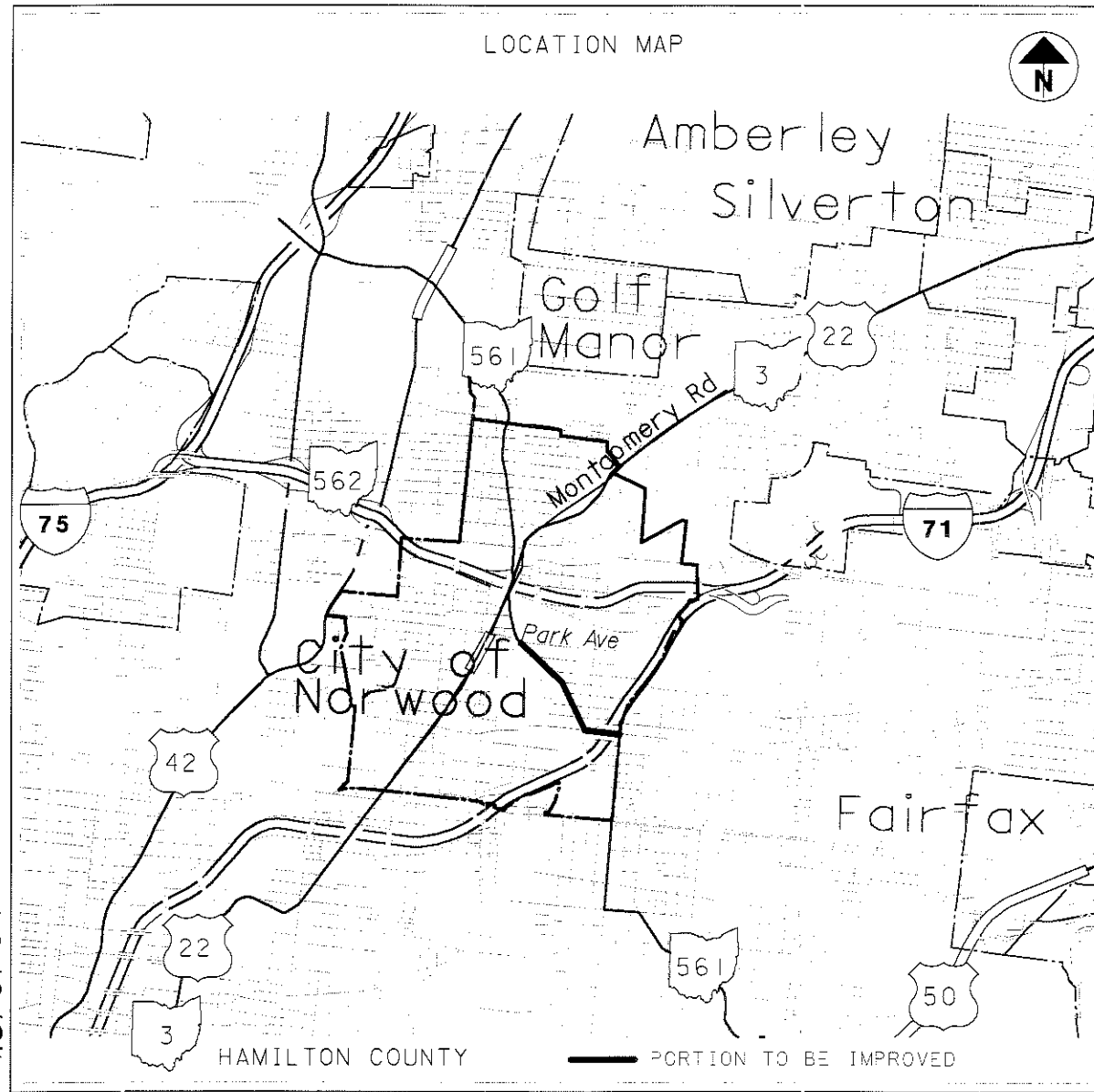


OHIO DEPARTMENT OF TRANSPORTATION CITY OF NORWOOD

LOCATION MAP



PROJECT DESCRIPTION

Pavement repair along SR 561 (Williams Ave and Smith Rd) within the City of Norwood from the Cincinnati Corporation Line north to Park Ave. Place 1 1/2" of surface and pave with 1 1/2" of surface course on existing asphalt pavement. Pave with 1 1/2" of surface and with 1 3/4" of intermediate course on existing concrete pavement. Add handicap ramps where necessary and install pavement markings.

| PART | COUNTY | ROUTE | SECTIONS | PROJECT TERMINII | | NET LENGTH MILES | VILLAGE | CITY |
|------|--------|-------|-------------|------------------|------|------------------|---------|---------|
| | | | | BEGIN | END | | | |
| | HAM | 561 | 3.10 - 3.85 | 3.10 | 3.85 | 0.75 | | NORWOOD |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

INDEX OF SHEETS:

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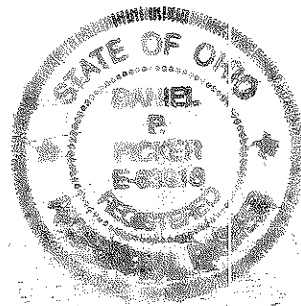
1997 SPECIFICATIONS

The standard specifications of the State of Ohio, Department of Transportation, including changes and supplemental specifications listed in the proposal 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 will be as set forth on plans and estimates.

HAM - SR 561-3.10 (City of Norwood)
 020221 PID - 21889
 Dist 8 5/8/2002

ENGINEERS SEAL:



SIGNED: Daniel P. Ficker
 DATE: 1/9/02

UNDERGROUND UTILITIES
 TWO WORKING DAYS
BEFORE YOU DIG
 CALL 1-800-362-2764 (TOLL FREE)
 OHIO UTILITIES PROTECTION SERVICE
 NON-MEMBERS
 MUST BE CALLED DIRECTLY

PLAN PREPARED BY:

Pflum, Klausmeier & Gehrum
 Consultants, Inc.
 5533 Fair Lane Cincinnati Ohio, 45227
 TEL: 513-272-9533

| STANDARD DRAWINGS | | STANDARD DRAWINGS | | SUPPLEMENTAL SPECIFICATIONS | |
|-------------------|----------|-------------------|----------|-----------------------------|-----------------|
| BP 3.1 | 07/28/00 | TC 65.10 | 10/19/01 | 830 | 10/21/98 |
| BP 7.1 | 07/28/00 | TC 65.12 | 10/19/01 | 899 | 10/21/98 |
| | | TC 71.10M | 09/01/93 | 906 | 5/5/98 |
| | | TC 82.10 | 01/19/01 | 908 | 11/7/00 |
| | | MT 97.10M | 04/25/94 | 905 | 04/01/98 |
| | | MT 97.11M | 01/30/95 | 907 | 10/21/98 |

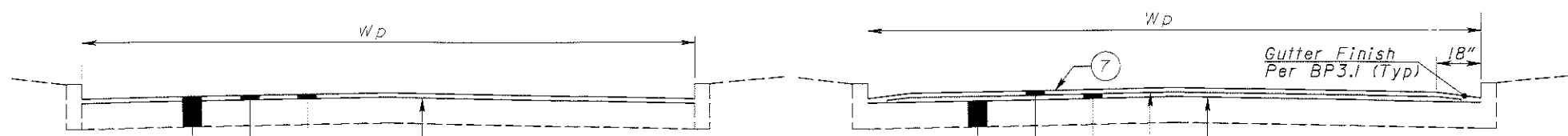
Approved: [Signature]
 Date: 1/9/02 District Deputy Director of Transportation

Approved: [Signature]
 Date: 2-8-02 Director, Department of Transportation

Approved: _____
 Date: _____ City of Norwood

FEDERAL PROJECT NO. **NON-FEDERAL**
 PID NO. **21889**
 CONSTRUCTION PROJECT NO. _____
 RAILROAD INVOLVEMENT **NONE**
HAM-561-3.10

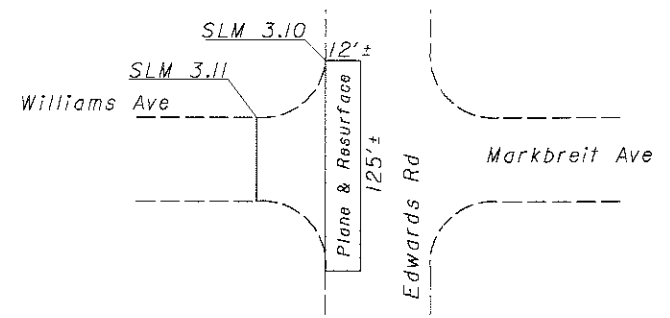
MAS
DVE



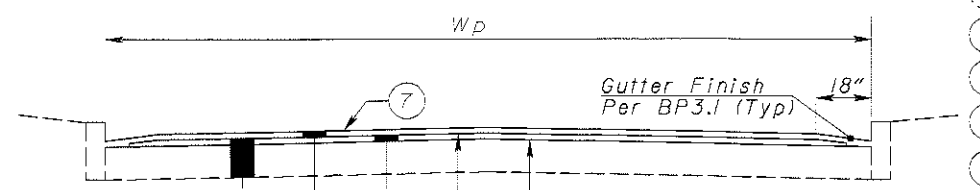
TYPICAL #1 - ASPHALT PAVEMENT

TYPICAL #2 - CONCRETE PAVEMENT

- (A) Existing Pavement (3"± Asphalt Over 8" Granite Block Pavement)
- (B) Existing Pavement (9" Reinforced Concrete Pavement)
- (C) Existing Pavement (Variable Depth Asphalt over 9" Concrete Pavement)
- (1) Item 448 - 1 1/2" Asphalt Concrete Surface Course, Type 1 H
- (2) Item 448 - 1 3/4" Asphalt Concrete Intermediate Course, Type 2 PG 64-28
- (3) Item 407 - Tack Coat For Intermediate Course
- (4) Item 407 - Tack Coat
- (5) Item 254 - 1 1/2" Pavement Planing, Bituminous
- (6) Item 407 - Tack Coat, 702.13
- (7) Item 413 - Sawing And Sealing Asphalt Concrete Pavement Joints



TIE-IN TO EDWARDS RD



TYPICAL #3 - ASPHALT PAVEMENT
(OVER CONCRETE)

NOTE: PROTECT ALL LANDSCAPE AREAS WITHIN THE PROJECT LIMITS.

PAVEMENT DATA

| PART | ROUTE | LENGTH | | WP FEET AVG. | T Y P I C A L | EXISTING TYPE PAVEMENT | PAVEMENT AREA SQ. YDS. | 407 | | | 448 | | 254 | | REMARKS | | | | | |
|---|----------------------------|------------------------------|-------|--------------------|---------------------------------|------------------------------|------------------------------|----------|---|-----------------------------------|---|--|------------|------------------------------|---------|-----------------------------------|-------------------------------|---|--|---------|
| | | LOG POINT TO LOG POINT | MILES | | | | | LIN. FT. | TACK COAT FOR INTERMEDIATE COURSE @ 0.050 gal./s.y. | TACK COAT @ 0.075 gal./s.y. | TACK COAT @ 0.075 gal./s.y. (702.13) | INTERMEDIATE COURSE, TYPE 2 PG 64-28 | | SURFACE COURSE TYPE 1H | | PAVEMENT PLANING BITUMINOUS | PATCHING PLANED SURFACE | | | |
| | | | | | | | | | | | | THICK INCHES | CU. YD. | THICK INCHES | | | | CU. YD. | DEPTH INCHES | SQ. YD. |
| SR 561 | 3.10 | | 12 | 125 | 3 | Asphalt | 167 | 8 | 13 | | 1.75 | 8 | 1.5 | 7 | 1.5 | 167 | 17 | Tie in to Edwards Rd (see detail above) | | |
| SR 561 | 3.10 - 3.11 | | | | | | | | | | | | | | | | | | (See Extra Areas and Deductions Sheet) | |
| SR 561 | 3.11 - 3.13 | | 46 | 48 | 2 | Concrete | 245 | 12 | | | 18 | 1.75 | 12 | 1.5 | 10 | 0 | 0 | | | |
| SR 561 | 3.13 - 3.14 | | 38 | 48 | 3 | Asphalt | 203 | 10 | 15 | | 0.875 | 5 | 1.5 | 8 | 0.75 | 203 | 20 | | | |
| SR 561 | 3.14 - 3.26 (Suspend Work) | | | | | | | | | | | | | | | | | | | |
| SR 561 | 3.26 - 3.30 | | 175 | 58 | 2 | Concrete | 1128 | 56 | | | 85 | 1.75 | 55 | 1.5 | 47 | 0 | 0 | | | |
| SR 561 | 3.30 - 3.31 | | 58 | 49 | 2 | Concrete | 316 | 16 | | | 24 | 1.75 | 15 | 1.5 | 13 | 0 | 0 | | | |
| SR 561 | 3.31 - 3.85 | | 2855 | 40 | 1 | Asphalt | 12689 | | 952 | | | | 1.5 | 529 | 1.5 | 12689 | 1269 | | | |
| TOTAL QUANTITIES CARRIED TO THE GENERAL SUMMARY | | | | | | | | 102 | 980 | 127 | 95 | 614 | 13059 | 1306 | | | | | | |

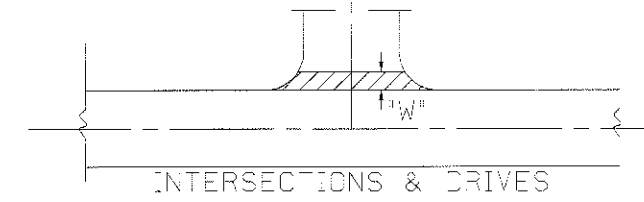
Pflum, Klausmeier & Gehrum
Consultants, Inc.

ASPHALT CONCRETE

HAM-561-3.10

EXTRA AREA AND DEDUCTIONS

QUANTITIES CARRIED TO GENERAL SUMMARY



| P A R T | ROUTE | LOG POINT MILE | SIDE | DESCRIPTION | LENGTH | | WIDTH "W" | AREA | PROPOSED ITEMS | | | | | | | | REMARKS | |
|-----------------------------------|--------|----------------------|------|---|--------|-----|--------------|------|---|-----------------------------------|---|---|-------------------------------|--|----------|----------|---------|----------|
| | | | | | | | | | 407 | | | 448 | | 448 | | 254 | | |
| | | | | | | | | | TACK COAT FOR INTERMEDIATE COURSE @ 0.050 gal./s.y. | TACK COAT @ 0.075 gal./s.y. | TACK COAT @ 0.075 gal./s.y. (702.13) | INTERMEDIATE COURSE, TYPE 2, PG 64-28 | SURFACE COURSE, TYPE 1H | PAVEMENT PATCHING PLANING, PLANED BITUMINOUS SURFACE | | | | |
| | | | | | | | | | GALS. | GALS. | GALS. | AVG. THICK INCHES | CU. YDS. | AVG. THICK INCHES | CU. YDS. | SQ. YDS. | | SQ. YDS. |
| | | | | | | | | | | | | | | | | | | |
| | SR 561 | 3.10 | Q | Intersection Area @ Edwards | 48 | 86 | 459 | 23 | | 34 | 1.75 | 22 | 1.5 | 19 | 1.5 | | | |
| | SR 561 | 3.31 | RT | Intersection Area @ Melrose Ave | 39 | 16 | 69 | | 5 | | | | 1.5 | 3 | 1.5 | 69 | 7 | |
| | SR 561 | 3.31 | LT | Intersection Area @ Melrose Ave | 38 | 16 | 68 | | 5 | | | | 1.5 | 3 | 1.5 | 68 | 7 | |
| | SR 561 | 3.39 | RT | Intersection Area @ Marsh Ave | 39 | 15 | 65 | | 5 | | | | 1.5 | 3 | 1.5 | 65 | 7 | |
| | SR 561 | 3.39 | LT | Intersection Area @ Marsh Ave | 38 | 20 | 84 | | 6 | | | | 1.5 | 4 | 1.5 | 84 | 8 | |
| | SR 561 | 3.46 | RT | Intersection Area @ Ida Ave | 40 | 21 | 93 | | 7 | | | | 1.5 | 4 | 1.5 | 93 | 9 | |
| | SR 561 | 3.54 | RT | Intersection Area @ Forest Ave / Leslie Ave | 108 | 320 | 3840 | | 288 | | | | 1.5 | 160 | 1.5 | 3840 | 384 | |
| | SR 561 | 3.55 | LT | Intersection Area @ Forest Ave | 54 | 27 | 162 | | 12 | | | | 1.5 | 7 | 1.5 | 162 | 16 | |
| | SR 561 | 3.63 | RT | Intersection Area @ Robertson Ave | 65 | 20 | 144 | | 11 | | | | 1.5 | 6 | 1.5 | 144 | 14 | |
| | SR 561 | 3.65 | LT | Intersection Area @ Floral Ave | 71 | 30 | 237 | | 18 | | | | 1.5 | 10 | 1.5 | 237 | 24 | |
| | SR 561 | 3.65 | RT | Intersection Area @ Floral Ave | 40 | 35 | 156 | | 12 | | | | 1.5 | 6 | 1.5 | 156 | 16 | |
| | SR 561 | 3.66 | RT | Intersection Area @ Floral Ave | 29 | 18 | 58 | | 4 | | | | 1.5 | 2 | 1.5 | 58 | 6 | |
| | SR 561 | 3.73 | RT | Intersection Area @ Kenilworth - (No Additions) | | | | | | | | | | | | | | |
| | SR 561 | 3.77 | LT | Intersection Area @ Ashland Ave | 47 | 15 | 78 | | 6 | | | | 1.5 | 3 | 1.5 | 78 | 8 | |
| | SR 561 | 3.85 | RT | Intersection Area @ Park Ave | 44 | 19 | 93 | | 7 | | | | 1.5 | 4 | 1.5 | 93 | 9 | |
| TOTALS CARRIED TO GENERAL SUMMARY | | | | | | | | | 23 | 386 | 34 | | 22 | | 234 | | 5148 | 515 |

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

Electric:
Cincinnati Gas & Electric Company
(Cinergy)
P.O. Box 960 Room M 50 M
Cincinnati, OH 45201
1-800-262-3000 Ext. 2522

San. Sewer:
Metropolitan Sewer District
1600 Gest St.
Cincinnati OH 45204
(513) 244-1354

Gas:
Cincinnati Gas & Electric Company
(Cinergy)
P.O. Box 960, Room 460 A
Cincinnati, OH 45201
(513) 287-3218

Water:
Cincinnati Water Works
4747 Spring Grove Ave.
Cincinnati, OH 45232
(513) 591-7890

Cable Television:
Warner Cable Communications, Inc.
11252 Cornell Park Dr.
Cincinnati, OH 45242
(513) 489-5002

Telephone:
Cincinnati Bell
201 E. 4th St., (102/280)
Cincinnati, OH 45202
(513) 565-7043

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK 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 FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

CONVERSION OF STANDARD CONSTRUCTION DRAWINGS

THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.011 OF THE 1997 CONSTRUCTION AND MATERIALS SPECIFICATIONS. THE APPENDIX OF ASTM E 380 SHALL BE UTILIZED FOR ANY ADDITIONAL CONVERSION FACTORS REQUIRED. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

ITEM 407 - TACK COAT AND ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE

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

- 407, TACK COAT AND 407, TACK COAT (702.13) 0.075 GAL. PER SQ. YARD
- 407, TACK COAT FOR INTERMEDIATE COURSE 0.050 GAL. PER SQ. YARD

ITEM 623 - CONSTRUCTION LAYOUT, AS PER PLAN

PRIOR TO THE START OF ROADWAY OPERATIONS, THE CONTRACTOR SHALL REFERENCE THE LENGTH OF THE PROJECT ON BOTH SIDES OF THE ROADWAY, IN A MANNER SATISFACTORY TO THE ENGINEER. THE PAVEMENT SHALL BE REFERENCED IN 100 FEET INCREMENTS, OR IN INCREMENTS ACCEPTABLE TO THE ENGINEER, IN A SEMIPERMANENT CONDITION.

632 LOOP DETECTORS

PRIOR TO THE PLANING OPERATION, THE LOCATIONS OF THE EXISTING LOOP DETECTORS SHALL BE REFERENCED SO THAT THE REPLACEMENT LOOP CAN BE REINSTALLED AT THE PROPER LOCATION. THE NEW LOOP DETECTORS SHALL BE CONNECTED TO THE LEAD-IN CABLE WITH THE PROPER CONNECT KITS AND TESTED TO MAKE CERTAIN THAT THEY ARE OPERATIONAL. IN A FEW SITUATIONS, THE LOOP DETECTOR LOCATIONS MAY NEED TO BE MODIFIED. THE CONTRACTOR SHALL NOTIFY THE DISTRICT 6 TRAFFIC DEPARTMENT AND THE CITY OF NORWOOD A MINIMUM OF 3 DAYS IN ADVANCE OF ANY LOOP DETECTOR INSTALLATIONS TO PERMIT TIME FOR LOOP LOCATION ADJUSTMENTS IF NEEDED.

LOCATION:
@ APPROXIMATE LOG POINT
3.26 6' X 20'
3.82 12' X 6'
3.83 12' X 6'

- ITEM 632 - LOOP DETECTOR TIE IN - 3 EACH
- ITEM 632 - DETECTOR LOOP - 3 EACH

THE FOLLOWING QUANTITIES OF DETECTOR LOOP AND LOOP DETECTOR TIE IN HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

INTERIM COMPLETION DATE

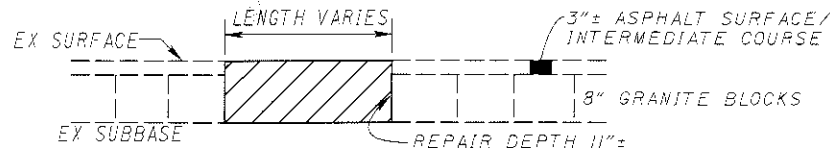
AN INTERIM DATE OF COMPLETION FOR THIS CONTRACT IS SET 30 DAYS PRIOR TO THE FINAL COMPLETION DATE. ALL CONTRACT ITEMS OF WORK MUST BE COMPLETED BY THE INTERIM COMPLETION DATE.

THE INTERIM DATE WILL BE SUBJECT TO LIQUIDATED DAMAGES AS INDICATED BY SECTION 108.07 OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS BOOK. REQUEST FOR TIME EXTENSIONS TO THE INTERIM COMPLETION DATE WILL BE PROCESSED PER SECTION 108.06 OF THE SPECIFICATIONS BOOK. THE PERIOD OF TIME BETWEEN THE INTERIM COMPLETION DATE AND THE FINAL COMPLETION DATE IS STRICTLY TO ALLOW FOR COMPLETION OF THE "PUNCH LIST" ITEMS. FAILURE TO COMPLETE THE "PUNCH LIST" AND BY THE FINAL COMPLETION DATE WILL RESULT IN ASSESSMENT OF LIQUIDATED DAMAGES AS PER SECTION 108.07 OF THE SPECIFICATIONS BOOK. A GRANTED TIME EXTENSION TO THE INTERIM COMPLETION DATE WILL NOT INCLUDE A CORRESPONDING EXTENSION TO THE FINAL COMPLETION DATE. EXTENSIONS OF TIME TO THE FINAL COMPLETION DATE WILL ONLY BE GRANTED IF IT CAN BE JUSTIFIED THAT NOT ENOUGH TIME EXIST TO COMPLETE "PUNCH LIST" ITEMS AND REMOVE THE PROJECT FIELD OFFICES PRIOR TO THE FINAL COMPLETION DATE.

ITEM 253 PAVEMENT REPAIRS

THIS OPERATION SHALL BE AS DIRECTED BY THE PROJECT ENGINEER AND SHALL BE PERFORMED AFTER PAVEMENT HAS BEEN MARKED FOR REMOVAL BY THE PROJECT ENGINEER OR HIS/HER REPRESENTATIVE. THE CONTRACTOR SHALL SAWCUT ALL REPAIRS. THE LOCATION AND SIZE OF REPAIRS SHALL BE DETERMINED BY THE ENGINEER. THIS OPERATION SHALL BE PERFORMED BEFORE PAVEMENT PLANING OF ROADWAY.

11 INCHES OF MINIMUM REPAIR AREA DEPTH, 2 FEET MINIMUM WIDTH OF REPAIR.



EXISTING DETERIORATED ASPHALT AND GRANITE BLOCK BASE SHALL BE REMOVED TO THE SUBBASE, OR AS DIRECTED BY THE ENGINEER AND REPLACED WITH ITEM 301 BITUMINOUS AGGREGATE BASE. THE 301 SHALL BE COMPACTED AS PER 401.14 AND IN APPROXIMATELY 2 EQUAL LIFTS. THE FACES OF THE GRANITE BLOCK BASE TO REMAIN SHALL BE COATED WITH BITUMINOUS MATERIAL PER 401.12.

ESTIMATED QUANTITIES OF 250 CU. YDS. OF ITEM 253 PAVEMENT REPAIR HAVE INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THIS WORK

REPAIR PROCEDURE

ALL AREAS OF PAVEMENT REMOVAL AND REPLACEMENT SHALL BE COMPLETED AT THE END OF EACH DAY'S OPERATION AND OPEN TO NORMAL FLOW OF TRAFFIC. ITEM 301 BITUMINOUS AGGREGATE BASE PLACED IN PAVEMENT REMOVAL AREAS SHALL BE COMPACTED THOROUGHLY TO MINIMIZE SETTLEMENT OR DISPLACEMENT UNDER TRAFFIC. THE SURFACE OF THE PATCHES SHALL BE MAINTAINED WITHIN 1 INCH OF THE EXISTING SURFACE UNTIL THE RESURFACING IS PLACED.

SUBBASE FAILURE

IF AFTER REMOVAL OF THE ASPHALT AND BASE MATERIAL THE PROJECT ENGINEER DETERMINES THAT THE SUBBASE OR SUBGRADE HAS FAILED OR IS PUMPING, THEY SHALL DIRECT THE CONTRACTOR TO EXCAVATE THE UNSUITABLE MATERIAL AND REPLACE IT WITH COMPACTED 304 AGGREGATE AS NECESSARY. THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THIS WORK. PAYMENT SHALL BE MADE AT THE CONTRACT BID PRICE EACH ITEM

- ITEM 203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION: 300 CU. YDS
- ITEM 203 SUBGRADE COMPACTION: 800 SQ. YDS
- ITEM 304 AGGREGATE BASE: 300 CU. YDS.

ITEM 413 SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS

THIS ITEM SHALL BE PERFORMED FROM SLM 3.10 TO SLM 3.14 AND SLM 3.26 TO SLM 3.31. THE FOLLOWING ESTIMATED QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY

| | | |
|----------------------|-----|------|
| SLM 3.10 TO SLM 3.14 | 265 | L.F. |
| SLM 3.26 TO SLM 3.31 | 395 | L.F. |

ITEM 413 SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS 660 L.F.

DRAINAGE STRUCTURES AND UTILITIES ADJUSTED TO GRADE

MANHOLE, CATCH BASIN, VALVE BOX AND MONUMENT BOX ADJUSTMENTS ARE TO BE MADE PRIOR TO THE APPLICATION OF THE FINISH COURSE. COVERS FOR THE MANHOLES, AND VALVE BOXES SHALL BE ACCESSIBLE FOR USE AT ALL TIMES DURING THE PAVING OPERATION. ASPHALT SHALL BE REMOVED FROM THE FRAME AND COVERS IMMEDIATELY AFTER THE SPREADER HAS PASSED OVER THE CASTINGS. PAYMENT FOR THIS WORK WILL BE MADE AT THE CONTRACT BID PRICE FOR:

| ITEM | UNIT | QUANTITY | DESCRIPTION |
|------|------|----------|---|
| 604 | EACH | 7 | CATCH BASIN ADJUSTED ADJUSTED TO GRADE |
| 604 | EACH | 4 | MANHOLE ADJUSTED ADJUSTED TO GRADE |
| 604 | EACH | 1 | MONUMENT BOX ADJUSTED ADJUSTED TO GRADE |

SANITARY SEWER, WATER VALVES AND MANHOLES, GAS BOXES AND VALVES, TELEPHONE MANHOLES AND ELECTRIC MANHOLES WILL BE ADJUSTED BY EACH UTILITY COMPANY.

ITEM 614-MAINTAINING TRAFFIC

IT IS THE INTENTION OF THESE PLANS TO PERFORM THE REQUIRED WORK WITH THE LEAST INCONVENIENCE TO AND THE MAXIMUM SAFETY OF, THE CONTRACTOR AND THE TRAVELING PUBLIC. THE REQUIREMENTS FOR MAINTAINING TRAFFIC SHALL BE AS INDICATED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION. THE PROPOSAL, THE SPECIFICATIONS AND THE PLANS. ANY VARIANCE FROM THESE REQUIREMENTS SHALL BE APPROVED BY THE DIRECTOR IN WRITING.

A. BEFORE WORK BEGINS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE NAMES AND TELEPHONE NUMBERS OF PERSONS WHO CAN BE CONTACTED 24 HOURS A DAY BY THE OHIO DEPARTMENT OF TRANSPORTATION AND ALL INTERESTED POLICE AGENCIES. THESE PERSONS SHALL BE RESPONSIBLE FOR PLACING OR REPLACING NECESSARY TRAFFIC CONTROL DEVICES TO MAINTAIN THE TRAVELED PAVEMENT SAFELY.

B. TRAFFIC SHALL BE MAINTAINED AT ALL INTERSECTIONS AND DRIVES AT ALL TIMES AND SHALL BE CONTROLLED WITH FLAGGERS AND TRAFFIC CONTROL DEVICES AS REQUIRED AND SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER.

C. THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE-HALF OF THE EXISTING TRAVELED PAVEMENT WIDTH AT ALL TIMES, EXCEPT WHERE SPECIFIED FOR PAVING OPERATIONS, OR AS DIRECTED BY THE PROJECT ENGINEER.

D. DURING NON-WORKING HOURS, TRAFFIC SHALL BE RESTORED TO THE FULL WIDTH OF EXISTING PAVEMENT.

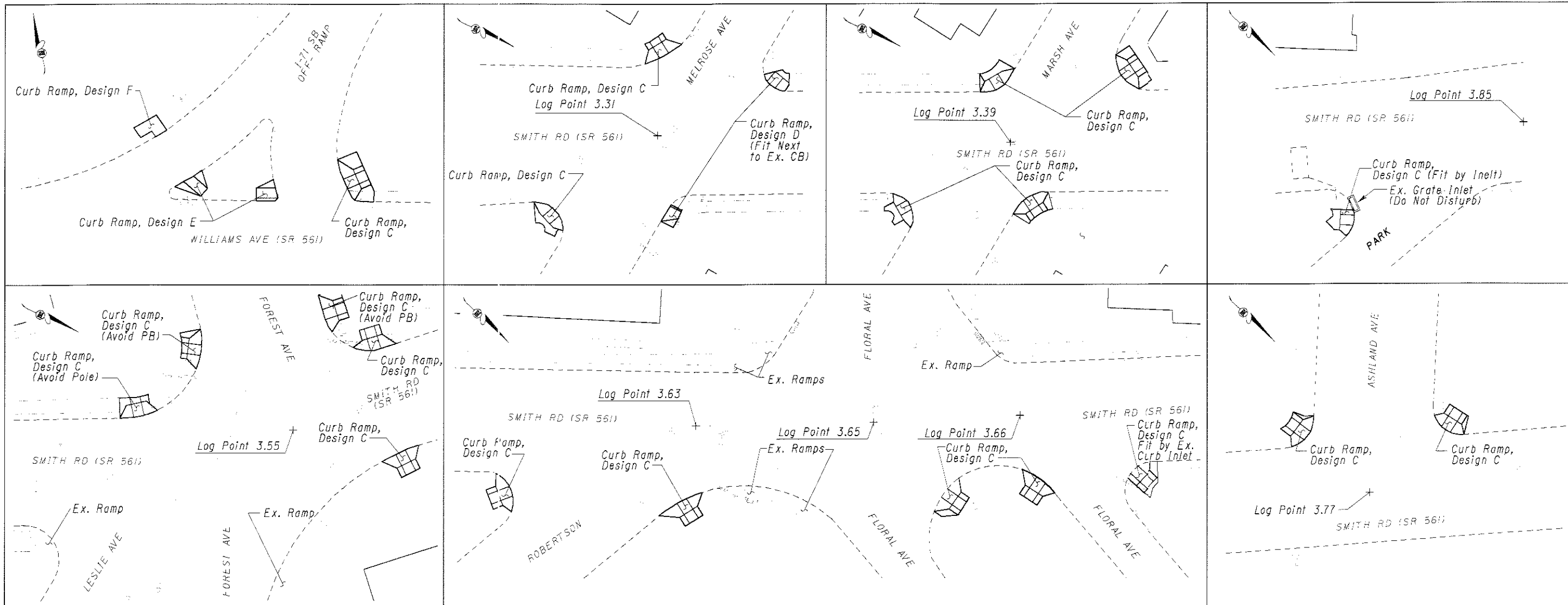
E. NO LANE CLOSURES SHALL BE PERMITTED BETWEEN THE HOURS OF 7:00 A.M. TO 9:00 A.M. AND 4:00 P.M. TO 7:00 P.M. MONDAY THRU FRIDAY.

F. PAYMENT FOR ALL THE ABOVE WORK SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614-MAINTAINING TRAFFIC.

G. TEMPORARY PAVEMENT MARKINGS SHALL BE PLACED AFTER THE PLANING OPERATION, AND INTERMEDIATE AND SURFACE COURSE APPLICATION IF THE PERMANENT MARKINGS ARE NOT INSTALLED. THE FOLLOWING ITEMS SHALL BE USED AS DIRECTED BY THE ENGINEER, AND SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC

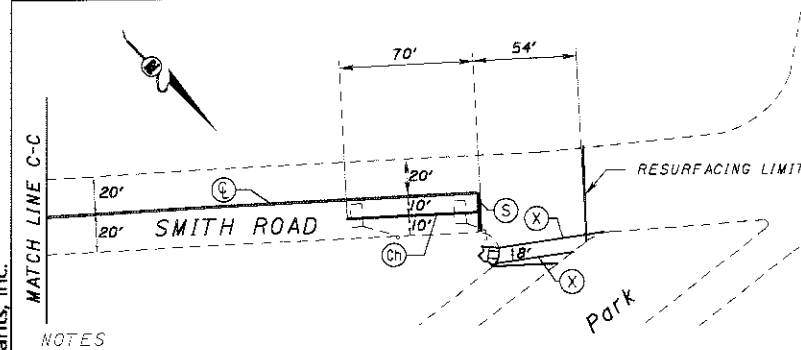
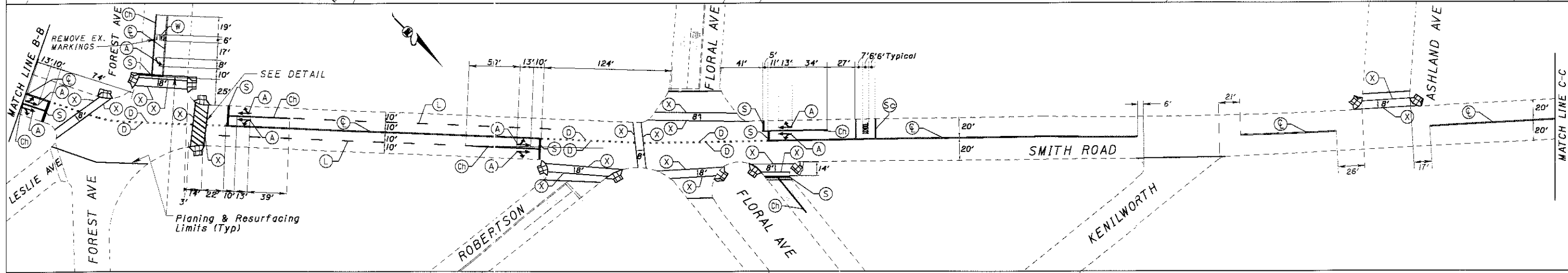
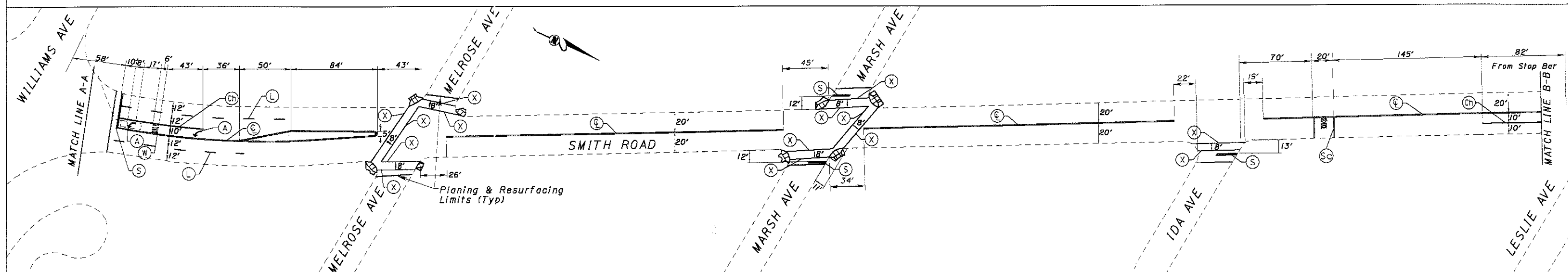
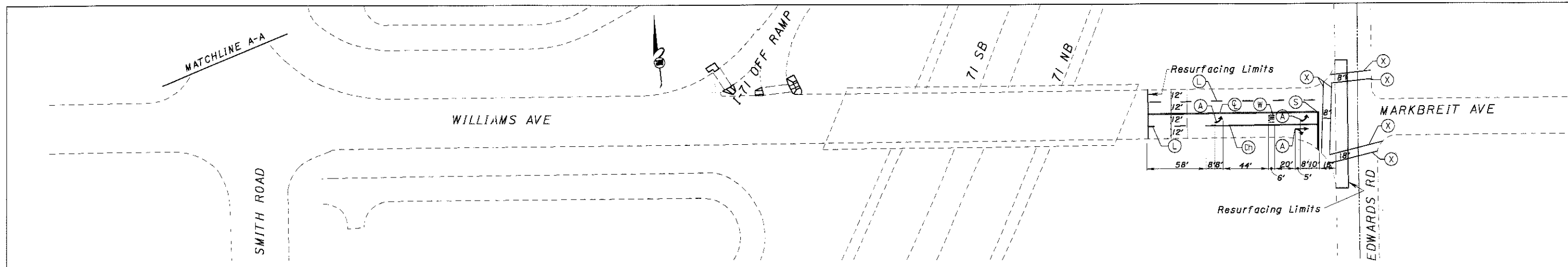
- ITEM 614 TEMPORARY CENTER LINE, CLASS I
- ITEM 614 TEMPORARY STOP LINE, CLASS I
- ITEM 614 TEMPORARY LANE ARROW, CLASS I
- ITEM 614 TEMPORARY WORD ON PAVEMENT, 72", CLASS I
- ITEM 614 TEMPORARY CHANNELIZING LINE, CLASS I

H. THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF NORWOOD AND NORWOOD POLICE ON ESTABLISHING ON-STREET PARKING RESTRICTIONS TO ACCOMMODATE THE WORK.



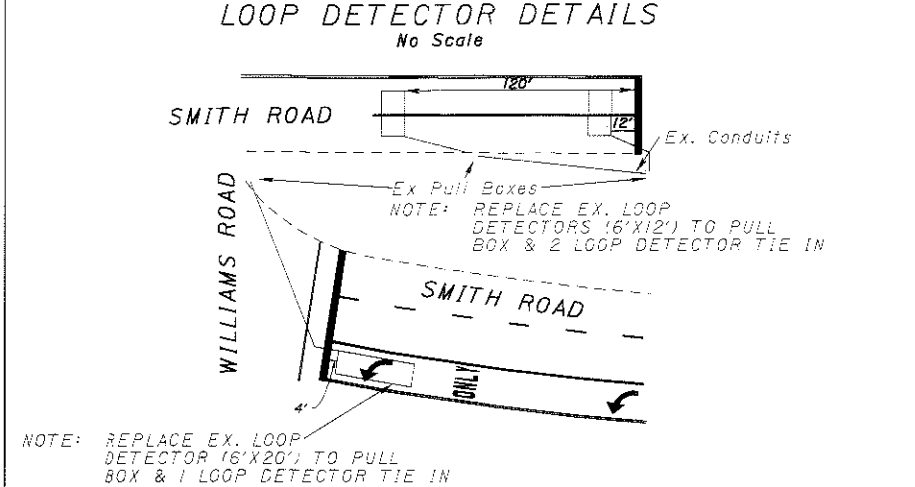
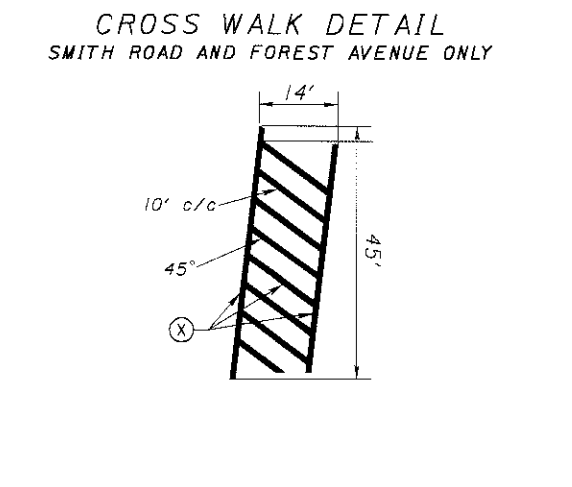
CURB RAMPS

| ROUTE | LOG POINT | INTERSECTION | SIDE | 202, CURB REMOVED | 202, WALK REMOVED | 202, CURB RAMP |
|-----------------------------------|-----------|---------------------------------|------|-------------------|-------------------|----------------|
| | | | | LIN. FT. | SQ. FT. | SQ. FT. |
| SR 561 | | Williams Ave @ I-71 SB Off-Ramp | LT | 51 | 210 | 335 |
| SR 561 | 3.31 | Smith Road @ Melrose Ave | RT | 25 | 130 | 130 |
| SR 561 | 3.31 | Smith Road @ Melrose Ave | LT | 27 | 135 | 135 |
| SR 561 | 3.39 | Smith Road @ Marsh Ave | RT | 34 | 185 | 185 |
| SR 561 | 3.39 | Smith Road @ Marsh Ave | LT | 34 | 230 | 230 |
| SR 561 | 3.55 | Smith Road @ Forest Ave | RT | 16 | 90 | 90 |
| SR 561 | 3.55 | Smith Road @ Forest Ave | LT | 62 | 380 | 380 |
| SR 561 | 3.63 | Smith Road @ Robertson Ave | RT | 36 | 185 | 185 |
| SR 561 | 3.65 | Smith Road @ Floral Ave | RT | 16 | 80 | 105 |
| SR 561 | 3.66 | Smith Road @ Floral Ave | RT | 30 | 160 | 195 |
| SR 561 | 3.77 | Smith Road @ Ashland Ave | LT | 30 | 185 | 185 |
| SR 561 | 3.85 | Smith Road @ Park Ave | RT | 11 | 74 | 74 |
| Totals Carried to General Summary | | | | 372 | 2044 | 2229 |



PAVEMENT MARKING LEGEND

- (C) 24" WHITE STOP LINE
- (S) 8" WHITE CHANNELIZING LINE
- (A) ARROWS
- (W) WORD "ONLY", 96"
- (Y) 24" YELLOW TRANSVERSE LINES
- (W) 24" WHITE TRANSVERSE LINES
- (L) 4" LANE LINE
- (WE) 4" WHITE EDGE LINE
- (YE) 4" EDGE LINE (YELLOW)
- (D) 4" DOTTED LINE
- (X) 12" WHITE CROSSWALK LINE
- (I) YELLOW ISLAND MARKER
- (SC) SCHOOL SYMBOL MARKING



NOTES

1. CONTRACTOR SHALL CONTACT THE CITY OF NORWOOD ENGINEER AND THE ODOT PROJECT ENGINEER 96 HOURS PRIOR TO ANY STRIPING ACTIVITIES TO ARRANGE A "PRE-STRIPING" CONFERENCE. THE PURPOSE OF THE CONFERENCE SHALL BE TO WALK THE PROJECT PRIOR TO STRIPING AND TO MAKE ANY NECESSARY REVISIONS.

ALL QUANTITIES CARRIED TO GENERAL SUMMARY

| PART COUNTY ROUTE | FROM | TO | 642 QUANTITIES CENTER LINE, MILES | | | REMARKS |
|-------------------|-------------------|-------------------|-----------------------------------|--------|-------|---------|
| | | | TOTAL | DASHED | SOLID | |
| HAMILTON | I-71 | Edwards Road | 0.031 | 0 | 0.031 | |
| HAMILTON SR 561 | Williams Road | Marsh Avenue | 0.134 | 0 | 0.134 | |
| HAMILTON SR 561 | Marsh Avenue | Leslie Avenue | 0.119 | 0.006 | 0.113 | |
| HAMILTON SR 561 | Leslie Avenue | Robertson Avenue | 0.097 | 0.040 | 0.069 | |
| HAMILTON SR 561 | Robertson Avenue | Kenilworth Avenue | 0.091 | 0.023 | 0.058 | |
| HAMILTON SR 561 | Kenilworth Avenue | Park Avenue | 0.090 | 0 | 0.090 | |
| CENTER LINE TOTAL | | | 0.562 | 0.069 | 0.493 | |

| PART COUNTY ROUTE | FROM | TO | 642 QUANTITIES LANE LINE, MILES | | REMARKS |
|-------------------|-------------------|-------------------|---------------------------------|--------|---------|
| | | | TOTAL | DASHED | |
| HAM. SR 561 | I-71 | Edwards Road | 0.043 | 0.043 | |
| HAM. SR 561 | Williams Road | Marsh Avenue | 0.056 | 0.056 | |
| HAM. SR 561 | Marsh Avenue | Leslie Avenue | 0 | 0 | |
| HAM. SR 561 | Leslie Avenue | Robertson Avenue | 0.098 | 0.098 | |
| HAM. SR 561 | Robertson Avenue | Kenilworth Avenue | 0 | 0 | |
| HAM. SR 561 | Kenilworth Avenue | Park Avenue | 0 | 0 | |
| LANE LINE TOTAL | | | 0.197 | 0.197 | |

| PART CO. ROUTE | S.L.M. | FROM | TO | 644 | | | | | | | | | | | | REMARKS | | |
|--------------------------|-------------|------------|----|----------------------|-----------------|--------------|----------------|---------------|------------------|-----------------|-----------------------|----------------|-----------------|-----------|------------|---------|----------------|----------------------|
| | | | | 24" TRANSVERSE LINES | | STOP LINES | 12" CROSS-WALK | | WORD ON PAVEMENT | | SCHOOL SYMBOL MARKING | | LANE ARROWS | | | | ISLAND MARKING | 8" CHANNELIZING LINE |
| | | | | WHITE LIN. FT. | YELLOW LIV. FT. | 24" LIN. FT. | WHITE LIN. FT. | 72" ONLY EACH | 96" ONLY EACH | 72" SCHOOL EACH | 96" SCHOOL EACH | LEFT TURN EACH | RIGHT TURN EACH | THRU EACH | COMB. EACH | | YELLOW SQ.FT. | WHITE LIN. FT. |
| HAM. SR 561 | I-71 | Edwards Rd | | 39 | 319 | 1 | | 0 | | 2 | 0 | 0 | 1 | | 107 | | | |
| HAM. SR 561 | Williams Rd | Marsh Ave | | 70 | 560 | 1 | | 0 | | 2 | 0 | 0 | 0 | | 82 | | | |
| HAM. SR 561 | Marsh Ave | Leslie Ave | | 42 | 144 | 0 | | 1 | | 0 | 0 | 0 | 2 | | 80 | | | |
| HAM. SR 561 | Leslie Ave | Robertson | | 65 | 515 | 1 | | 0 | | 1 | 0 | 0 | 4 | | 190 | | | |
| HAM. SR 561 | Robertson | Kenilworth | | 46 | 397 | 0 | | 1 | | 0 | 0 | 0 | 2 | | 106 | | | |
| HAM. SR 561 | Kenilworth | Park Ave | | 21 | 210 | 0 | | 0 | | 0 | 0 | 0 | 0 | | 68 | | | |
| AUXILIARY MARKING TOTALS | | | | 283 | 2145 | 3 | | 2 | | 5 | 0 | 0 | 9 | | 633 | | | |

LOCATION SUB-SUMMARY

DPC
JTB

| | |
|--------|-------------------|
| Detail | TC-65.10 |
| 1 | CENTER LANE |
| | TYPICAL SPACING |
| 2 | LANE LINE TYPICAL |
| | SPACING |
| 2a | CHANNELIZING LINE |
| | TYPICAL SPACING |

| | |
|--------|---------------------------------------|
| Detail | TC-65.11 |
| 3 | ACCELERATION LANE |
| 4 | DECELERATION LANE |
| 5 | MULTILANE DIVIDED-CONTROL ACCESS |
| 6 | 4 LANE DIVIDED TO 2 LANE TRANSITION |
| 7 | 4 LANE UNDIVIDED TO 2 LANE TRANSITION |

| | |
|--------|----------------------------|
| Detail | TC-65.12 |
| 8 | ONE LANE BRIDGE |
| 9 | STCP APPROACH |
| 10 | TWO WAY LEFT TURN |
| 11 | HORIZONTAL CURVE |
| 12 | APPROACH W/ LEFT TURN LANE |

| PART | COUNTY | ROUTE | LOCATION | | D E T A I L | RAISED PAVEMENT MARKER INSTALLATION ONLY EACH | 621 RAISED PAVEMENT MARKER CASTING INSTALLATION ONLY EACH | PRISMATIC RETRO- REFLECTOR EACH | PRISMATIC RETRO-REFLECTOR COLORS | | | REMARKS |
|----------|--------|-------|---------------------------|------|----------------------------|--|--|--|----------------------------------|---|----|-------------------------------------|
| | | | S.L.M. SECTION (MILES) | | | | | | ONE-WAY | TWO-WAY | | |
| | | | FROM | TO | | | | WHITE | YELLOW | WHITE/YELLOW/WHITE/ WHITE YELLOW RED | | |
| HAMILTON | SR 561 | | 3.10 | 3.14 | 1,2,2a | 7 | | | | 2 | 5 | WILLIAMS RD - EDWARDS TO BRIDGE |
| HAMILTON | SR 561 | | 3.26 | 3.31 | 1,2,2a,12 | 13 | | | | 6 | 7 | SMITH RD - WILLIAMS TO MELROSE |
| HAMILTON | SR 561 | | 3.31 | 3.55 | 1,2,2a | 28 | | | | 25 | 3 | SMITH RD - MELROSE TO LESLIE/FOREST |
| HAMILTON | SR 561 | | 3.55 | 3.65 | 1,2,2a | 13 | | | | 3 | 15 | SMITH RD - LESLIE/FOREST TO FLORAL |
| HAMILTON | SR 561 | | 3.65 | 3.85 | 1,2,2a | 32 | | | | 26 | 6 | SMITH RD - FLORAL TO PARK |

QUANTITIES CARRIED TO THE GENERAL SUMMARY

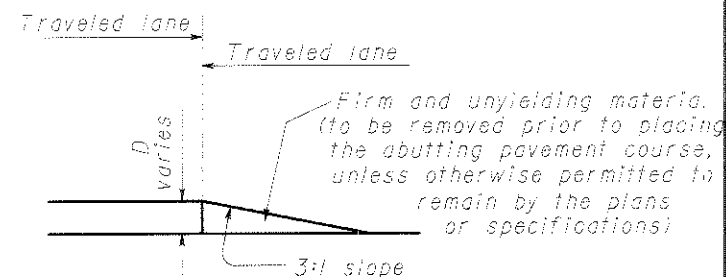


GENERAL NOTES

- It is intended that this drawing be used for treatment of drop-offs that develop during construction operations, and that are not otherwise provided for in the construction plans. Where the plans do not provide specific items for labor, equipment, or materials to implement the drop-off treatments specified hereon, they shall be included for payment in the lump sum bid for Item 614 - Maintaining Traffic.
- While the need for certain advisory signing is noted hereon, it is not intended that this be indicative of all signing that may be required to advise or warn motorists, and all requirements of the Ohio Manual of Uniform Traffic Control Devices (OMUTCD) must be fulfilled.
- In urban or otherwise heavily developed areas where pedestrians and/or bicyclists may be present in significant numbers, additional signing and protective measures other than those shown hereon may be required.
- The drop-off treatment selected for use at any given location shall be as appropriate for the prevailing conditions at the site.
- Where concrete barrier is specified, it shall be in accordance with Standard Construction Drawing MC-9.2 and Item 622.
- When drums are specified for a dropoff condition, a minimum number of four drums shall be used. Spacing shall be as indicated in the plans or as specified in the OMUTCD.
- When OW-151 (Low Shoulder) signs or OW-171 (Uneven Lanes) and OWP-171 signs are required, they shall be placed 750' in advance of the condition, on all intersecting entrance ramps within the limits of the condition and immediately beyond all intersecting roadways within the limits of the condition. When the dropoff condition extends more than one-half mile, additional signs should be erected at intervals of one mile or less.
- For locations, such as at ramps, lane shifts, lane closures, etc., where traffic is required to negotiate any difference in elevation between pavements, a 3:1 slope treatment similar to the Optional Wedge Treatment shall be provided.
- Portable concrete barrier shall be placed on the same level as the traffic surface and shall not encroach on lane width(s) designated as the minimum required for traffic use. Where drums are used, and their presence would reduce traveled lane widths to less than 10', drums may be placed on the opposite level from that of traffic provided the dropoff depth does not exceed 5" and approval is granted by the Project Engineer.
- Pavement Repairs (or similar work):
 - Lengths greater than 60 feet - utilize appropriate treatment from Condition I.
 - Lengths of 60 feet or less - repairs shall be effected in accordance with 255.08. Drums may be used as a separator adjacent to the traveled lane.

OPTIONAL WEDGE TREATMENT (MILLING OR RESURFACING)

- This treatment may be used when permitted for Condition I only.
- OW-171 and OWP-171 signs required.

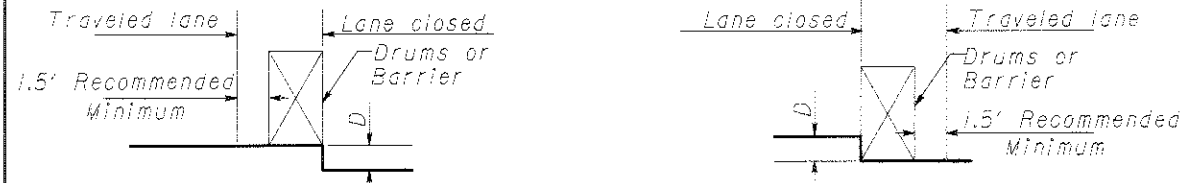


CONDITION I DROPOFFS BETWEEN TRAVELED LANES

- These treatments are to be used for resurfacing, pavement planing, excavation, etc. between or within traveled lanes.

| D (In.) | Treatment |
|-----------|---|
| ≤ 1/2 | Erect OW-171 and OWP-171 signs. |
| > 1/2 - 3 | 1) Lane closure utilizing drums* as shown below OR 2) Optional Wedge Treatment |
| > 3 - 5 | Lane closure utilizing drums as shown below. |
| > 5 | Lane closure utilizing portable concrete barrier as shown below. |

*Cones may be used for daytime only conditions.

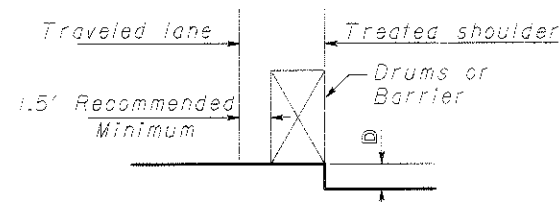


CONDITION II DROPOFFS WITHIN GRADED SHOULDER AREA

- The treatments indicated below are for use in conjunction with resurfacing, planing, or excavations within the graded shoulder area.
- The graded shoulder area is that flat or gradually sloping area between the edge of a normally traveled lane and the more steeply sloping ditch foreslope or embankment slope. Its surface may be soil or turf, and/or it may be inclusive of a "treated" area (improved with aggregates, asphaltic materials, or concrete). For the purposes herein, its maximum width shall be considered to be twelve (12) feet.

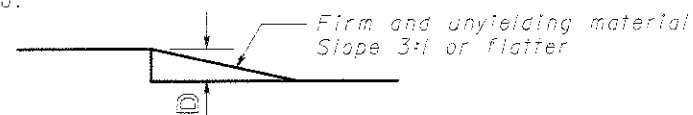
| D (In.) | Treatment |
|---------------------------|--|
| ≤ 1/2 | 1) If edgelines are present, no treatment necessary OR 2) Erect OW-171 and OWP-171 signs. |
| > 1/2 - 5 | 1) If min. lane width* requirements can be met, maintain lanes utilizing drums as shown below OR 2) If min. lane width* requirements cannot be met, close adjacent lane utilizing drums OR 3) Optional Shoulder Treatment. |
| > 5 - 12 Daylight only | If min. lane width* requirements can be met, maintain lanes utilizing drums as shown below. |
| > 5 - 24 | 1) If min. lane width* requirements can be met, maintain lanes utilizing portable concrete barrier as shown below. OR 2) If min. lane width* requirements cannot be met, close adjacent lane utilizing drums. |
| > 24 | Lane closure utilizing portable concrete barrier as shown below. |

*Minimum lane widths shall be 10' unless otherwise specified in the plans.



OPTIONAL SHOULDER TREATMENT

- This treatment may not be used within a bituminous shoulder where a hot longitudinal joint per 401.15 is required.
- OW-151 signs required.

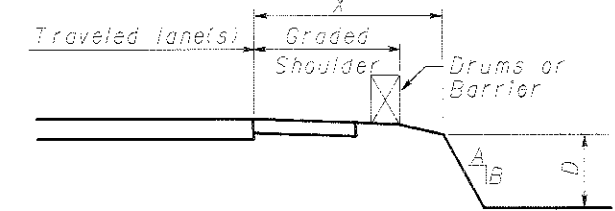


CONDITION III DROPOFFS BEYOND GRADED SHOULDER OR BACK OF CURB

- See Note 2 under Condition II.
- Use Chart A or B below, as applicable.

CHART A

- USE FOR:
- Uncurbed Facilities.
 - Curbed Facilities, where:
 - Curbs are less than 6" in height.
 - Curbs are 6" or greater in height and the legal speed is greater than 40 mph.

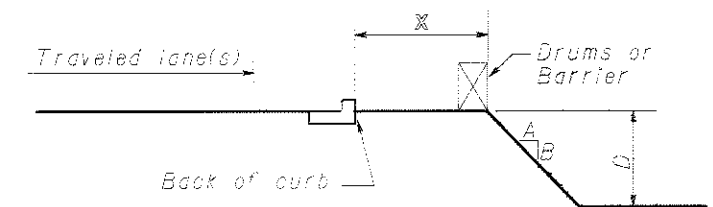


| X (Ft.) | D (In.) | A/B | Treatment Required | |
|-----------|-------------|------------------|--------------------|---------|
| | | | Day | Night |
| 0-4 | Any | Any | (a) | (a) |
| 4-30 | Any | 3:1 or Flatter | None | None |
| 4-12 | < 3 | Steeper than 3:1 | None | None |
| 4-12 | > 3 - < 12 | Steeper than 3:1 | Drums | Drums |
| 4-12 | > 12 | Steeper than 3:1 | Drums | Barrier |
| > 12 - 20 | < 12 | Steeper than 3:1 | None | None |
| > 12 - 20 | > 12 - < 24 | Steeper than 3:1 | Drums | Drums |
| > 12 - 20 | > 24 | Steeper than 3:1 | Drums | Barrier |
| > 20 - 30 | < 24 | Steeper than 3:1 | None | Drums |
| > 20 - 30 | > 24 | Steeper than 3:1 | Drums | Barrier |
| > 30 | Any | Any | None | None |

(a) Use treatment specified under Condition II.

CHART B

- USE FOR: Curbed facilities, where the curb is 6" or greater in height and the legal speed is 40 mph or less.



| X (Ft.) | D (In.) | A/B | Treatment Required | |
|---------|---------|-----|--------------------|-------|
| | | | Day | Night |
| 0-10 | < 12 | Any | None | Drums |
| 0-10 | > 12 | Any | Drums | Drums |
| > 10 | Any | Any | None | None |

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
BUREAU OF LOCATION AND DESIGN

DROPOFFS IN WORK ZONES

DESIGNED DRAWN TRACED CHECKED REVIEWED DATE REVISED

10
11

