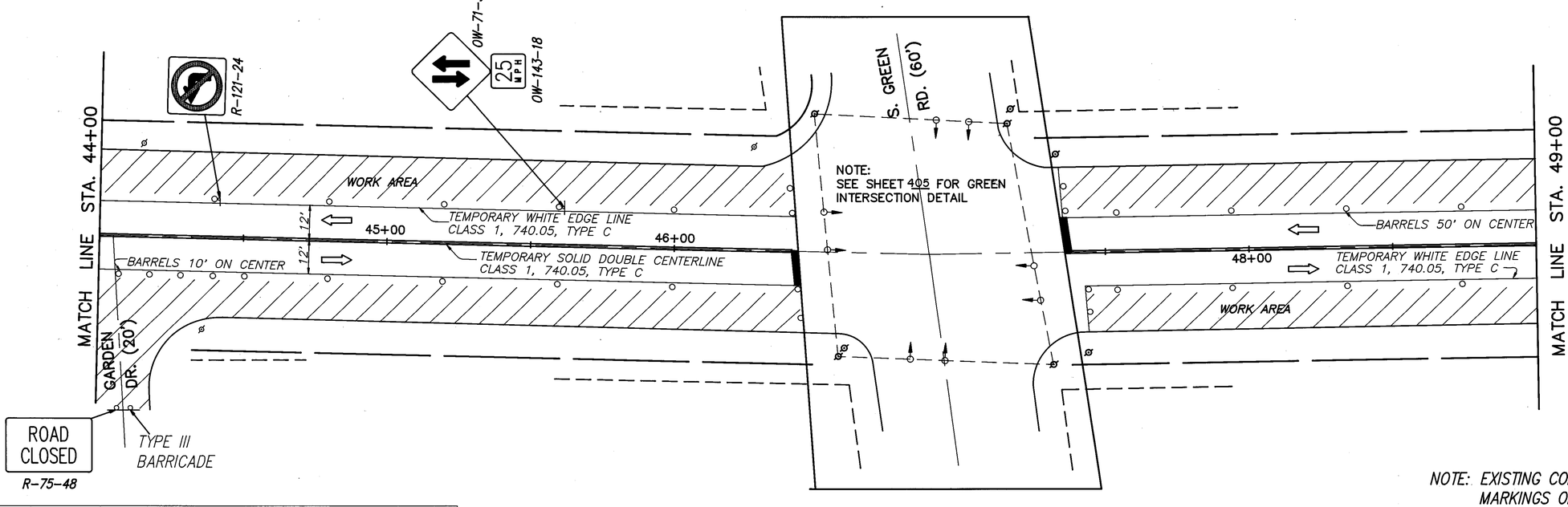
OHIO
F.H.W.A. REGION 5
379
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD



GRAPHIC SCALE
(IN FEET)

SECTION 2 – PHASE 2 CONSTRUCTION



NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

STEPHEN HOVANCSEK & ASSOC., INC.

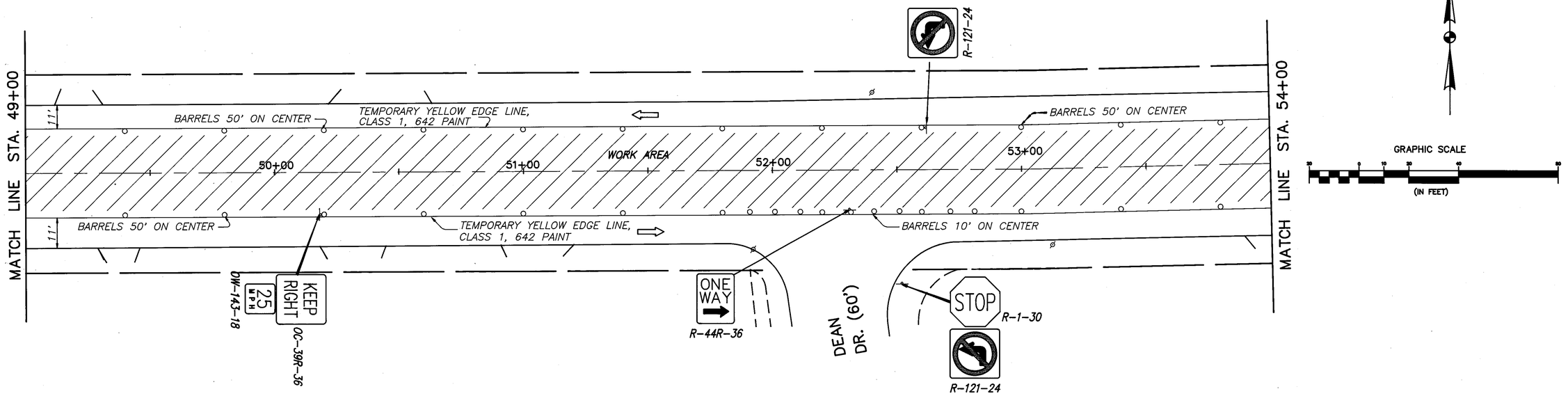
MAYFIELD ROAD

SECTION 2 MAINTENANCE OF TRAFFIC STA. 44+00 TO STA. 49+00

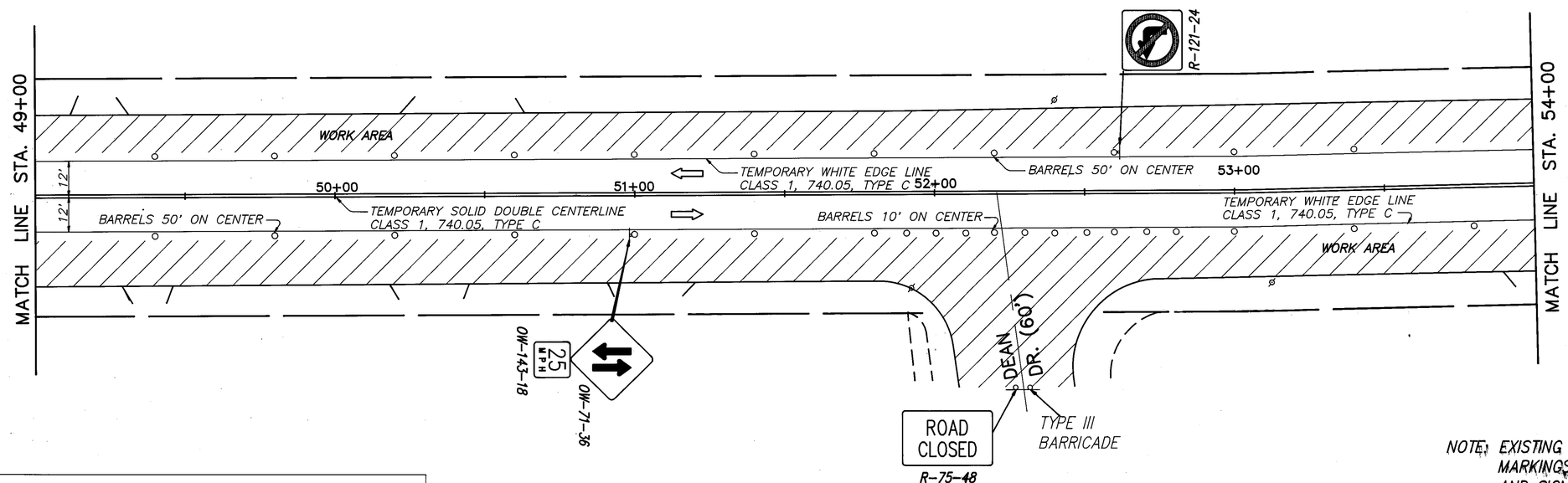
OHIO
F.H.W.A. REGION 5
380
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SECTION 2 – PHASE 1 CONSTRUCTION



SECTION 2 – PHASE 2 CONSTRUCTION



NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

STEPHEN HOVANCSEK & ASSOC., INC.

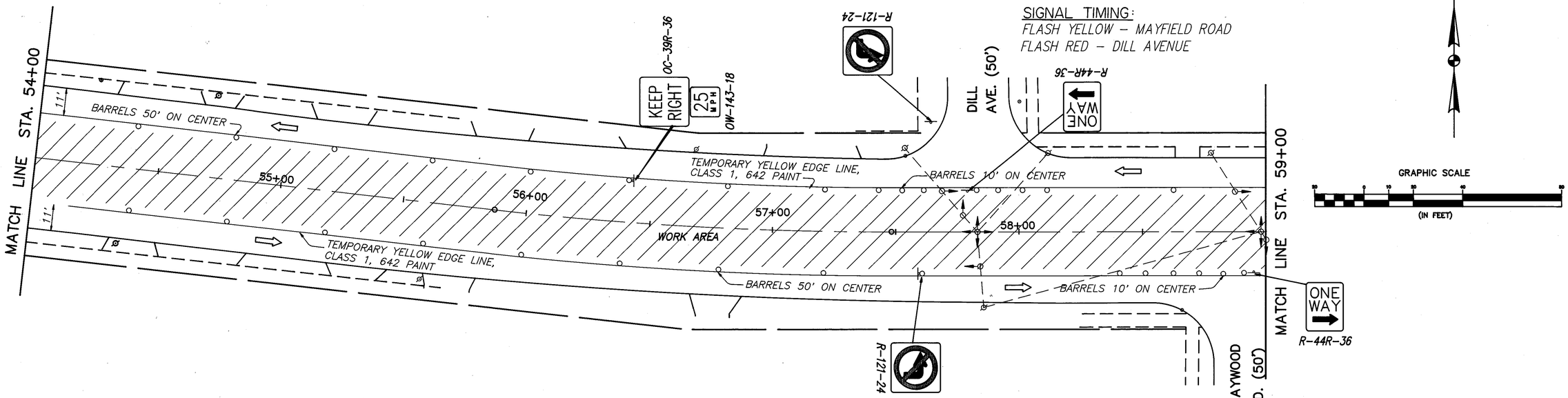
MAYFIELD ROAD

SECTION 2 MAINTENANCE OF TRAFFIC STA. 49+00 TO STA. 54+00

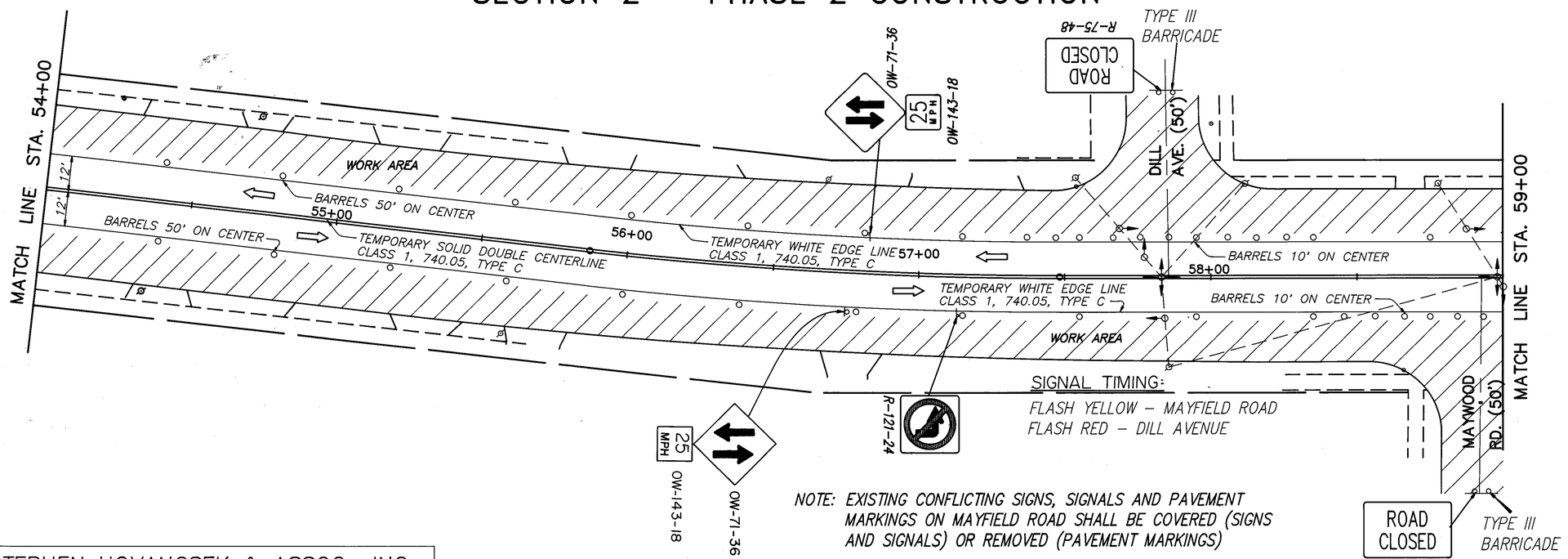
OHIO
F.H.W.A. REGION 5
381
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SECTION 2 – PHASE 1 CONSTRUCTION



SECTION 2 – PHASE 2 CONSTRUCTION



NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

STEPHEN HOVANCSEK & ASSOC., INC.

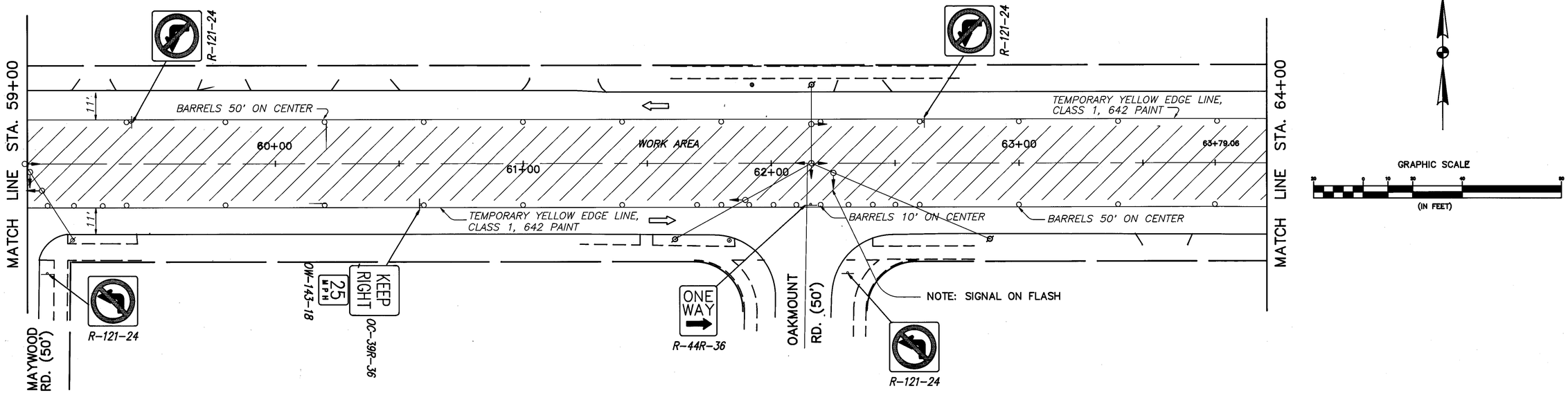
MAYFIELD ROAD

SECTION 2 MAINTENANCE OF TRAFFIC STA. 54+00 TO STA. 59+00

OHIO
F.H.W.A. REGION 5
382
426

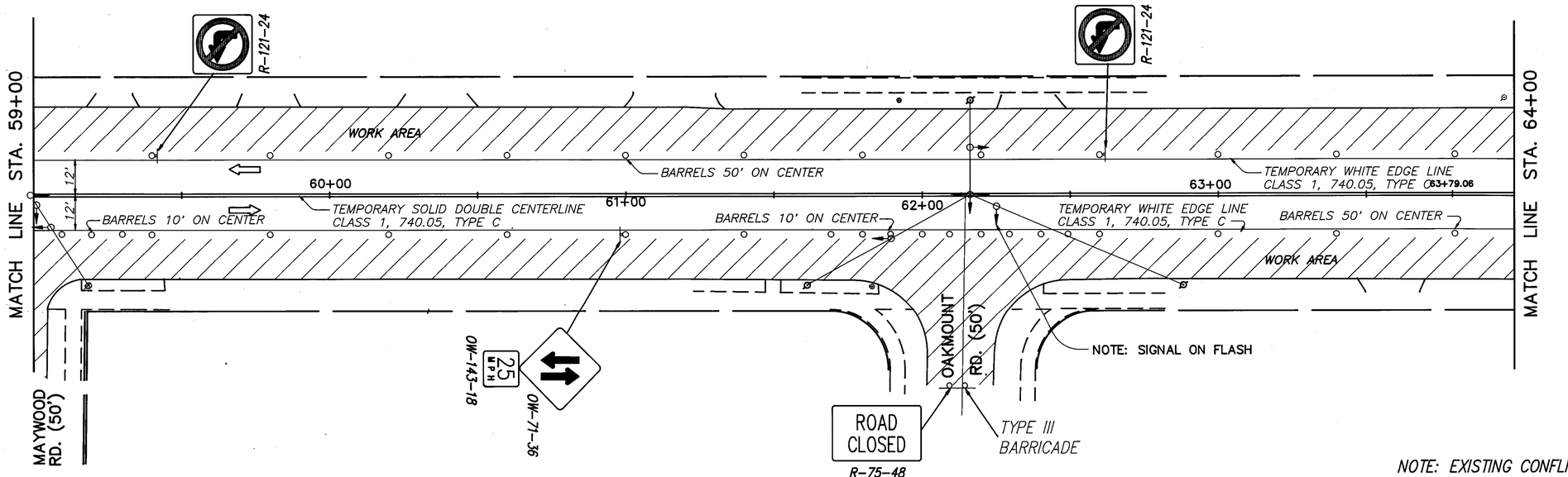
CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

SECTION 2 – PHASE 1 CONSTRUCTION



GRAPHIC SCALE
20 0 10 20 40 60
(IN FEET)

SECTION 2 – PHASE 2 CONSTRUCTION



NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

STEPHEN HOVANCSEK & ASSOC., INC.

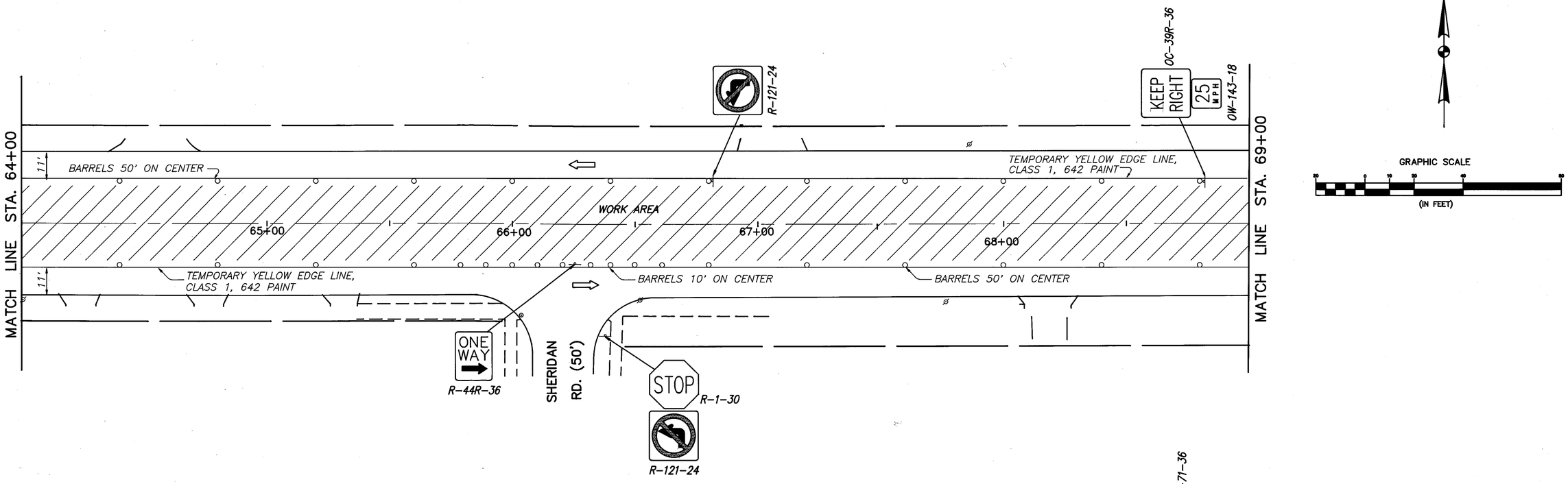
SECTION 2 MAINTENANCE OF TRAFFIC STA. 59+00 TO STA. 64+00

MAYFIELD ROAD

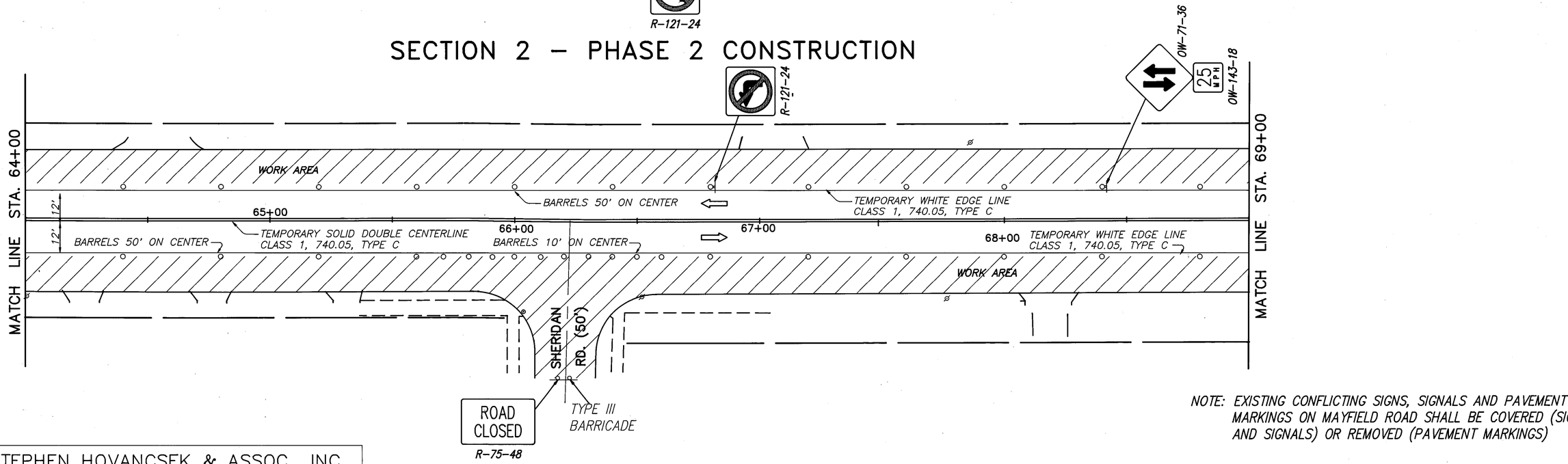
OHIO
F.H.W.A. REGION 5
383
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

SECTION 2 – PHASE 1 CONSTRUCTION



SECTION 2 – PHASE 2 CONSTRUCTION



NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

STEPHEN HOVANCSEK & ASSOC., INC.

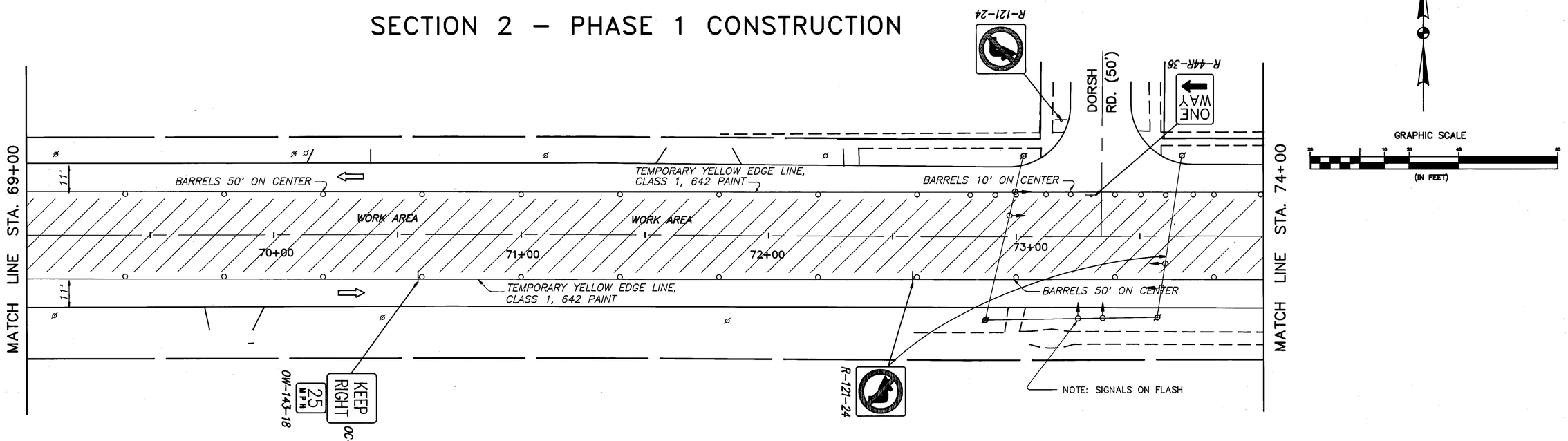
MAYFIELD ROAD

SECTION 2 MAINTENANCE OF TRAFFIC STA 64+00 TO STA. 69+00

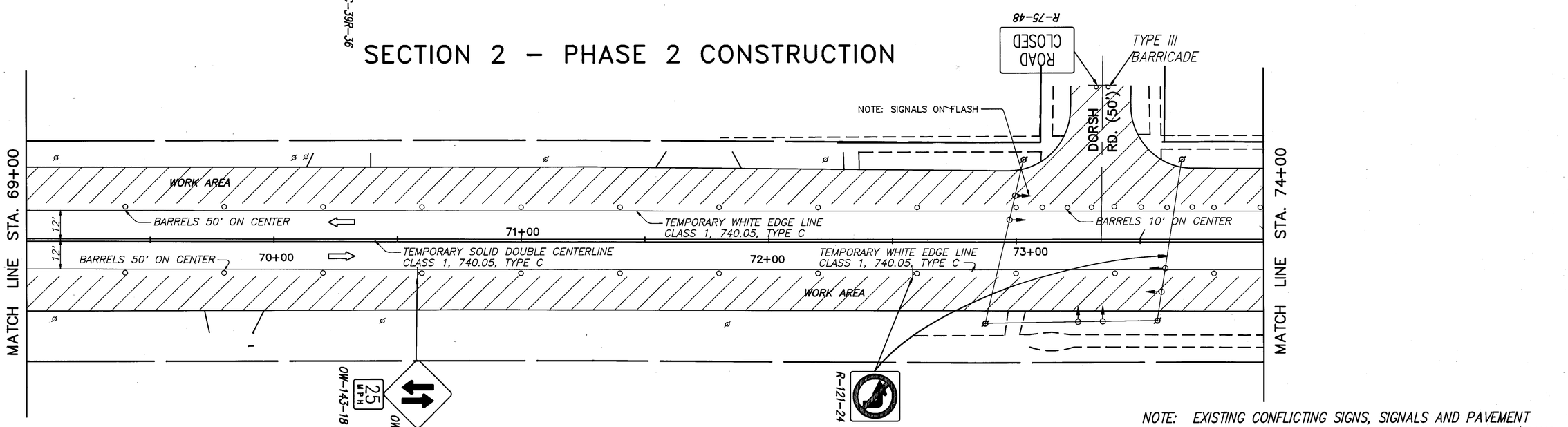
OHIO
F.H.W.A. REGION 5
384
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SECTION 2 – PHASE 1 CONSTRUCTION



SECTION 2 – PHASE 2 CONSTRUCTION



NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

STEPHEN HOVANCSEK & ASSOC., INC.

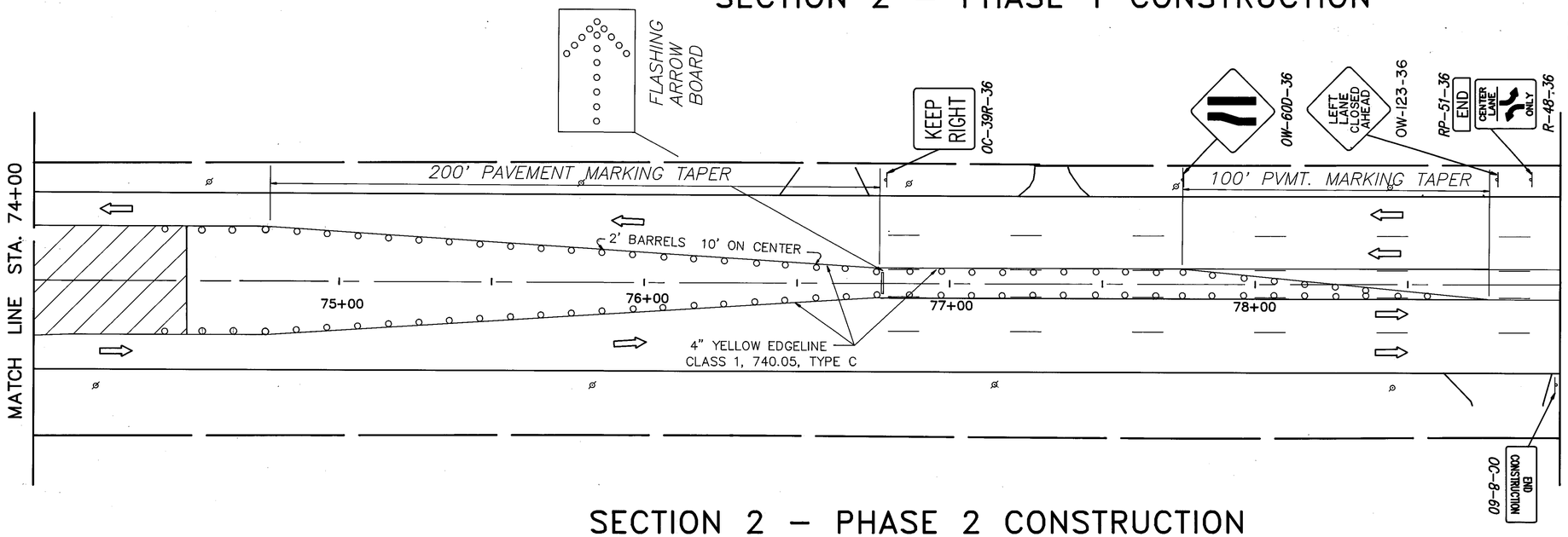
MAYFIELD ROAD

SECTION 2 MAINTENANCE OF TRAFFIC STA. 69+00 TO STA. 74+00

OHIO
F.H.W.A. REGION 5
385
426

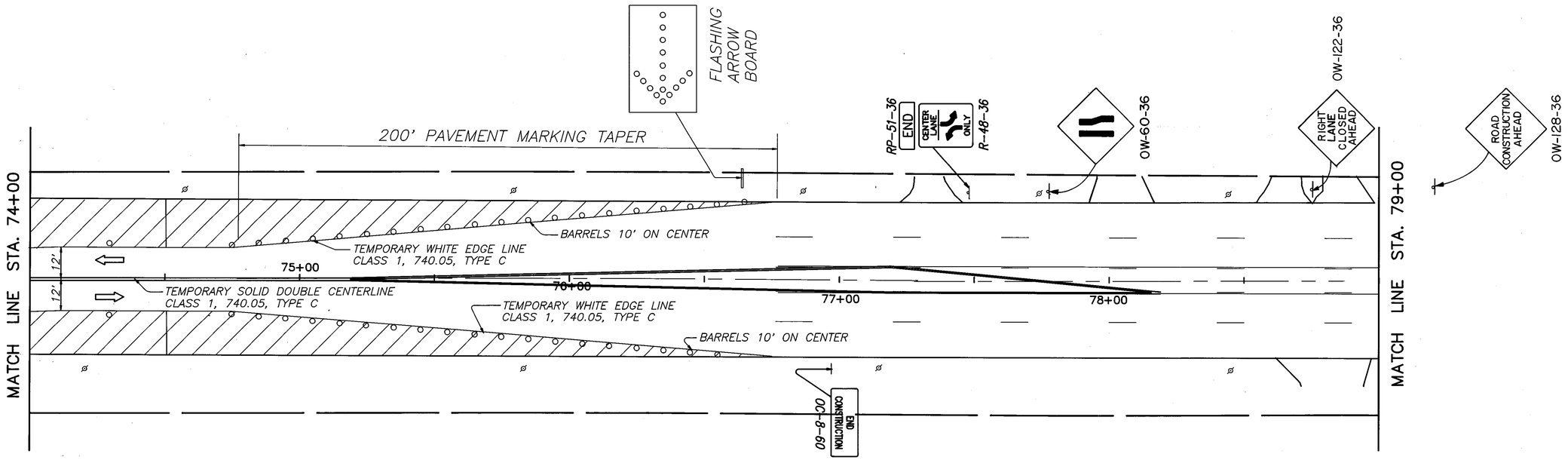
CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

SECTION 2 – PHASE 1 CONSTRUCTION



GRAPHIC SCALE
(IN FEET)

SECTION 2 – PHASE 2 CONSTRUCTION



NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

STEPHEN HOVANCSEK & ASSOC., INC.

SECTION 2 MAINTENANCE OF TRAFFIC STA. 74+00 TO STA. 79+00

MAYFIELD ROAD

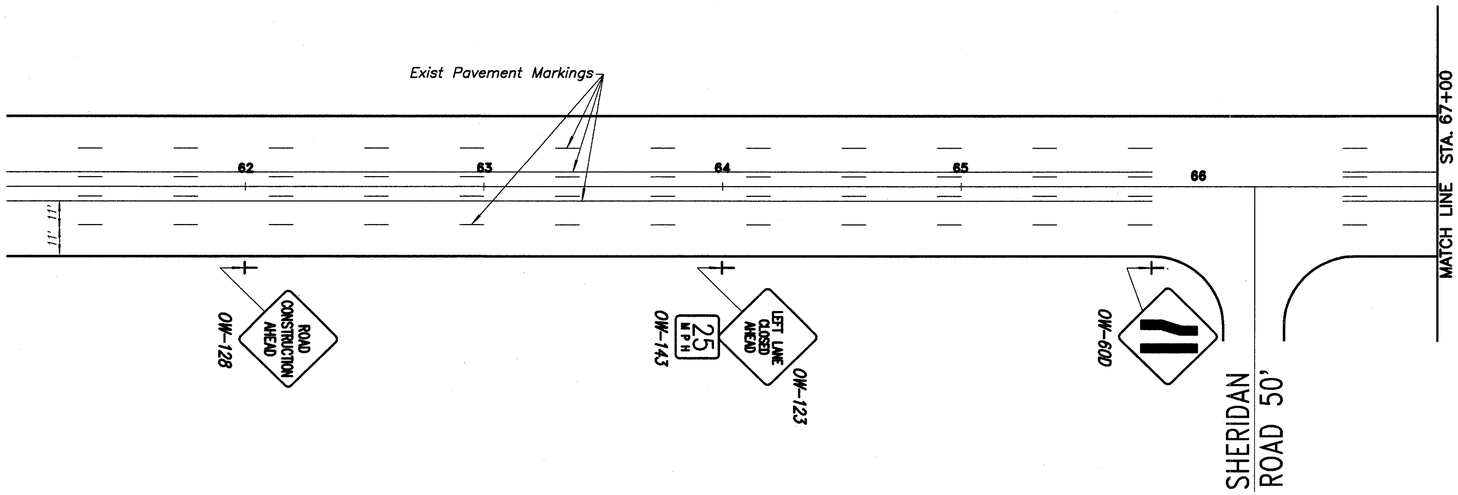
FHWA REGION	STATE	PROJECT	
5	OHIO		

386
426

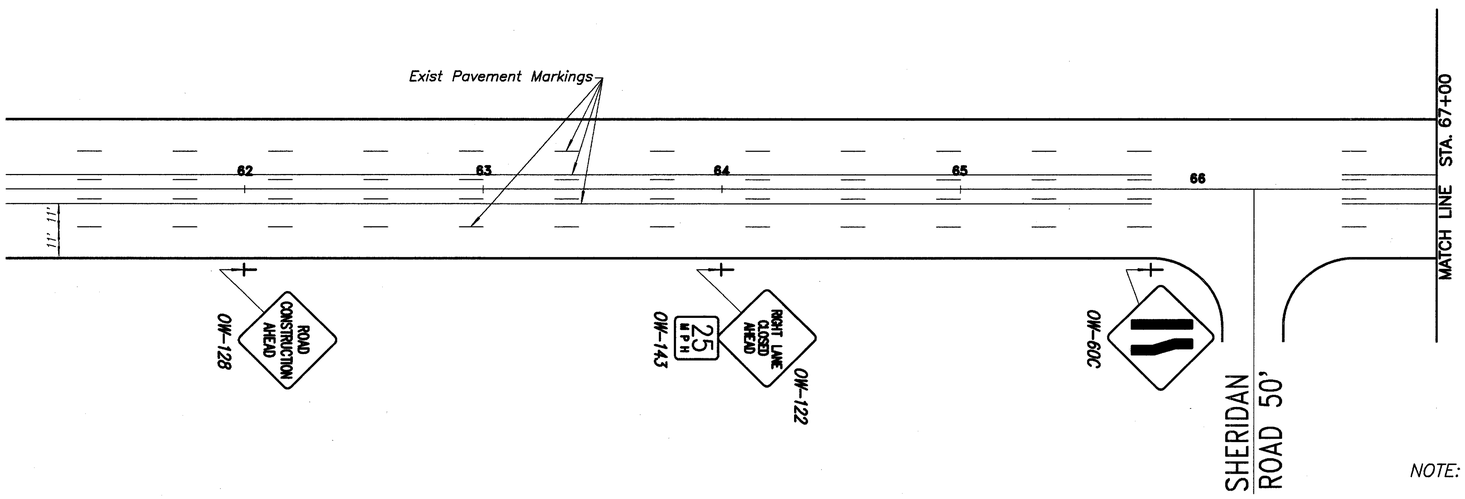
CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

0 5 10 30 60 90
Scale In Feet

N



SECTION 3 -- PHASE 1 CONSTRUCTION



SECTION 3 -- PHASE 2 CONSTRUCTION

NOTE: *EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)*

* *Indicates Signalized Intersection*

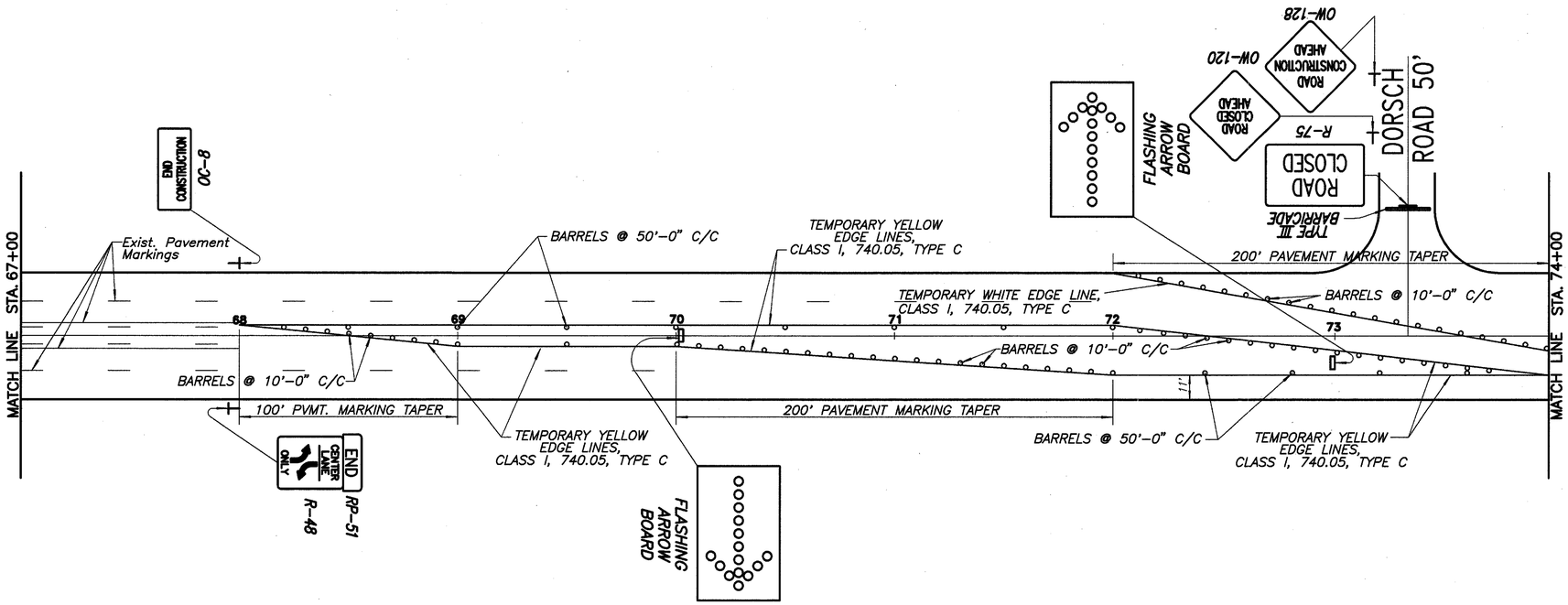
MAYFIELD ROAD

SECTION 3 MAINTENANCE OF TRAFFIC STA. 62+00 TO STA. 67+00

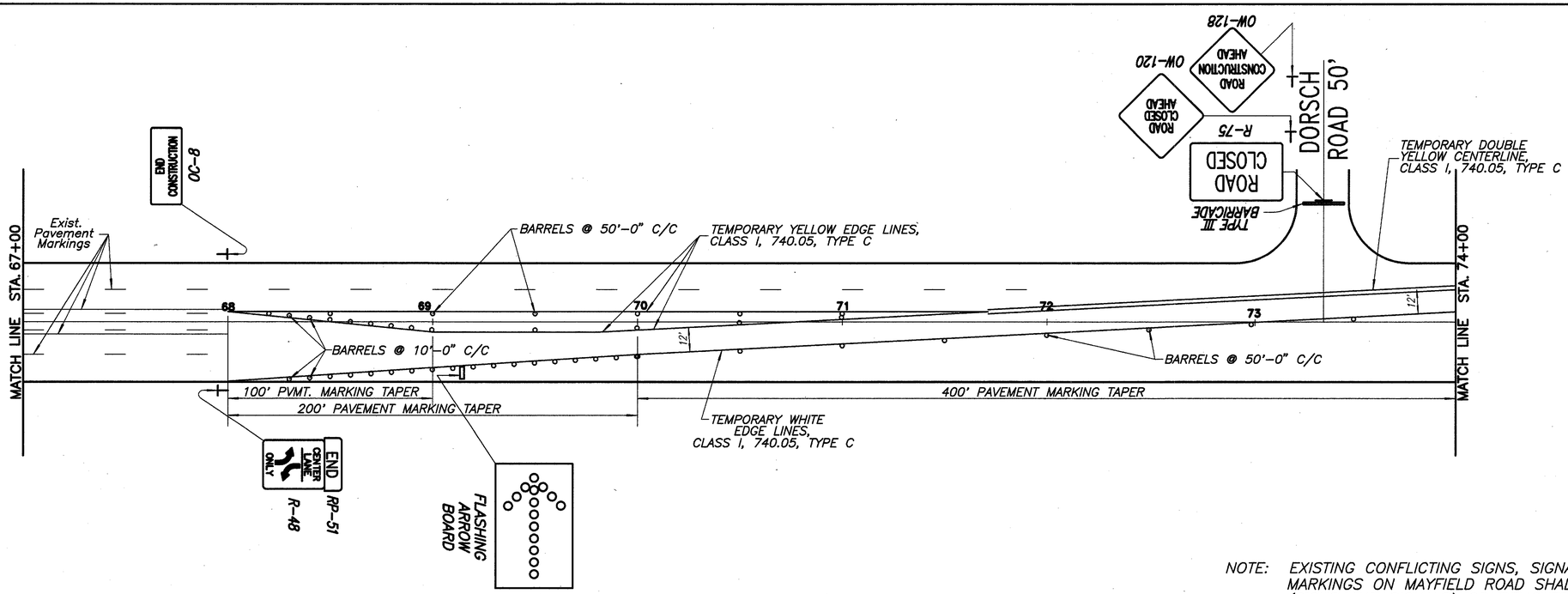
FHWA REGION	STATE	PROJECT	
5	OHIO		

387
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD



SECTION 3 -- PHASE 1 CONSTRUCTION



SECTION 3 -- PHASE 2 CONSTRUCTION

NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

* Indicates Signalized Intersection

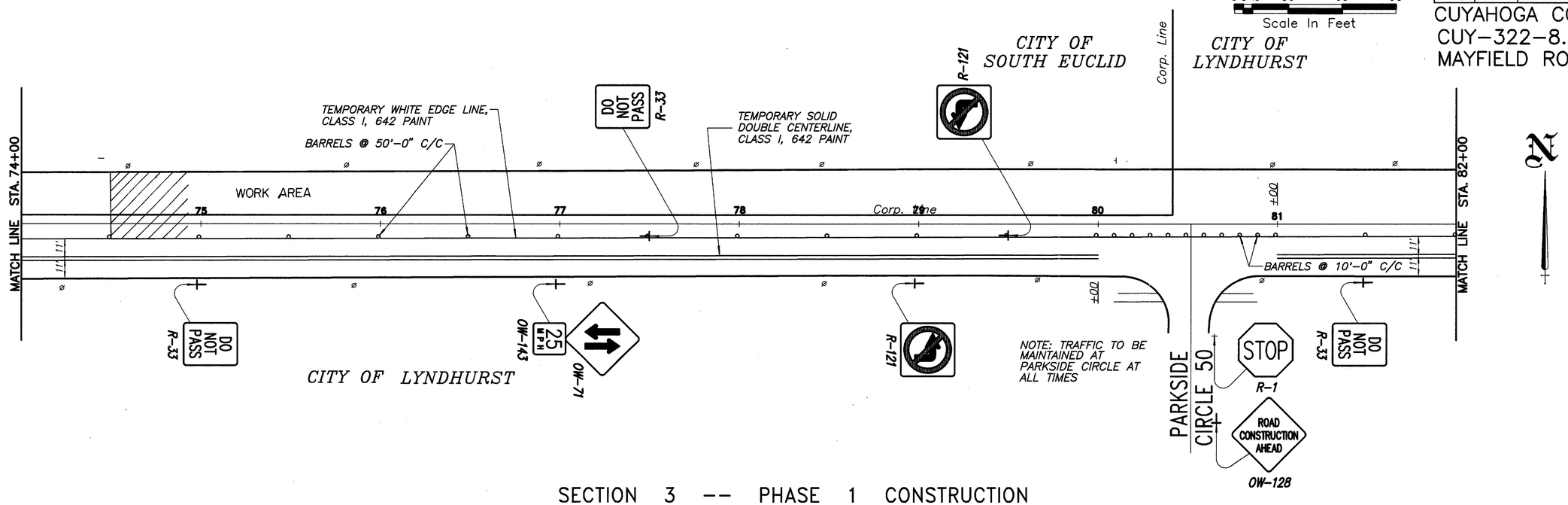
MAYFIELD ROAD

SECTION 3 MAINTENANCE OF TRAFFIC STA. 67+00 TO STA. 74+00

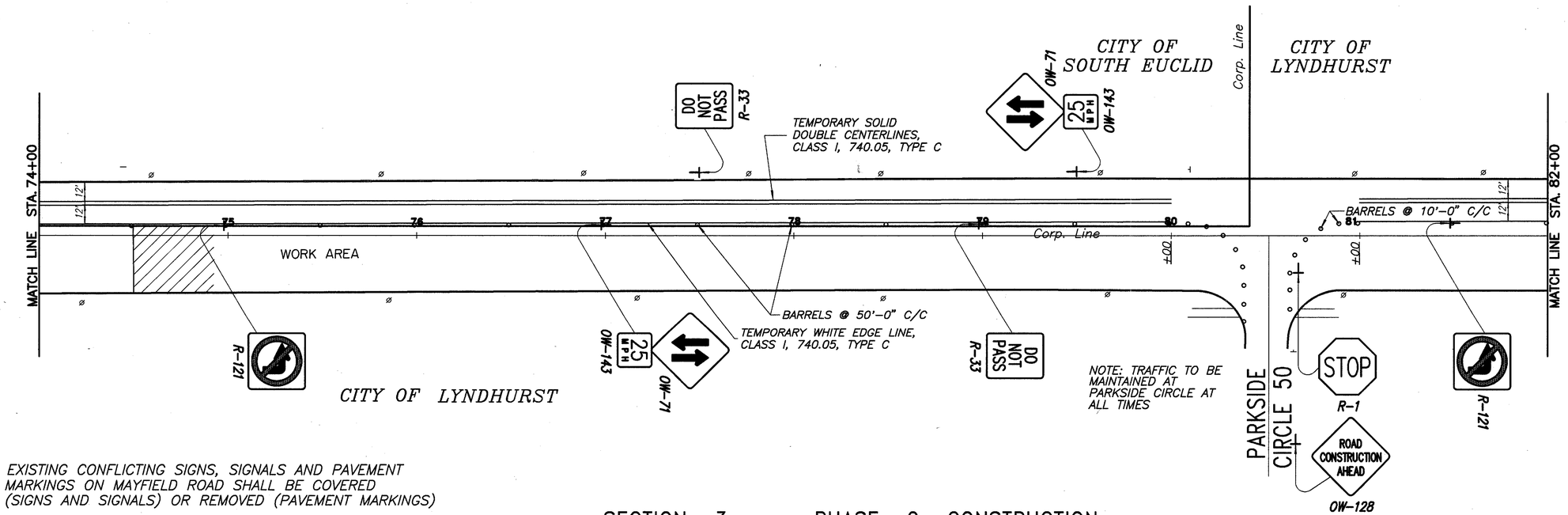
FHWA REGION	STATE	PROJECT	
5	OHIO		

388
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD



SECTION 3 -- PHASE 1 CONSTRUCTION



NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

✳ Indicates Signalized Intersection

SECTION 3 -- PHASE 2 CONSTRUCTION

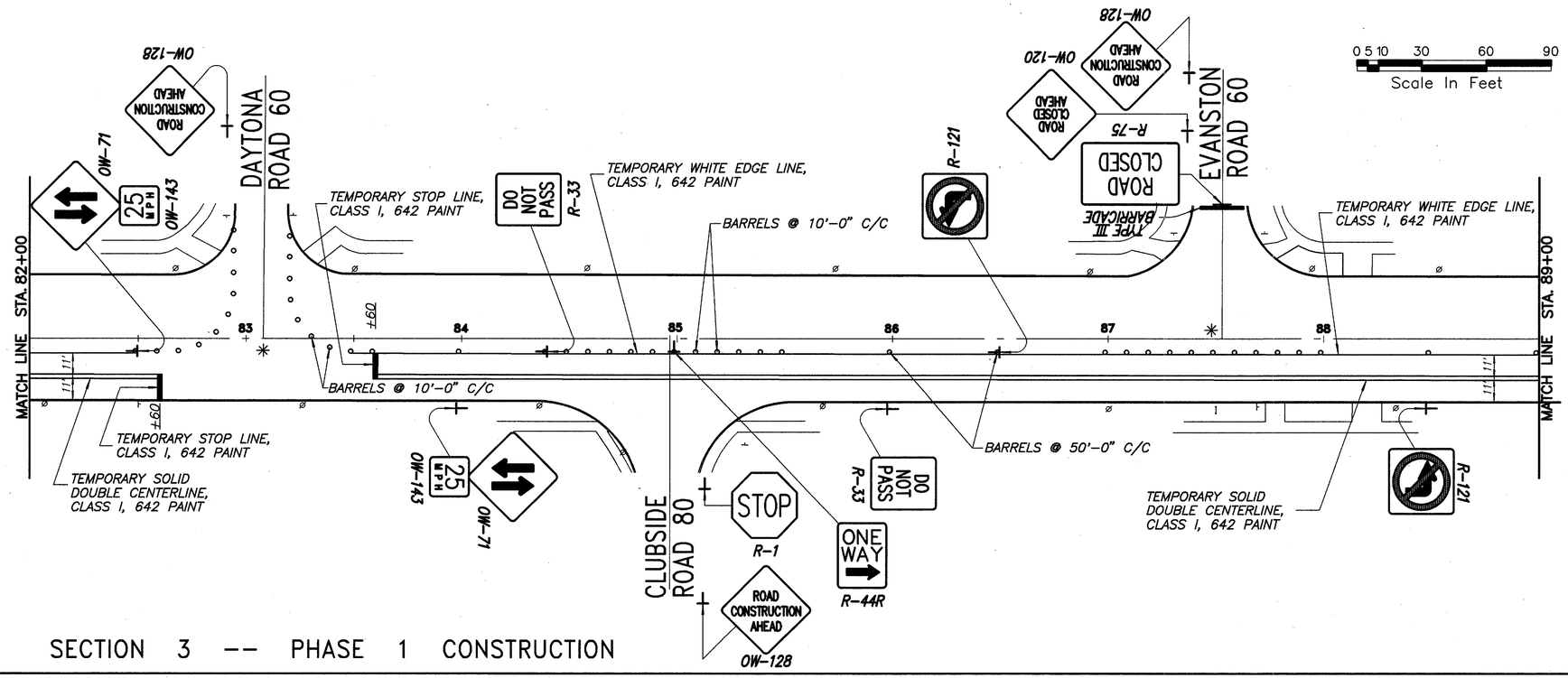
MAYFIELD ROAD

SECTION 3 MAINTENANCE OF TRAFFIC STA. 74+00 TO STA. 82+00

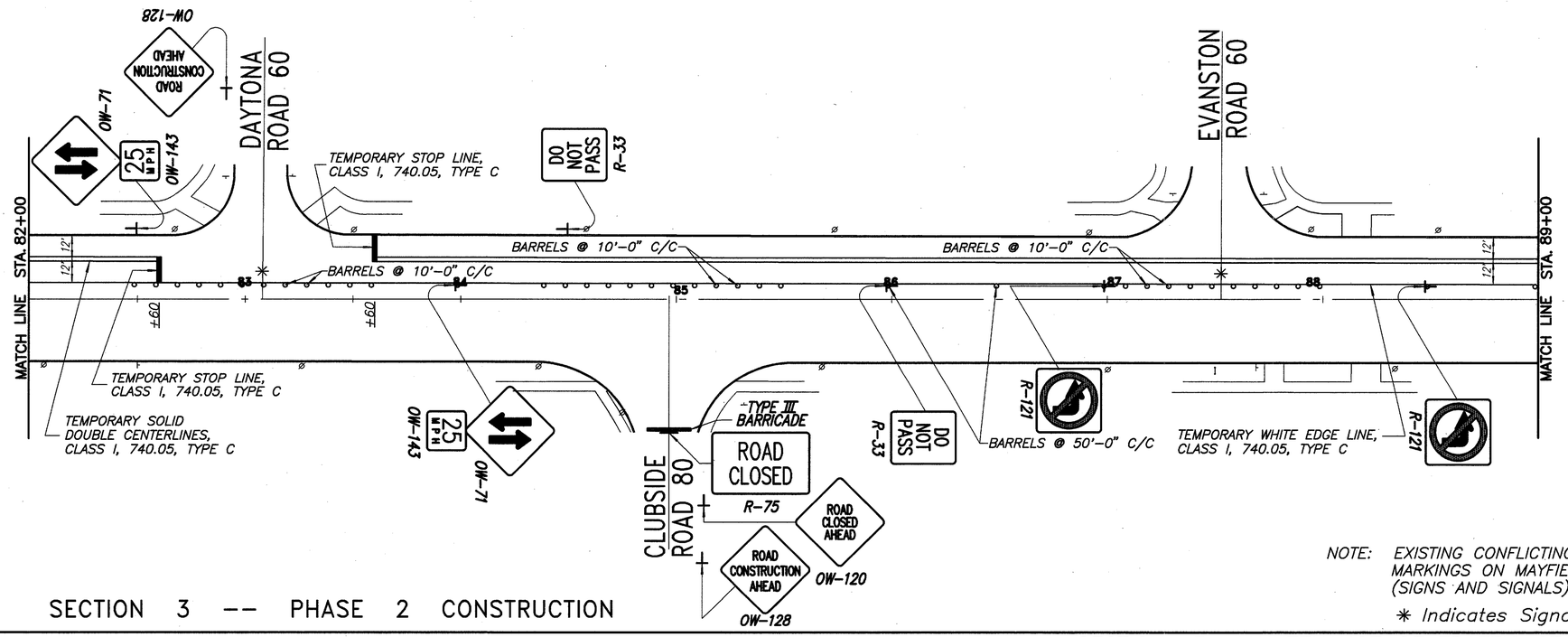
FHWA REGION	STATE	PROJECT	
5	OHIO		

389
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD



SECTION 3 -- PHASE 1 CONSTRUCTION



SECTION 3 -- PHASE 2 CONSTRUCTION

NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

* Indicates Signalized Intersection

MAYFIELD ROAD

SECTION 3 MAINTENANCE OF TRAFFIC STA. 82+00 TO STA. 89+00

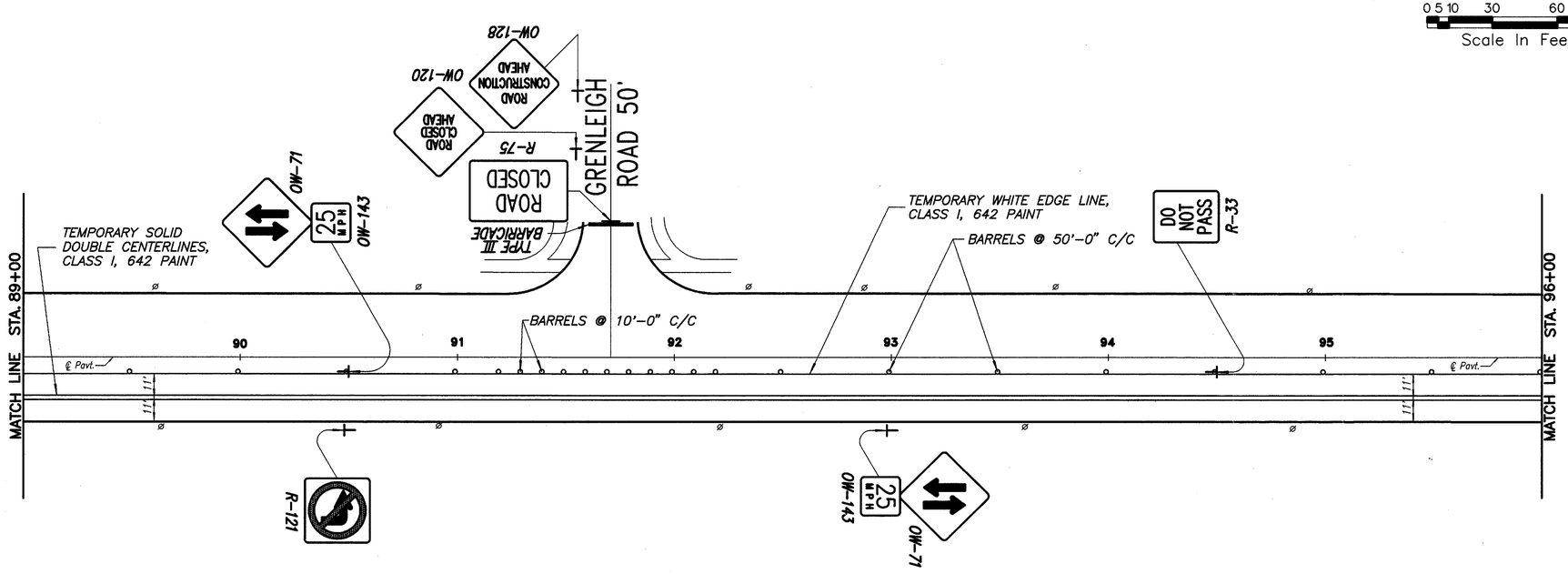
FHWA REGION	STATE	PROJECT	
5	OHIO		

390
426

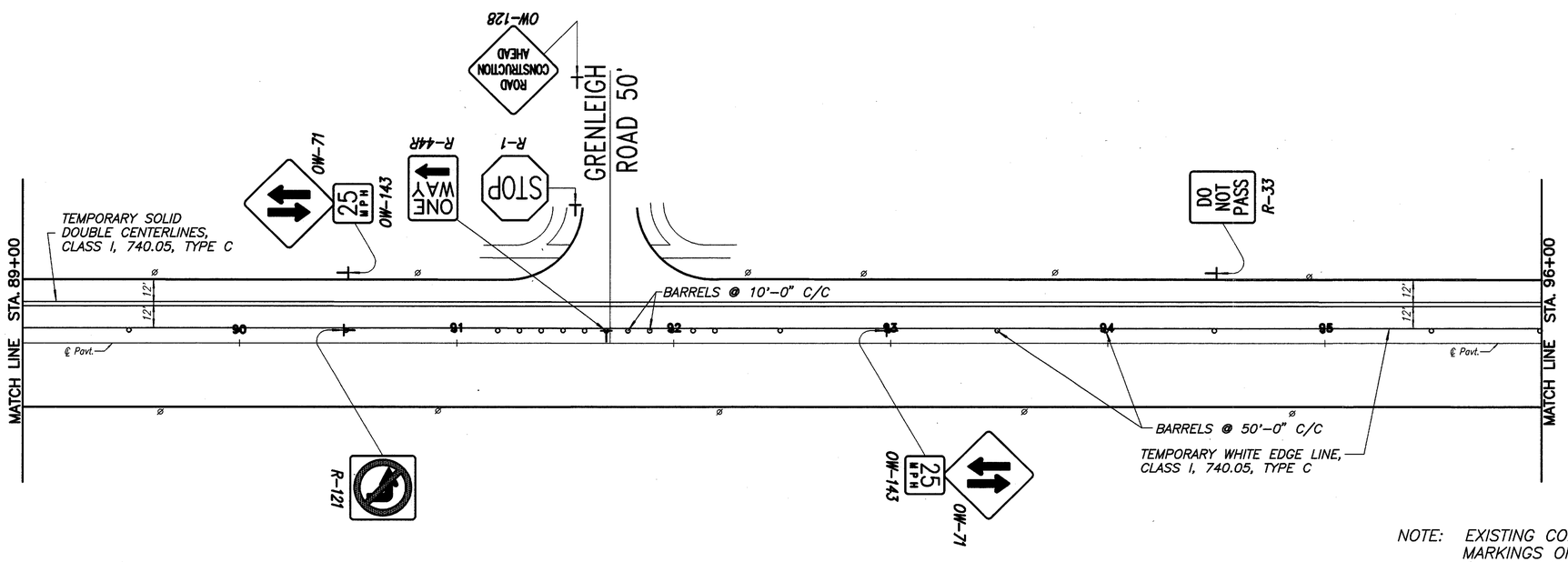
CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

0 5 10 30 60 90
Scale In Feet

N



SECTION 3 -- PHASE 1 CONSTRUCTION



SECTION 3 -- PHASE 2 CONSTRUCTION

NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

* Indicates Signalized Intersection

MAYFIELD ROAD

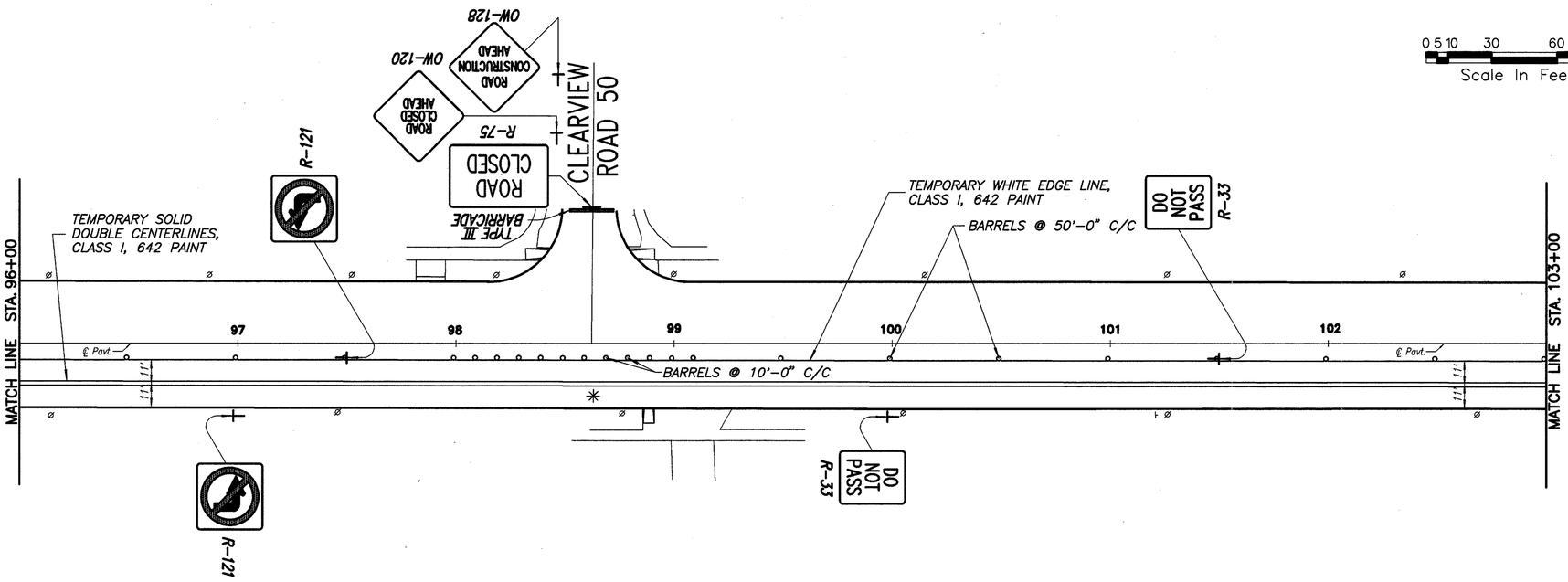
SECTION 3 MAINTENANCE OF TRAFFIC STA. 89+00 TO STA. 96+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

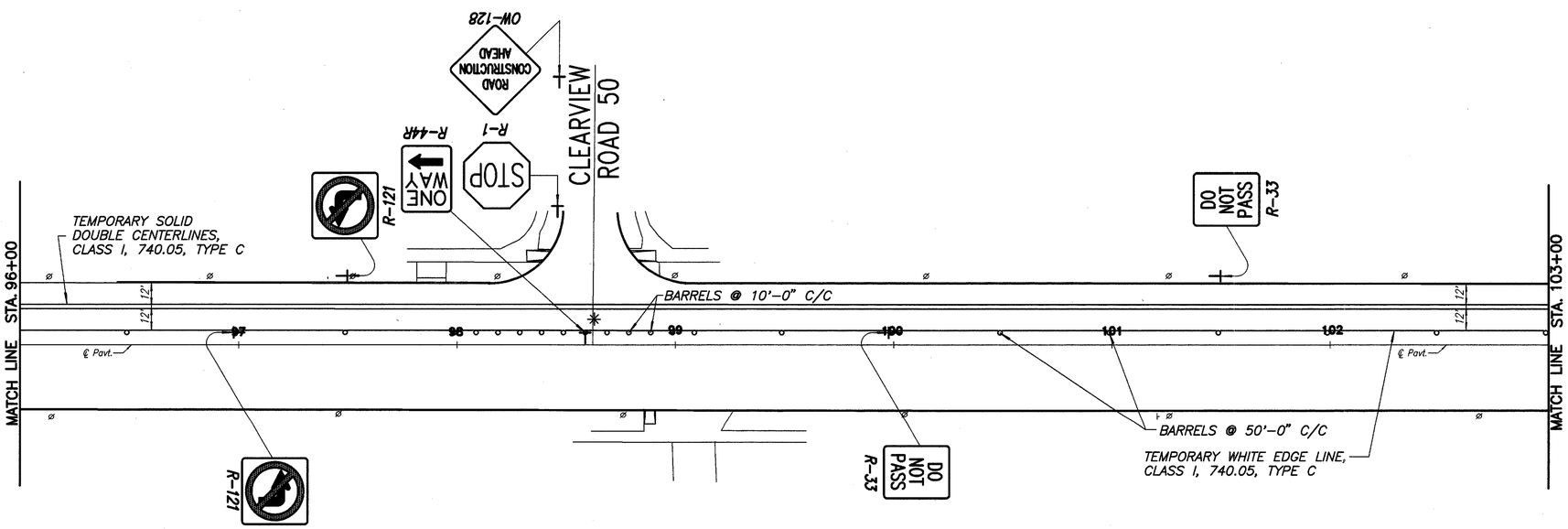
391
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

0 5 10 30 60 90
Scale In Feet



SECTION 3 -- PHASE 1 CONSTRUCTION



SECTION 3 -- PHASE 2 CONSTRUCTION

NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

✱ Indicates Signalized Intersection

MAYFIELD ROAD

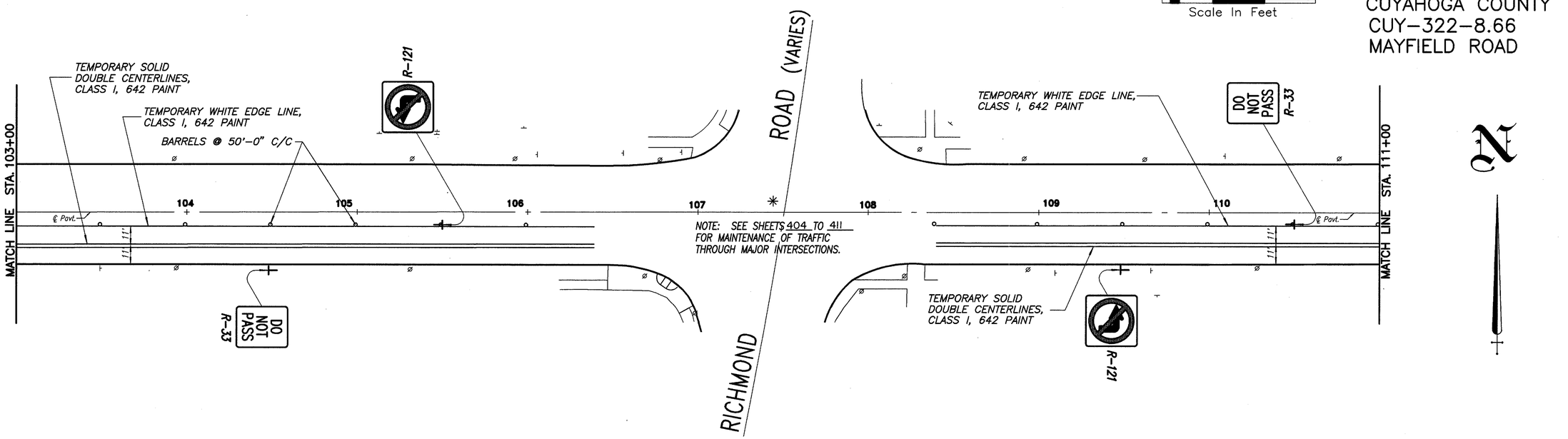
SECTION 3 MAINTENANCE OF TRAFFIC STA. 96+00 TO STA. 103+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

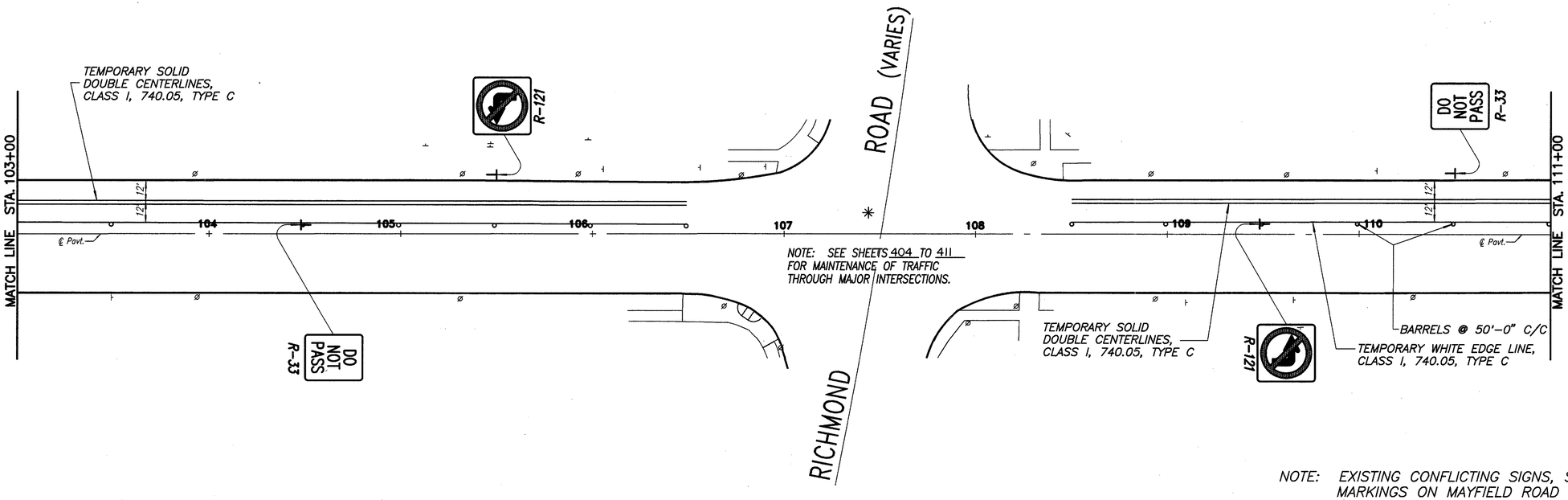
392
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

0 5 10 30 60 90
Scale In Feet



SECTION 3 -- PHASE 1 CONSTRUCTION



SECTION 3 -- PHASE 2 CONSTRUCTION

NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

✳ Indicates Signalized Intersection

MAYFIELD ROAD

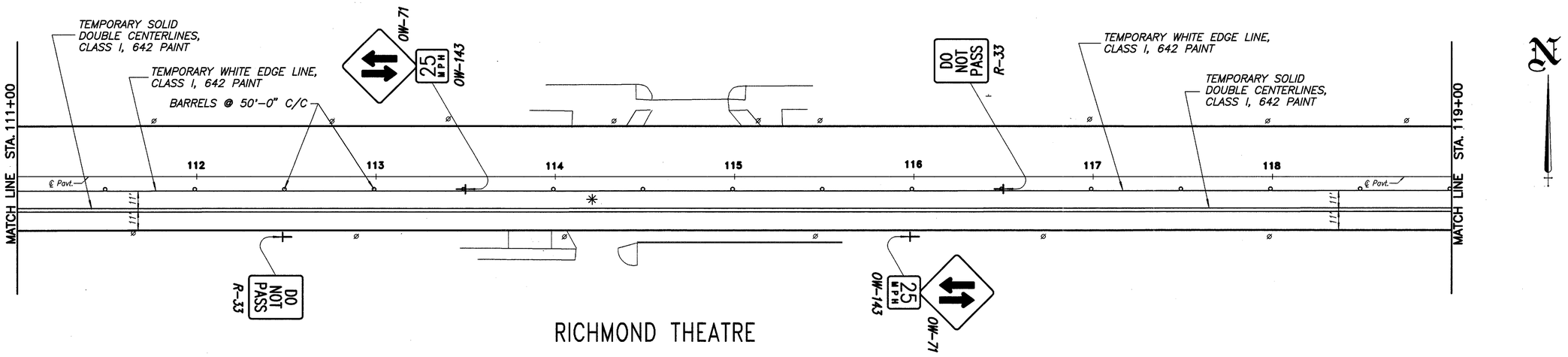
SECTION 3 MAINTENANCE OF TRAFFIC STA. 103+00 TO STA. 111+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

393
426

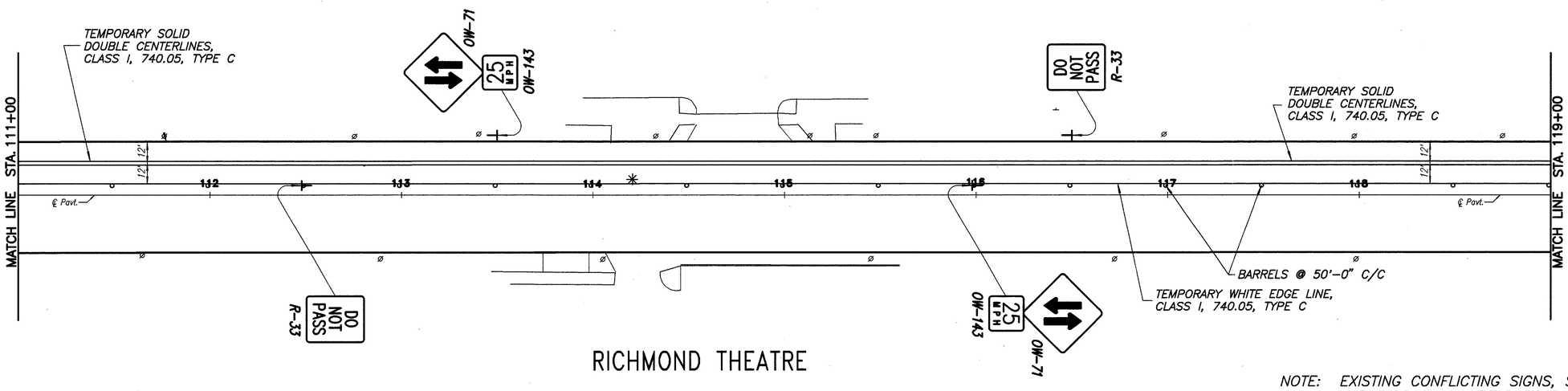
CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

0 5 10 30 60 90
Scale In Feet



RICHMOND THEATRE

SECTION 3 -- PHASE 1 CONSTRUCTION



RICHMOND THEATRE

SECTION 3 -- PHASE 2 CONSTRUCTION

NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

* Indicates Signalized Intersection

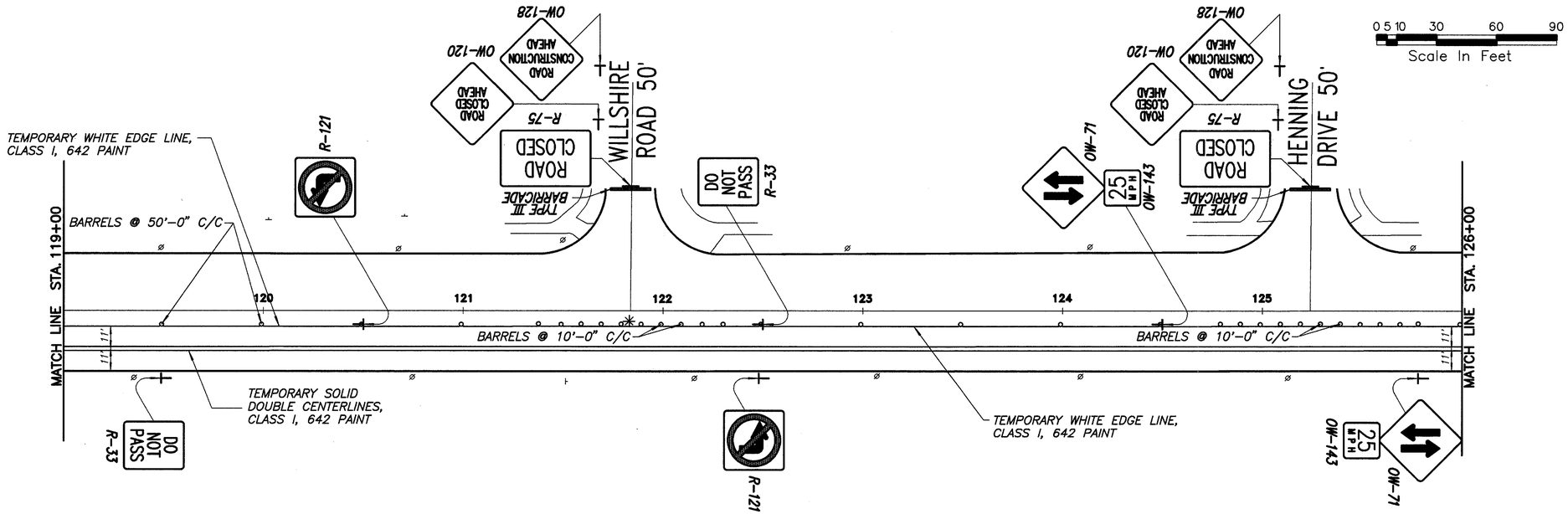
MAYFIELD ROAD

SECTION 3 MAINTENANCE OF TRAFFIC STA. 111+00 TO STA. 119+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

394
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD



SECTION 3 -- PHASE 1 CONSTRUCTION

SECTION 3 -- PHASE 2 CONSTRUCTION

NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

✳ Indicates Signalized Intersection

MAYFIELD ROAD

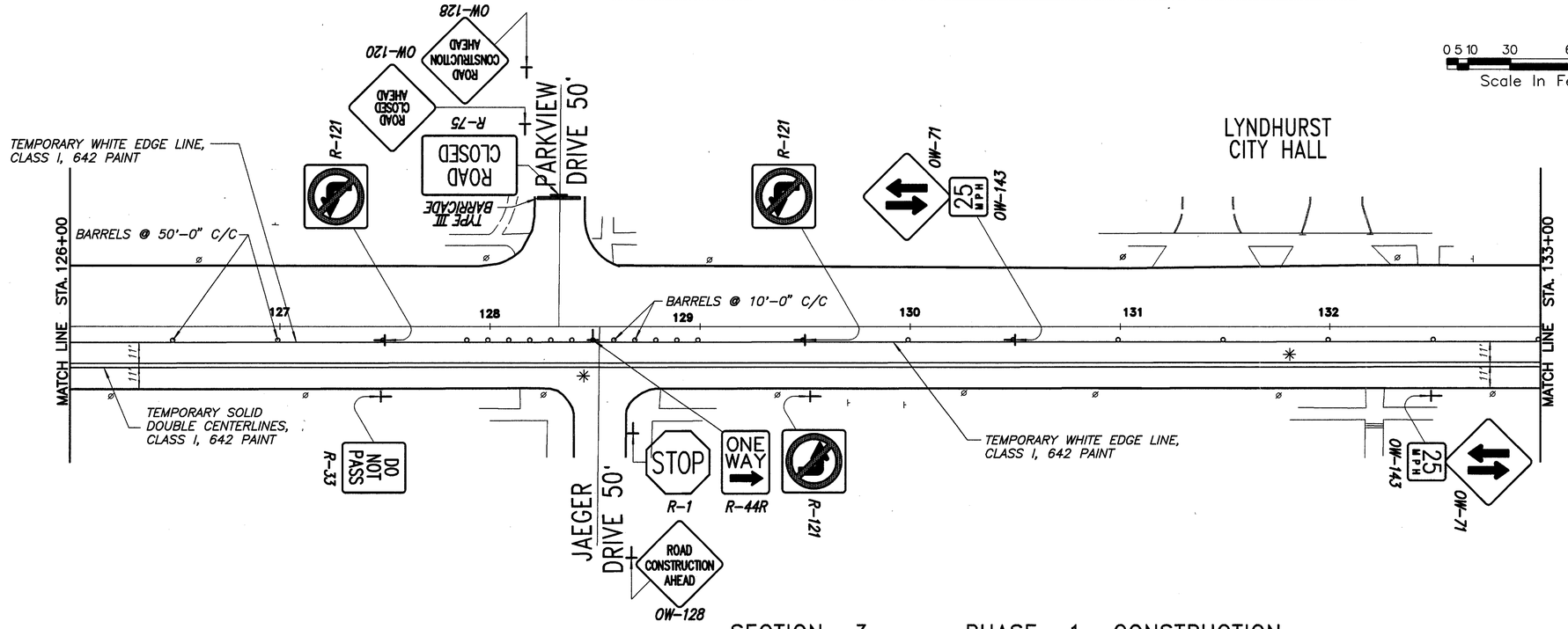
SECTION 3 MAINTENANCE OF TRAFFIC STA. 119+00 TO STA. 126+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

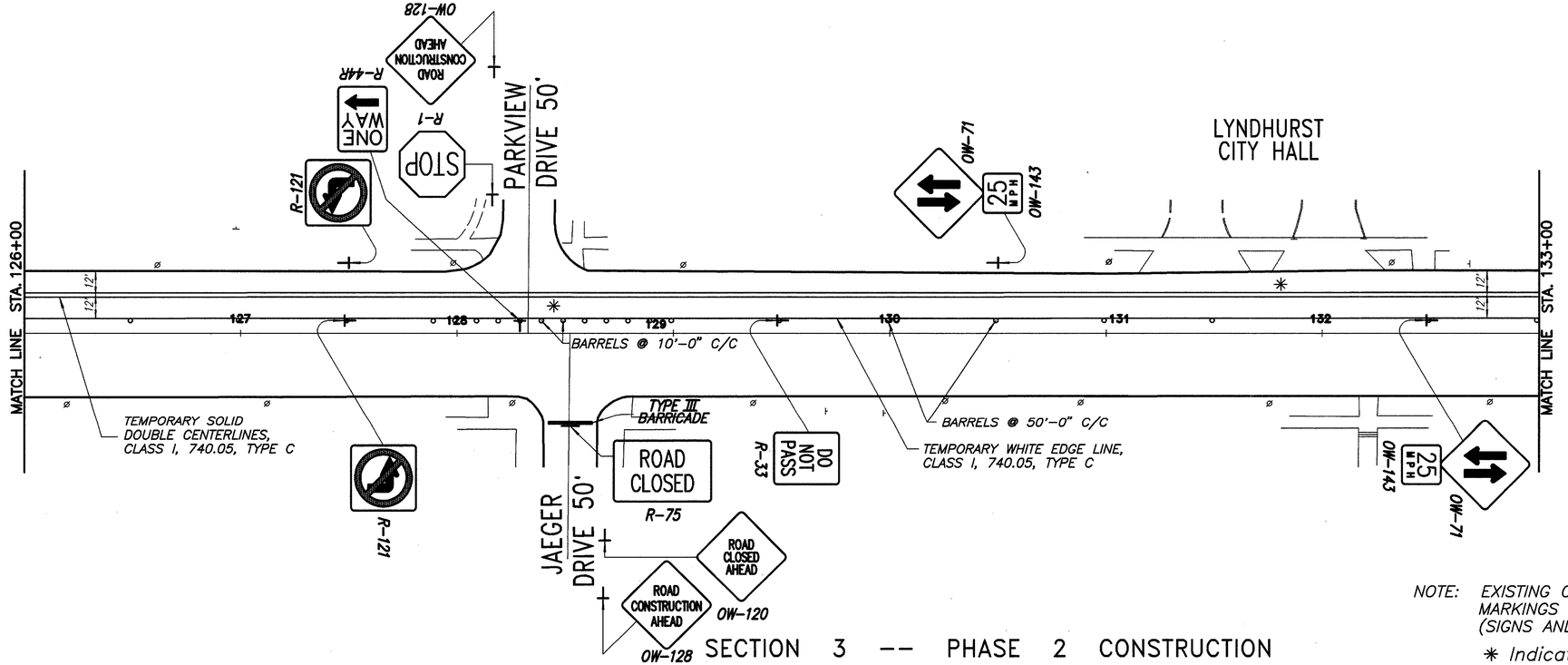
395
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

0 5 10 30 60 90
Scale In Feet



SECTION 3 -- PHASE 1 CONSTRUCTION



SECTION 3 -- PHASE 2 CONSTRUCTION

NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

✳ Indicates Signalized Intersection

MAYFIELD ROAD

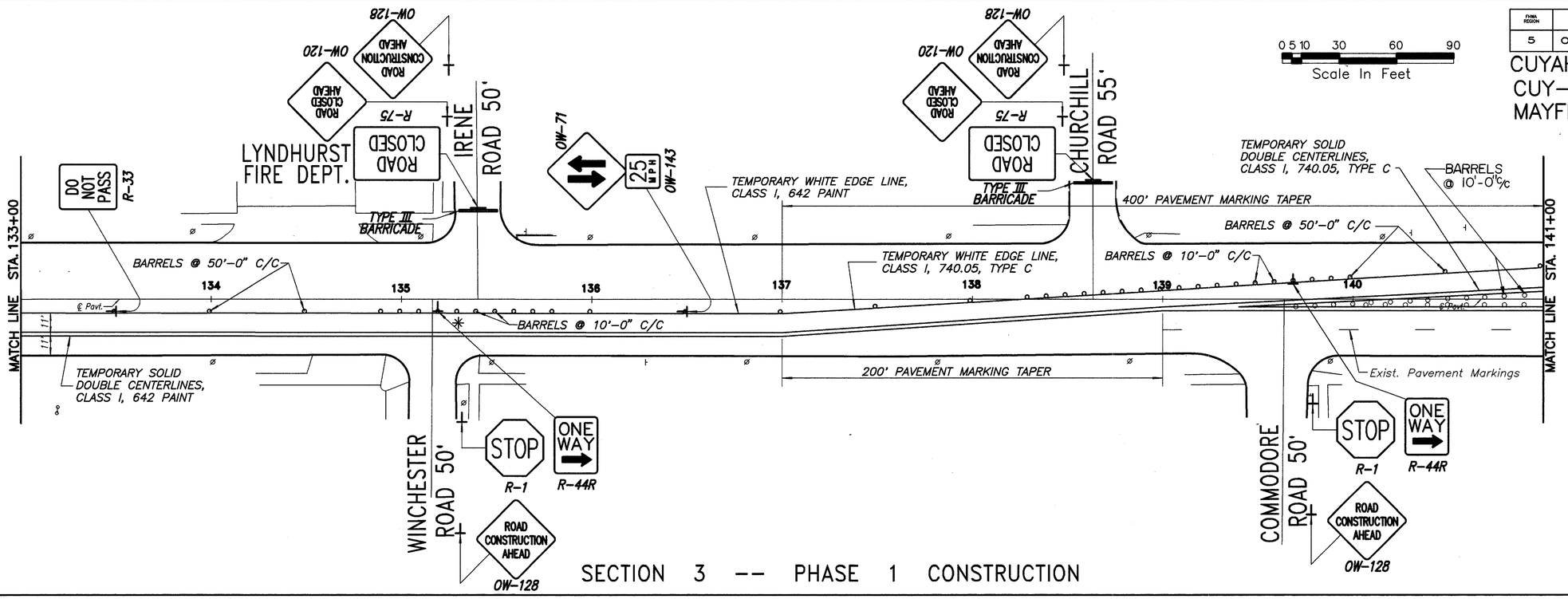
SECTION 3 MAINTENANCE OF TRAFFIC STA. 126+00 TO STA. 133+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

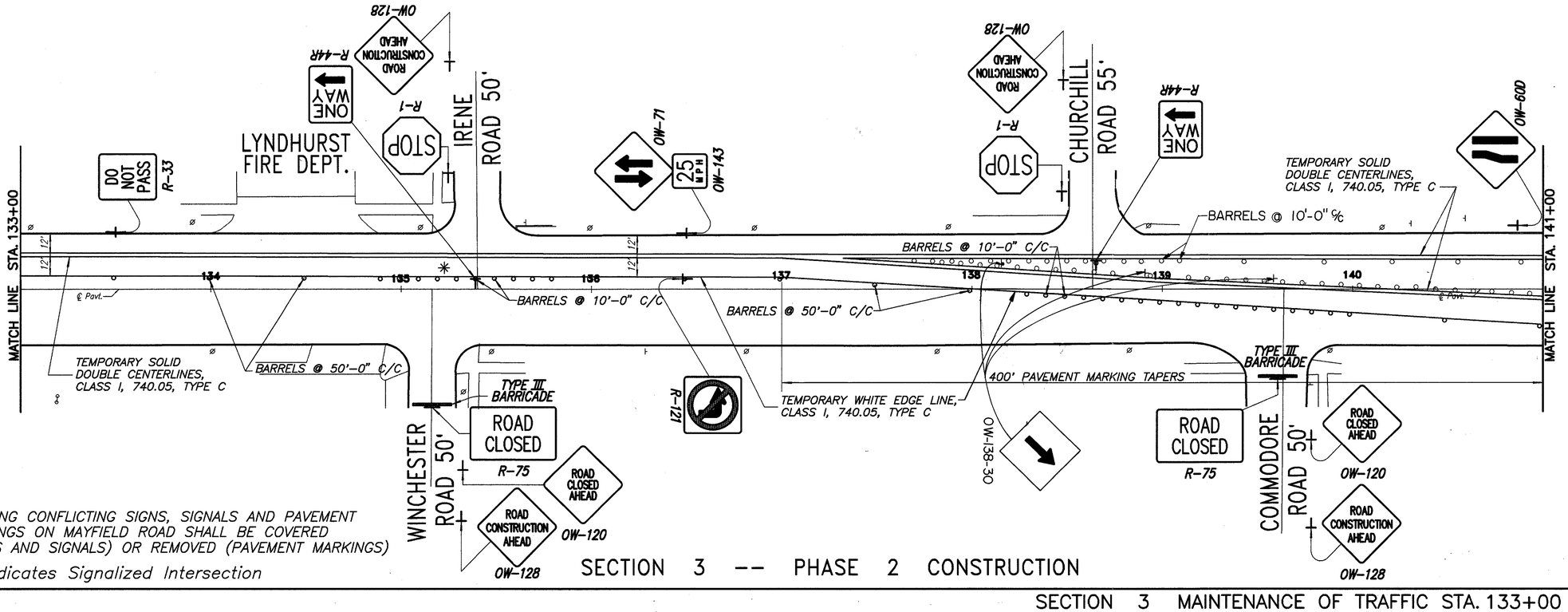
396
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

0 5 10 30 60 90
Scale In Feet



SECTION 3 -- PHASE 1 CONSTRUCTION



SECTION 3 -- PHASE 2 CONSTRUCTION

NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

✳ Indicates Signalized Intersection

MAYFIELD ROAD

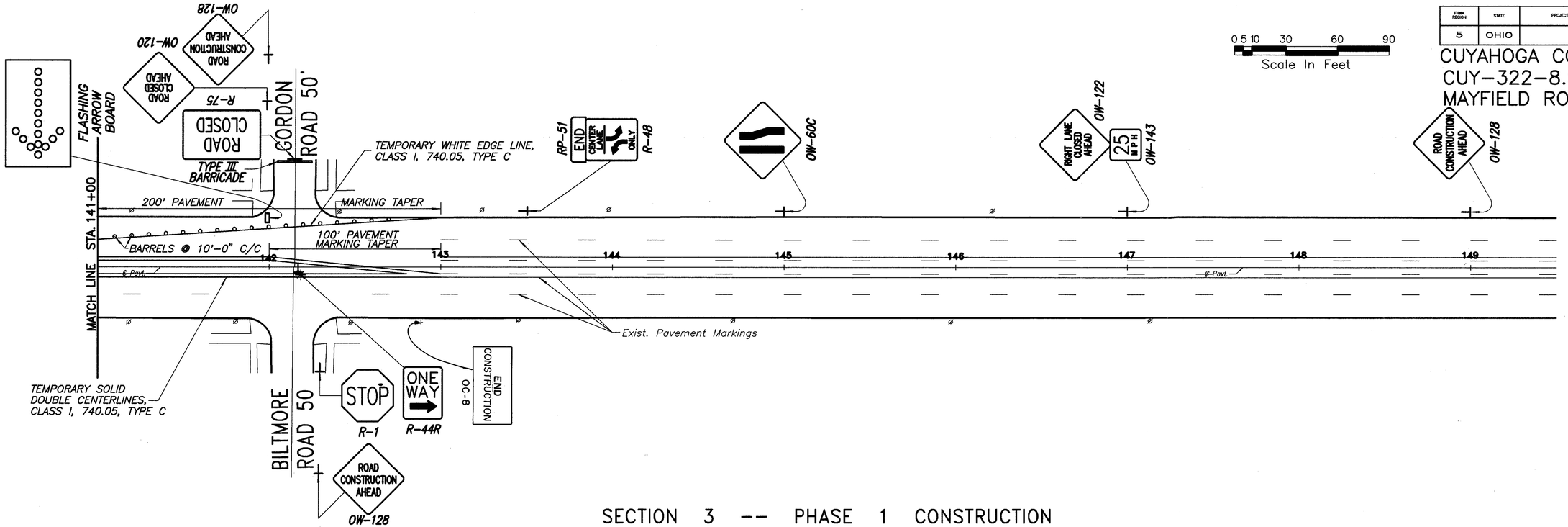
SECTION 3 MAINTENANCE OF TRAFFIC STA. 133+00 TO STA. 141+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

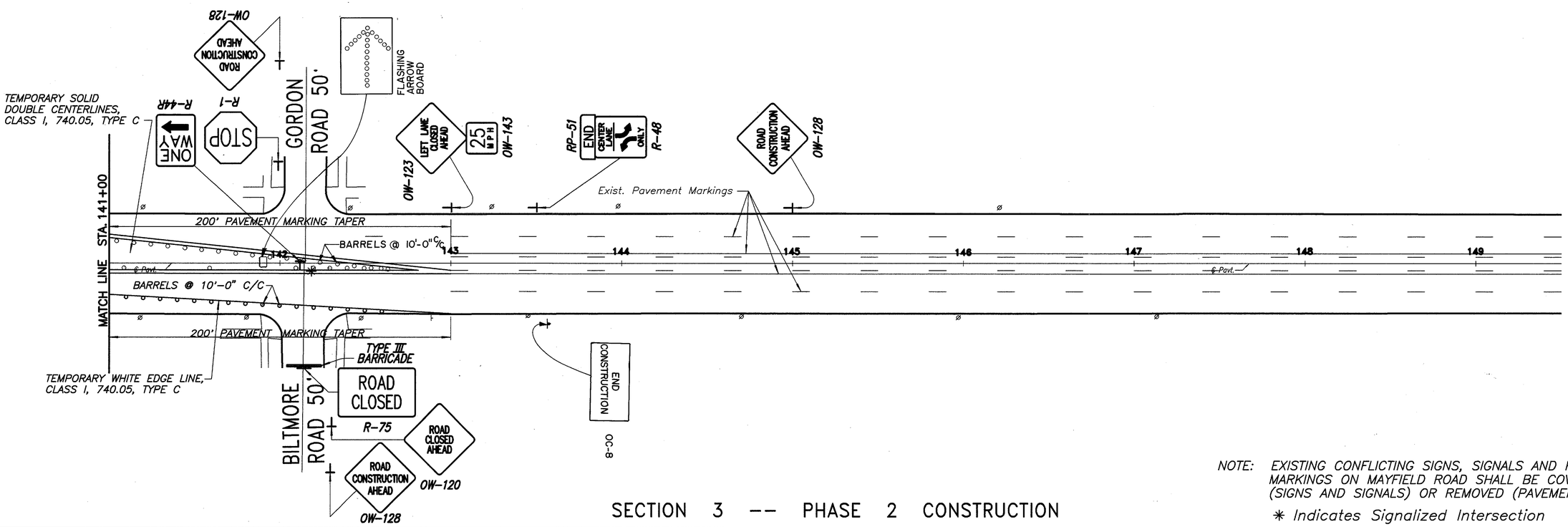
397
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

0 5 10 30 60 90
Scale In Feet



SECTION 3 -- PHASE 1 CONSTRUCTION



SECTION 3 -- PHASE 2 CONSTRUCTION

NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

✳ Indicates Signalized Intersection

MAYFIELD ROAD

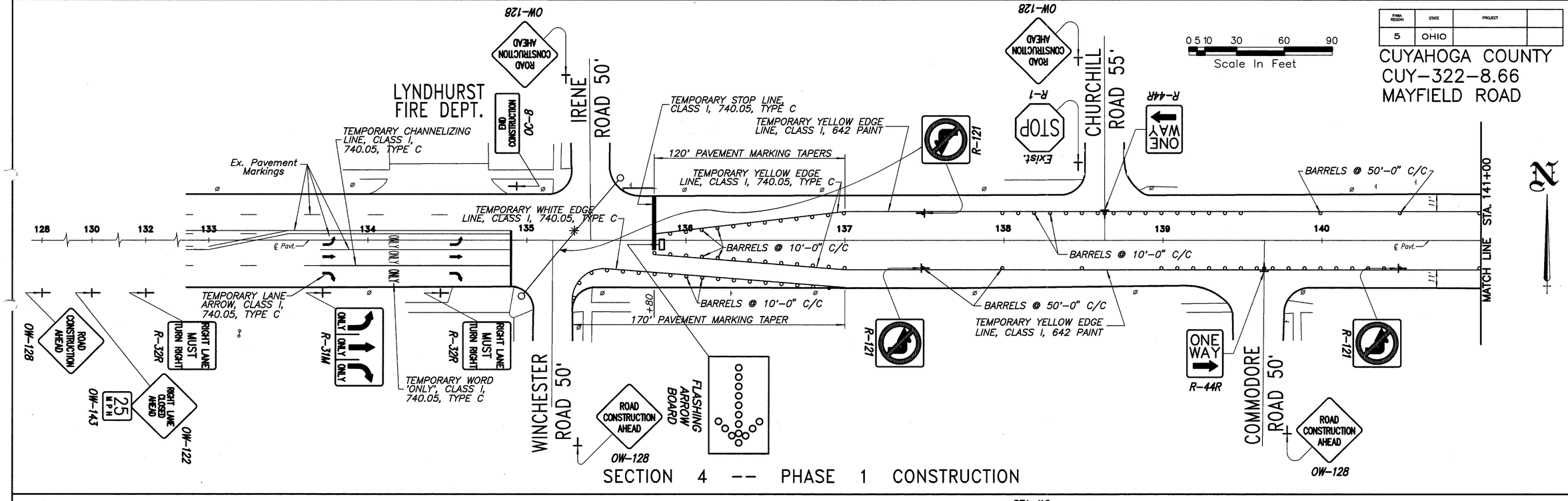
SECTION 3 MAINTENANCE OF TRAFFIC STA. 141+00 TO STA. 149+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

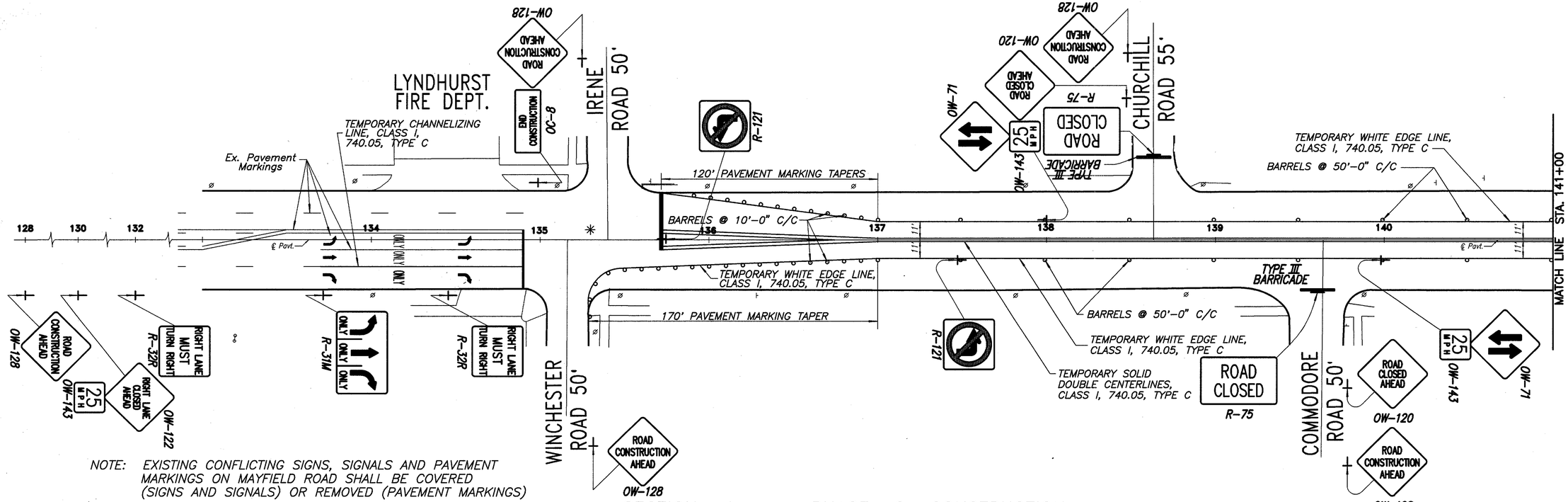
398
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

0 5 10 30 60 90
Scale In Feet



SECTION 4 -- PHASE 1 CONSTRUCTION



NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

✳ Indicates Signalized Intersection

SECTION 4 -- PHASE 2 CONSTRUCTION

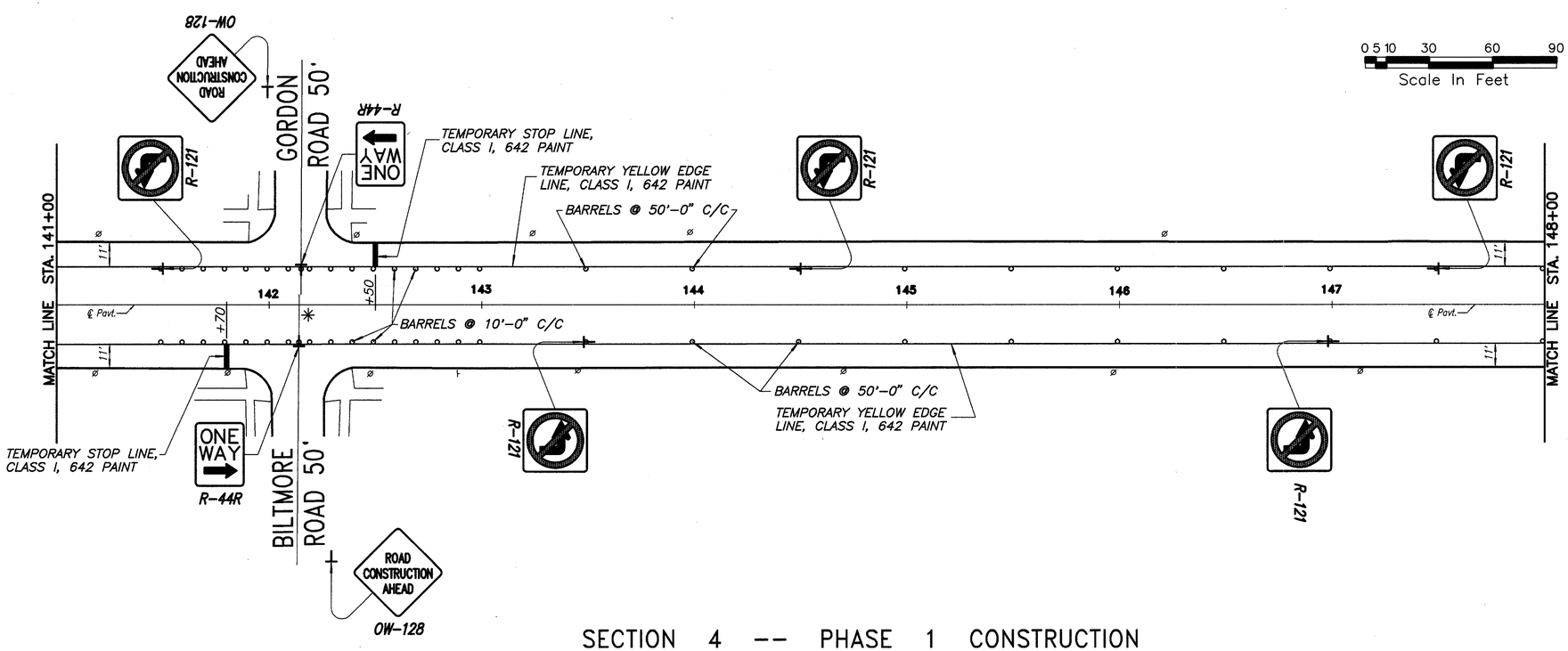
MAYFIELD ROAD

SECTION 4 MAINTENANCE OF TRAFFIC STA. 133+00 TO STA. 141+00

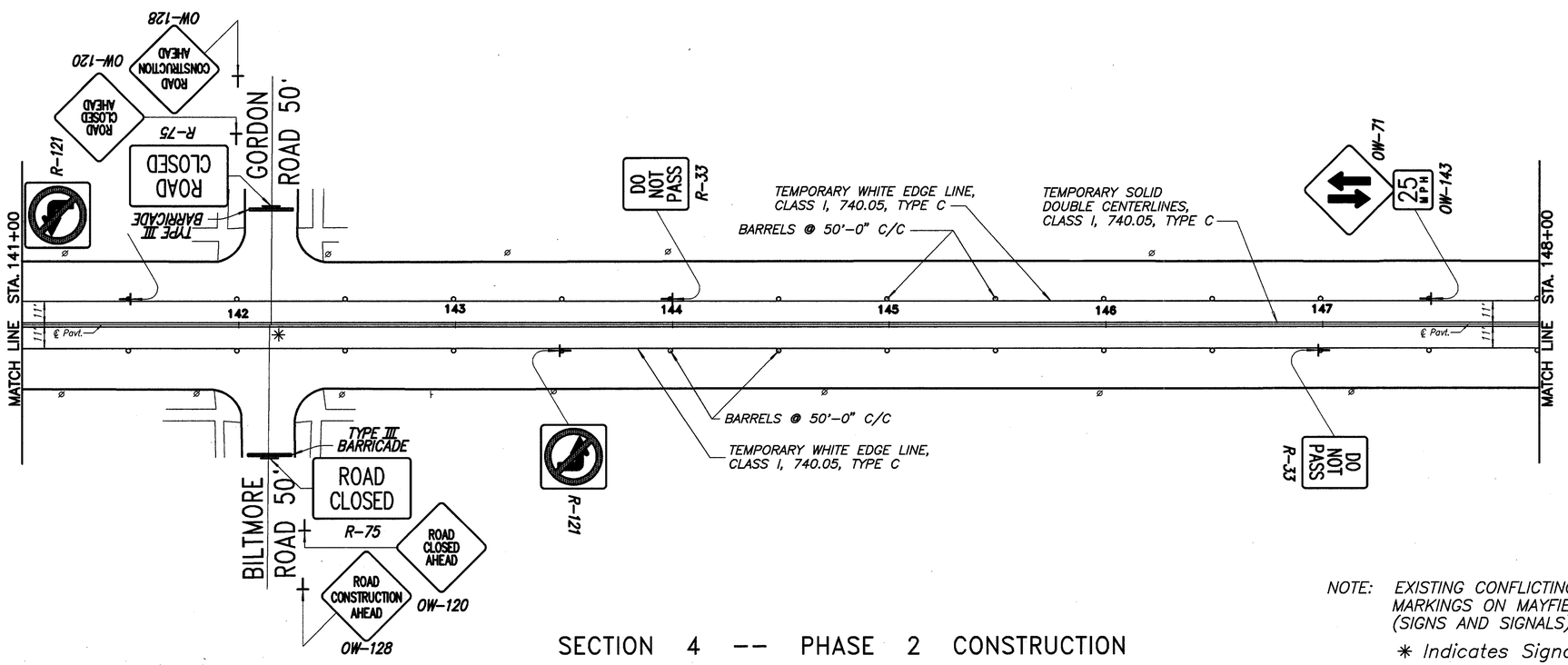
FHWA REGION	STATE	PROJECT	
5	OHIO		

399
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD



SECTION 4 -- PHASE 1 CONSTRUCTION



SECTION 4 -- PHASE 2 CONSTRUCTION

NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

* Indicates Signalized Intersection

MAYFIELD ROAD

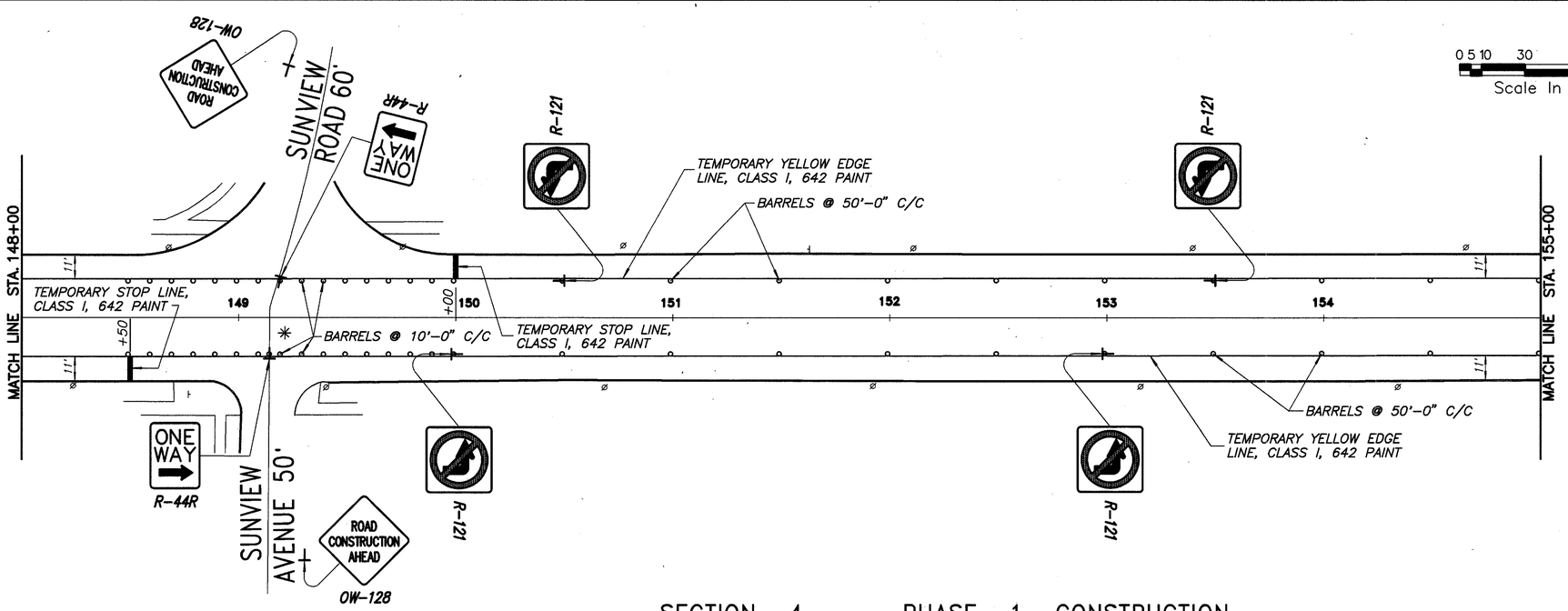
SECTION 4 MAINTENANCE OF TRAFFIC STA. 141+00 TO STA. 148+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

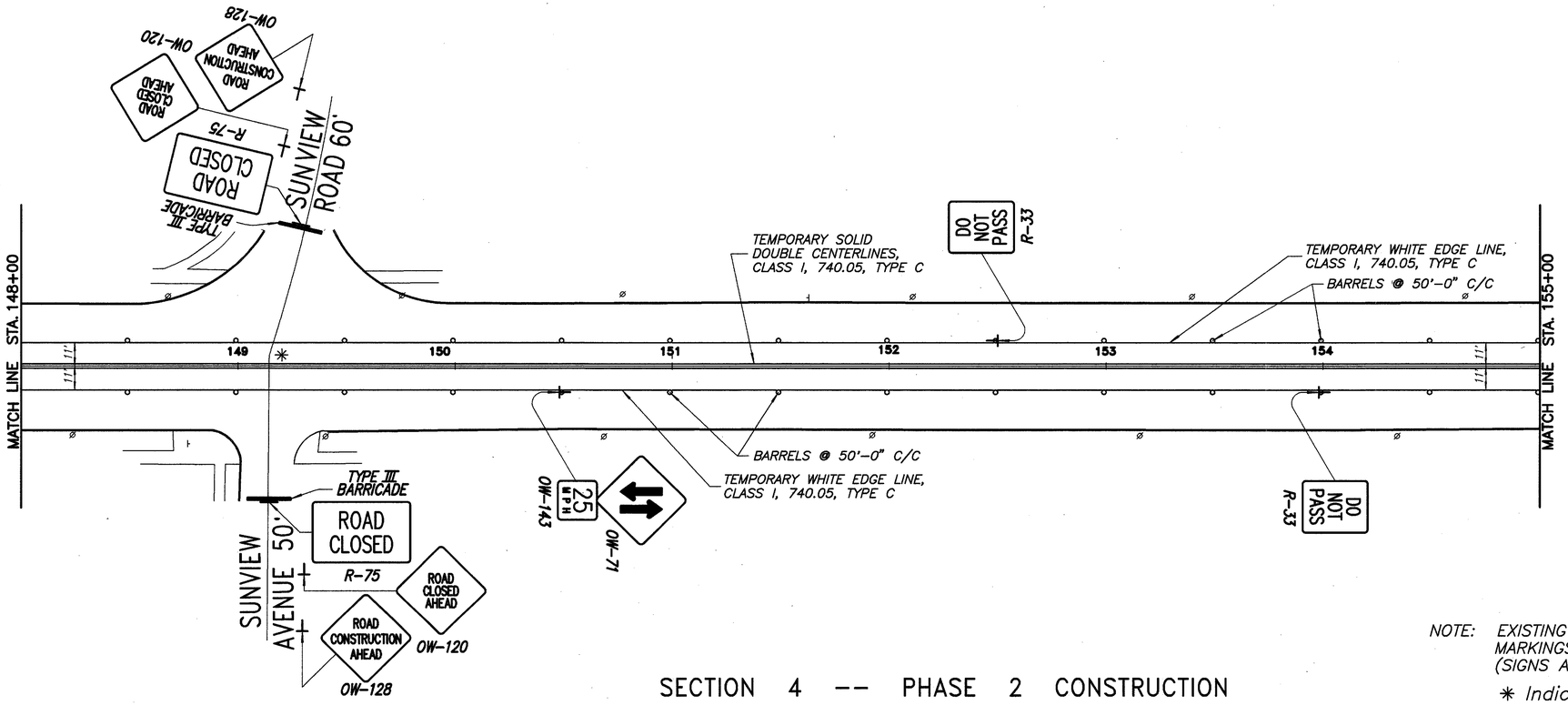
400
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

0 5 10 30 60 90
Scale In Feet



SECTION 4 -- PHASE 1 CONSTRUCTION



SECTION 4 -- PHASE 2 CONSTRUCTION

NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

* Indicates Signalized Intersection

MAYFIELD ROAD

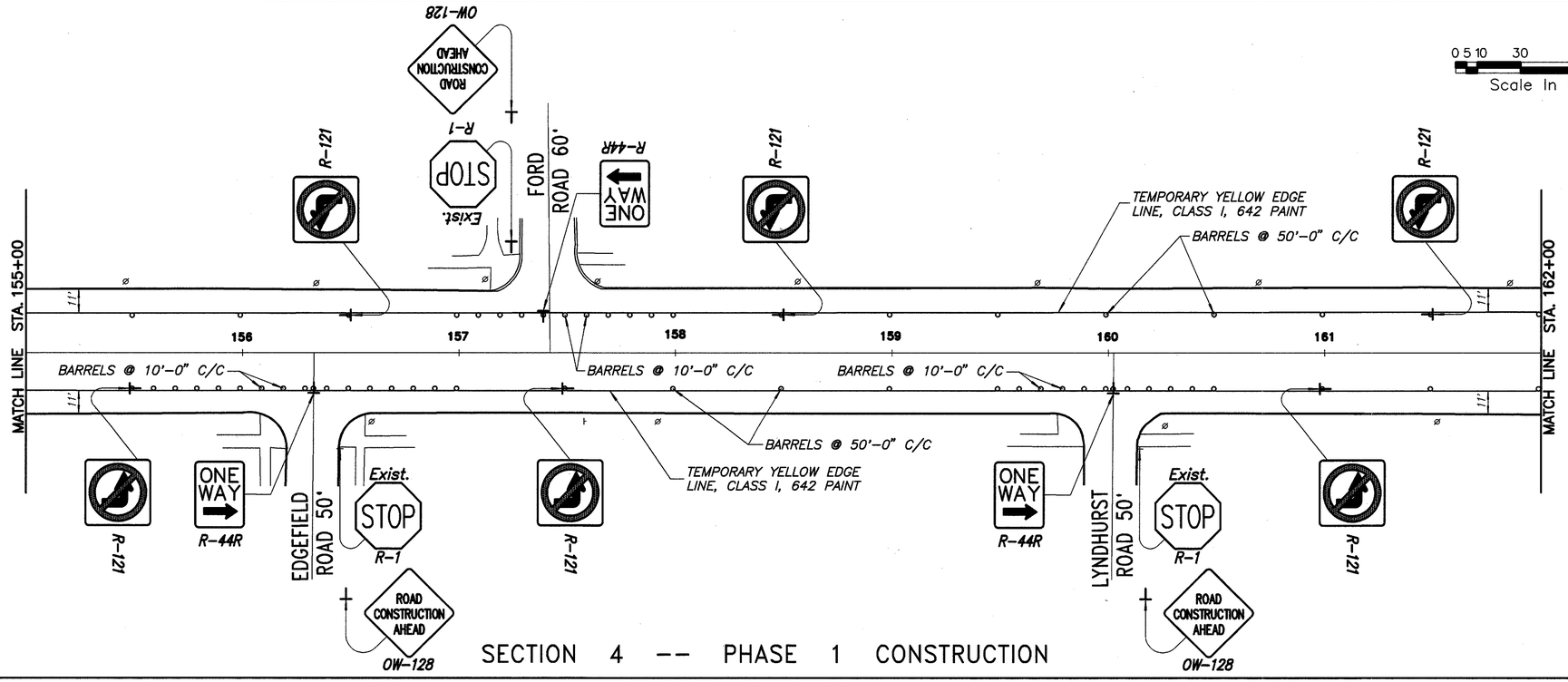
SECTION 4 MAINTENANCE OF TRAFFIC STA. 148+00 TO STA. 155+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

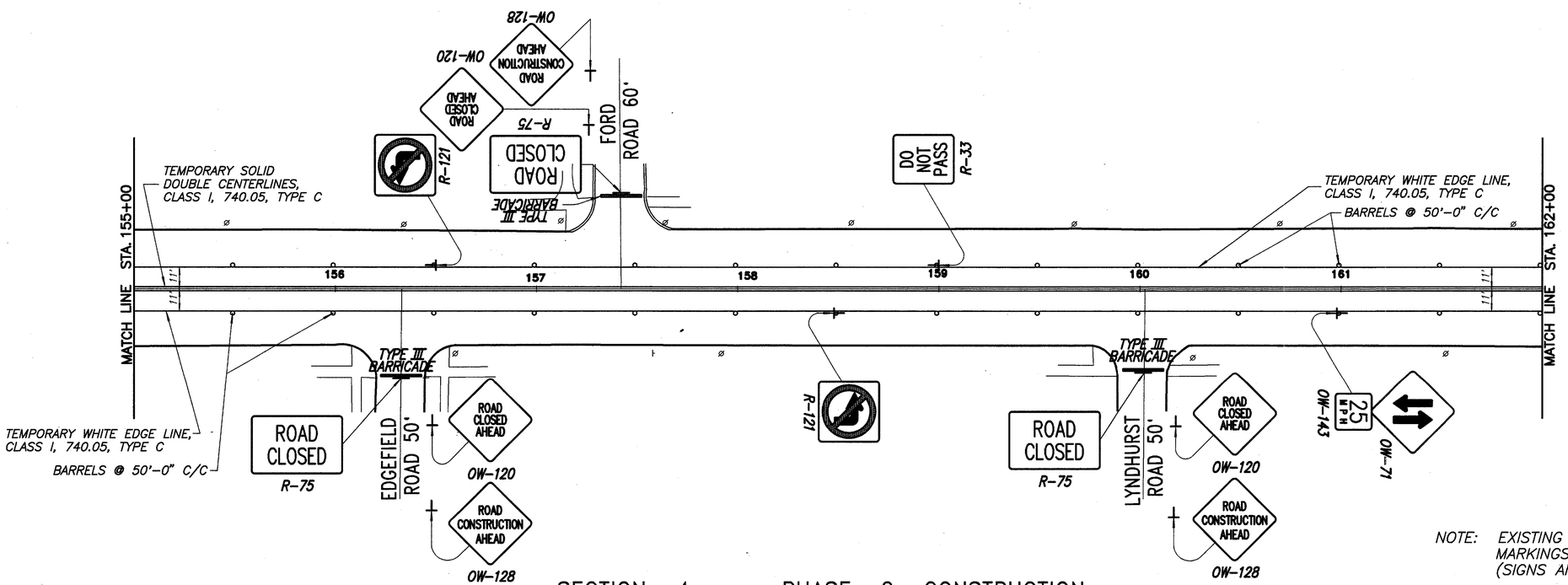
401
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

0 5 10 30 60 90
Scale In Feet



SECTION 4 -- PHASE 1 CONSTRUCTION



SECTION 4 -- PHASE 2 CONSTRUCTION

NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

✱ Indicates Signalized Intersection

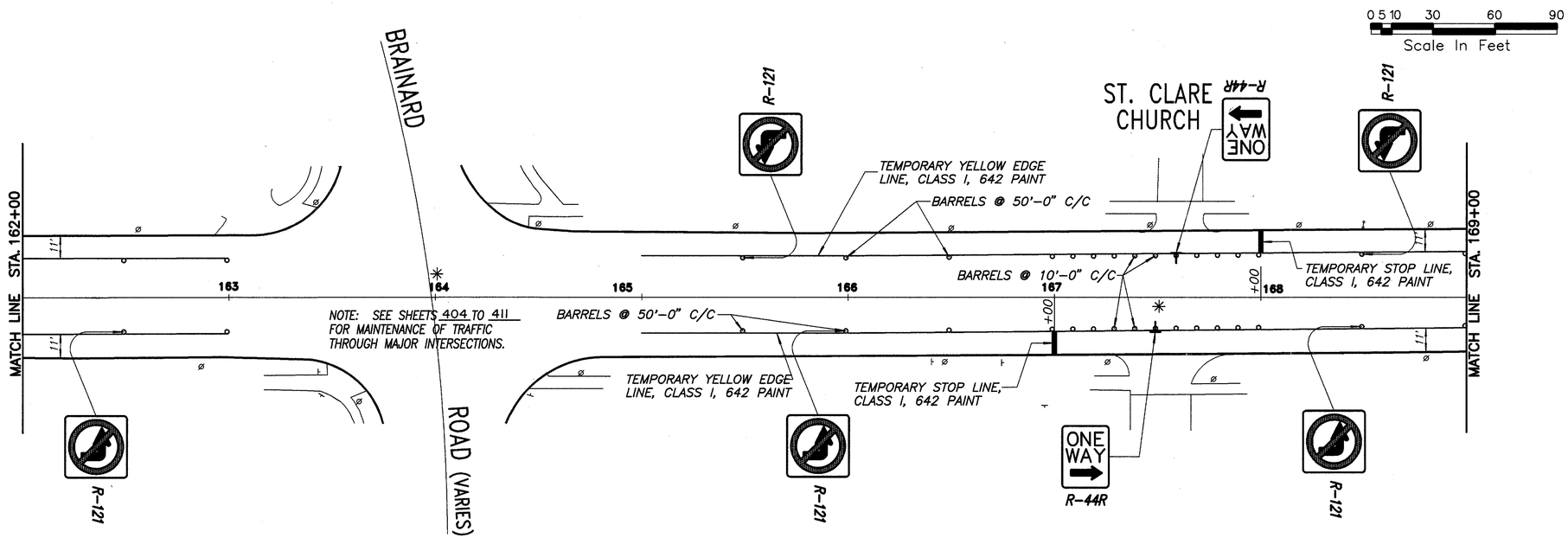
MAYFIELD ROAD

SECTION 4 MAINTENANCE OF TRAFFIC STA. 155+00 TO STA. 162+00

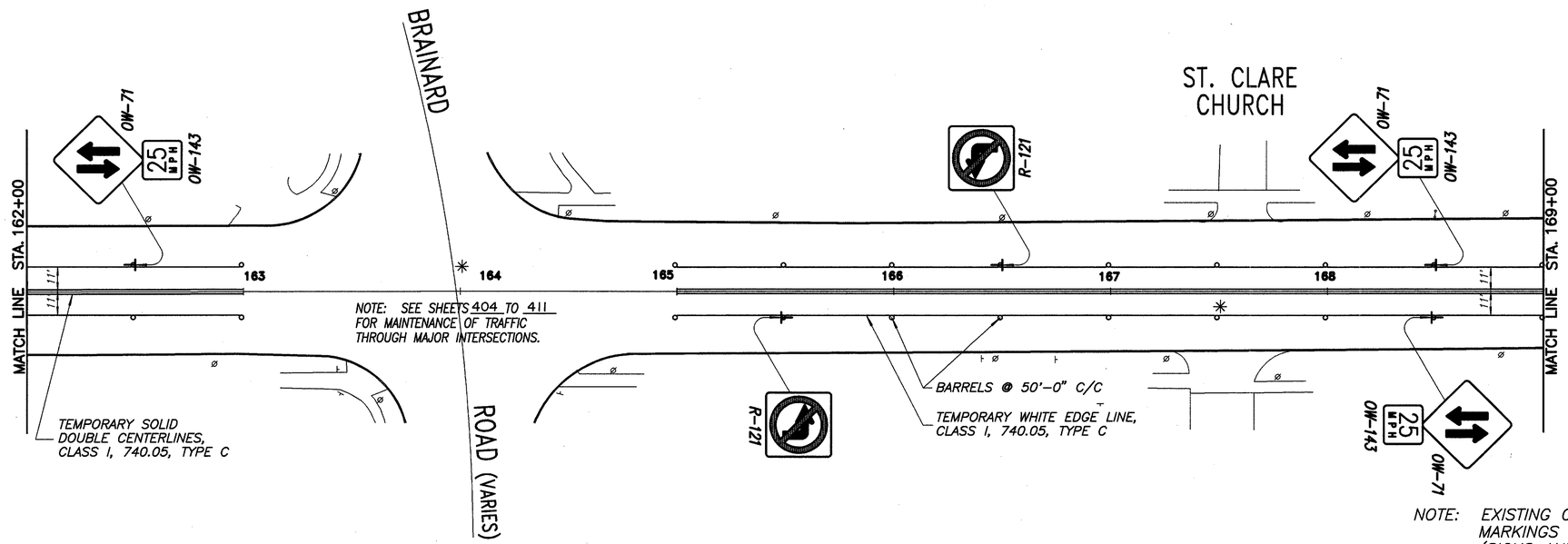
FHWA REGION	STATE	PROJECT	
5	OHIO		

402
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD



SECTION 4 -- PHASE 1 CONSTRUCTION



SECTION 4 -- PHASE 2 CONSTRUCTION

NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

* Indicates Signalized Intersection

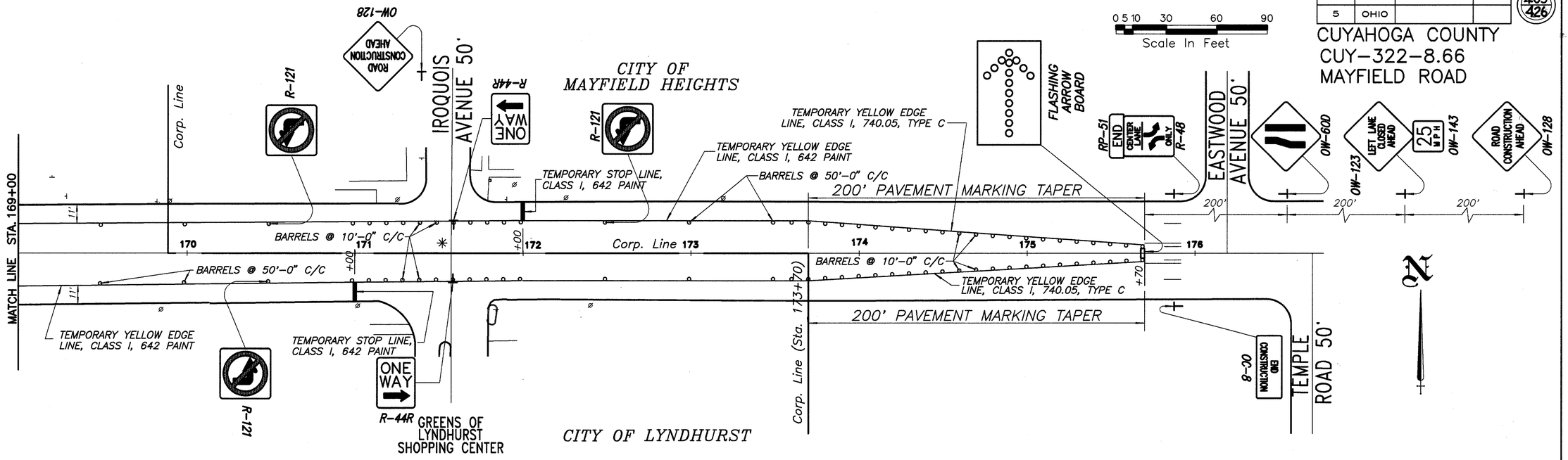
MAYFIELD ROAD

SECTION 4 MAINTENANCE OF TRAFFIC STA. 162+00 TO STA. 169+00

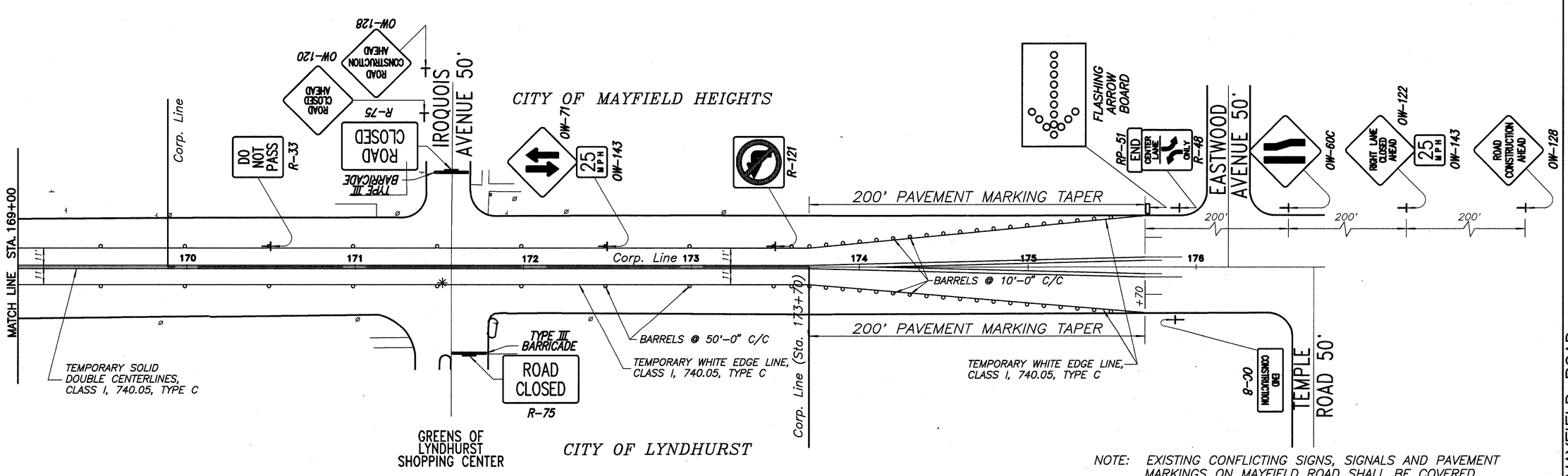
FHWA REGION	STATE	PROJECT	
5	OHIO		

403
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



SECTION 4 -- PHASE 1 CONSTRUCTION



SECTION 4 -- PHASE 2 CONSTRUCTION

NOTE: EXISTING CONFLICTING SIGNS, SIGNALS AND PAVEMENT MARKINGS ON MAYFIELD ROAD SHALL BE COVERED (SIGNS AND SIGNALS) OR REMOVED (PAVEMENT MARKINGS)

* Indicates Signalized Intersection

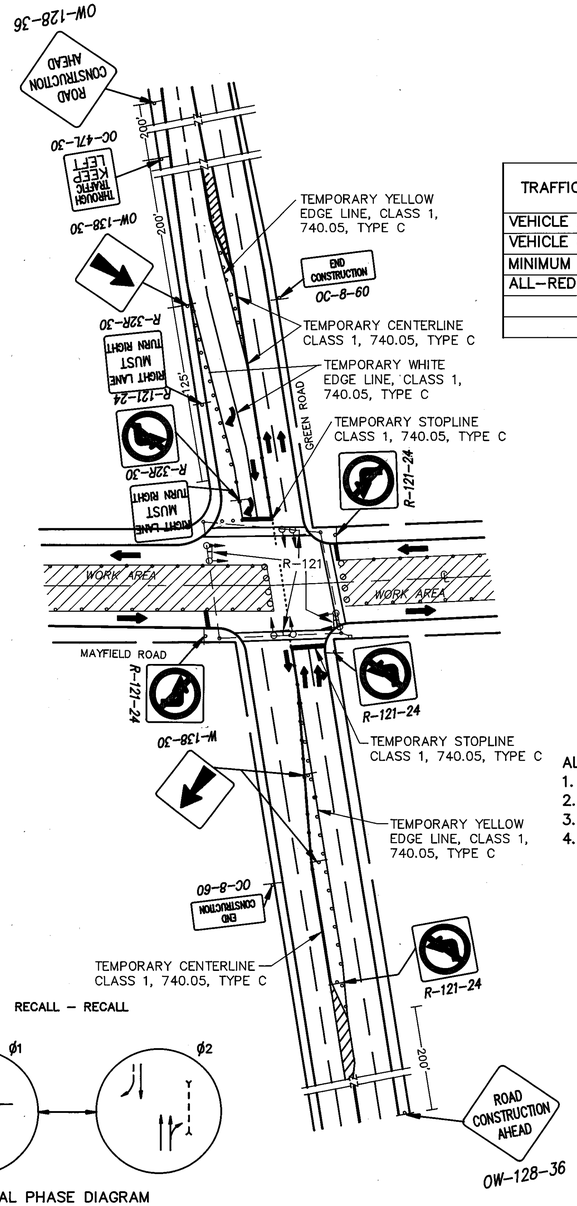
SECTION 4 MAINTENANCE OF TRAFFIC STA. 169+00 TO STA. 176+00

		OHIO	404
		F.H.W.A. REGION 5	426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

GRAPHIC SCALE
50 0 50 100 200
(IN FEET)

PHASE 1 – A



RECALL – RECALL

SIGNAL PHASE DIAGRAM

TRAFFIC SIGNAL INTERVAL	Ø1	Ø2
VEHICLE MAXIMUM	30	20
VEHICLE GREEN	30	20
MINIMUM YELLOW VEHICLE CLEARANCE (sec.)	3	3
ALL–RED VEHICLE CLEARANCE (sec)	2	2

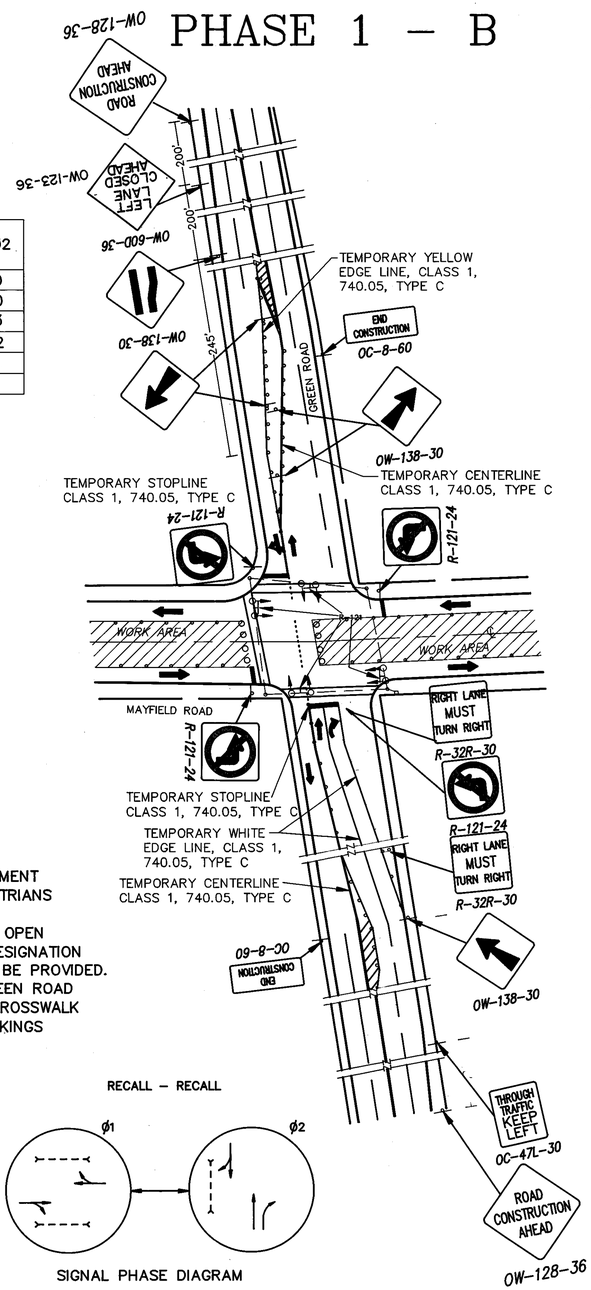
SIGNAL TIMING CHART

SIGNALS	Ø 1 ROW	Ø 1 VEHICLE CLEARANCE	Ø 1 ALL–RED	Ø 2 ROW	Ø 2 VEHICLE CLEARANCE	Ø 2 ALL–RED
	G	Y	R	R	R	R
	G	Y	R	R	R	R
	R	R	R	G	Y	R
	R	R	R	G	Y	R

SIGNAL SEQUENCE DIAGRAM

ALL SIGNAL PHASING AND TIMING BASED UPON:
1. NO LEFT TURNS
2. SINGLE LANE EACH DIRECTION
3. 60 SEC. CYCLE OR LESS FOR QUICKER MOVEMENT
4. CONTRACTOR MADE RESPONSIBLE FOR PEDESTRIANS IN WORK AREAS
   a. PHASE 1A & 1B, ONE CROSSWALK ONLY OPEN ACROSS MAYFIELD ROAD. CROSSWALK DESIGNATION SIGNS AND PAVEMENT MARKINGS SHALL BE PROVIDED.
   b. PHASE 2, PEDESTRIAN CROSSING OF GREEN ROAD SHALL BE PROVIDED BY CONTRACTOR. CROSSWALK DESIGNATION SIGNS AND PAVEMENT MARKINGS SHALL BE PROVIDED.

PHASE 1 – B



RECALL – RECALL

SIGNAL PHASE DIAGRAM

MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

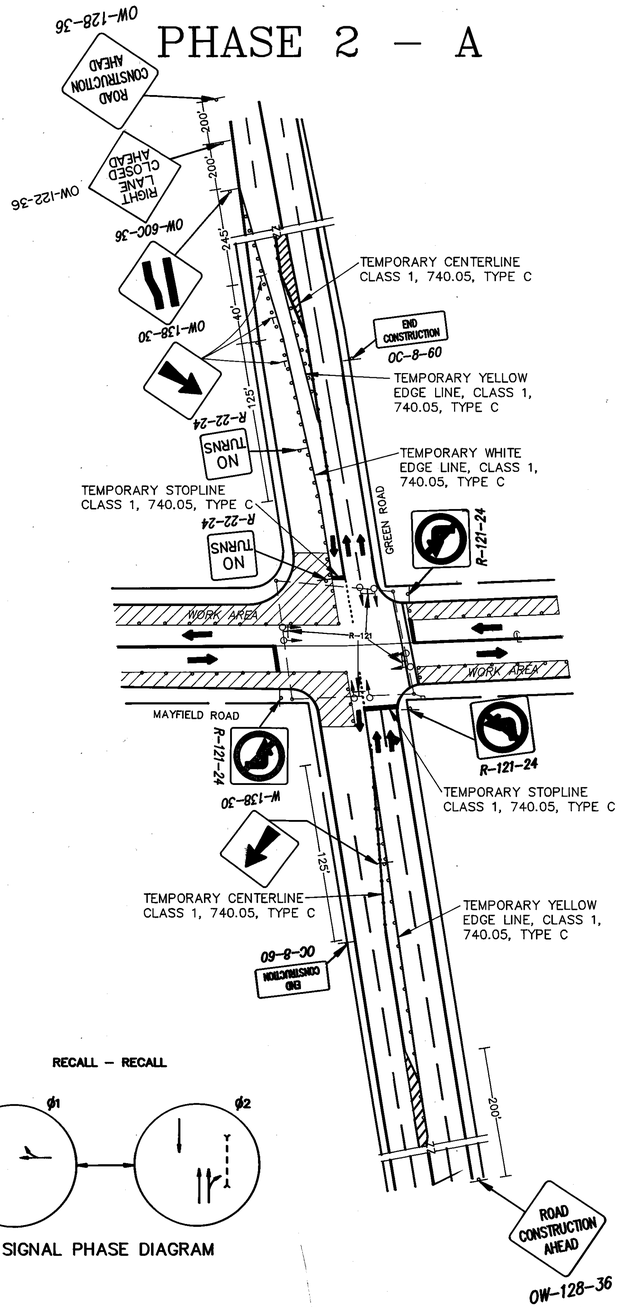
MAINTENANCE OF TRAFFIC

OHIO
F.H.W.A. REGION 5

405
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

PHASE 2 – A



RECALL – RECALL

SIGNAL PHASE DIAGRAM

TRAFFIC SIGNAL INTERVAL	Ø1	Ø2
VEHICLE MAXIMUM	30	20
VEHICLE GREEN	30	20
MINIMUM YELLOW VEHICLE CLEARANCE (sec.)	3	3
ALL–RED VEHICLE CLEARANCE (sec)	2	2

SIGNAL TIMING CHART

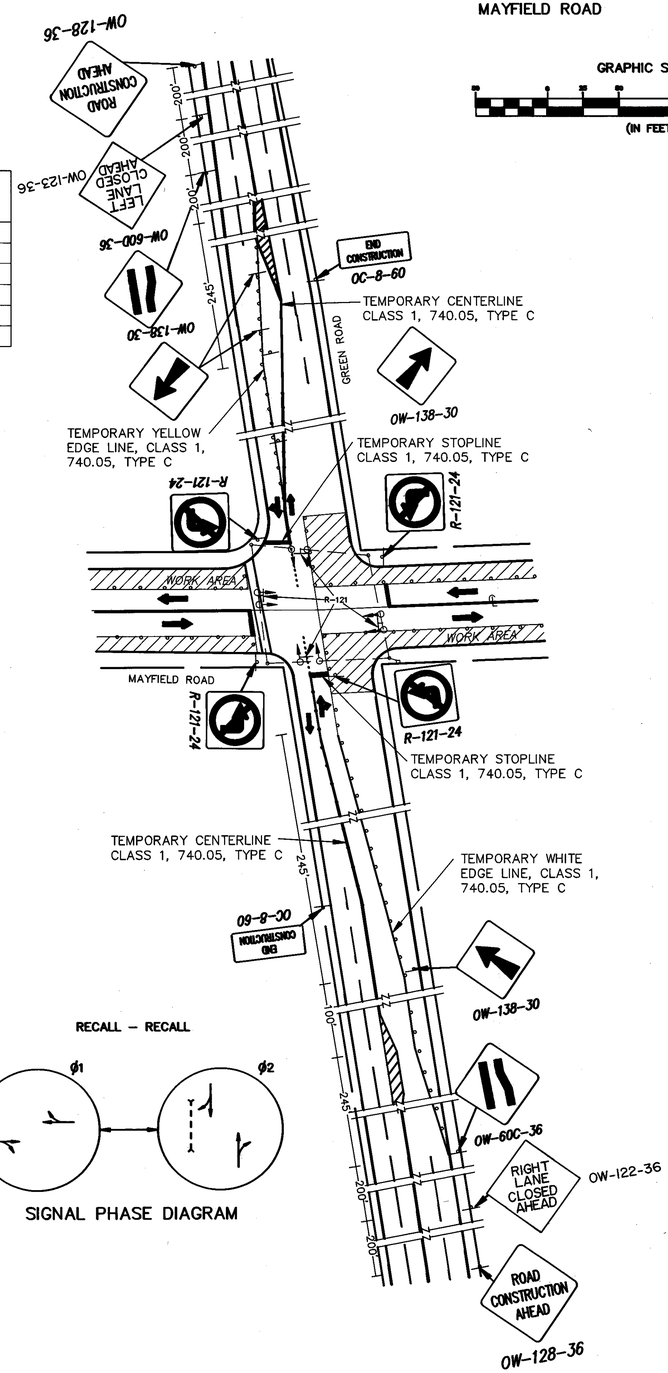
SIGNALS	Ø 1			Ø 2		
	ROW	VEHICLE CLEARANCE	ALL–RED	ROW	VEHICLE CLEARANCE	ALL–RED
	G	Y	R	R	R	R
	G	Y	R	R	R	R
	R	R	R	G	Y	R
	R	R	R	G	Y	R

SIGNAL SEQUENCE DIAGRAM

ALL SIGNAL PHASING AND TIMING BASED UPON:
1. NO LEFT TURNS
2. SINGLE LANE EACH DIRECTION
3. 60 SEC. CYCLE OR LESS FOR QUICKER MOVEMENT
4. CONTRACTOR MADE RESPONSIBLE FOR PEDESTRIANS IN WORK AREAS
   a. PHASE 1A & 1B, ONE CROSSWALK ONLY OPEN ACROSS MAYFIELD ROAD. CROSSWALK DESIGNATION SIGNS AND PAVEMENT MARKINGS SHALL BE PROVIDED.
   b. PHASE 2, PEDESTRIAN CROSSING OF GREEN ROAD SHALL BE PROVIDED BY CONTRACTOR. CROSSWALK DESIGNATION SIGNS AND PAVEMENT MARKINGS SHALL BE PROVIDED.

PHASE 2 – B

GRAPHIC SCALE
(IN FEET)



RECALL – RECALL

SIGNAL PHASE DIAGRAM

STEPHEN HOVANCSEK & ASSOC., INC.

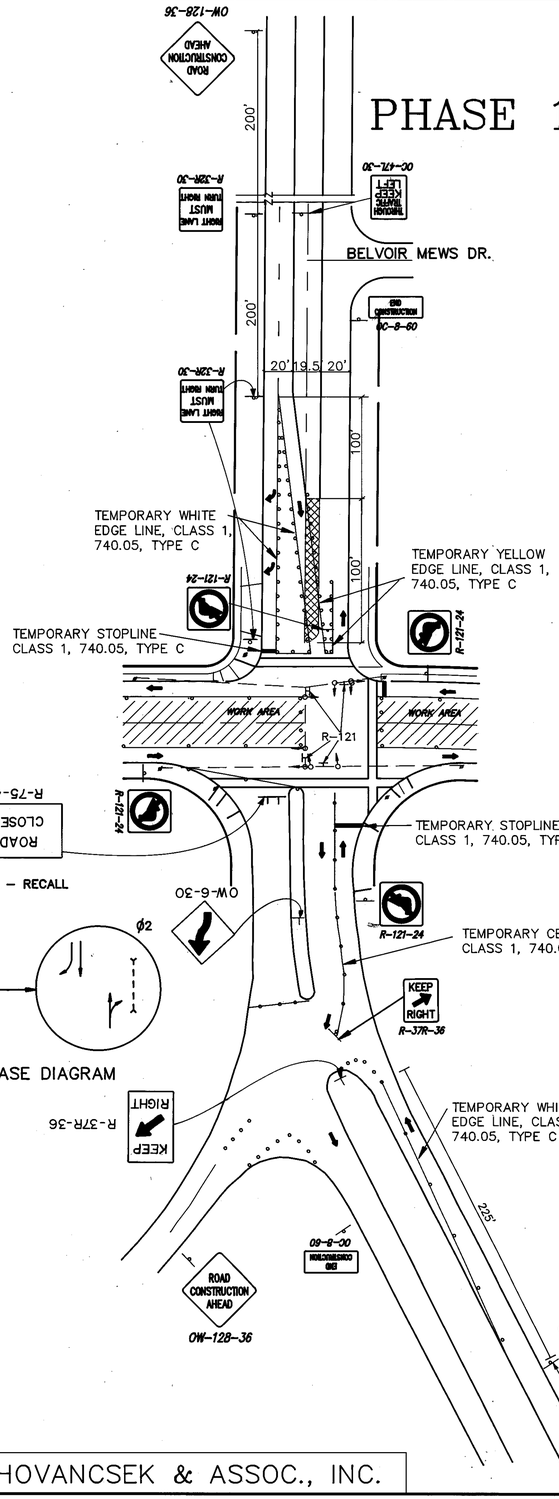
MAYFIELD ROAD

MAINTENANCE OF TRAFFIC

OHIO
F.H.W.A. REGION 5
406
426

CUYAHOGA COUNTY
U.S. ROUTE No. 322
MAYFIELD ROAD

PHASE 1 – A



ALL SIGNAL PHASING AND TIMING BASED UPON:
1. NO LEFT TURNS
2. SINGLE LANE EACH DIRECTION
3. 60 SEC. CYCLE OR LESS FOR QUICKER MOVEMENT
4. CONTRACTOR MADE RESPONSIBLE FOR PEDESTRIANS IN WORK AREAS
   a. PHASE 1A & 1B, ONE CROSSWALK ONLY OPEN ACROSS MAYFIELD ROAD
   b. PHASE 2, PEDESTRIAN CROSSING OF BELVOIR MUST BE PROVIDED BY CONTRACTOR

TRAFFIC SIGNAL INTERVAL	ø1	ø2
VEHICLE MAXIMUM	30	20
VEHICLE GREEN	30	20
MINIMUM YELLOW VEHICLE CLEARANCE (sec.)	3	3
ALL–RED VEHICLE CLEARANCE (sec)	2	2

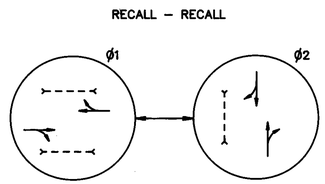
SIGNAL TIMING CHART

SIGNALS	ø 1 ROW	ø 1 VEHICLE CLEARANCE	ø 1 ALL–RED	ø 2 ROW	ø 2 VEHICLE CLEARANCE	ø 2 ALL–RED
↑	G	Y	R	R	R	R
↑	G	Y	R	R	R	R
↑	R	R	R	G	Y	R
↑	R	R	R	G	Y	R

SIGNAL SEQUENCE DIAGRAM

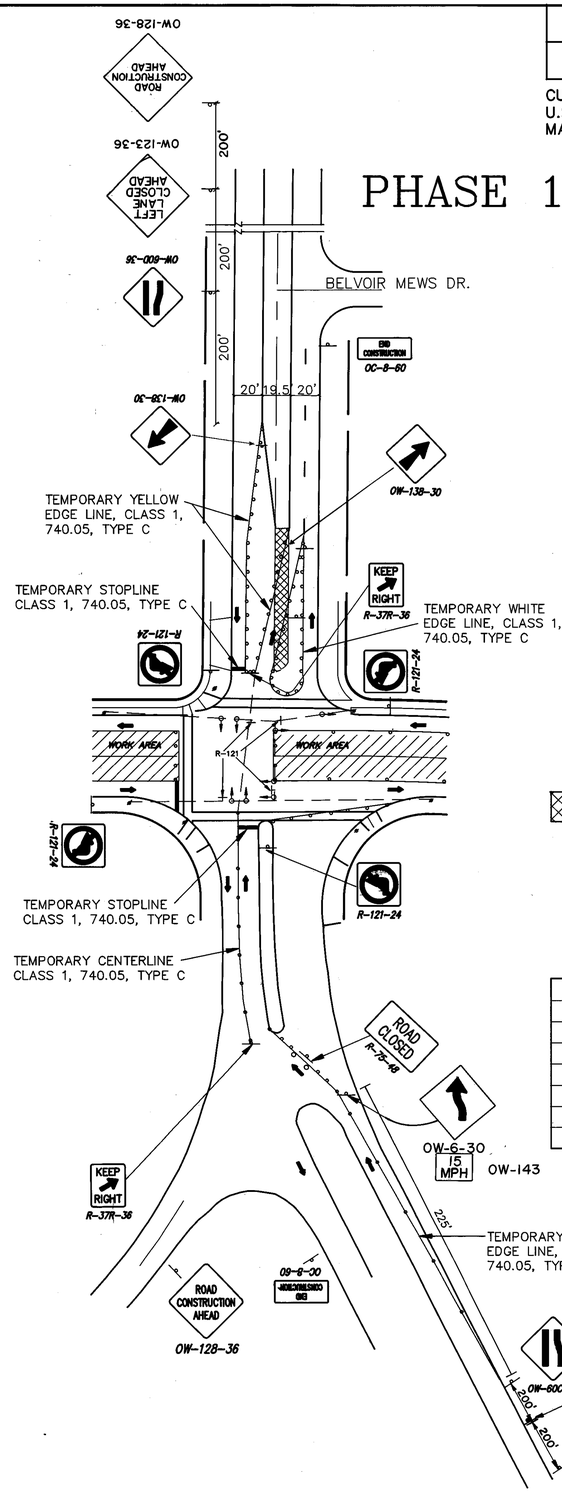
RECALL – RECALL

SIGNAL PHASE DIAGRAM



SIGNAL PHASE DIAGRAM

PHASE 1 – B



EXISTING CURBED ISLAND TO BE REMOVED & REPLACED

TEMPORARY PAVEMENT QUANTITIES

ITEM	DESCRIPTION	QUANTITY
202	CURB REMOVED	200 L.F.
609	CURB, TYPE 6	200 L.F.
615	TEMPORARY PAVEMENT, CLASS A	111 S.Y.

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)

STEPHEN HOVANCSEK & ASSOC., INC.

MAINTENANCE OF TRAFFIC

MAYFIELD ROAD

OHIO
F.H.W.A. REGION 5
407
426

CUYAHOGA COUNTY
U.S. ROUTE No. 322
MAYFIELD ROAD

PHASE 2 – A

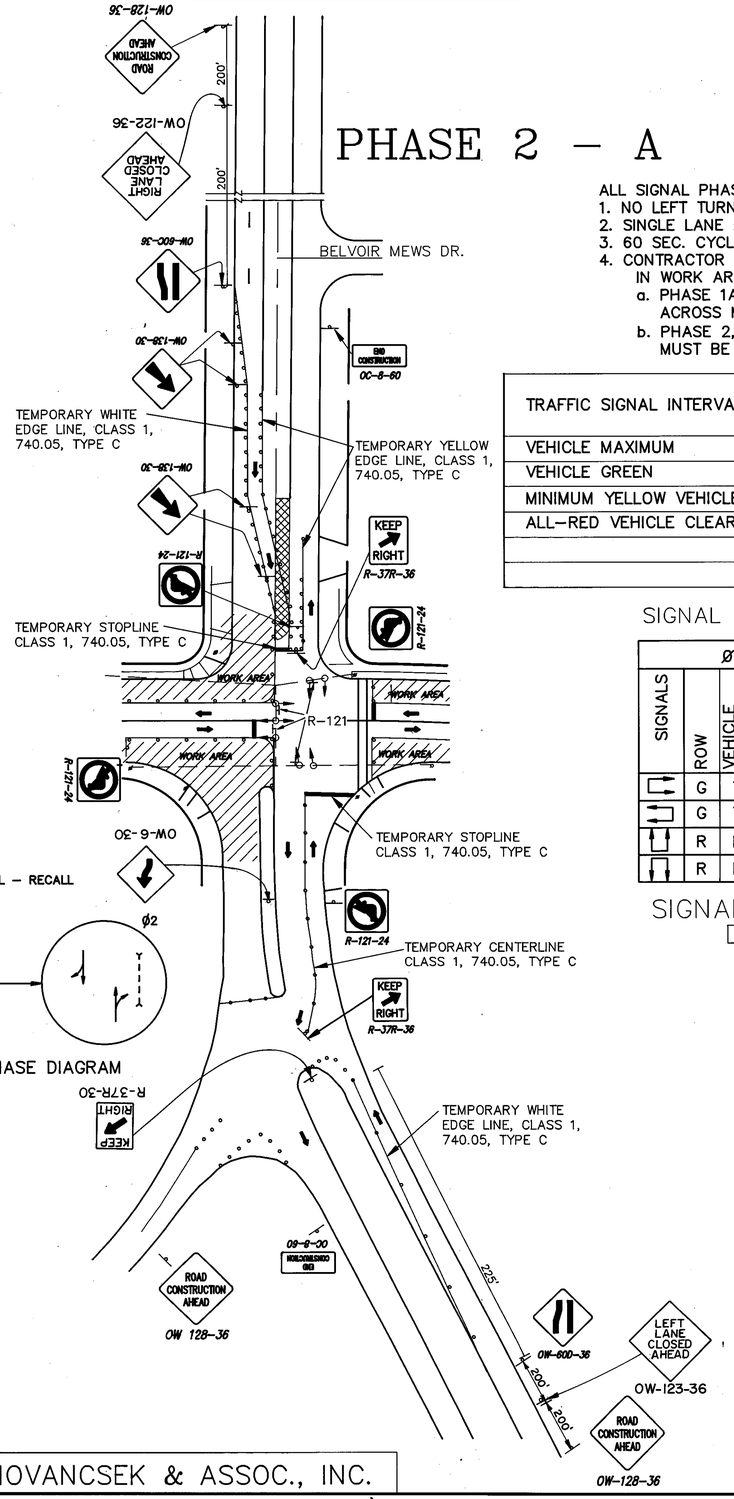
ALL SIGNAL PHASING AND TIMING BASED UPON:
1. NO LEFT TURNS
2. SINGLE LANE EACH DIRECTION
3. 60 SEC. CYCLE OR LESS FOR QUICKER MOVEMENT
4. CONTRACTOR MADE RESPONSIBLE FOR PEDESTRIANS IN WORK AREAS
   a. PHASE 1A & 1B, ONE CROSSWALK ONLY OPEN ACROSS MAYFIELD ROAD
   b. PHASE 2, PEDESTRIAN CROSSING OF BELVOIR MUST BE PROVIDED BY CONTRACTOR

TRAFFIC SIGNAL INTERVAL	Ø1	Ø2
VEHICLE MAXIMUM	30	20
VEHICLE GREEN	30	20
MINIMUM YELLOW VEHICLE CLEARANCE (sec.)	3	3
ALL–RED VEHICLE CLEARANCE (sec)	2	2

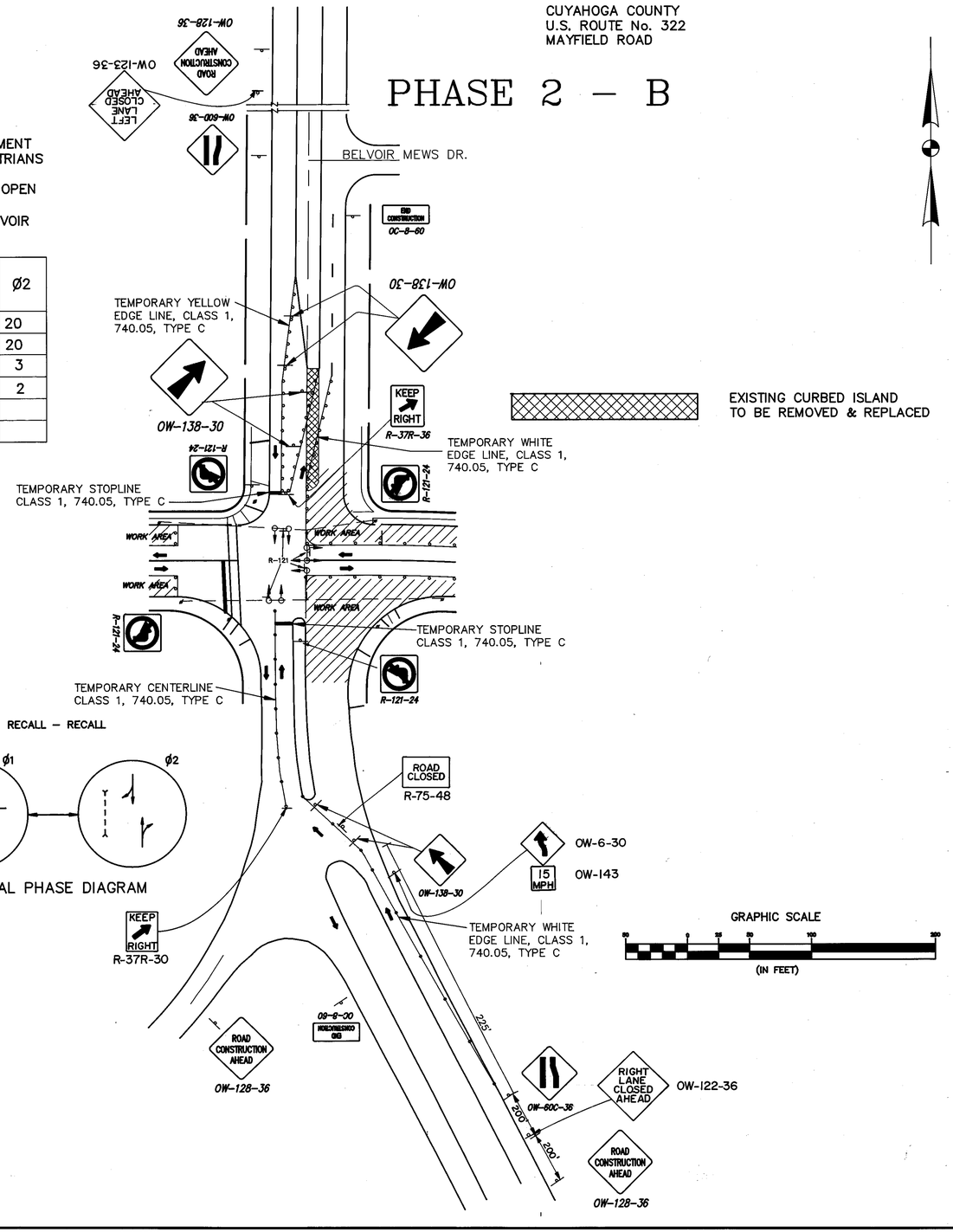
SIGNAL TIMING CHART

SIGNALS	Ø 1			Ø 2		
	ROW	VEHICLE CLEARANCE	ALL–RED	ROW	VEHICLE CLEARANCE	ALL–RED
	G	Y	R	R	R	R
	G	Y	R	R	R	R
	R	R	R	G	Y	R
	R	R	R	G	Y	R

SIGNAL SEQUENCE DIAGRAM



PHASE 2 – B



EXISTING CURBED ISLAND TO BE REMOVED & REPLACED

GRAPHIC SCALE
(IN FEET)

STEPHEN HOVANCSEK & ASSOC., INC.

MAYFIELD ROAD

MAINTENANCE OF TRAFFIC

FHWA REGION	STATE	PROJECT	
5	OHIO		

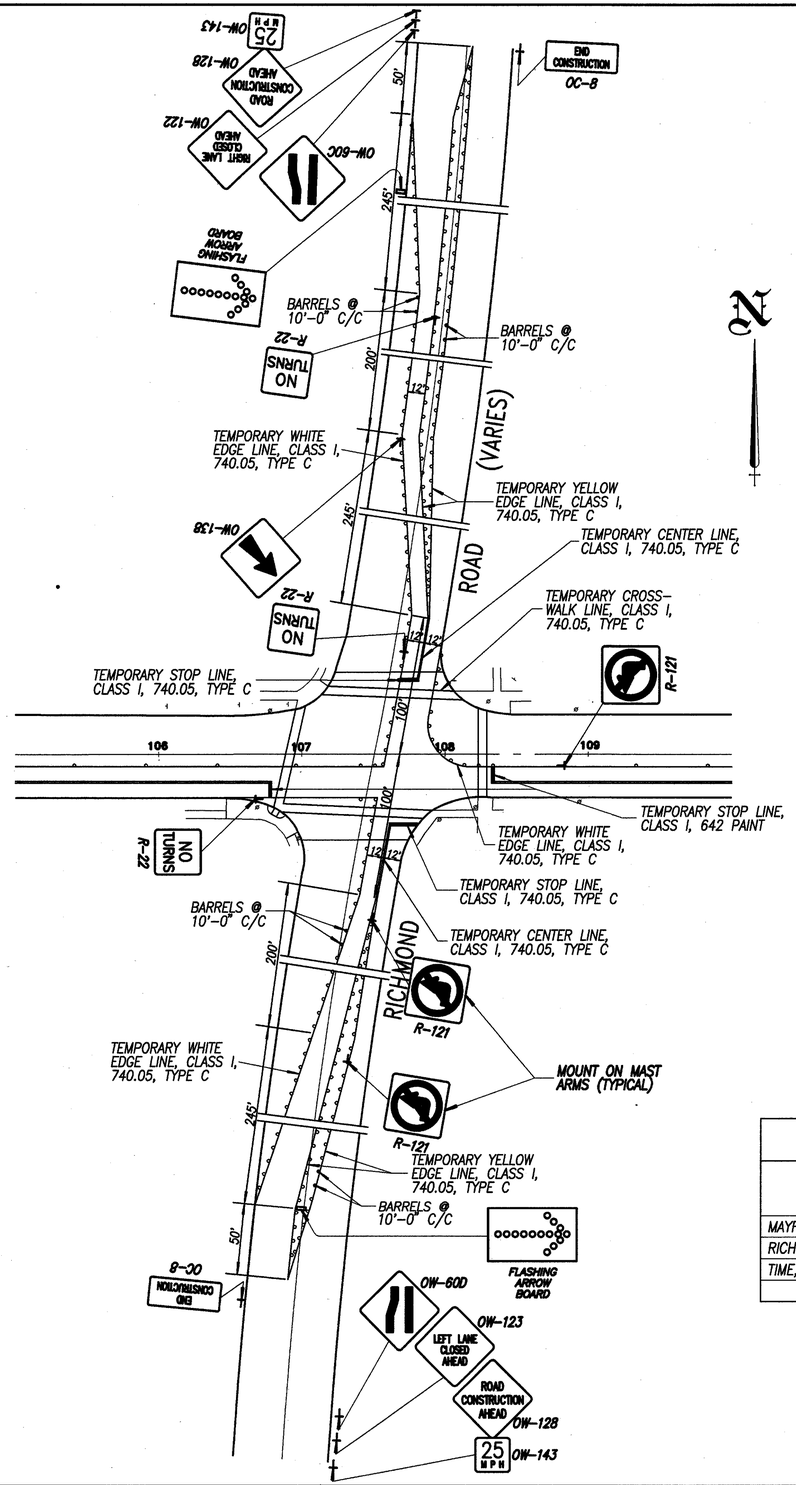
408
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

GRAPHIC SCALE

50 0 25 50 100 200

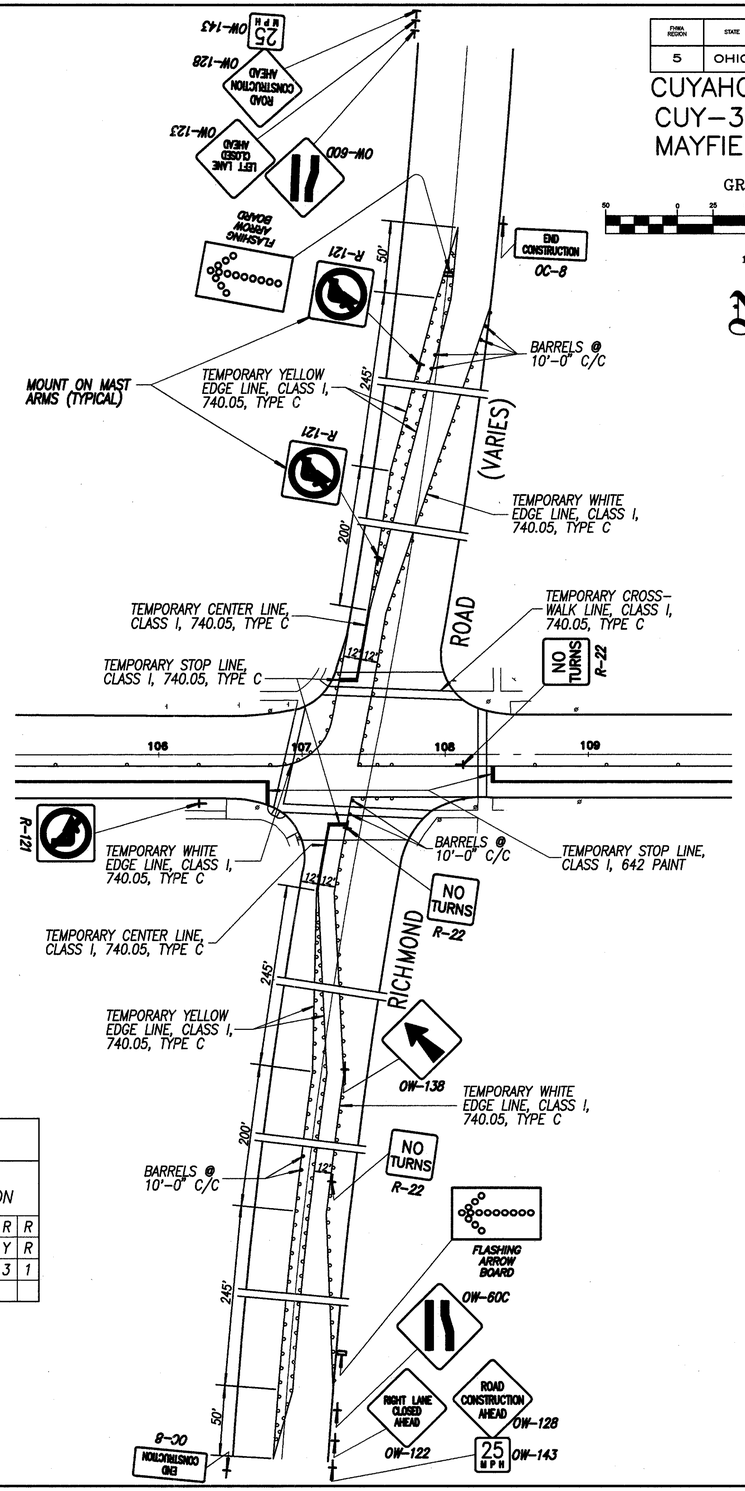
(IN FEET)
1 inch = 50 ft.



PHASE 1–A

SIGNAL TIMING CHART

DESCRIPTION	SIGNAL INDICATION					
MAYFIELD ROAD, STRAIGHT BOTH APPROACHES	G	Y	R	R	R	R
RICHMOND ROAD, STRAIGHT BOTH APPROACHES	R	R	R	G	Y	R
TIME, IN SECONDS	50	3	1	32	3	1



PHASE 1–B

MAYFIELD ROAD

SECTION 3 PHASE 1 MAINTENANCE OF TRAFFIC – RICHMOND ROAD

FHWA REGION	STATE	PROJECT	
5	OHIO		

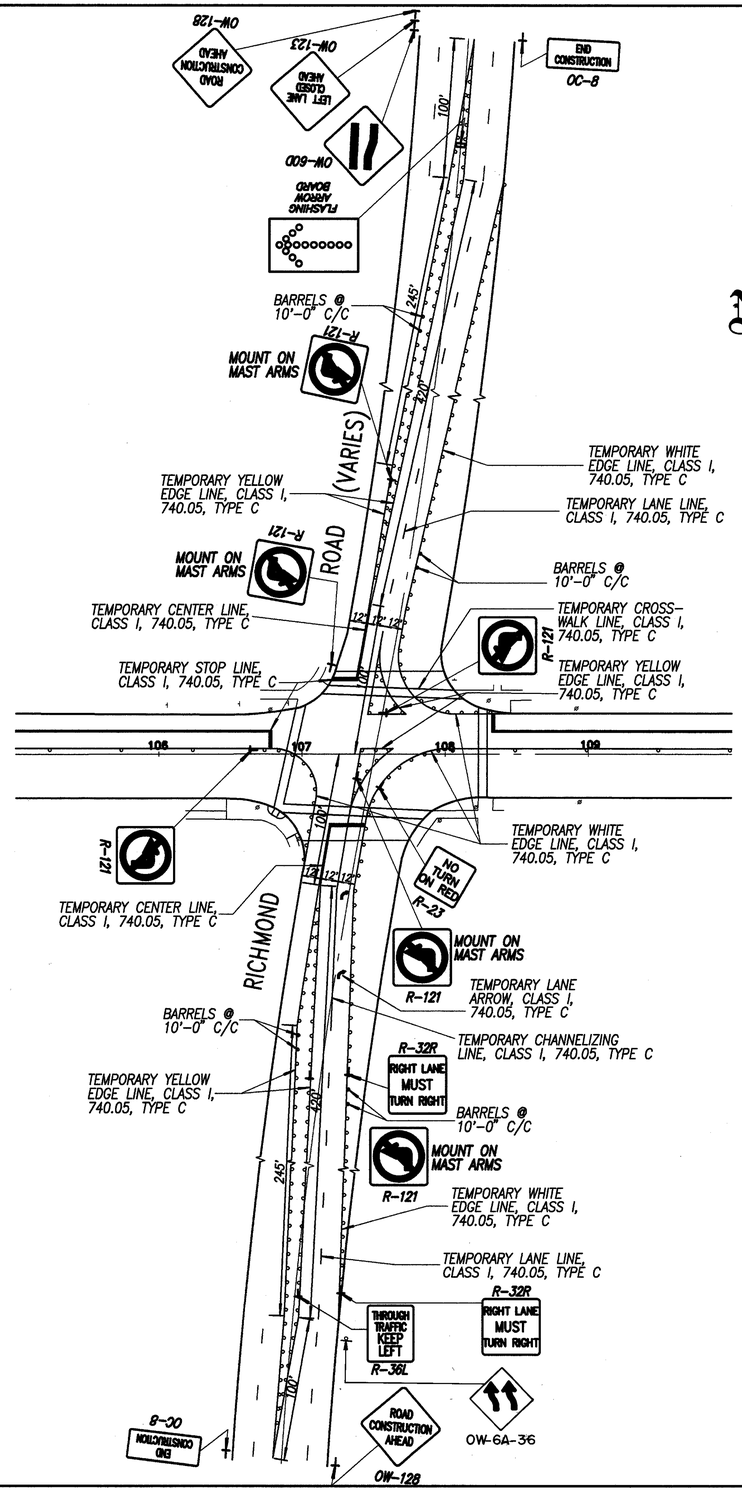
409
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

GRAPHIC SCALE

50 0 25 50 100 200

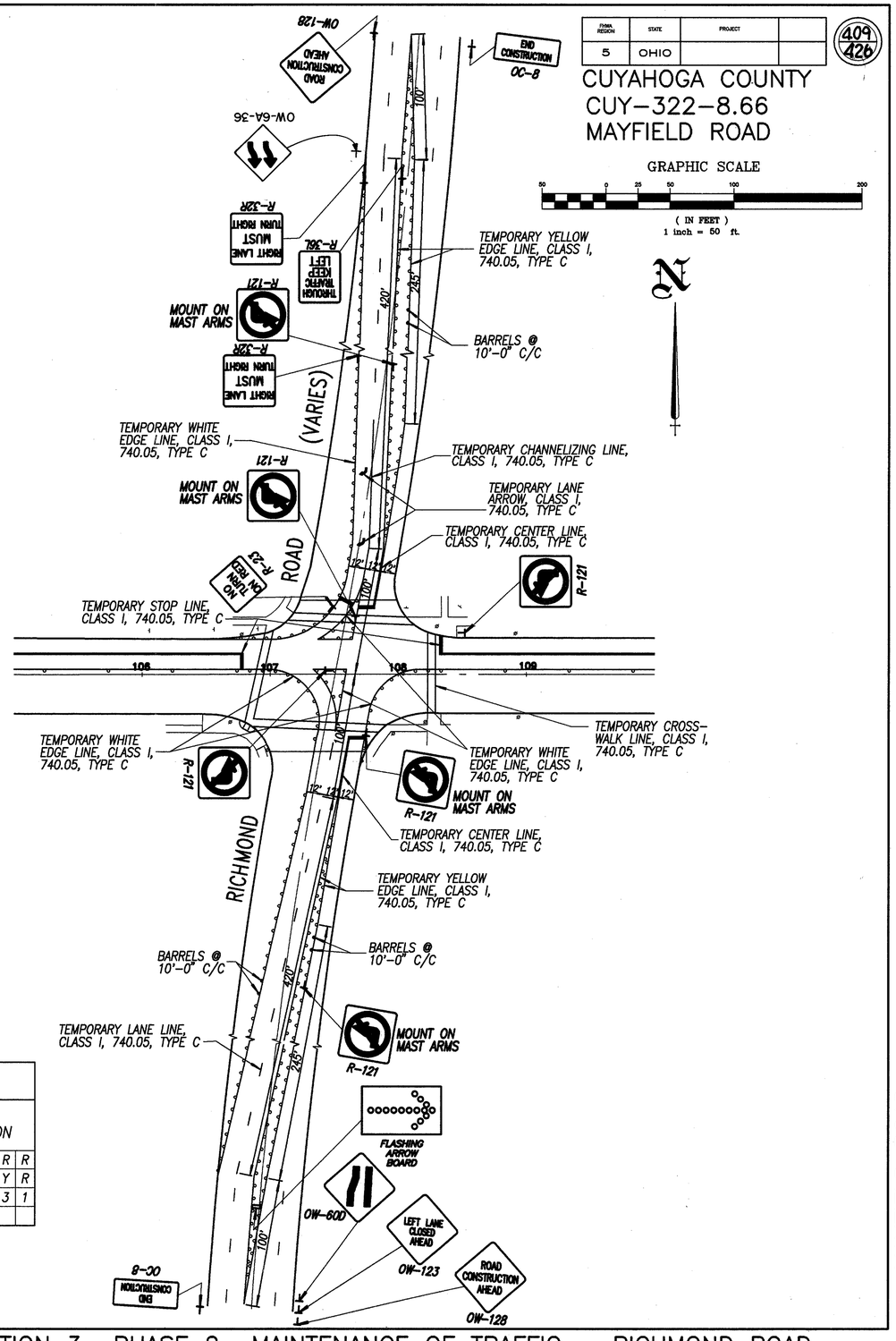
(IN FEET)
1 inch = 50 ft.



PHASE 2-A

SIGNAL TIMING CHART

DESCRIPTION	SIGNAL INDICATION					
MAYFIELD ROAD, STRAIGHT BOTH APPROACHES	G	Y	R	R	R	R
RICHMOND ROAD, STRAIGHT BOTH APPROACHES	R	R	R	G	Y	R
TIME, IN SECONDS	50	3	1	32	3	1



PHASE 2-B

MAYFIELD ROAD

SECTION 3 PHASE 2 MAINTENANCE OF TRAFFIC – RICHMOND ROAD

FHWA REGION	STATE	PROJECT	
5	OHIO		

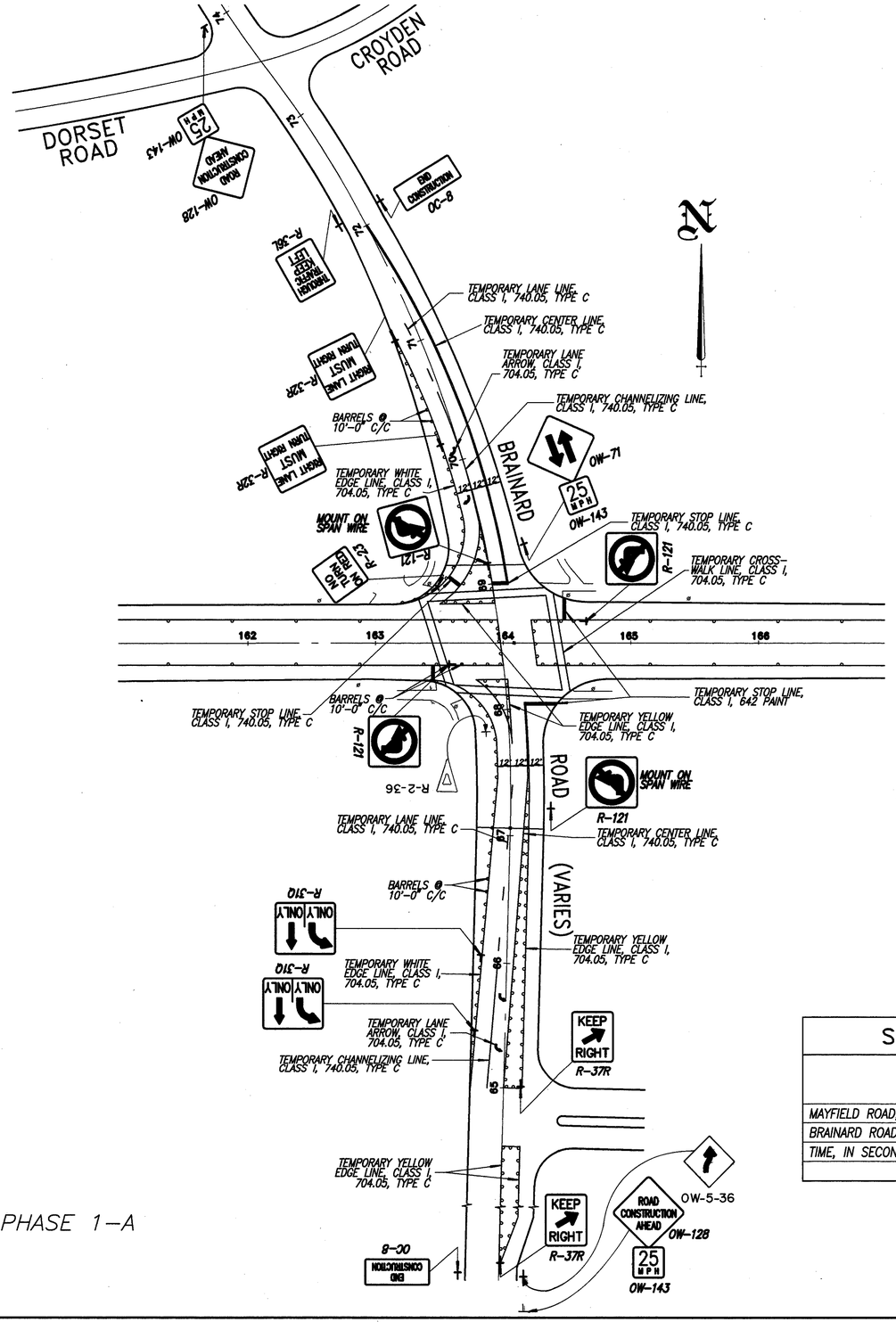
410
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

GRAPHIC SCALE

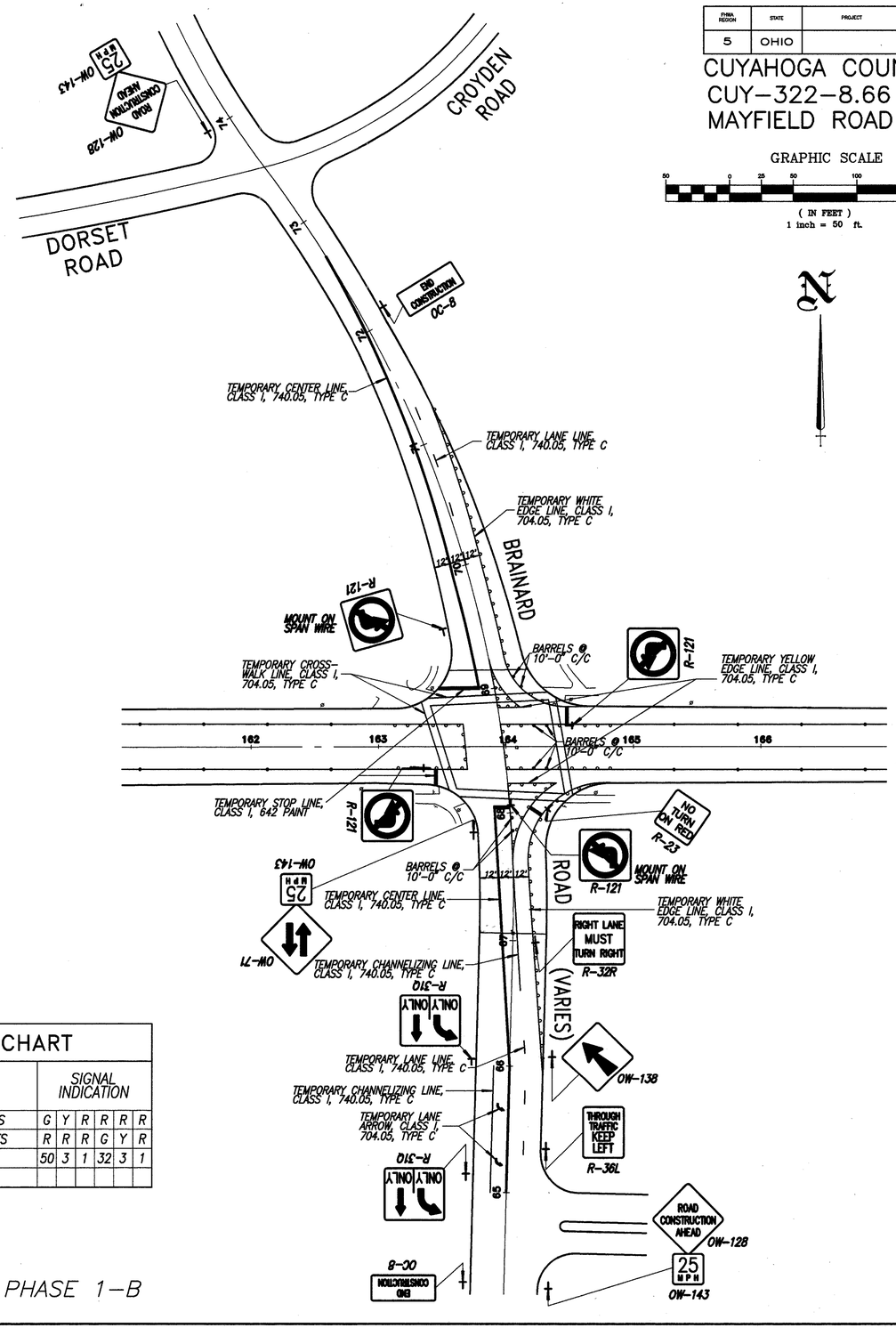
50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



PHASE 1–A

SIGNAL TIMING CHART						
DESCRIPTION	SIGNAL INDICATION					
MAYFIELD ROAD, STRAIGHT BOTH APPROACHES	G	Y	R	R	R	R
BRAINARD ROAD, STRAIGHT BOTH APPROACHES	R	R	R	G	Y	R
TIME, IN SECONDS	50	3	1	32	3	1



PHASE 1–B

MAYFIELD ROAD

SECTION 4 PHASE 1 MAINTENANCE OF TRAFFIC – BRAINARD ROAD

FHWA REGION	STATE	PROJECT	
5	OHIO		

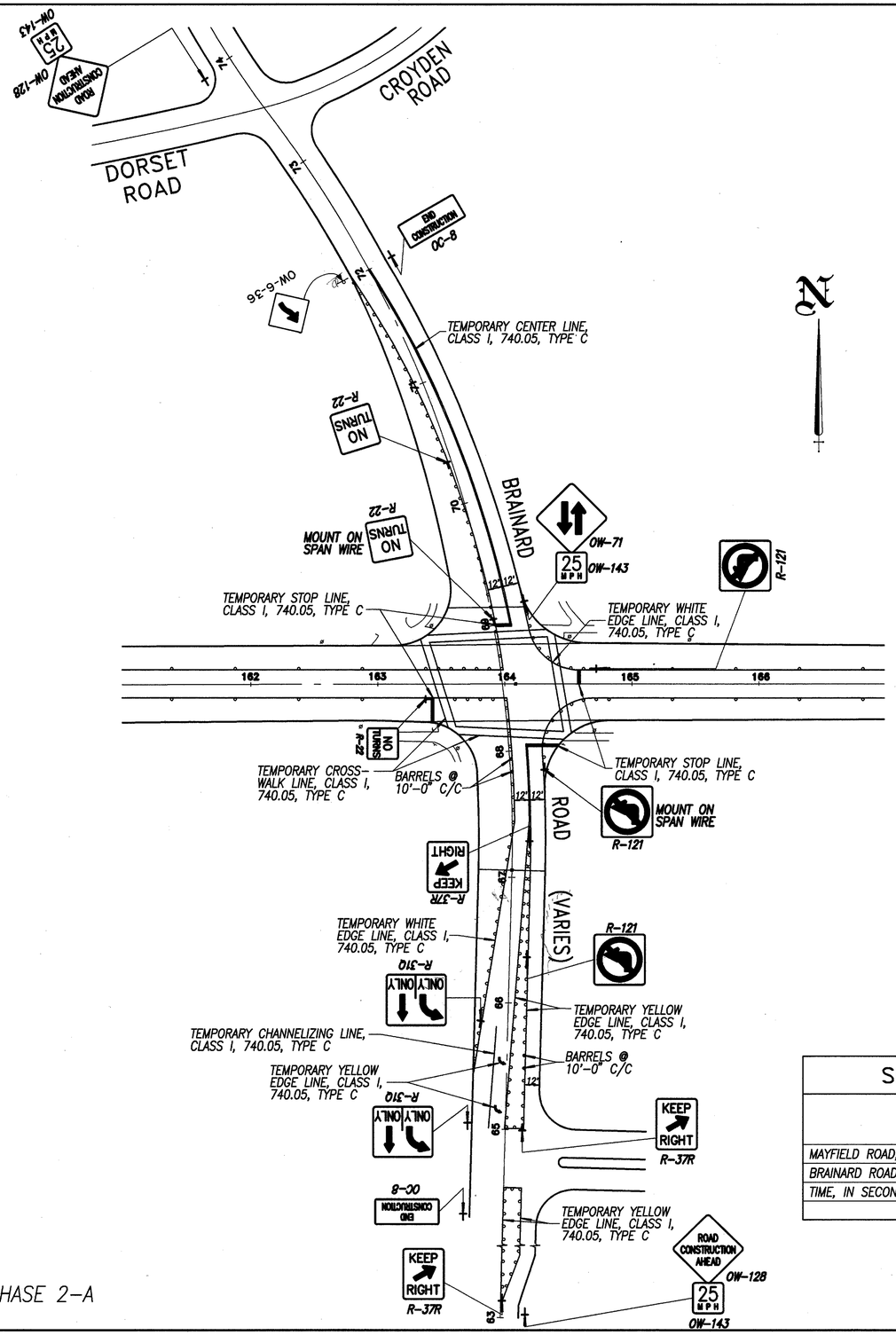
411
426

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD

GRAPHIC SCALE

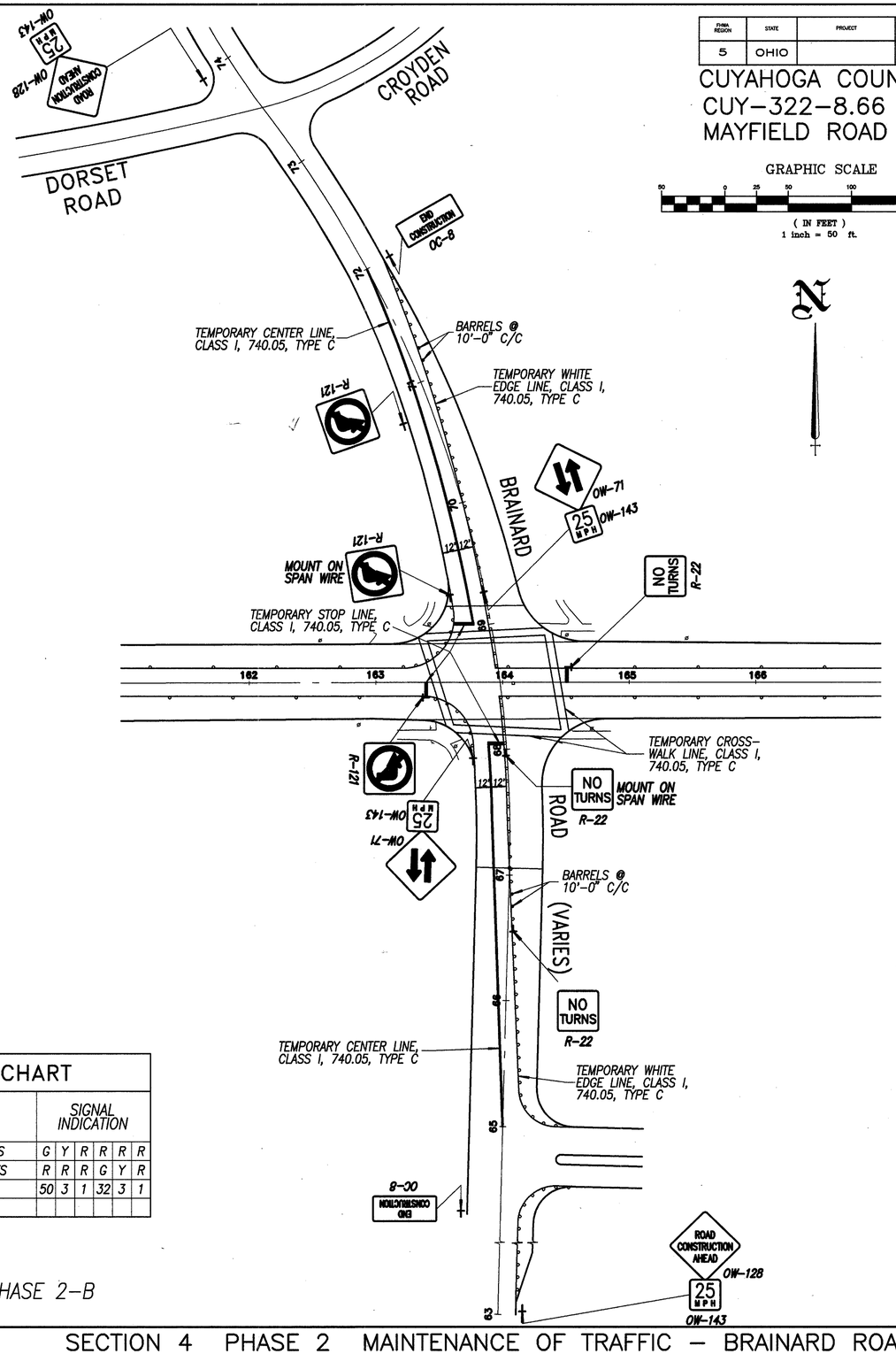
50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



PHASE 2–A

SIGNAL TIMING CHART						
DESCRIPTION	SIGNAL INDICATION					
MAYFIELD ROAD, STRAIGHT BOTH APPROACHES	G	Y	R	R	R	R
BRAINARD ROAD, STRAIGHT BOTH APPROACHES	R	R	R	G	Y	R
TIME, IN SECONDS	50	3	1	32	3	1



PHASE 2–B

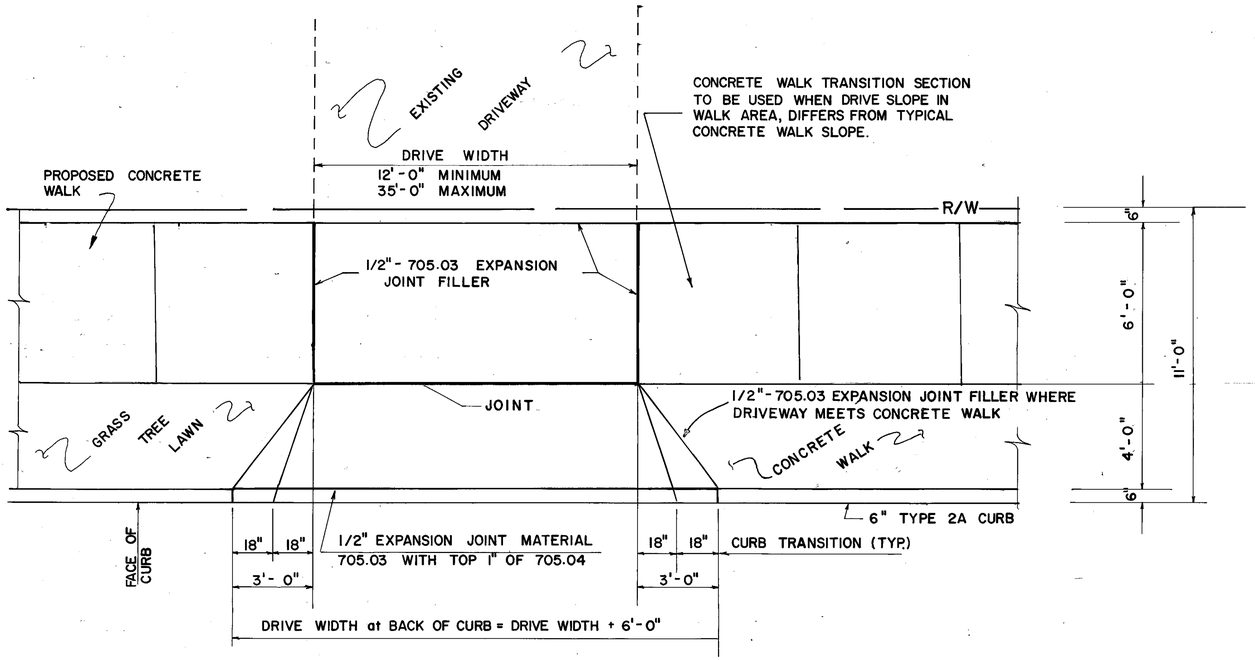
MAYFIELD ROAD

SECTION 4 PHASE 2 MAINTENANCE OF TRAFFIC – BRAINARD ROAD

CALC. BY ___ DATE ___	NH-83(29)	OHIO
CHK'D. BY ___ DATE ___		FHWA REGION 5

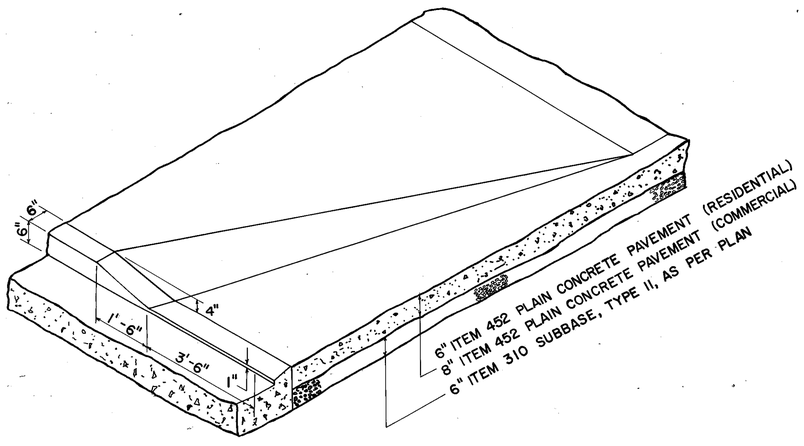
412
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



STANDARD DRIVE DETAIL

(CITY OF SOUTH EUCLID)



ISOMETRICAL TYPICAL DRIVEWAY SECTION

N.T.S.

MAYFIELD ROAD

MISCELLANEOUS DETAIL

BRUNING 44-132-67199

CALC. BY / DATE	NH-83 (29)	OHIO
CHKD. BY / DATE		FHWA REGION

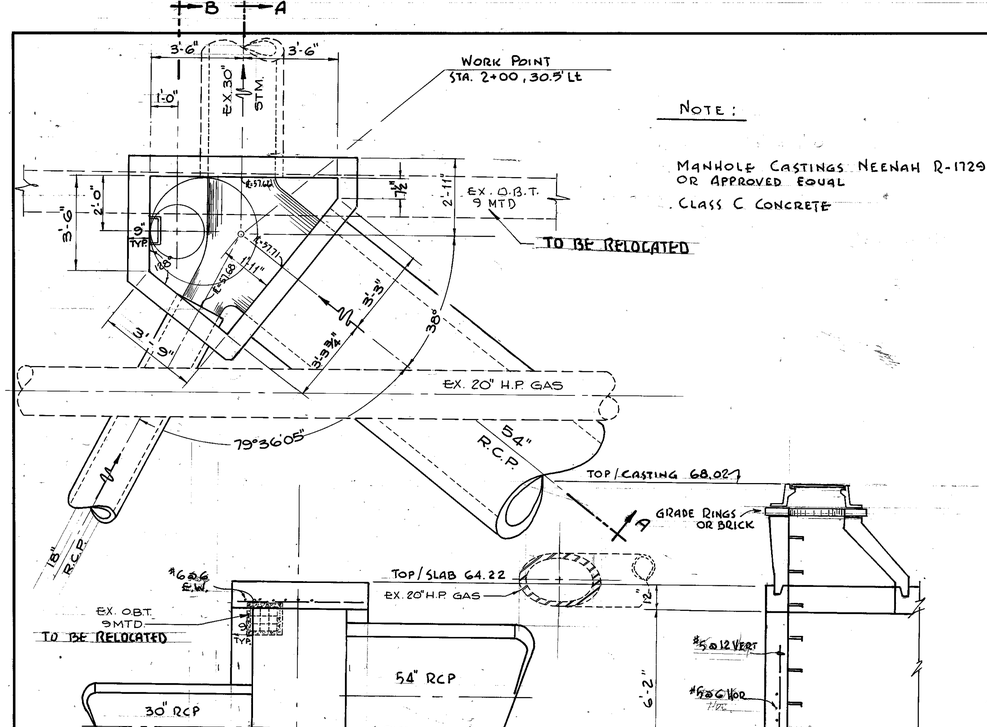
413 / 426

CUYAHOGA COUNTY
CUY.-322-8.66
MAYFIELD ROAD

SCALE IN FEET

NOTE:

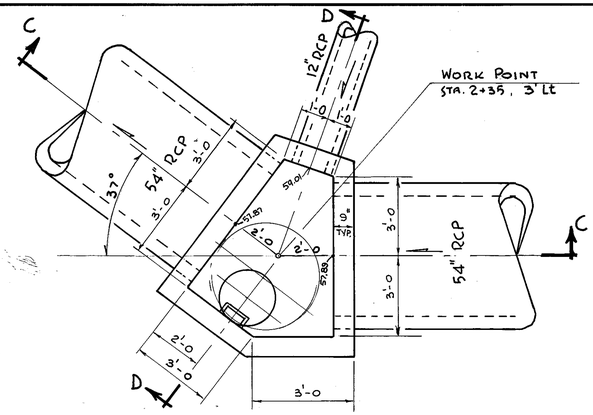
MANHOLE CASTINGS NEENAH R-1729 OR APPROVED EQUAL
CLASS C CONCRETE

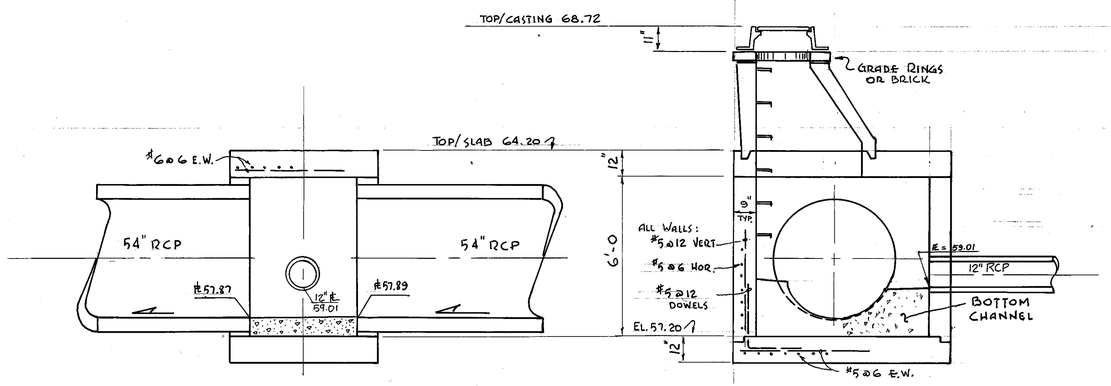


SECTION A-A

SECTION B-A

JUNCTION M.H. 4D/69

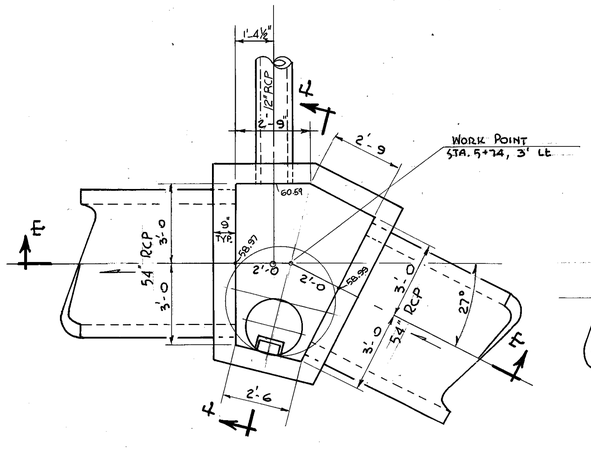


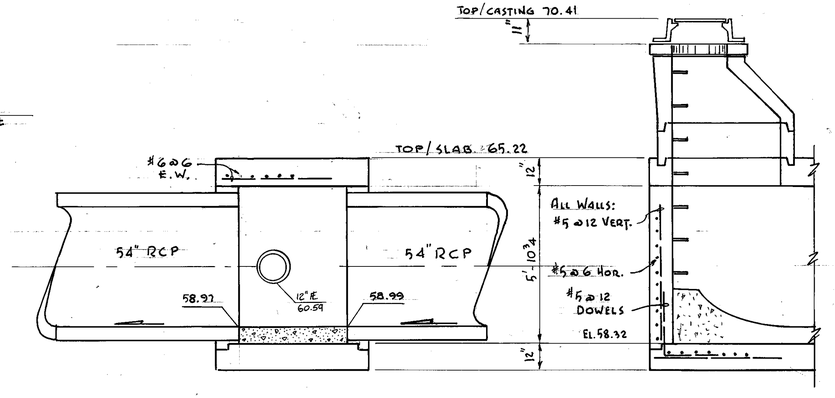


SECTION C-C

SECTION D-D

JUNCTION M.H. 5D/69

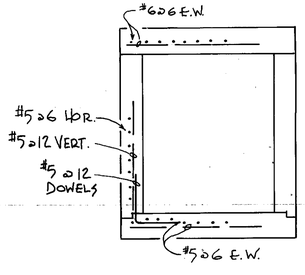




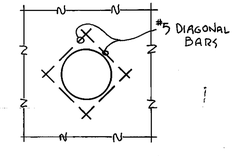
SECTION E-E

SECTION F-F

JUNCTION M.H. 3D/70



TYPICAL REINFORCING
ALL JUNCTION MANHOLES

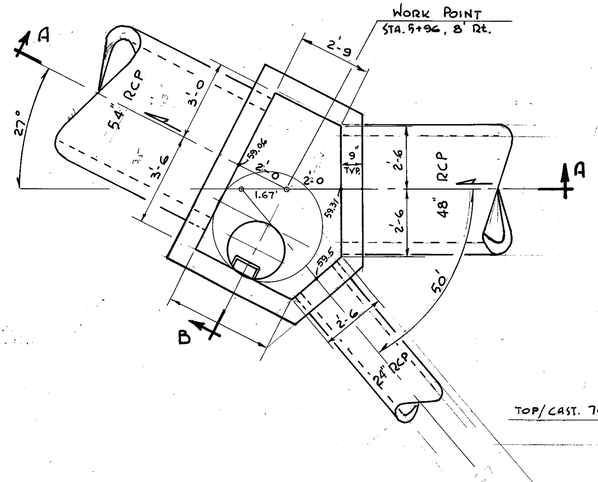


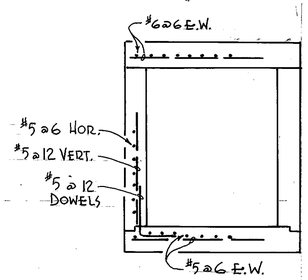
TYPICAL REINFORCING
ALL OPENINGS

MAYFIELD ROAD

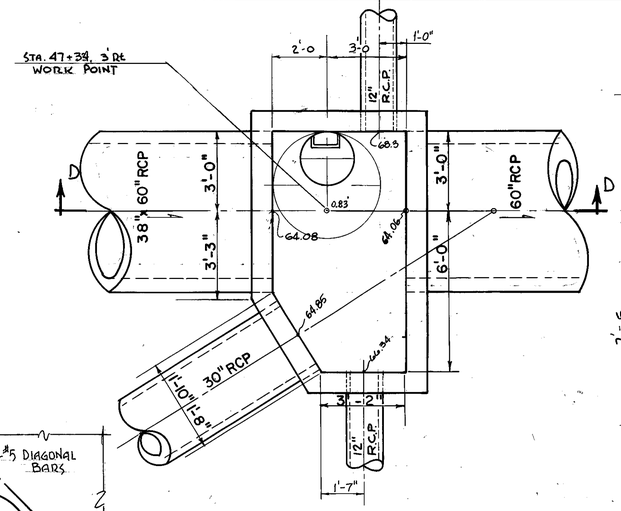
BRUNING 44-132 67199

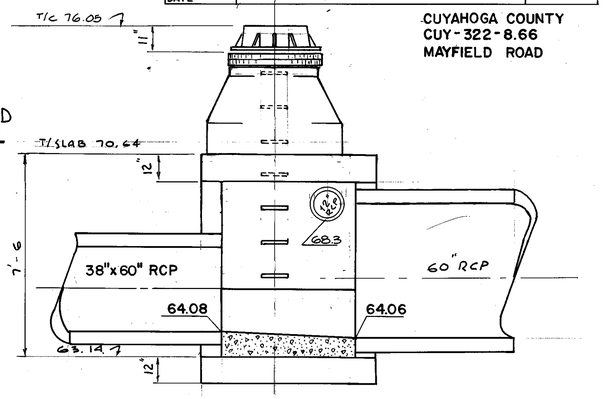
MISCELLANEOUS DETAIL





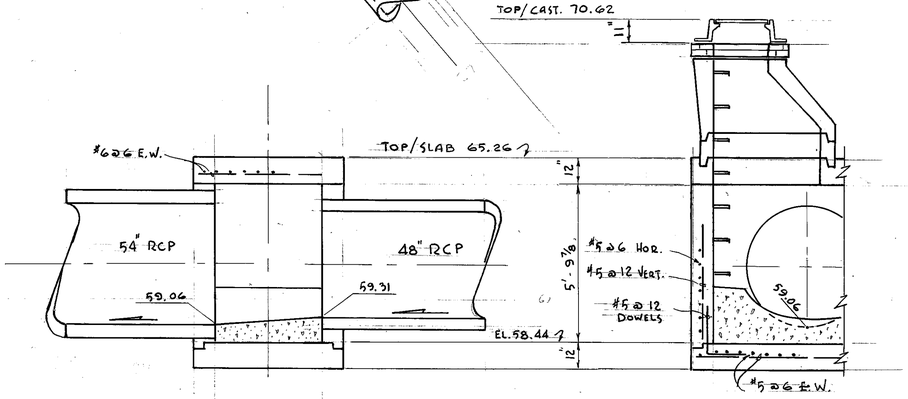
TYPICAL REINFORCING
ALL JUNCTION MANHOLES





SECTION D-D

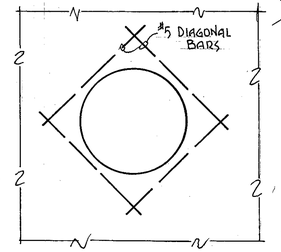
JUNCTION M.H. 9D/78



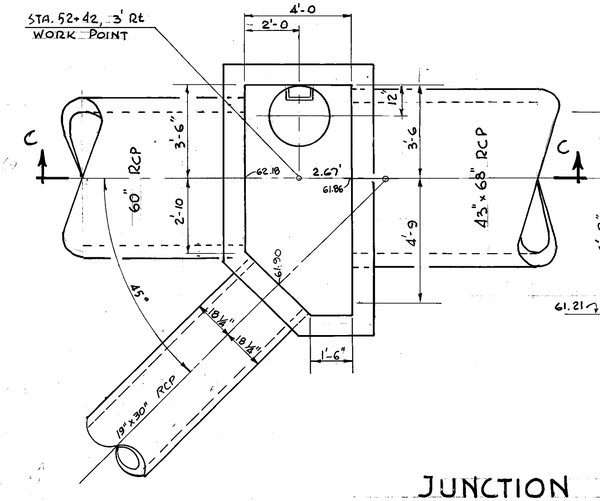
SECTION A-A

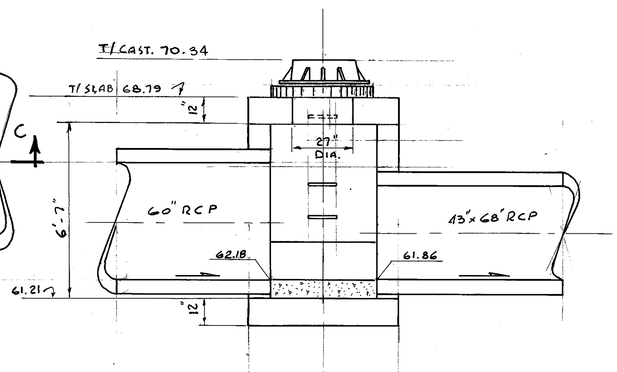
SECTION B-B

JUNCTION M.H 4D/70



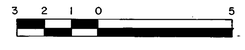
TYPICAL REINFORCING
ALL OPENINGS





SECTION C-C

JUNCTION M.H. 4D/79



SCALE IN FEET

MAYFIELD ROAD

MISCELLANEOUS DETAIL

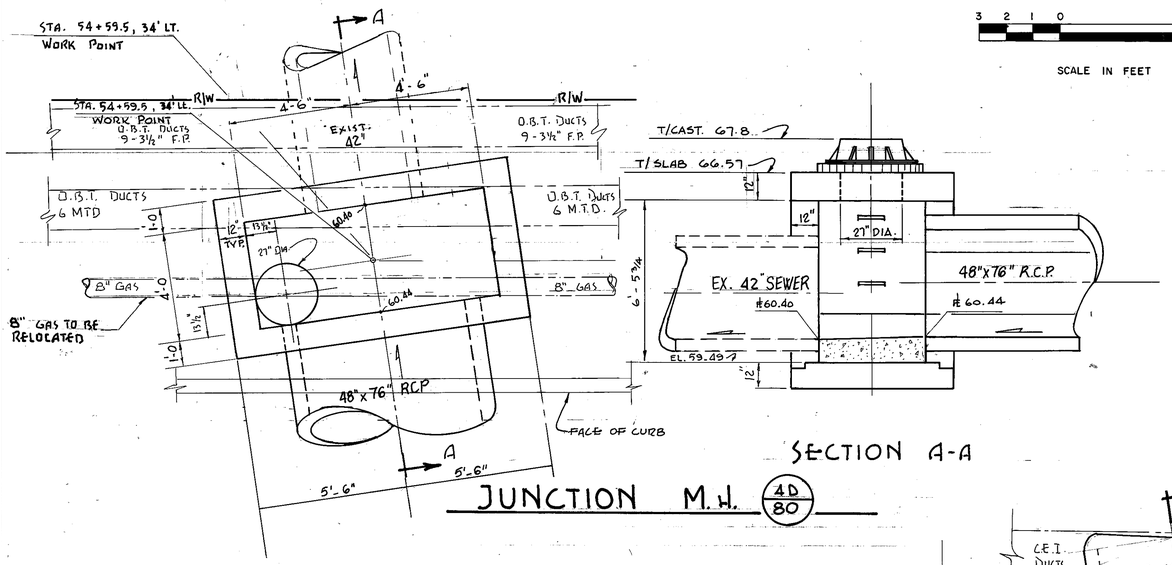
CALC. BY ____ DATE ____
CHKD. BY ____ DATE ____

NH-83 (29) | OHIO | FHWA REGION | 415 / 426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

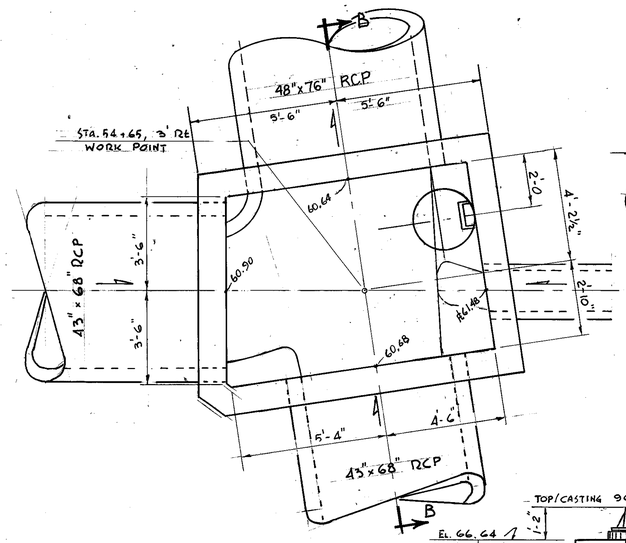
3 2 1 0 5
SCALE IN FEET

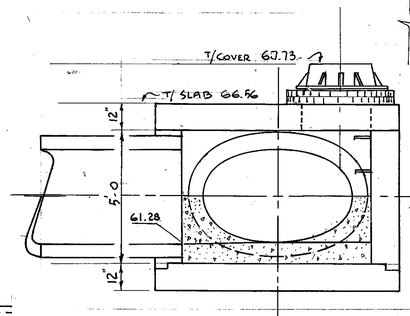
STA. 54+59.5, 34' LT.
WORK POINT

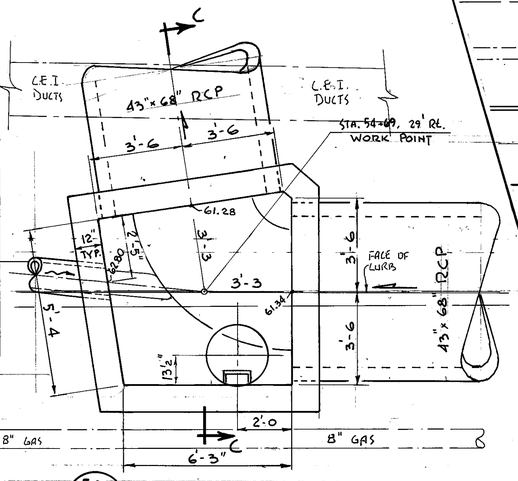


SECTION A-A

JUNCTION M.H. 4D / 80

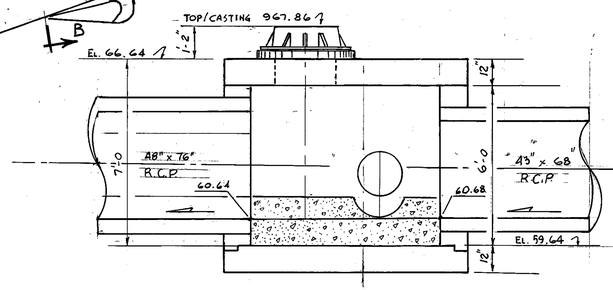






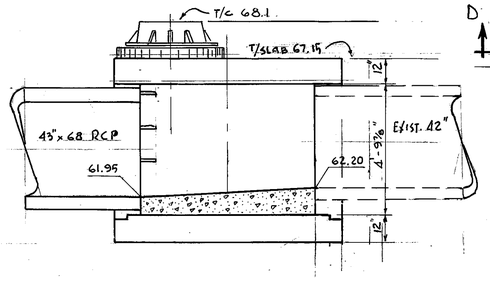
SECTION C-C

JUNCTION M.H. 5D / 80



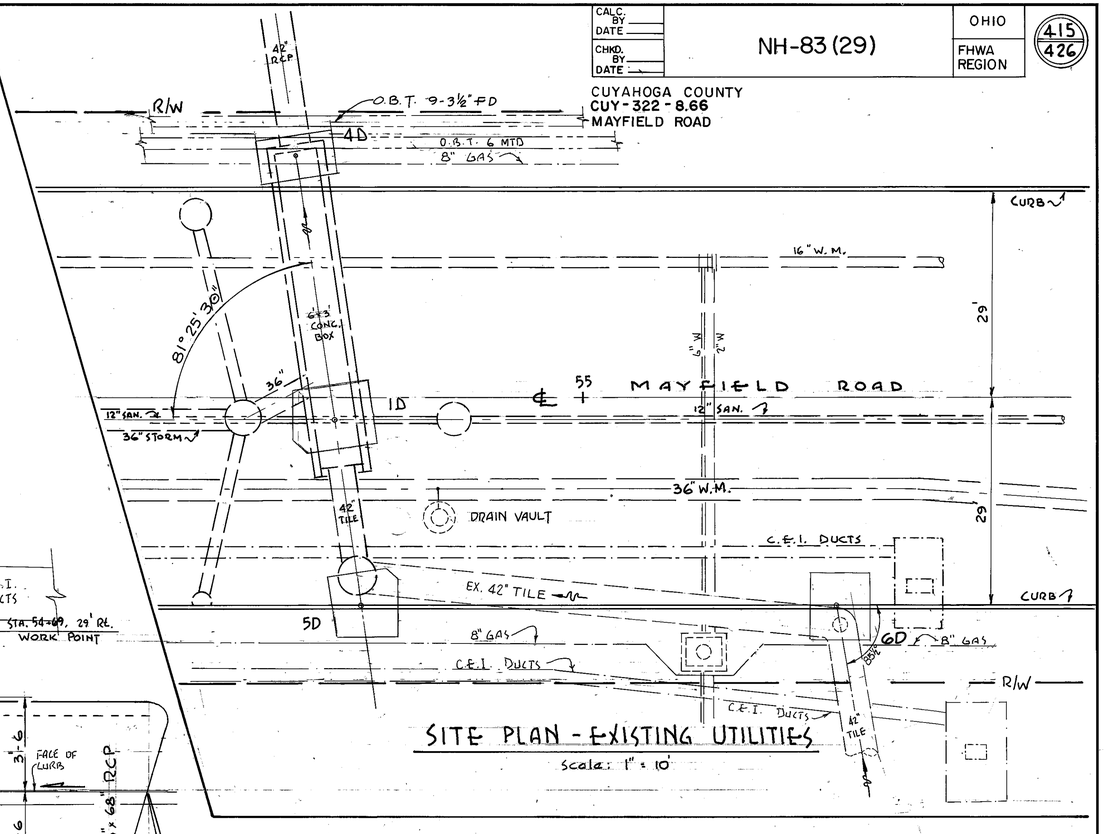
SECTION B-B

JUNCTION M.H. 1D / 80



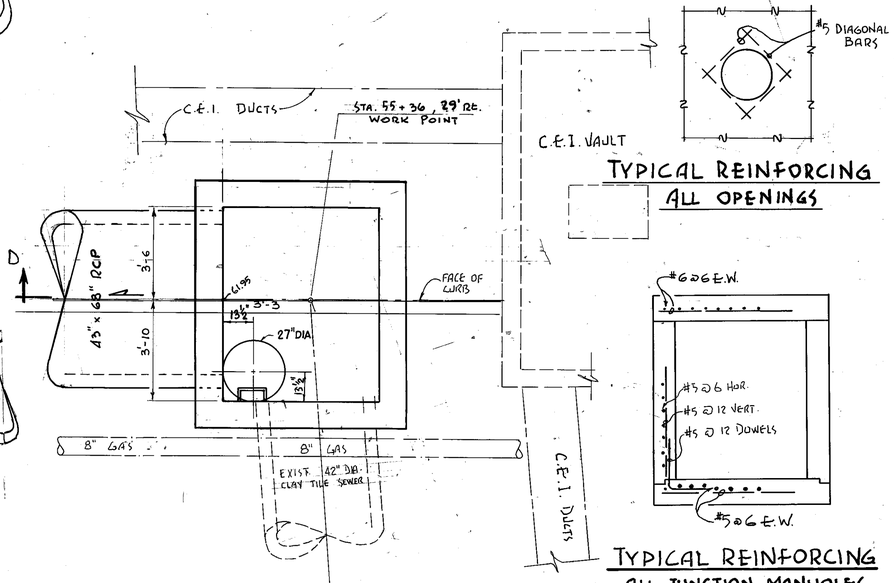
SECTION D-D

JUNCTION M.H. 6D / 80



SITE PLAN - EXISTING UTILITIES

Scale: 1" = 10'



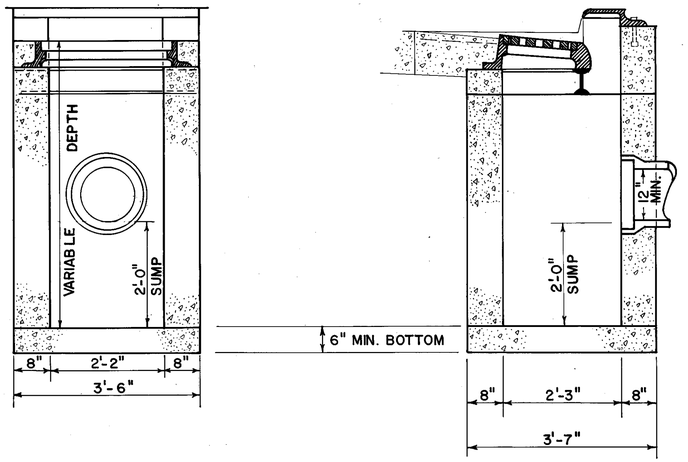
TYPICAL REINFORCING ALL OPENINGS

TYPICAL REINFORCING ALL JUNCTION MANHOLES

MAYFIELD ROAD

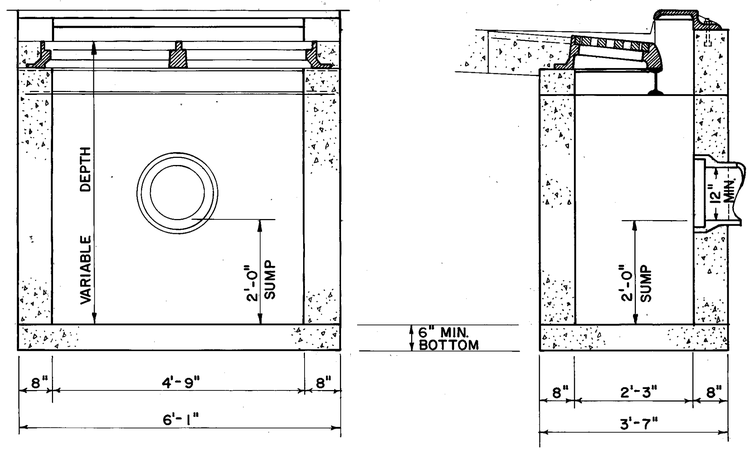
BRUNING 44-132 67199

MISCELLANEOUS DETAIL



NO. 3A CATCH BASIN W/SUMP
TO BE USE IN CONJUNCTION WITH THE STANDARD CONSTRUCTION DRAWING CB-3A.

NO. 3A CATCH BASIN WITH SUMP



No.3 CATCH BASIN W/SUMP
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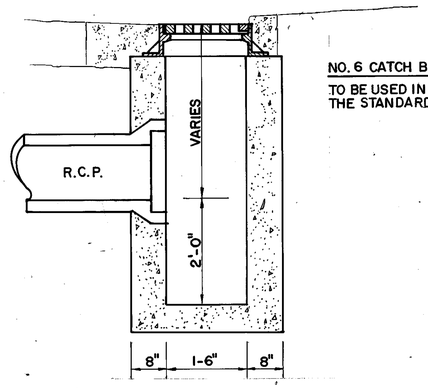
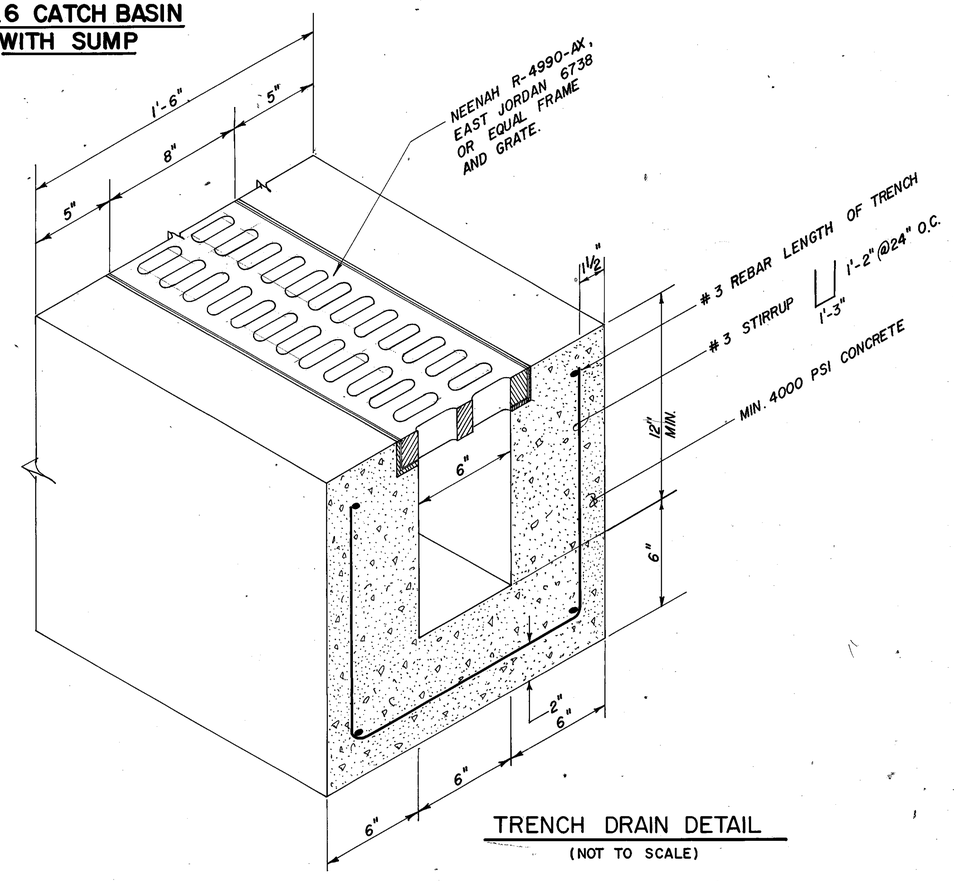
No.3 CATCH BASIN WITH SUMP



NO.6 CATCH BASIN W/SUMP
TO BE USED IN CONJUNCTION WITH THE STANDARD CONSTRUCTION DRAWING CB-6

NO.6 CATCH BASIN WITH SUMP



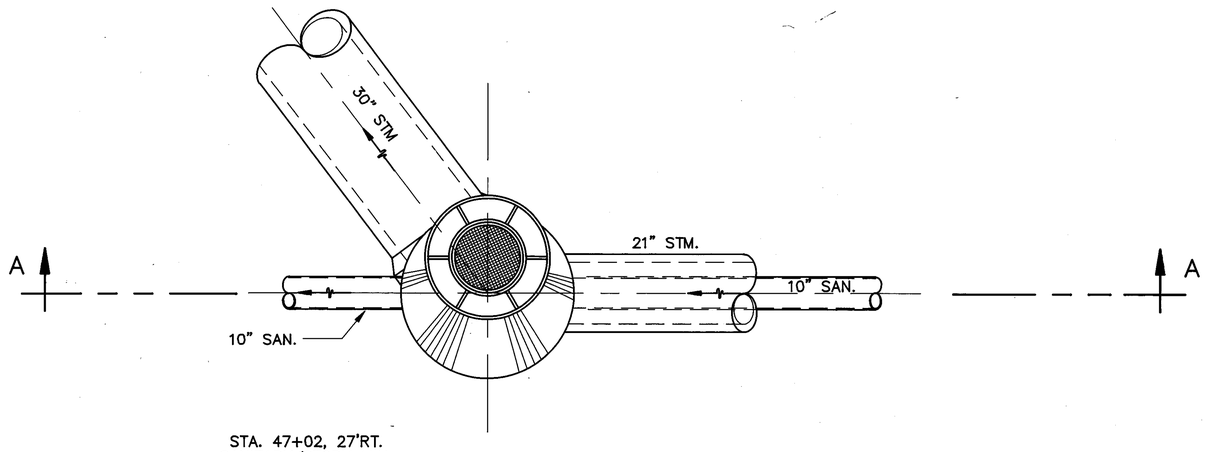
TRENCH DRAIN DETAIL
(NOT TO SCALE)

MAYFIELD ROAD

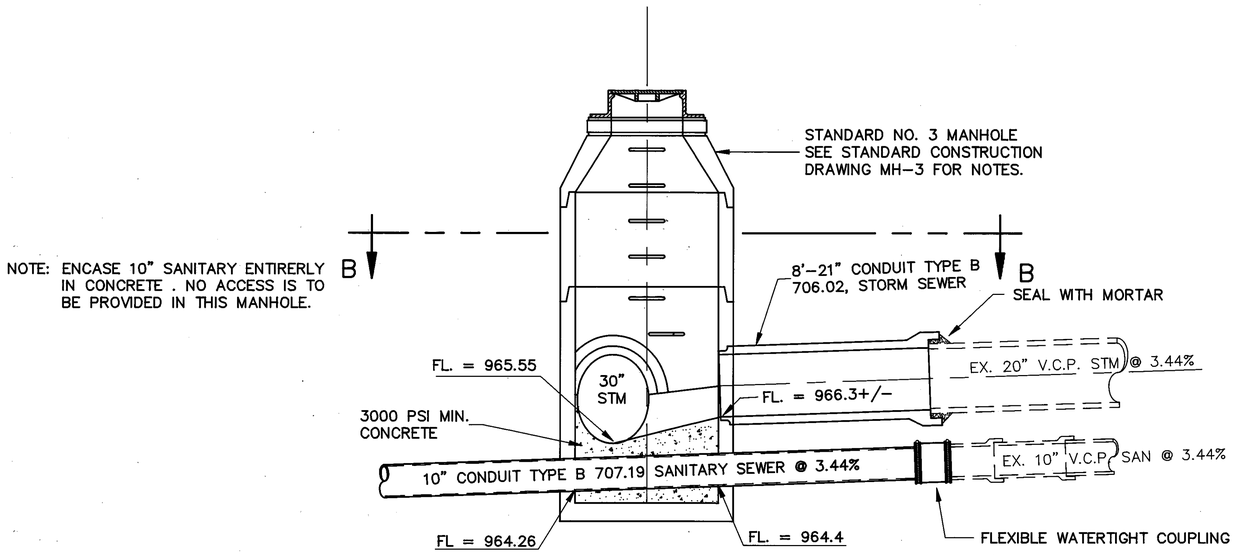
BRUNING 44-132 67199

	NH-83(29)	OHIO F.H.W.A. REGION 5	417 426

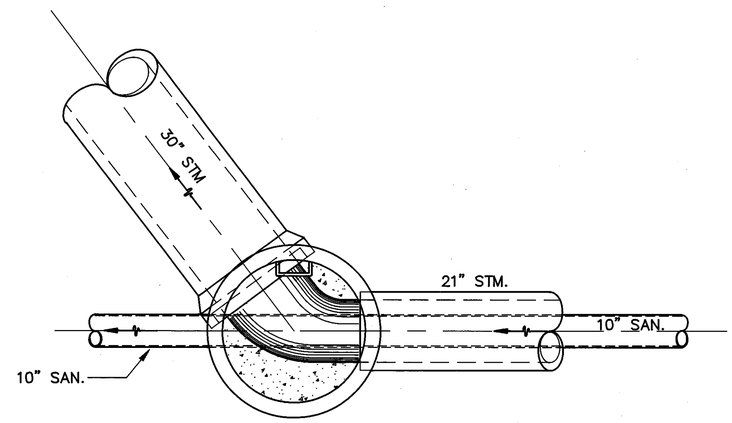
CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



PLAN
SANITARY/STORM MANHOLE
SCALE: 1/2" = 1'-0"



SECTION A-A
SCALE: 1/2" = 1'-0"



SECTION B-B
SCALE: 1/2" = 1'-0"

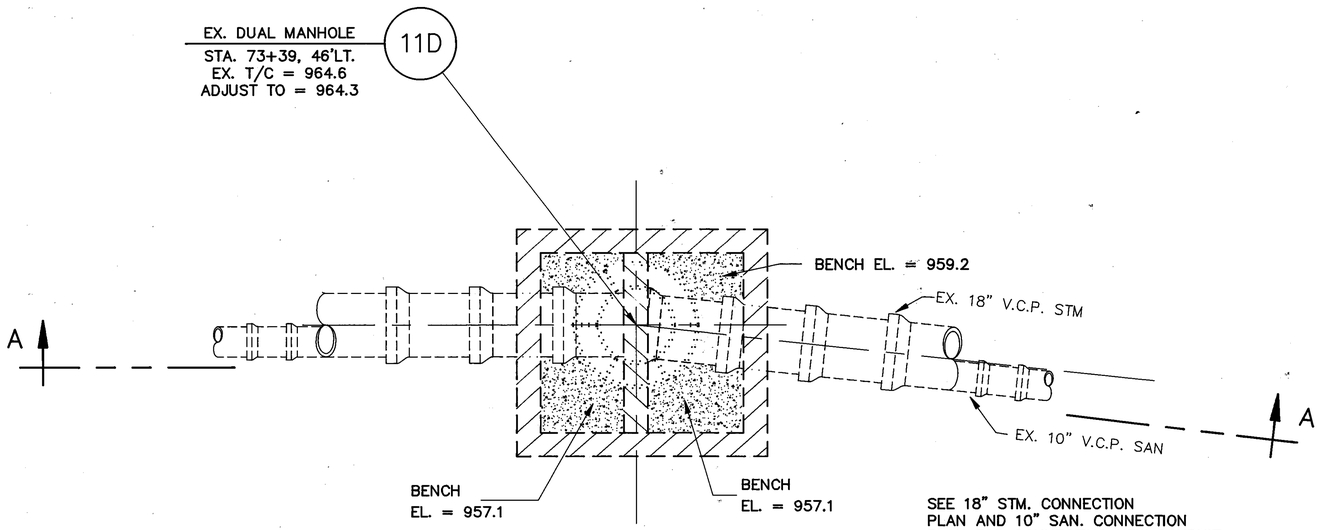
MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

MISCELLANEOUS DETAILS

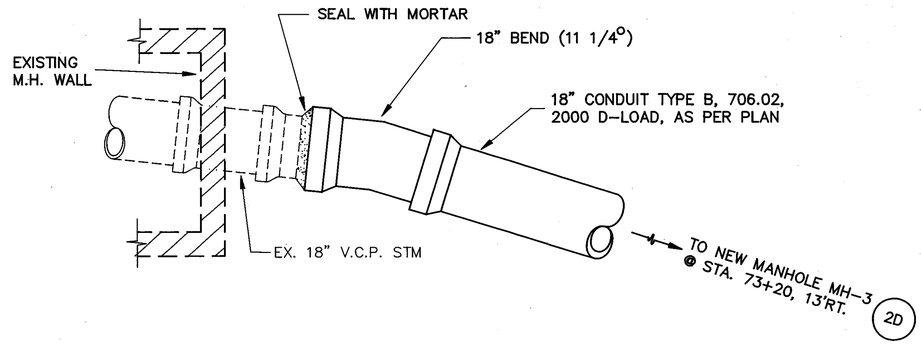
	NH-83(29)	OHIO F.H.W.A. REGION 5	418 426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



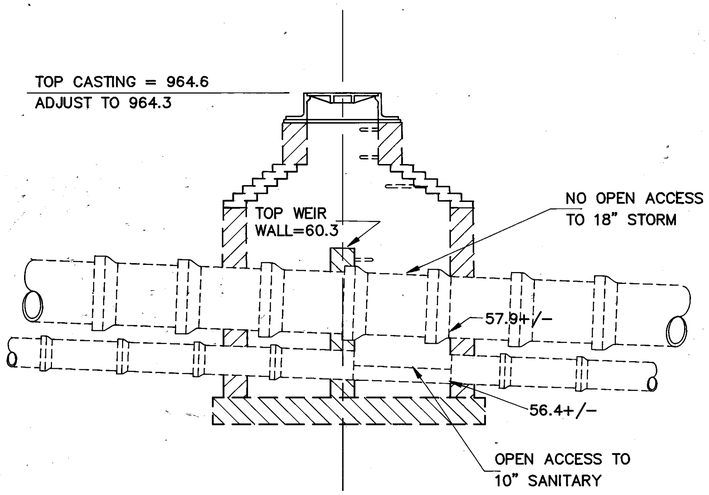
PLAN

EXISTING MANHOLE, STA. 73+39 ,46' LT.
SCALE: 1/2" = 1'-0"



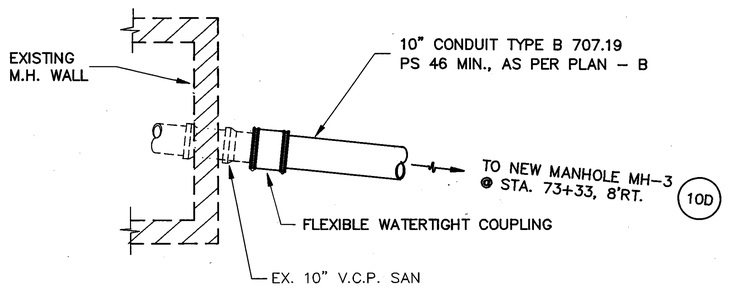
PLAN

18" STORM CONNECTION
SCALE: 1/2" = 1'-0"



SECTION A-A

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



PLAN

10" SANITARY CONNECTION
SCALE: 1/2" = 1'-0"

MAYFIELD ROAD

STEPHEN HOVANCSEK & ASSOC., INC.

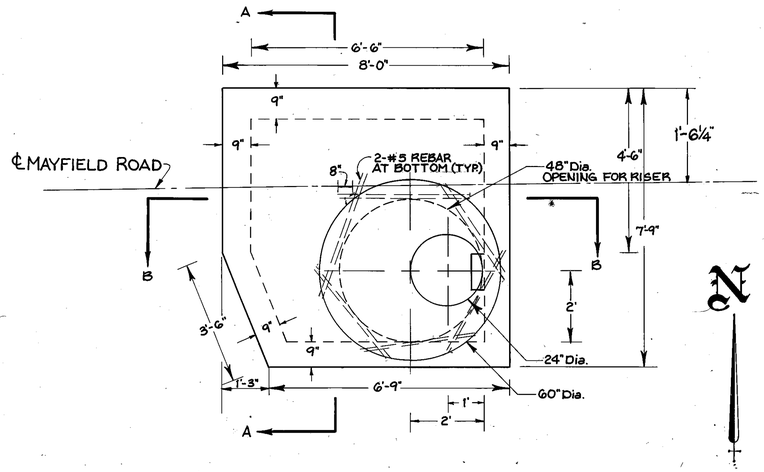
MISCELLANEOUS DETAILS

CALC. BY:	DATE:
CHK. BY:	DATE:

FHWA REGION	STATE	PROJECT	
5	OHIO		

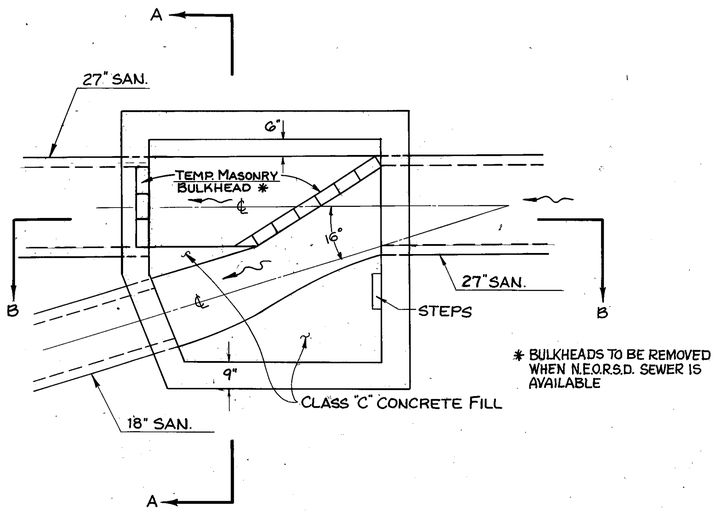
419
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD



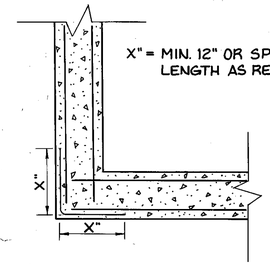
JUNCTION CHAMBER PLAN
AT ELEVATION 1034.40
STATION 137+41

SCALE ½" = 1'



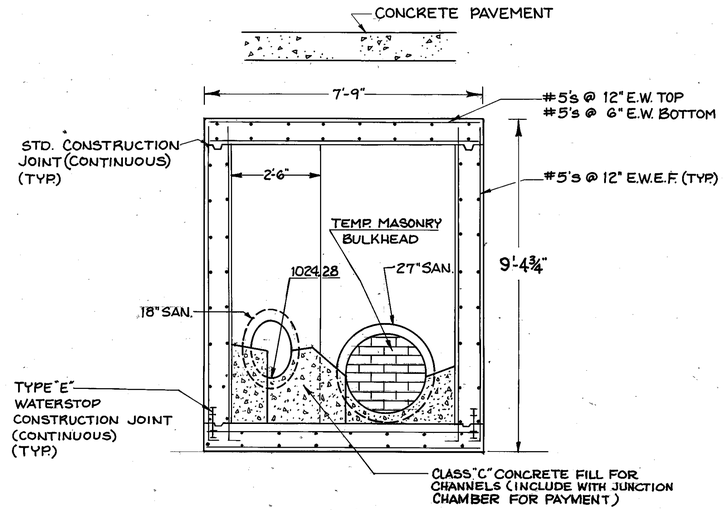
JUNCTION CHAMBER PLAN
AT ELEVATION 1030.78
STATION 137+41

SCALE ½" = 1'



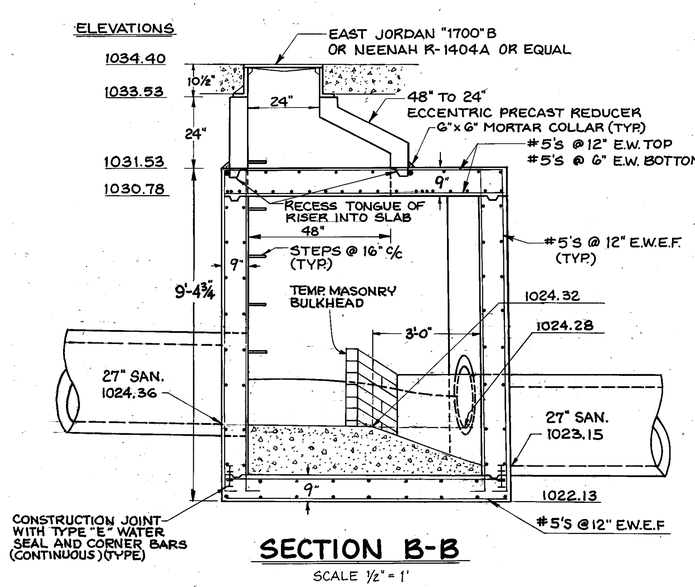
NOTE: CORNER BARS ARE OF THE SAME SIZE AND SPACING AS HORIZONTAL REINFORCING, UNLESS SHOWN OTHERWISE ON THE CONTRACT DRAWINGS.

CORNER BARS FOR DOUBLE LAYER WALL REINFORCEMENT



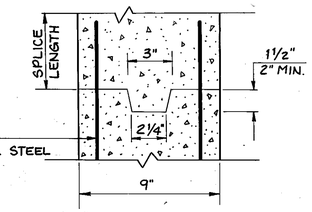
SECTION A-A

SCALE ½" = 1'



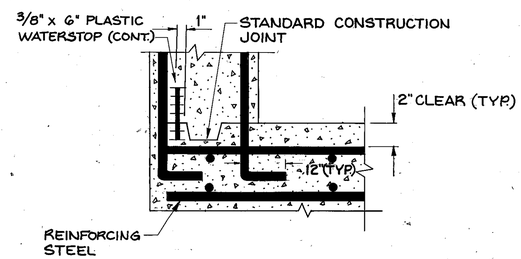
SECTION B-B

SCALE ½" = 1'



STANDARD CONSTRUCTION JOINT

NOT TO SCALE



TYPE "E" WATERSTOP CONSTRUCTION JOINT DETAIL

NOT TO SCALE

MAYFIELD RD.

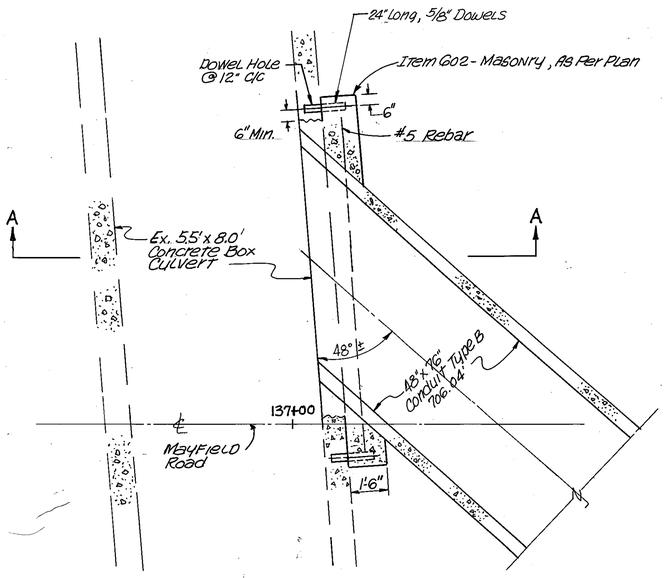
SANITARY JUNCTION CHAMBER DETAILS

CALC. BY: _____ DATE: _____
CHK. BY: _____ DATE: _____

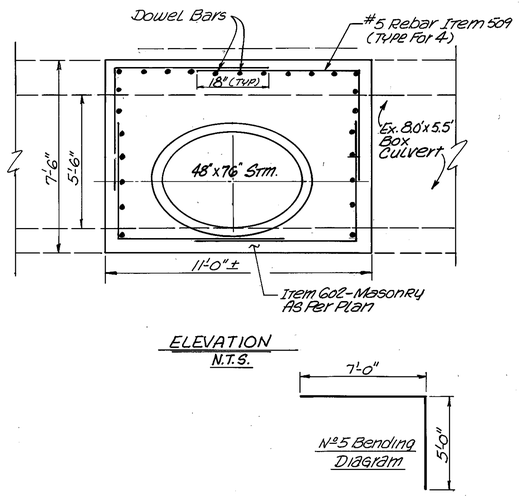
FHWA REGION	STATE	PROJECT	
5	OHIO		

420
426

CUYAHOGA COUNTY
CUY-322-8.66
MAYFIELD ROAD

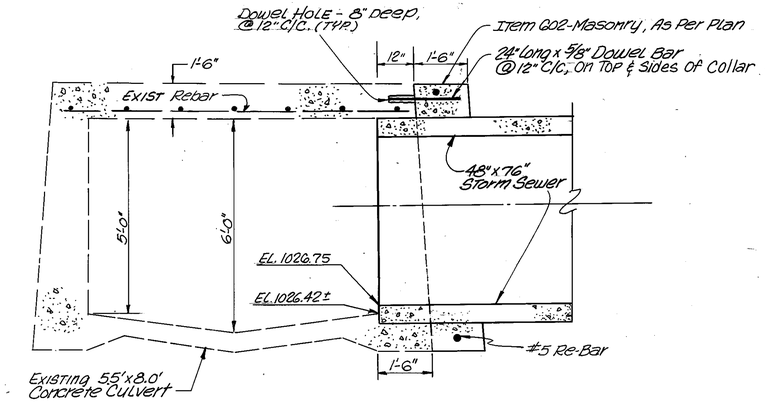


PLAN THROUGH 48"x 76" STORM
N.T.S.

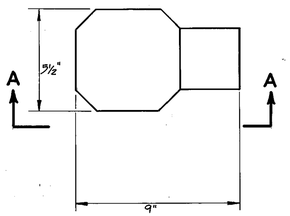


ELEVATION
N.T.S.

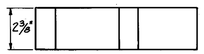
DETAILS FOR STORM SEWER CONNECTION
STA. 137+08



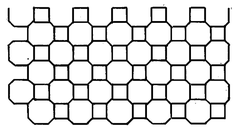
SECTION AA
N.T.S.



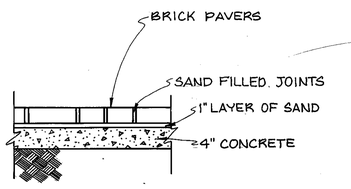
PAVER DIMENSIONS



SECTION A-A



PLAN OF PATTERN



PAVER STONE SECTION

BRICK PAVER STONE DETAILS
N.T.S.

NOTE: COLOR OF PAVERS SHALL MATCH EXISTING PAVER COLORS.

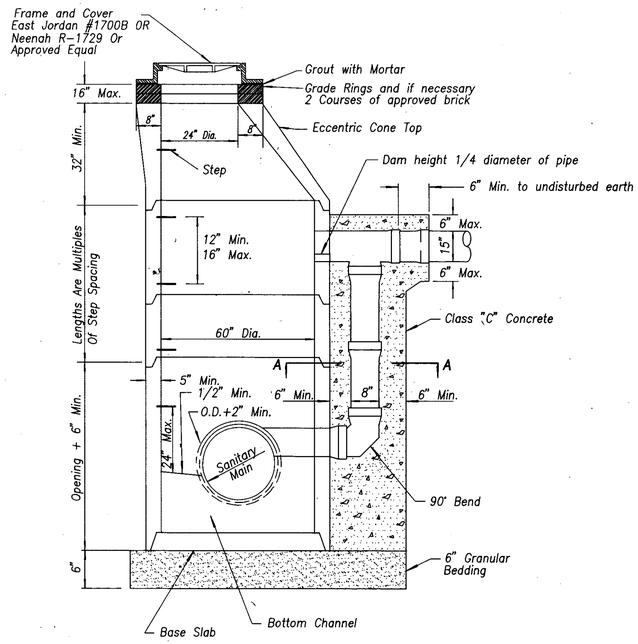
MAYFIELD ROAD

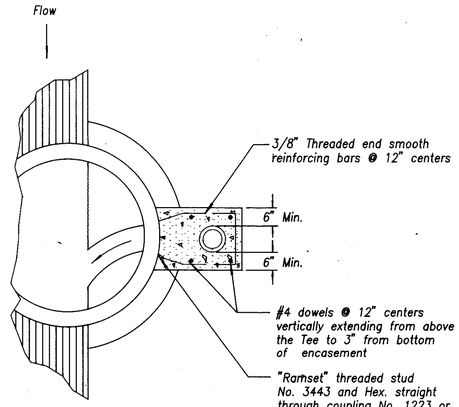
MISCELLANEOUS DETAILS

FHWA REGION	STATE	PROJECT	
5	OHIO		

421
426

CUYAHOGA COUNTY
CUY –322–8.66
MAYFIELD ROAD

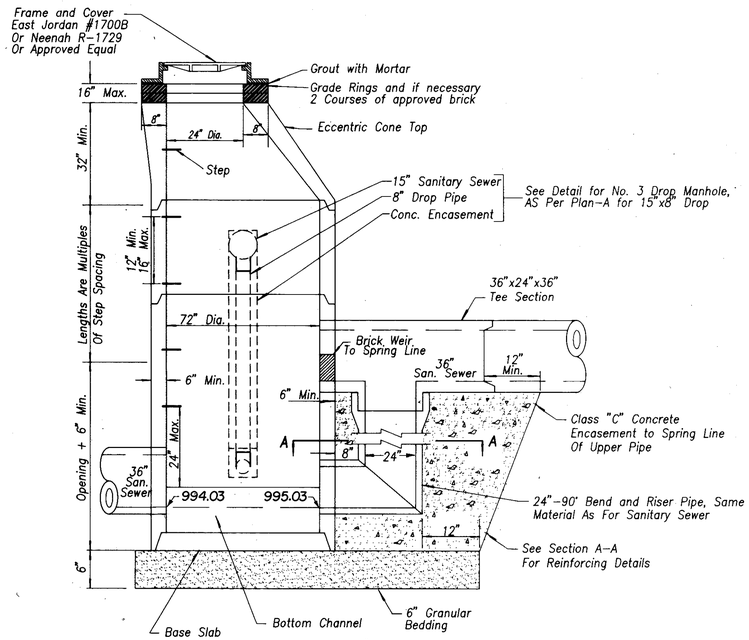




SECTION A–A

No. 3 DROP MANHOLE, AS PER PLAN – A

See Standard Drawing MH–3 For Notes
Sta. 114+18, on ℄
No Scale



No. 3 DROP MANHOLE, AS PER PLAN – B

See Standard Drawing MH–3 For Notes
Sta. 108+66, on ℄
No Scale

MAYFIELD ROAD

DETAILS

MAINTENANCE OF TRAFFIC

CUYAHOGA COUNTY CUY-322-8.66	OHIO FHWA REGION 5 FEDERAL PROJECT	422 426

NOTE THE CONTRACTOR SHOULD CONSTRUCT PROPOSED SANITARY MANHOLE AND CONDUIT FROM STA 54+30 TO STA 55+35 DURING PHASE II

NOTE SIGNAL AT DILL RD. ONLY ON FLASH IN PHASE II

KEY

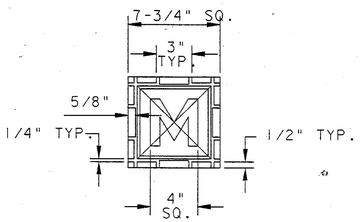
Ⓐ	TEMP. CHANNELIZING LINE CLASS I, 740.05, TYPE C
Ⓑ	TEMP. SOLID DOUBLE CENTER LINE ,CLASS I, 740.05, TYPE C
Ⓒ	TEMP. EDGE LINE (YELLOW), CLASS I, 740.05, TYPE C
Ⓓ	TEMP. EDGE LINE (WHITE), CLASS I, 740.05, TYPE C
Ⓔ	TEMP. STOP LINE 642 PAINT

MAINTAIN ACCESS TO DRIVE STA 55+21 TO STA 55+46 DURING PHASE IIIA.

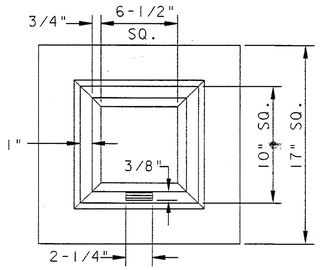
MAINTAIN ACCESS TO DRIVE STA 54+50 TO STA 54+88 DURING PHASE IIIB.

NOTE: "*" IS A SIGNALIZED INTERSECTION

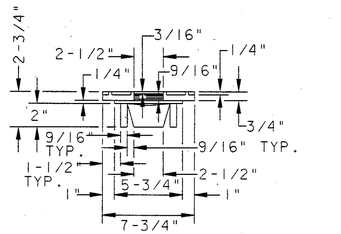
PLOTTED BY:COOP
PLOTTED FROM:c:\07778gpa.dgn
PLOT SUBMITTED:27-MAY-1993 15:23
filename.dgn



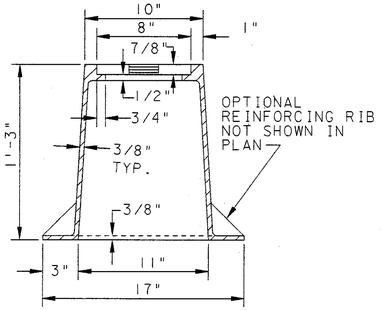
PLAN OF COVER



PLAN OF FRAME

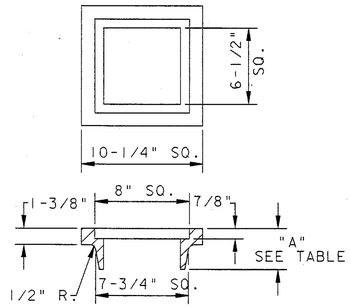


SIDE VIEW OF COVER



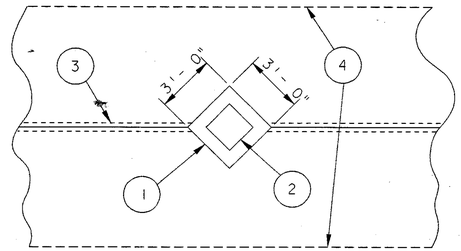
SECTION OF FRAME

MONUMENT BOX



ADJUSTING RING

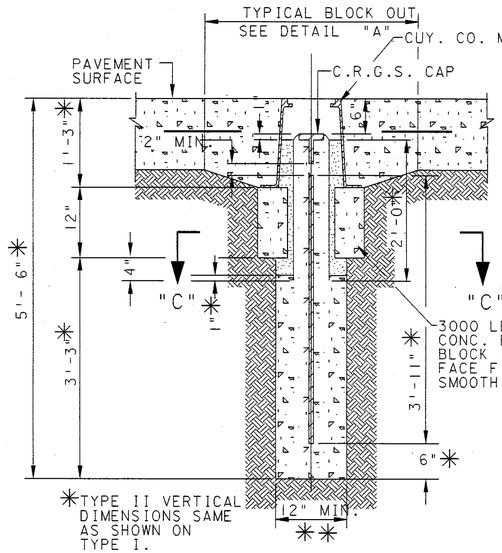
ADJUSTMENT HEIGHT	DIMENSION "A"	MINIMUM WEIGHTS
1-1/2"	2-3/8"	20-LBS.
2-1/2"	3-3/8"	27-LBS.
3"	3-7/8"	30-LBS.
3-1/2"	4-3/8"	32-LBS.

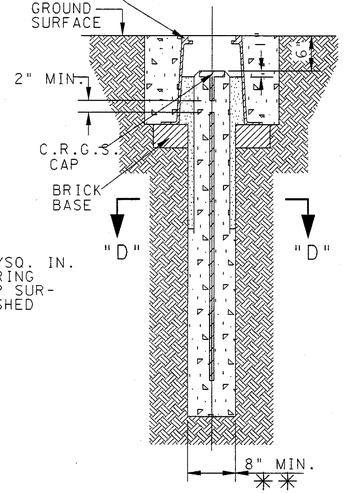


1. MONUMENT ASSEMBLY BLOCK OUT (CONSTRUCTION JOINT PER BP-2.2)
2. MONUMENT BOX
3. TYPICAL LONGITUDINAL JOINT
4. 451 CONC. PAVEMENTS, A.P.P.

DETAIL "A"

TYPICAL BLOCK OUT IN RIGID PAVEMENT. (OMIT FOR FULL DEPTH FLEXIBLE PAVEMENT)





NOTES

CASTINGS SHALL MINIMALLY MEET THE REQUIREMENTS OF 604.02-711.12, A.S.T.M. A 48, CLASS 35 GRAY IRON OR 711.13 DUCTILE IRON.
THE ASSEMBLY SHALL BE ESSENTIALLY THE SAME AND EQUALLY AS STRONG AS THOSE HEREON.

MINIMUM WEIGHTS:

FRAME-------94 LBS.
COVER-------16 LBS.
PROVIDED THEY COMPLY WITH THE SPECIFICATIONS, DETAILS, DIMENSIONS AND MINIMUM WEIGHTS,
NEENAH-------NO.NF-0000T04,
EAST JORDAN--NO.8365
OR APPROVED EQUAL CASTINGS ARE ACCEPTABLE.

BEARING AREAS SHALL BE FINISHED AS TO PROVIDE A FIRM AND EVEN SEAT. NO PROJECTION SHALL EXIST ON THE BEARING AREAS AND THE COVER SHALL SEAT IN ITS FRAME WITHOUT ROCKING.

PRIOR TO CONSTRUCTION OF PAVEMENT, THE FRAME SHALL BE SET TO GRADE IN SUCH A MANNER THAT WILL PREVENT ANY PAVEMENT MATERIAL FROM ENTERING THE CASTING.

MONUMENT CAPS WILL BE FURNISHED BY THE CLEVELAND REGIONAL GEODETIC SURVEY (C.R.G.S.) OFFICE. CONTACT CUYAHOGA COUNTY ENGINEER'S SURVEY OFFICE AT 348-3846 TWO (2) WORKING DAYS BEFORE CONSTRUCTING.

ALL MONUMENTS ARE TO BE SET UNDER THE DIRECTION OF A REGISTERED SURVEYOR. (REF. O.A.C. 4733-37-03)

PAY ITEMS:

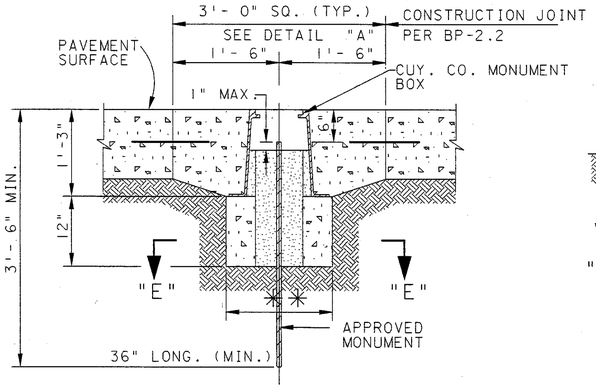
ITEM 604- CUYAHOGA COUNTY MONUMENT BOX
ITEM 604- CUYAHOGA COUNTY ROADWAY MONUMENT ASSEMBLY
ITEM 604- CUYAHOGA COUNTY RIGHT OF WAY MONUMENT
ITEM 604- CLEVELAND REGIONAL GEODETIC SURVEY MONUMENT ASSEMBLY, TYPE I OR TYPE II.
ITEM 604- CUYAHOGA COUNTY MONUMENT BOX ADJUSTED TO GRADE. (ONLY WHEN EXISTING MONUMENT BOX CONFORMS TO MB-1 AND IS SUITABLE FOR REUSE)
ITEM 202- MONUMENT ASSEMBLY ABANDONED, C.R.G.S. MONUMENT

LEGEND

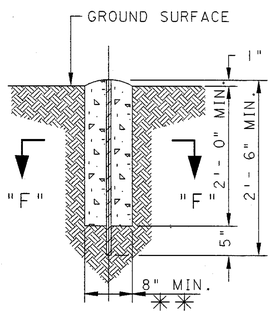
ITEM 499- CONCRETE, CLASS "C"

SAND, ITEM 703.02- COMPACTED AS REQUIRED

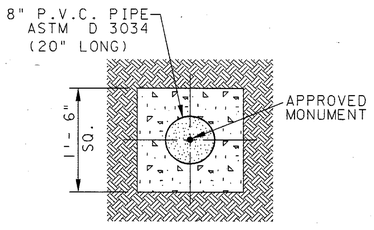
**UNDISTURBED BEARING AND/OR SUITABLY FIRM FOUNDATION PROVIDED IN ACCORDANCE WITH 604.04 AND TO THE SATISFACTION OF THE ENGINEER.

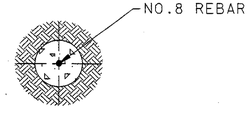


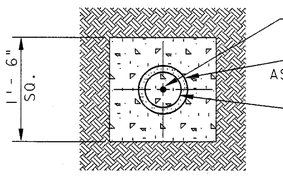
SECTION "E-E"
ROADWAY MONUMENT ASSEMBLY



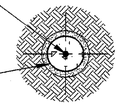
SECTION "F-F"
RIGHT OF WAY MONUMENT







SECTION "C-C"
TYPE I



SECTION "D-D"
TYPE II
IN SOIL

CLEVELAND REGIONAL GEODETIC
SURVEY MONUMENT ASSEMBLY

CALC. BY DATE
CHK'D BY DATE

CUYAHOGA COUNTY OHIO
CUY-322-8.66
FHWA REGION 5

425
426

CUYAHOGA COUNTY ENGINEER

MONUMENT BOX & ASSEMBLIES

DATE
6-1-81
2-8-88
3-27-89
3-9-92

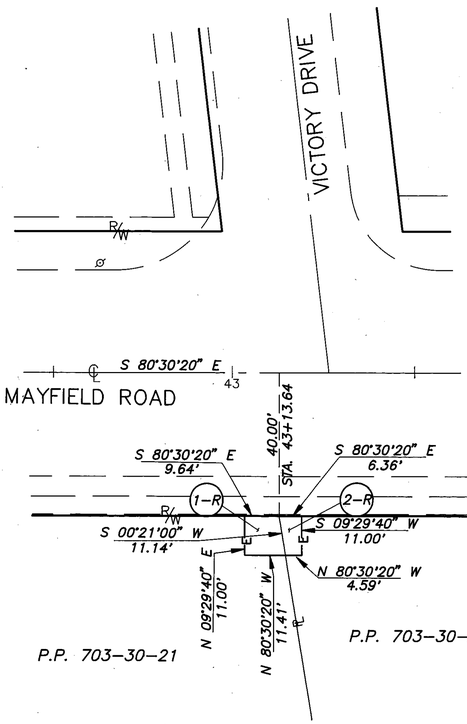
CONSTRUCTION DRAWING MB-1C

FHWA REGION	STATE	PROJECT	
5	OHIO		

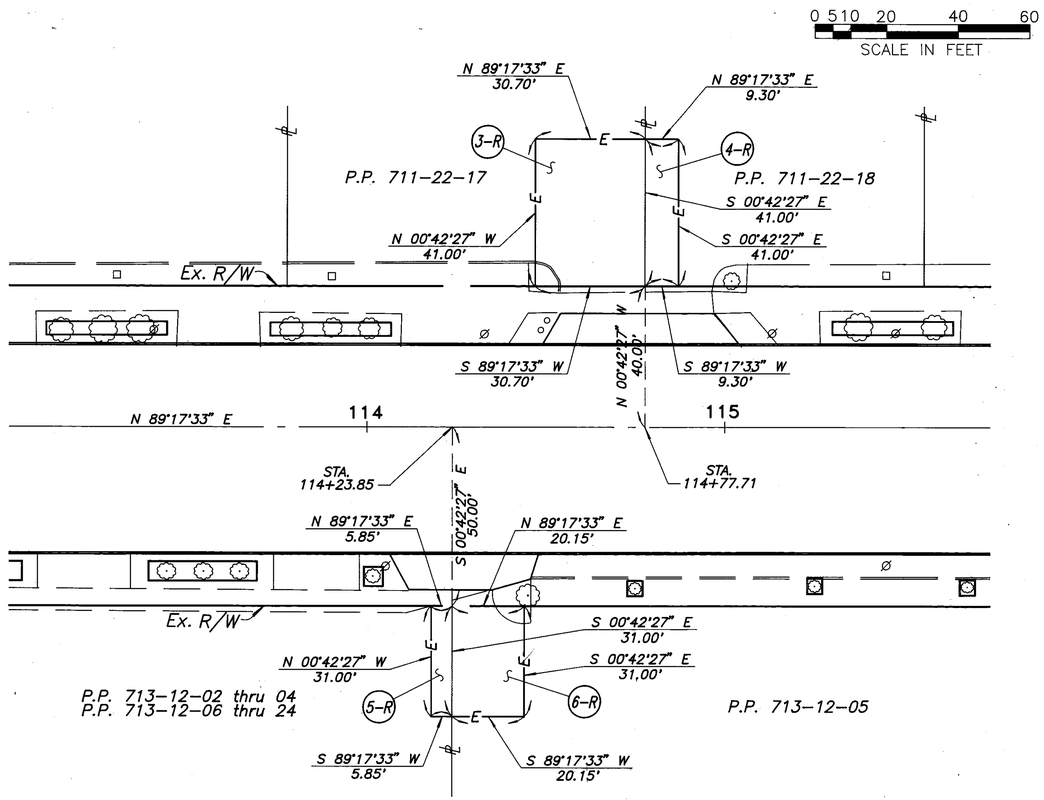
426
426

1
1

CUYAHOGA COUNTY
CUY–322–8.66
MAYFIELD ROAD
RIGHT–OF–WAY PLAN



MAYFIELD ROAD AT VICTORY DRIVE



MAYFIELD ROAD AT CROSSROADS PLAZA

SUMMARY OF ADDITIONAL RIGHT–OF–WAY

PARCEL	OWNER	DEED RECORD			TAKE		REMARKS
		VOLUME	PAGE	DATE	L x W	ACREAGE	
1–R	SALLY A. BEMIS	903404	39	6–3–90	11.14'x11.41' x11'x9.64'	0.0026	TRAFFIC SIGNAL LOOP DETECTOR EASEMENT
2–R	TRANSOHIO SAVINGS ASSOCIATION, INC.	12706	167	3–12–86	6.36'x11'x 4.59'x11.14'	0.0013	TRAFFIC SIGNAL LOOP DETECTOR EASEMENT
3–R	THOMAS YUAN, TR. NGAN CHIU YUAN, TR.	916374	22	10–2–91	41'x30.7'	0.0289	TRAFFIC SIGNAL LOOP DETECTOR EASEMENT
4–R	CIPRIANI INVESTMENT COMPANY	891886	47	4–20–89	41'x9.3'	0.0087	TRAFFIC SIGNAL LOOP DETECTOR EASEMENT
5–R	RICHMOND LAND COMPANY	6651	553	11–19–48	31'x5.85'	0.0042	TRAFFIC SIGNAL LOOP DETECTOR EASEMENT
6–R	K.L.M. CORPORATION	10330	357	12–13–61	31'x20.15'	0.0143	TRAFFIC SIGNAL LOOP DETECTOR EASEMENT

MAYFIELD ROAD

SUMMARY OF ADDITIONAL RIGHT–OF–WAY