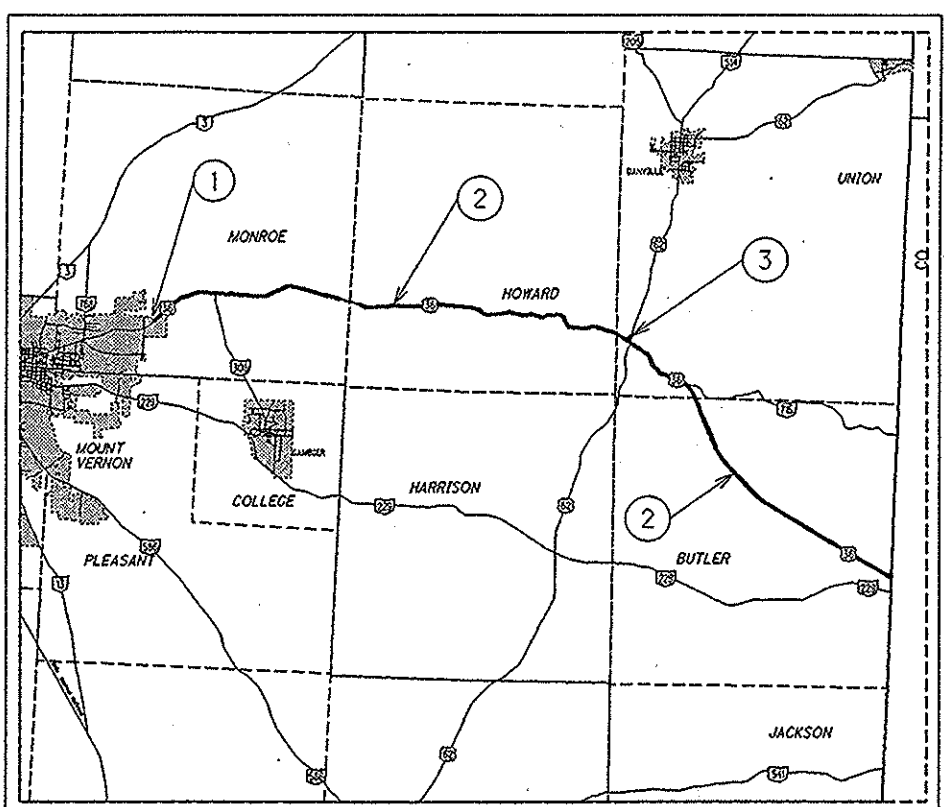


KNO - US-36-20.44  
 110271 PID - 81229  
 Dist 5 5/5/2011



LOCATION MAP

LON/LAT: 82° 17' 04" / 40° 24' 21"

PORTION TO BE IMPROVED

DESIGN DESIGNATION	LOC. 1	LOC. 2	LOC. 3
	U.S. 36	U.S. 36	CONNECTOR
Functional Classification	UPA	RMA	RMA
Opening Year ADT (2011)	10500	4400	3300
Design Year ADT (2023)	11700	4900	3700
Design Hourly Volume (2023)	1170	539	407
Directional Distribution	55%	55%	55%
Trucks (24 Hour B&C)	3%	6%	6%
Design Speed	55mph	55mph	35mph
Legal Speed	55mph	55mph	35mph

RMA = RURAL MINOR ARTERIAL  
 UPA = URBAN PRINCIPAL ARTERIAL

DESIGN EXCEPTIONS: NONE

**UNDERGROUND UTILITIES**  
 CONTACT BOTH SERVICES  
 CALL TWO WORKING DAYS  
**BEFORE YOU DIG**

CALL  
 1-800-362-2764  
 (TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE  
 NON-MEMBERS  
 MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE  
 SERVICE CALL: 1-800-925-0988

PLAN PREPARED BY:  
 OHIO DEPARTMENT OF TRANSPORTATION  
 DISTRICT 5 PRODUCTION OFFICE

ENGINEER'S SEAL

SIGNED: *Douglas N. Morgan*  
 DATE: 2-01-2011

STATE OF OHIO  
 DEPARTMENT OF TRANSPORTATION

**KNO-36-20.44**

CITY OF MOUNT VERNON

MONROE, HOWARD AND  
 BUTLER TOWNSHIPS

KNOX COUNTY

INDEX OF SHEETS:

TITLE SHEET ..... 1  
 GENERAL NOTES ..... 2-4  
 ASPHALT CONCRETE DATA ..... 5-6  
 SHOULDER TREATMENT DATA ..... 7  
 EXTRA AREA DATA ..... 8-9  
 BRIDGE TREATMENT DATA ..... 10-11  
 CURB RAMP DATA/PLAN SHEET ..... 12  
 CURB RAMP AND DETECTABLE WARNING DETAILS ... 13-15  
 PAVEMENT MARKING DATA ..... 16-18  
 RAISED PAVEMENT MARKER DATA ..... 19-20  
 GUARDRAIL DATA ..... 21  
 LOCATION SUB-SUMMARIES ..... 22-24  
 GENERAL SUMMARY ..... 25

STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS	
BP-3.1	10-19-07	TC-65.10	1-21-05	800	1-21-11
BP-4.1	7-16-04	TC-65.11	1-21-05	832	5-5-09
		TC-71.10	1-21-11	817	7-16-10
GR-1.1	7-16-04	TC-73.10	1-19-01		
GR-2.1	1-16-04	TC-82.10	1-21-11		
GR-3.4	10-16-09				
GR-4.2	1-19-07	MT-97.10	10-15-10		
GR-5.1	4-16-10	MT-97.12	10-15-10		
GR-5.2	4-16-10	MT-99.20	1-16-09		
GR-5.3	4-16-10	MT-101.90	1-16-09		
GR-6.1	4-16-10	MT-105.10	1-16-09		
				SPECIAL PROVISIONS	

PROJECT DESCRIPTION:  
 ASPHALT CONCRETE RESURFACING, AND RELATED  
 WORK, ON U.S. 36 IN KNOX COUNTY.

Project Earth Disturbed Area =  
 N/A (Maintenance Project)  
 Estimated Contractor Earth Disturbed Area =  
 N/A (Maintenance Project)  
 Notice of Intent Earth Disturbed Area =  
 N/A (Maintenance Project)

LOCATION	COUNTY	ROUTE	BEGIN SLM	END SLM	LENGTH MILES	CITY/VILLAGE
1	KNO	36	20.44	20.68	0.24	MT VERNON
1	KNO	36	20.77	20.82	0.05	MT VERNON
2	KNO	36	20.68	20.77	0.11	
2	KNO	36	20.82	35.87	15.05	
3	KNO	36/62 CONNECTOR			0.72	

2010 SPECIFICATIONS

THE STANDARD 2010 SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND THE PROPOSAL SHALL GOVERN THESE IMPROVEMENTS.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THESE IMPROVEMENTS WILL NOT REQUIRE THE CLOSING OF THE HIGHWAY AND PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS INDICATED IN THE PROPOSAL.

APPROVED *[Signature]*  
 DATE 2/1/11 DISTRICT DEPUTY DIRECTOR

APPROVED *[Signature]*  
 DATE 2-9-11 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. **E060 (542)**  
 PID NO. **81229**  
 CONSTRUCTION PROJECT NO.  
 RAILROAD INVOLVEMENT **NONE**  
**KNO-36-20.44**  
 1/25

**UTILITIES**

THERE ARE NO UNDERGROUND UTILITIES SHOWN ON THIS PLAN. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER OR ADJACENT TO THE WORK AREA.

**NOTIFICATION OF ROAD CLOSURE OR RESTRICTION**

IN ORDER FOR ODOT TO PROPERLY PERMIT OVERSIZE LOADS, PREPARE PROPER SIGNING WHEN REQUIRED AND FURTHER TO NOTIFY THE GENERAL MOTORING PUBLIC, THE CONTRACTOR SHALL NOTIFY (IN WRITING THE DISTRICT 5 HIGHWAY MANAGEMENT ADMINISTRATOR WITH COPIES FOR THE DISTRICT 5 ROADWAY SERVICES MANAGER AND PROJECT ENGINEER NOT LESS THAN 21 DAYS BEFORE SUCH CLOSURE OR LANE RESTRICTIONS.

SEND NOTIFICATION TO:  
DISTRICT 5 HIGHWAY MANAGEMENT ADMINISTRATOR  
P.O. BOX 306  
JACKSONSTOWN, OH 43030  
PHONE: (740) 323-4400 EXT. 5241

**ITEM 617, COMPACTED AGGREGATE, AS PER PLAN**

ALL AGGREGATE SHALL BE 100% CRUSHED LIMESTONE. ALL QUALITY REQUIREMENTS EXCEPT SHALE SHALL BE WAIVED. OTHER GRADATION REQUIREMENTS SHALL BE AS SPECIFIED EXCEPT THE INDEX SHALL BE WAIVED. IF SO PERMITTED, THE CONTRACTOR MAY USE ASPHALT CONCRETE PAVEMENT (RACP MEETING REQUIREMENTS OF 617.02) IN LIEU OF CRUSHED LIMESTONE.

**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 FOR ESTIMATING PURPOSES ONLY.

**ITEM 407, TACK COAT FOR INTERMEDIATE COURSE**

THE RATE OF APPLICATION OF THE 407 TACK COAT FOR INTERMEDIATE COURSE SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.05 GALLONS PER SQUARE YARD FOR ESTIMATING PURPOSES ONLY.

**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.

**ITEM 516, 2" DEEP JOINT SEALER, AS PER PLAN**

THE CONTRACTOR SHALL PLACE A 1" X 2.0" DEEP BEAD OF JOINT SEALER (AS PER 705.04) AT THE LOCATIONS SHOWN IN PLANS. THE CONTRACTOR SHALL SAW CUT A CHANNEL FOR THE JOINT SEALER. THE COST FOR SAW CUTTING THE CHANNEL FOR THE JOINT SEALER SHALL BE INCLUDED FOR PAYMENT WITH ITEM 516, 2" DEEP JOINT SEALER, AS PER PLAN.

**MAIL BOX TURN OUTS**

A QUANTITY OF ASPHALT CONCRETE HAS BEEN PROVIDED IN THE PLAN TO COVER MAIL BOX TURN-OUTS. TURN-OUTS SHALL BE PAVED AS SHOWN IN THE DETAIL IN DRAWING BP-4.1. ANY EXTRA GRADING OF THE SHOULDERS, PRIME OR TACK COAT, MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE MAIL BOX TURN OUTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE ITEMS LISTED BELOW.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE SUB-SUMMARIES FOR THE ABOVE PURPOSES.

**ITEM 448, ASPHALT CONCRETE INTERM. COURSE, TYPE 1, PG 64-22**  
LOCATION 1 - 1 CU.YD.  
LOCATION 2 - 29 CU.YD.

**ITEM 448, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22M**  
LOCATION 1 - 1 CU.YD.  
LOCATION 2 - 36 CU.YD.

**ITEM 202, WEARING COURSE REMOVED**  
LOCATION 1 - 10 SQ.YD.  
LOCATION 2 - 1,020 SQ.YD.

**ITEM 408, PRIME COAT, AS PER PLAN**

THE CONTRACTOR SHALL APPLY ONE COAT OF MC-70 (AS PER SECTION 702) AT A RATE OF 0.40 GALLON PER SQUARE YARD TO THE COMPLETED AGGREGATE SHOULDER (ITEM 617) AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE A SHIELD TO PREVENT THE SPRAYING OR DRIFTING OF LIQUID BITUMINOUS MATERIAL ONTO THE EDGE OF PAVEMENT OR EDGE LINE. THE ATTENTION OF THE CONTRACTOR IS DIRECTED TO 107.10 OF THE SPECIFICATIONS.

THE FOLLOWING QUANTITIES OF PRIME COAT, AS PER PLAN HAVE BEEN CARRIED TO THE SUB-SUMMARIES AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT TO PERFORM THE ABOVE MENTIONED WORK.

**ITEM 408 PRIME COAT, AS PER PLAN**  
LOCATION 1 - 681 SQ.YD. x 0.40 GAL./SQ YD = 273 GAL  
LOCATION 2 - 35,529 SQ.YD. x 0.40 GAL./SQ YD = 14,212 GAL  
LOCATION 3 - 282 SQ.YD. x 0.40 GAL./SQ YD = 113 GAL

**PAVEMENT MARKING**

STOP LINES, CROSSWALK LINES, CHANNELIZING LINES, ETC., SHOWN IN THE PLANS ARE TAKEN FROM EXISTING MARKINGS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DOCUMENT EXISTING MARKING LOCATIONS (i.e. BY USE OF VIDEO, PICTURES) AND PLACE NEW PAVEMENT MARKINGS AS NEAR AS POSSIBLE TO THE EXISTING LOCATIONS UNLESS OTHERWISE DIRECTED BY THE ENGINEER. DOCUMENTATION OF PAVEMENT MARKING SHALL BE SUPPLIED TO THE ENGINEER BEFORE COMMENCEMENT OF ANY OPERATION WHICH WILL REMOVE/OBLITERATE MARKINGS.

**ITEM 614, WORK ZONE MARKING SIGN**

IN ACCORDANCE WITH CMS SECTION 614.04, THE QUANTITIES OF WORK ZONE MARKING SIGN HAVE BEEN CARRIED TO THE SUB-SUMMARIES TO BE USED AS DIRECTED BY THE ENGINEER.

W8-H12a (NO EDGE LINES): LOCATION 1 - 1 EACH, LOCATION 2 - 16 EACH, LOCATION 3 - 2 EACH  
W8-H15 (GROOVED PAVEMENT): LOCATION 1 - 1 EACH, LOCATION 2 - 36 EACH, LOCATION 3 - 2 EACH  
R4-1 (DO NOT PASS): LOCATION 1 - 1 EACH, LOCATION 2 - 38 EACH, LOCATION 3 - 2 EACH  
R4-2 (PASS WITH CARE): LOCATION 2 - 30 EACH

**ITEM 614, WORK ZONE MARKING SIGN**  
LOCATION 1 - 3 EACH  
LOCATION 2 - 120 EACH  
LOCATION 3 - 6 EACH

**RESIDENTIAL AND COMMERCIAL DRIVES**

AN ESTIMATED QUANTITY OF ITEM 448 ASPHALT CONCRETE, HAS BEEN INCLUDED IN THE PLAN TO BE USED AS DIRECTED BY THE ENGINEER TO PAVE APPROACH AREAS TO EXISTING DRIVEWAYS. PAVING SHALL TYPICALLY EXTEND 4' INTO THE DRIVEWAY (MEASURED FROM THE EDGE OF PAVEMENT OR PAVED SHOULDER IF PRESENT). THERE ARE 5 TYPES OF DRIVES: CONCRETE, ASPHALT, GRAVEL, GRAVEL WITH ASPHALT APRON AND FIELD/OIL WELL DRIVES. FIELD DRIVES AND OIL WELL DRIVES SHALL NOT BE PAVED. GRAVEL DRIVES SHALL BE PAVED BACK 4' INTO THE DRIVE-WAY UNLESS OTHERWISE DIRECTED BY THE ENGINEER. CONCRETE AND ASPHALT DRIVES SHALL HAVE BUTT JOINTS OR AS SHORT AN ASPHALT TAPER AS POSSIBLE (PREFERRED 4') AS DIRECTED BY THE ENGINEER SO AS TO PROVIDE A SMOOTH TRANSITION. GRAVEL DRIVES WITH ASPHALT APRONS SHALL ALSO HAVE BUTT JOINTS OR AS SHORT A ASPHALT TAPER AS POSSIBLE (PREFERRED 4') BUT ONLY IF THE EXISTING ASPHALT APRON IS IN AN ACCEPTABLE CONDITION TO BE PAVED OVER AS DIRECTED BY THE ENGINEER. IF THE ASPHALT APRON CANNOT BE PAVED OVER (FOR EXAMPLE, BROKEN INTO SMALL PIECES) AS DETERMINED BY THE ENGINEER, IT SHALL BE REMOVED BEFORE BEING PAVED BACK 4' INTO THE DRIVEWAY. ALL GRADING, PRIME OR TACK COAT, MATERIALS, LABOR, EQUIPMENT TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE DRIVES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE ITEMS LISTED BELOW.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE SUB-SUMMARIES FOR THE ABOVE DESCRIBED PURPOSE.

**ITEM 448, ASPHALT CONCRETE INTERM. COURSE, TYPE 1, PG 64-22**  
LOCATION 1 - 1 CU.YD.  
LOCATION 2 - 47 CU.YD.

**ITEM 448, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 70-22M**  
LOCATION 1 - 1 CU.YD.  
LOCATION 2 - 59 CU.YD.

**ITEM 202, WEARING COURSE REMOVED**  
LOCATION 1 - 10 SQ.YD.  
LOCATION 2 - 1,680 SQ.YD.

CALCULATED  
LIVE  
CHECKED  
DNM

GENERAL NOTES

KNO -36 - 20.44

**ITEM 209, LINEAR GRADING**

IN ORDER TO PROVIDE POSITIVE DRAINAGE FROM THE ROADWAY SURFACE TO THE SHOULDER BREAK, THE EXISTING ROADWAY SHOULDERS SHALL BE GRADED AND SHAPED USING A GRADER OF ADEQUATE SIZE TO PERFORM THE WORK TO THE SATISFACTION OF THE ENGINEER. ALL EXCESS MATERIAL REMAINING AROUND GUARDRAIL AND OTHER AREAS AFTER THE GRADER WORK IS COMPLETED AND NOT DISPOSED OF ON THE SITE, SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. ALL EQUIPMENT, LABOR, OR INCIDENTALS REQUIRED TO COMPLETE THIS ITEM SHALL BE INCLUDED FOR PAYMENT IN THE UNIT PRICE BID FOR ITEM 209 LINEAR GRADING.

THIS WORK MAY BE INTERMITTENT AND SPREAD THROUGHOUT THE PROJECT LIMITS, AS DIRECTED BY THE ENGINEER. THE CONTRACTOR WILL ONLY BE PAID FOR INTERSECTIONS AND GAPS IF THEY ARE WITHIN THE LIMITS OF A SECTION MARKED BY THE ENGINEER FOR GRADING.

ALL LINEAR GRADING WORK SHALL BE DONE BEFORE PLACING THE ASPHALT SURFACE COURSE

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE SUB-SUMMARIES FOR THE ABOVE PURPOSES.

**ITEM 209, LINEAR GRADING  
LOCATION 2 - 7 MILE**

**BUTT JOINT**

A BUTT JOINT WILL BE REQUIRED AT LOCATIONS SPECIFIED BELOW AND AT THE EXTRA AREAS WITH WEARING COURSE REMOVED.

**BUTT JOINTS SHALL BE AS PER STANDARD CONSTRUCTION DRAWING BP-3.1 UNLESS OTHERWISE SHOWN IN THE PLANS.**

MINIMUM BUTT JOINT LENGTHS SHALL BE 35' ON THE MAINLINE AND 10' ON THE EXTRA AREAS.

LOCATION	ROUTE	DESCRIPTION	S.L.M.	ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC CU. YD.
1	U.S. 36	BEGIN WORK	20.44	1.0
2	U.S. 36	BRIDGE: KNO-36-2429	24.29	1.5
2	U.S. 36	BRIDGE: KNO-36-2950	29.50	1.5
2	U.S. 36	BRIDGE: KNO-36-3111	31.11	1.5
2	U.S. 36	END WORK	35.87	0.8
2	U.S. 36	TOTAL		5.3
3		BEGIN WORK	0.00	0.8
3		END WORK	0.12	0.8
3		TOTAL		1.6

**ITEM 253, PAVEMENT REPAIR**

AN ESTIMATED QUANTITY FOR PAVEMENT REPAIR HAS BEEN INCLUDED IN THE PLAN TO BE USED AS DIRECTED BY THE ENGINEER. REPAIRS SHALL TAKE PLACE PRIOR TO THE PLANING/CHIP SEAL OPERATIONS. THE INTENT OF THIS OPERATION IS TO REPAIR THOSE AREAS OF PAVEMENT WHICH HAVE COMPLETELY FAILED (PUMPING OF SUB-BASE MATERIAL) AND NOT TO CORRECT SURFACE IRREGULARITIES. DEPTH OF EXCAVATION SHALL BE APPROXIMATELY 7". AFTER EXCAVATION HAS BEEN COMPLETED, THE FACE OF THE REPAIR SHALL BE COATED WITH 407 TACK COAT. REPLACEMENT MATERIAL WILL BE 7" OF ITEM 301 ASPHALT CONCRETE BASE, PG64-22 (PLACED AND COMPACTED AS DIRECTED). REPAIR QUANTITIES MAY BE USED ON THE MAINLINE PAVEMENT OR ON PAVED SHOULDERS. ALL EXCAVATION, MATERIALS, LABOR, EQUIPMENT, TOOLS, TRAFFIC CONTROL AND INCIDENTALS NEEDED TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE PAID FOR UNDER ITEM 253 PAVEMENT REPAIR, AS PER PLAN.

THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN CARRIED TO THE SUB-SUMMARIES FOR THE ABOVE DESCRIBED PURPOSE.

**ITEM 253, PAVEMENT REPAIR  
LOCATION 2 - 2,500 CU.YD.**

**ITEM 621, RAISED PAVEMENT MARKER REMOVED**

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE PLANS TO REMOVE RAISED PAVEMENT MARKERS FOR DISPOSAL BY THE CONTRACTOR. RPM REMOVAL SHALL NOT OCCUR SOONER THAN 10 DAYS PRIOR TO RESURFACING OF THE ROADWAY. ALL RPM'S REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE SUB-SUMMARIES FOR THE ABOVE DESCRIBED PURPOSE.

**ITEM 621, RAISED PAVEMENT MARKER REMOVED  
LOCATION 1 - 47 EACH  
LOCATION 2 - 1,204 EACH  
LOCATION 3 - 32 EACH**

**ITEM 614, MAINTAINING TRAFFIC**

A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT AND STANDARD DRAWINGS MT-97.10 AND MT-97.12.

AT NO TIME SHALL TRAFFIC BE MAINTAINED ON THE PLANED SURFACE, AT LEAST ONE COURSE OF ASPHALT CONCRETE SHALL BE IN PLACE BEFORE OPENING TO TRAFFIC.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT, IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

**STATE SCENIC RIVERS**

PORTIONS OF THE PROJECT AREA ARE WITHIN 1000 FEET OF THE STATE SCENIC KOKOSING RIVER. IN ACCORDANCE WITH THE MEMORANDUM OF AGREEMENT BETWEEN ODOT AND THE OHIO DEPARTMENT OF NATURAL RESOURCES REGARDING WORK WITHIN 1000 FEET OF SCENIC RIVERS, THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING CONDITIONS WHEN WORKING WITHIN 1000 FEET OF THE KOKOSING RIVER:

IF ANY EARTHWORK IS PERFORMED WITHIN A PROJECT AREA, THEN A SEDIMENT AND EROSION CONTROL PLAN SHALL BE DEVELOPED AND IMPLEMENTED BEFORE EARTHWORK COMMENCES. ALL CONTROLS SHALL BE PROPERLY MAINTAINED UNTIL FINAL SITE STABILIZATION HAS BEEN ACHIEVED. ALL DENUDED AREAS (LOCATION WHERE VEGETATION IS REMOVED) SHALL BE SEEDED AND MULCHED IMMEDIATELY UPON COMPLETION OF EARTHWORK OR WITHIN SEVEN DAYS. PROPERLY INSTALLED (FRAMED AND ENTRENCHED) SEDIMENT FENCE SHALL BE UTILIZED AROUND ANY STORM SEWER INLETS. APPROPRIATELY DESIGNED ROCK CHECK DAMS AND OTHER EROSION CONTROLS SHALL BE UTILIZED IN DITCHES AND CULVERTS. PARTICULAR ATTENTION SHALL BE GIVEN TO WATERCOURSES THAT COULD CONVEY SEDIMENT LADEN WATER DIRECTLY TO A DESIGNATED SCENIC RIVER. ANY DENUDED DITCHES SHALL BE SEEDED AND PROTECTED IMMEDIATELY WITH EROSION CONTROL MATTING OR SOD UPON COMPLETION OF EARTHWORK. STRAW BALES SHALL NOT BE UTILIZED AS A FORM OF SEDIMENT AND EROSION CONTROL. ALL SEDIMENT AND EROSION CONTROLS SHALL BE REMOVED UPON STABILIZATION OF THE PROJECT AREA.

IF ROADSIDE DITCH MAINTENANCE IS NECESSARY WITHIN 1000 FEET OF A DESIGNATED STATE SCENIC RIVER, THEN THE DITCH SHALL BE MAINTAINED ONLY FOR THE ORIGINAL INTENDED FUNCTION AND RESTORED TO THE ORIGINAL DESIGN CONFIGURATION. ANY DENUDED DITCHES SHALL BE SEEDED AND PROTECTED IMMEDIATELY WITH EROSION CONTROL MATTING OR SOD UPON COMPLETION OF EARTHWORK. STRAW BALES SHALL NOT BE UTILIZED AS A FORM OF SEDIMENT AND EROSION CONTROL. ALL SEDIMENT AND EROSION CONTROLS SHALL BE REMOVED UPON STABILIZATION OF THE PROJECT AREA.

NO TOXIC OR HAZARDOUS MATERIALS SUCH AS SEALANTS, PAINTS, SOLVENTS, CLEANING AGENTS, EARTHEN MATERIALS, WASTE-WATER, FUELS OR DEBRIS OF ANY KIND SHALL BE DISCHARGED TO A SCENIC RIVER OR ANY TRIBUTARY WATER COURSES. ALL ASPHALT OR CONCRETE GRINDINGS, EXCESS ASPHALTIC OR CONCRETE MATERIALS OR ANY OTHER DEBRIS GENERATED DURING RESURFACING OR OTHER SIMILAR ACTIVITIES SHALL BE REMOVED IMMEDIATELY FROM WITHIN 1000 FEET OF A SCENIC RIVER AND DISPOSED OF AT AN APPROPRIATE FACILITY ABOVE THE FEMA 100 YEAR FLOOD ELEVATION AND NOT WITHIN 1000 FEET OF THE SCENIC RIVER.

**ITEM 606, SPECIAL- RESHAPING BERM**

BERMS AT LOCATIONS WHERE EXISTING GUARDRAIL IS REMOVED OR WHERE NEW GUARDRAIL IS TO BE ERECTED, SHALL BE RESHAPED AS DIRECTED BY THE ENGINEER TO INSURE A SMOOTH SURFACE FREE OF ALL IRREGULARITIES. THE INTENT IS TO PROVIDE A 10:1 OR FLATTER SLOPE IN FRONT OF THE GUARDRAIL AND TO PROVIDE THE PROPER GRADING AT ANCHOR ASSEMBLIES. EXCESS EXCAVATION RESULTING FROM RESHAPING BERMS SHALL BE DISPOSED OF AS DIRECTED BY THE ENGINEER. PAYMENT FOR RESHAPING BERMS SHALL BE INCLUDED IN THE CONTRACT BID PRICE.

**ITEM 632. DETECTOR LOOP, AS PER PLAN**

ALL STOP LINE INDUCTANCE DETECTOR LOOPS SHALL BE THE POWER HEAD CONFIGURATION SHOWN ON TC-82.10. THE WIDTH SHALL BE AS SPECIFIED ON TC-82.10 AND THE LENGTH SHALL BE AS CURRENTLY CALLED FOR IN THE PLANS. THE STOP LINE DETECTOR LOOPS SHALL NOT BE WIRED TO ANY OTHER LOOPS AND SHALL HAVE ITS OWN DETECTOR CHANNEL.

ALL DILEMMA ZONE INDUCTANCE DETECTOR LOOPS CALLED FOR IN THE PLANS SHALL BE THE ANGULAR DESIGN DETECTION (ADD) LOOP AS SHOWN ON TC-82.10. DIMENSIONS SHALL BE AS SPECIFIED ON TC-82.10.

SYSTEM LOOPS SHALL BE AS DEPICTED IN THE PLANS.

ALL STOP LINE DETECTION SHALL BE TESTED FOR A BICYCLE TARGET AND ALL DILEMMA DETECTION ZONES SHALL BE TESTED FOR A MOTORCYCLE TARGET.

ALL DETECTOR LOOPS SHALL BE CUT INTO THE PLANED SURFACE OR THE PROPOSED INTERMEDIATE COURSE AT A DEPTH OF 4" FROM THE PROPOSED SURFACE ELEVATION. IF THE CONTRACTOR SO CHOOSES, THEY MAY CUT THE DETECTOR LOOPS INTO THE EXISTING ASPHALT BEFORE PLANING BUT SHALL MAKE SURE THE MATERIAL USED TO FILL THE SAW CUT IS LEFT FAR ENOUGH BELOW THE SURFACE COURSE THAT IT WILL NOT BE DISTURBED DURING THE PLANING OPERATION. THE CONTRACTOR SHALL TEST ALL LEAD-IN CABLES PRIOR TO MAKING THE FINAL SPLICE. PLACEMENT SHALL BE AS PER SPECIFICATION 632.10. FINAL LOCATIONS, SIZE AND ORIENTATION SHALL BE PROVIDED TO THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING. ALL MATERIALS, LABOR, TOOLS, EQUIPMENT, TRAFFIC CONTROL AND INCIDENTALS NECESSARY TO PERFORM THE WORK DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 632, DETECTOR LOOP, AS PER PLAN.

**LOCATION 1 - 1 EACH**

@ TURN LANE AT BEGINNING OF PROJECT (6' X 20' EXISTING LOOP SIZE)

**ITEM 254. PAVEMENT PLANING, ASPHALT CONCRETE**

DEPTH OF PLANING SHALL BE 2.25" FULL WIDTH OF PAVEMENT BETWEEN SLM 26.30 AND SLM 26.35, ALL OTHER AREAS SHALL BE PLANED 1.5" DEEP. THE CONTRACTOR SHALL VARY THE DEPTH OF PLANING ON BOTH SIDES OF THE 2.25" PAVEMENT PLANING AREA IN ORDER TO TRANSITION FROM 1.5" PLANING TO 2.25" PLANING. THE LENGTH OF THE TRANSITION SHALL BE 100 FEET.

THE ROADWAY SHALL BE PLANED SUCH THAT POSITIVE DRAINAGE IS CREATED FROM THE CENTER LINE TO THE EDGE OF PAVEMENT IN TANGENT SECTIONS AND SHALL FOLLOW EXISTING SUPERELEVATIONS WHERE APPLICABLE. ALL REQUIREMENTS OF ITEM 254 SHALL APPLY.

3000 TONS OF GRINDINGS (RACP) SHALL BE DELIVERED TO THE OHIO DEPARTMENT OF TRANSPORTATION-COSHOCTON COUNTY - NEW CASTLE OUTPOST, 25939 S.R. 206, NEW CASTLE, OHIO 43814.

1000 TONS OF GRINDINGS (RACP) SHALL BE DELIVERED TO THE OHIO DEPARTMENT OF TRANSPORTATION-KNOX COUNTY GARAGE-505 HARCOURT ROAD, MOUNT VERNON, OHIO 43050.

HAULING OF THE RACP SHALL BE PAID FOR UNDER THE FOLLOWING ITEM:

ITEM 690 SPECIAL MISC.: HAULING RACP - 4000 TONS

**ITEM 606. ANCHOR ASSEMBLY, TYPE E**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS, OR AN APPROVED EQUAL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE AT [WWW.DOT.STATE.OH.US/DRRC/](http://WWW.DOT.STATE.OH.US/DRRC/) UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS:

- 1) THE ET-2000 (1997) MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF TWO 25'-0" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SS142	ET2000 PLUS 50'-0" PLAN, ELEVATION & SECTION 25'-0" RAIL, SLEEVE W/PL POSTS 1-4	4/12/00	7/31/00
SS141	ET2000 PLUS PLAN, ELEVATION & SECTION 25'-0" RAIL, HBA POSTS 1-4	2/29/00	7/31/00
SS158	ET2000 PLUS 50'-0" WITH 12'-6" PANELS & HBA POSTS 1-4 PLAN, ELEVATION & SECTION	5/22/00	7/31/00
SS330	ET2000 PLUS 50'-0" WITH FOUR FOUNDATION TUBES AND FOUR CRT POSTS	3/28/06	3/29/06
SS373	ET2000 PLUS 50'-0" WITH 7 SYT POSTS AND ON HBA POST	6/20/09	1/20/09

**ITEM 606. ANCHOR ASSEMBLY, TYPE E (con't.)**

- 2) THE SKT-350 MANUFACTURED BY ROAD SYSTEMS, INC. 2516 MALLORY LANE, STOW, OHIO 44224 (TELEPHONE: 330-346-0721).

THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 50'-0, INCLUSIVE OF FOUR 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SKT-4M	SEQUENTIAL KINKING TERMINAL (SKT-350) ASSEMBLY WITH 4 FOUNDATION TUBES	12/11/97	3/6/98
SKT Hinged CRT	SEQUENTIAL KINKING TERMINAL (SKT-350) FOUR POSTS ARE STEEL HINGED AND FIVE POSTS ARE CRT	4/30/06	5/23/06
SKT-SP	SEQUENTIAL KINKING TERMINAL (SKT-350) A SEVEN POST OPTION USING STANDARD STEEL POST	3/30/09	3/4/09

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 18" x 18" OR 12" x 18" IF APPLIED TO A RECTANGULAR ET-2000 "PLUS" EXTRUDER HEAD.

REFER TO THE MANUFACTURER'S INSTRUCTION REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4-INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 273/4-INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4-INCHES ABOVE THE GROUND LINE.

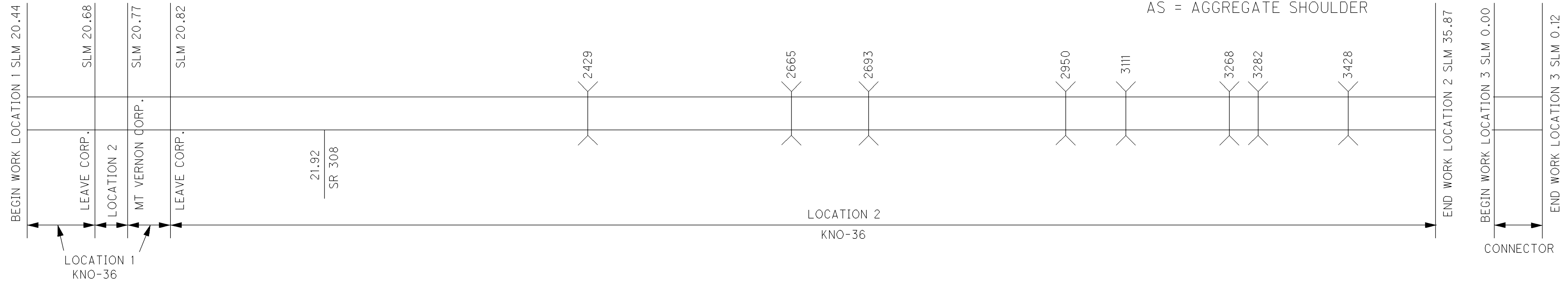
PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

GENERAL NOTES

KNO - 36 - 20.44

SEE SHEET 6 FOR TYPICALS

PW = PAVEMENT WIDTH  
 PS = PAVED SHOULDER  
 AS = AGGREGATE SHOULDER



PAVEMENT DATA

LOCATION	COUNTY	ROUTE	BEGIN LOG POINT SLM	END LOG POINT SLM	LENGTH		PAVEMENT WIDTH (FEET)	TYPICAL	EXISTING PAVEMENT TYPE	PAVEMENT AREA	254		407		448 ASPHALT CONCRETE				614	
					MILES	LIN. FT.					PAVEMENT PLANING, ASPHALT CONCRETE	TACK COAT @ 0.075 GAL./S.Y.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./S.Y.	THICKNESS	INTERMEDIATE COURSE, TYPE 1, PG 64-22	THICKNESS	SURFACE COURSE, TYPE 1, PG 70-22M	WORK ZONE CENTER LINE, CLASS II	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	
																				SQ. YD.
1	KNO	U.S. 36	20.44	20.49	0.05	264.00	36.0	1	448	1,056.0	1,056.0	79.2	52.8	1.00	29.4	1.25	36.7	0.05	0.05	
1	KNO	U.S. 36	20.49	20.60	0.11	580.80	30.0 AVG	2	448	1,936.0	1,936.0	145.2	96.8	1.00	53.8	1.25	67.3	0.11	0.11	
1	KNO	U.S. 36	20.60	20.68	0.08	422.40	24.0	2	448	1,126.4	1,126.4	84.5	56.4	1.00	31.3	1.25	39.2	0.08	0.08	
1	KNO	U.S. 36	20.77	20.82	0.05	264.00	24.00	2	448	704.0	704.0	52.8	35.2	1.00	19.6	1.25	24.5	0.05	0.05	
LOCATION 1 (TOTALS CARRIED TO SUB-SUMMARY)											4,822.4	361.7	241.2		134.1	167.7	0.3	0.3		
2	KNO	U.S. 36	20.68	20.77	0.09	475.20	24.0	2	448	1,267.2	1,267.2	95.1	63.4	1.00	35.2	1.25	44.0	0.09	0.09	
2	KNO	U.S. 36	20.82	25.02	4.20	22,176.00	24.0	2	448	59,136.0	59,136.0	4,435.2	2,956.8	1.00	1,642.7	1.25	2,053.4	4.20	4.20	
2	KNO	U.S. 36	25.02	25.13	0.11	605.00	30.0 AVG	2	448	2,016.7	2,016.7	151.3	100.9	1.00	56.1	1.25	70.1	0.11	0.11	
2	KNO	U.S. 36	25.13	25.20	0.07	369.60	35.0	2	448	1,437.3	1,437.3	107.8	71.9	1.00	40.0	1.25	50.0	0.07	0.07	
2	KNO	U.S. 36	25.20	25.31	0.11	605.00	30.0 AVG	2	448	2,016.7	2,016.7	151.3	100.9	1.00	56.1	1.25	70.1	0.11	0.11	
2	KNO	U.S. 36	25.31	26.25	0.94	4,963.20	24.0	2	448	13,235.2	13,235.2	992.7	661.8	1.00	367.7	1.25	459.6	0.94	0.94	
2	KNO	U.S. 36	26.25	26.30	0.05	252.00	30.0 AVG	1	448	840.0	840.0	63.0	42.0	1.00	23.4	1.25	29.2	0.05	0.05	
2	KNO	U.S. 36	26.30	26.35	0.05	330.00	35.0	4	448	1,283.3	1,283.3	96.3	64.2	1.00	35.7	1.25	44.6	0.05	0.05	
2	KNO	U.S. 36	26.35	26.40	0.05	252.00	30.0 AVG	1	448	840.0	840.0	63.0	42.0	1.00	23.4	1.25	29.2	0.05	0.05	
2	KNO	U.S. 36	26.40	29.42	3.02	15,945.60	24.0	2	448	42,521.6	42,521.6	3,189.2	2,126.1	1.00	1,181.2	1.25	1,476.5	3.02	3.02	
2	KNO	U.S. 36	29.42	29.50	0.08	422.40	24.0	3	448	1,126.4	1,126.4	84.5	56.4	1.00	31.3	1.25	39.2	0.08	0.08	
2	KNO	U.S. 36	29.50	35.87	6.37	33,633.60	24.0	2	448	89,689.6	89,689.6	6,726.8	4,484.5	1.00	2,491.4	1.25	3,114.3	6.37	6.37	
DEDUCT FOR BRIDGES (FROM SHEET 10)										(2,832.0)	(6,298.6)	(212.4)	(141.6)	1.00	(78.7)	1.25	(98.4)	(0.12)	(0.12)	
LOCATION 2 (TOTALS CARRIED TO SUB-SUMMARY)											209,111.4	15,943.8	10,629.3		5,905.5	7,381.8	15.02	15.02		
3	KNO	U.S. 36 / 62 CONNECTOR ROAD			0.12	633.60	24.0	3	448	1,689.6	1,689.6	126.8	84.5	1.00	47.0	1.25	58.7	0.12	0.12	
LOCATION 3 (TOTALS CARRIED TO SUB-SUMMARY)											1,689.6	126.8	84.5		47.0	58.7	0.12	0.12		

CALCULATED  
LME  
CHECKED  
DNM

ASPHALT CONCRETE DATA

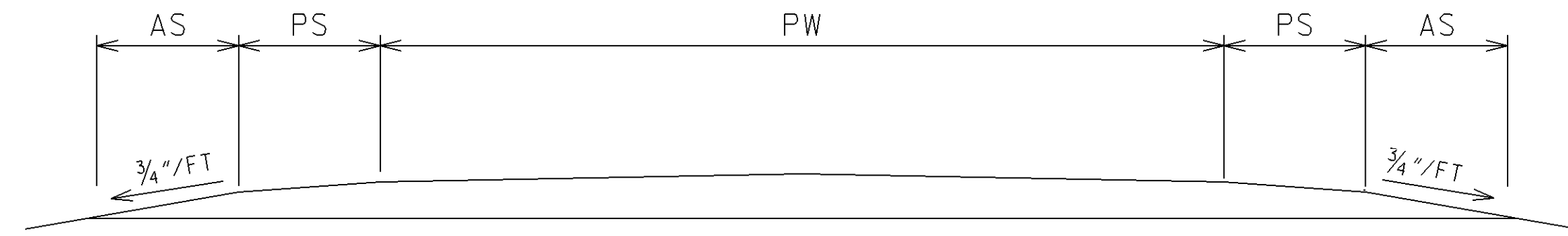
KNO-36-20.44

K036\_MAC\_001.DGN 1-27-11

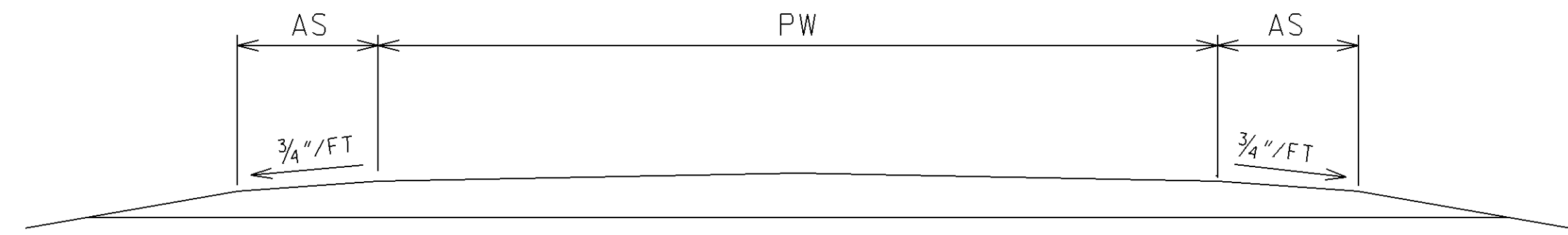
PW = PAVEMENT WIDTH  
 PS = PAVED SHOULDER  
 AS = AGGREGATE SHOULDER

CALCULATED  
 LME  
 CHECKED  
 DNM

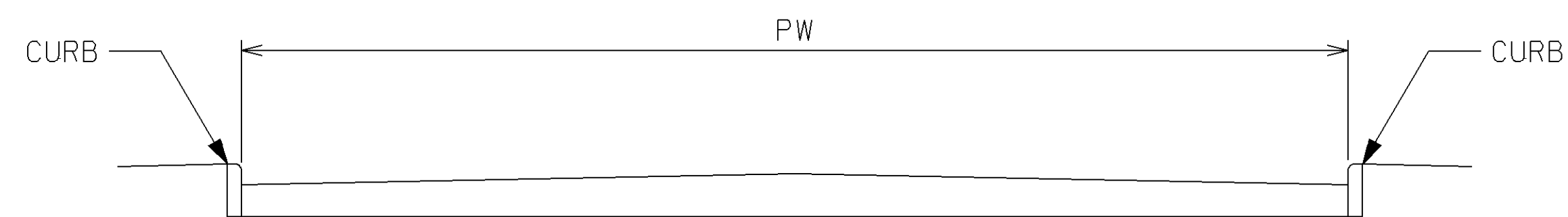
TYPICAL 1



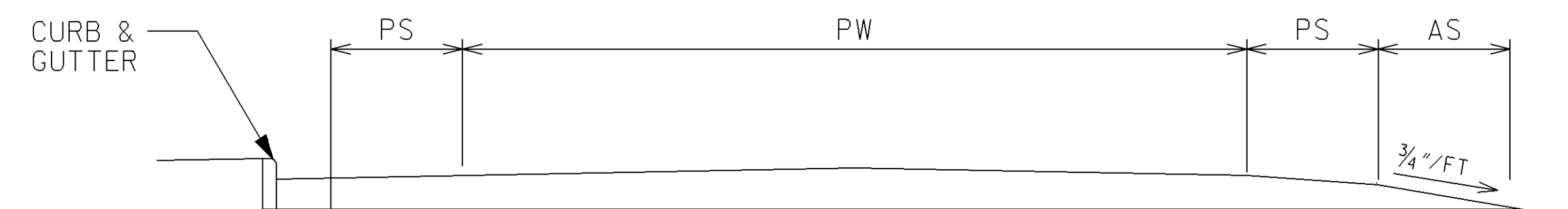
TYPICAL 2



TYPICAL 3



TYPICAL 4



**NOTE:**  
 THE PAVEMENT WIDTHS SHOWN IN THE "PAVEMENT DATA" TABLE ON THE PREVIOUS SHEET ARE THE WIDTHS WHICH HAVE BEEN DETERMINED TO HAVE SUFFICIENT ROADWAY BASE FOR PAVING. IF ACTUAL ROADWAY WIDTHS DIFFER, THE ROADWAY SHALL BE PAVED ONLY THE WIDTH SHOWN IN THE AFOREMENTIONED TABLE. IF THE EXISTING ROADWAY IS WIDER THAN THAT WHICH IS SHOWN IN THE TABLE, PAVING SHALL BE CENTERED ABOUT THE FULL WIDTH OF THE ROADWAY AND ANY EXCESS EXISTING PAVEMENT ON THE EDGES SHALL BE COVERED WITH ITEM 617 COMPACTED AGGREGATE. PAVING IN CURBED ROADWAY SECTIONS SHALL BE FROM CURB TO CURB.

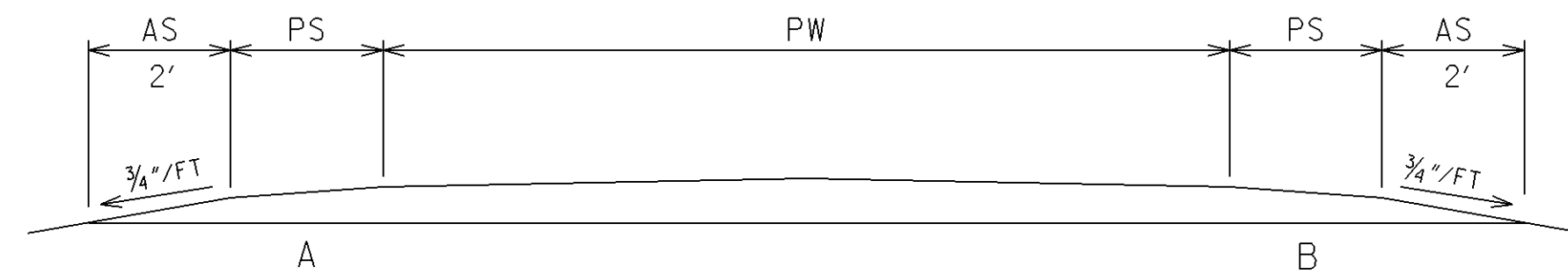
ASPHALT CONCRETE DATA

KNO - 36 - 20.44

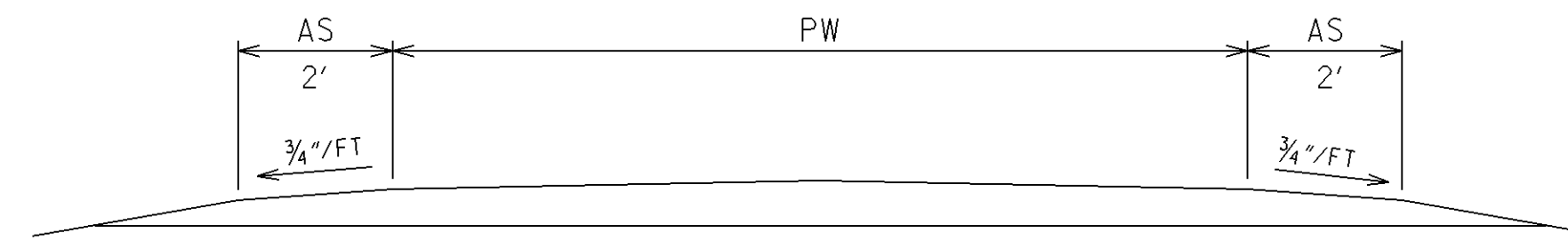
PW = PAVEMENT WIDTH  
 PS = PAVED SHOULDER  
 AS = AGGREGATE SHOULDER

CALCULATED  
 LME  
 CHECKED  
 DNM

TYPICAL 1



TYPICAL 2

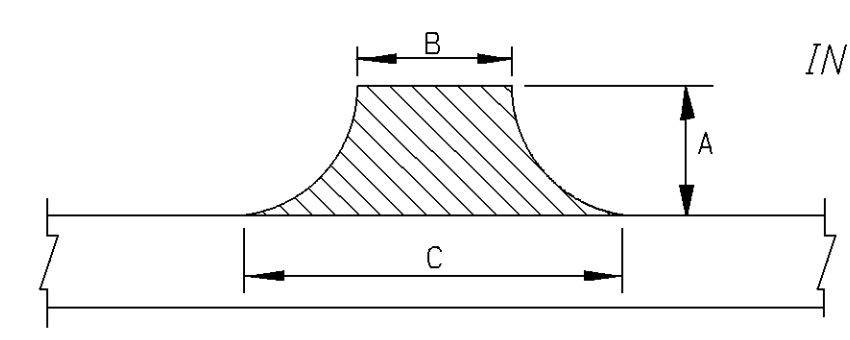


SHOULDER DATA

LOCATION	COUNTY	ROUTE	BEGIN LOG POINT SLM	END LOG POINT SLM	LENGTH		TYPICAL	PROPOSED WIDTH (FT.)		SHOULDER AREA	254		407		448 ASPHALT CONCRETE				617	
											PAVEMENT PLANING, ASPHALT CONCRETE	TACK COAT @ 0.075 GAL./S.Y.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./S.Y.	THICKNESS	INTERMEDIATE COURSE, TYPE 1, PG 64-22	THICKNESS	SURFACE COURSE, TYPE 1, PG 70-22M	THICKNESS	COMPACTED AGGREGATE, AS PER PLAN (2' WIDTH)	
																				SQ. YD.
MILES	LIN. FT.	A	B	SQ. YD.	SQ. YD.	GAL.	GAL.	INCHES	CU. YD.	INCHES	CU. YD.	INCHES	CU. YD.							
1	KNO	U.S. 36	20.44	20.49	0.05	264.0	1	3	3	176.0	176.0	13.2	8.8	1.00	4.9	1.25	6.2	2.00	6.6	
1	KNO	U.S. 36	20.49	20.68	0.19	1,003.2	2											2.00	24.8	
1	KNO	U.S. 36	20.77	20.82	0.05	264.0	2											2.00	6.6	
LOCATION 1 (TOTALS CARRIED TO SUB-SUMMARY)											176.0	13.2	8.8		4.9		6.2			38.0
2	KNO	U.S. 36	20.68	20.77	0.09	475.2	2											2.00	11.8	
2	KNO	U.S. 36	20.82	35.87	15.05	79,464.0	2											2.00	1,962.1	
2	KNO	U.S. 36	PAVED SHOULDER LT. (MILLWOOD)			422.0	1	7		328.2	328.2	24.7	16.5	1.00	9.2	1.25	11.4			
2	KNO	U.S. 36	PAVED SHOULDER RT. (MILLWOOD)			317.0	1		8	281.8	281.8	21.2	14.1	1.00	7.9	1.25	9.8			
DEDUCT FOR BRIDGES (FROM SHEET 10)										(458.6)								2.00	(25.5)	
LOCATION 2 (TOTALS CARRIED TO SUB-SUMMARY)											610.0	45.9	30.6		17.1		21.2			1,948.4
3	KNO	CONNECTOR	0.00	0.12	0.12	633.6	1	2	2	281.6	281.6	21.2	14.1	1.00	7.9	1.25	9.8	2.00	15.7	
LOCATION 3 (TOTALS CARRIED TO SUB-SUMMARY)											281.6	21.2	14.1		7.9		9.8			15.7

PAVED SHOULDER DATA

KNO-36-20.44



INTERSECTIONS

$$AREA = \left[ A \frac{(B + C)}{2} \right] / 9$$

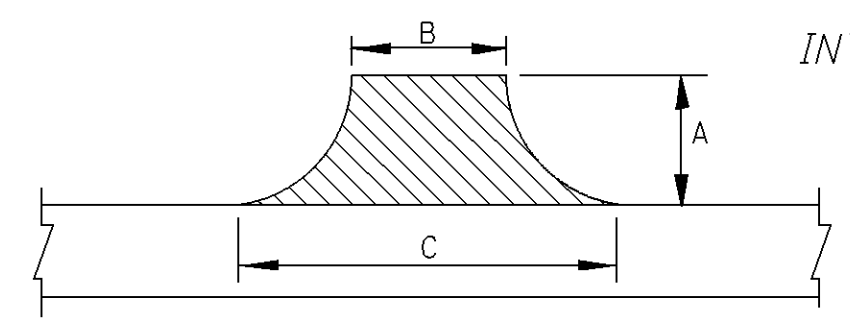
EXTRA AREAS

LOCATION	COUNTY	ROUTE	SIDE	DESCRIPTION	INTERSECTIONS			AREA SQ. YD.	202 WEARING COURSE REMOVED SQ. YD.	407		448 ASPHALT CONCRETE				
					DETAIL DIMENSION					TACK COAT @ 0.075 GAL./SQ. YD. GAL.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./SQ. YD. GAL.	THICKNESS IN.	INTERMEDIATE COURSE, TYPE 1, PG 64-22 CU. YD.	THICKNESS IN.	SURFACE COURSE, TYPE 1, PG 64-22 CU. YD.	
					A	B	C									
					FT.	FT.	FT.									IN.
				<b>U.S. 36</b>												
2	KNO	U.S. 36	LT	CR 8 (GILCHRIST RD.)	40	22	90	248.9	248.9	18.7	12.5	1.00	7.0	1.25	8.7	
2	KNO	U.S. 36	RT	SR 308	100	31	163	1,077.8	1,077.8	80.9	53.9	1.00	30.0	1.25	37.5	
2	KNO	U.S. 36	LT	CR 46 (VINCENT RD.)	40	21	68	197.8	197.8	14.9	9.9	1.00	5.5	1.25	6.9	
2	KNO	U.S. 36	RT	TWP RD 240 (McMANIS RD.)	40	21	90	246.7	246.7	18.6	12.4	1.00	6.9	1.25	8.6	
2	KNO	U.S. 36	RT	TWP RD 237 (DEPOLO RD.)	20	14	35	54.5	54.5	4.1	2.8	1.00	1.6	1.25	1.9	
2	KNO	U.S. 36	RT	CR 34 (SCHENICK CREEK RD.)	80	24	130	684.5	684.5	51.4	34.3	1.00	19.1	1.25	23.8	
2	KNO	U.S. 36	LT	CR 3 (MONROE MILLS RD.)	40	23	92	255.6	255.6	19.2	12.8	1.00	7.1	1.25	8.9	
2	KNO	U.S. 36	LT	TWP RD 239 (GRANT ST.)	20	12	33	50.0	50.0	3.8	2.5	1.00	1.4	1.25	1.8	
2	KNO	U.S. 36	RT	TWP RD 239 (GRANT ST.)	22	13	33	56.3	56.3	4.3	2.9	1.00	1.6	1.25	2.0	
2	KNO	U.S. 36	LT	CR 4A (COOLING CT.)	40	76	142	484.5	484.5	36.4	24.3	1.00	13.5	1.25	16.9	
2	KNO	U.S. 36	RT	CR 34 (SCHENICK RD.)	45	20	80	250.0	250.0	18.8	12.5	1.00	7.0	1.25	8.7	
2	KNO	U.S. 36	LT	JELLOWAY ST.	22	24	53	94.2	94.2	7.1	4.8	1.00	2.7	1.25	3.3	
2	KNO	U.S. 36	LT	COTTON ST.	25	22	41	87.5	87.5	6.6	4.4	1.00	2.5	1.25	3.1	
2	KNO	U.S. 36	LT	ALLEY	15	14	29	35.9	35.9	2.7	1.8	1.00	1.0	1.25	1.3	
2	KNO	U.S. 36	LT	MARY ST.	27	20	38	87.0	87.0	6.6	4.4	1.00	2.5	1.25	3.1	
2	KNO	U.S. 36	LT	CR 9 (HOWARD-DANVILLE RD.)	55	34	125	485.9	485.9	36.5	24.3	1.00	13.5	1.25	16.9	
2	KNO	U.S. 36	RT	HOWARD ST.	40	22	89	246.7	246.7	18.6	12.4	1.00	6.9	1.25	8.6	
2	KNO	U.S. 36	RT	CR 35 (PIPESVILLE RD.)	40	20	79	220.0	220.0	16.5	11.0	1.00	6.2	1.25	7.7	
2	KNO	U.S. 36	LT	TWP. RD. 222 (HUMBERT RD.)	30	21	45	110.0	110.0	8.3	5.5	1.00	3.1	1.25	3.9	
2	KNO	U.S. 36	LT	DREXEL TRASH RD.	10	90	100	105.6	105.6	8.0	5.3	1.00	3.0	1.25	3.7	
2	KNO	U.S. 36	LT	TWP. RD. 438 (CAREY LN.)	28	20	47	104.3	104.3	7.9	5.3	1.00	2.9	1.25	3.7	
2	KNO	U.S. 36	LT	MILL ST.	20	17	45	68.9	68.9	5.2	3.5	1.00	2.0	1.25	2.4	
2	KNO	U.S. 36	RT	MILL ST.	20	20	57	85.6	85.6	6.5	4.3	1.00	2.4	1.25	3.0	
2	KNO	U.S. 36	RT	BRIDGE ST.	20	29	37	73.4	73.4	5.6	3.7	1.00	2.1	1.25	2.6	
2	KNO	U.S. 36	LT	S.R. 715	34	202		383.0	383.0	28.8	19.2	1.00	10.7	1.25	13.3	
2	KNO	U.S. 36	RT	TWP. RD. 226 (AUSTIN RD.)	50	20	96	322.3	322.3	24.2	16.2	1.00	9.0	1.25	11.2	
2	KNO	U.S. 36	LT	CR 36 (RUTLEDGE RD.)	50	20	100	333.4	333.4	25.1	16.7	1.00	9.3	1.25	11.6	
2	KNO	U.S. 36	RT	CR 36 (RUTLEDGE RD.)	45	24	116	350.0	350.0	26.3	17.5	1.00	9.8	1.25	12.2	
<b>LOCATION 2 (TOTALS CARRIED TO SHEET 9)</b>								<b>6,800.3</b>	<b>511.6</b>	<b>341.1</b>		<b>190.3</b>		<b>237.3</b>		

EXTRA AREAS DATA

KNO - 36 - 20.44





INTERSECTIONS

$$AREA = \left[ \frac{A(B+C)}{2} \right] / 9$$

\* AREA SHOWN IS FOR RADIUS RETURNS ONLY, MAINLINE WIDTH INCLUDED WITH ASPHALT CONCRETE DATA.

EXTRA AREAS

LOCATION	COUNTY	ROUTE	SIDE	DESCRIPTION	INTERSECTIONS			AREA SQ. YD.	202	407		448 ASPHALT CONCRETE			
					WEARING COURSE REMOVED SQ. YD.	TACK COAT @ 0.075 GAL./SQ. YD. GAL.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./SQ. YD. GAL.		THICKNESS IN.	INTERMEDIATE COURSE, TYPE 1, PG 64-22 CU. YD.	THICKNESS IN.	SURFACE COURSE, TYPE 1, PG 64-22 CU. YD.			
													DETAIL DIMENSION		
													A FT.	B FT.	C FT.
<b>LOCATION 2 (TOTALS FROM PREVIOUS SHEET)</b>								<b>6,800.3</b>	<b>511.6</b>	<b>341.1</b>		<b>190.3</b>		<b>237.3</b>	
2	KNO	U.S. 36	RT	CR 37 (BRUSH RUN RD.)	55	18	98	354.5	354.5	26.6	17.8	1.00	9.9	1.25	12.4
2	KNO	U.S. 36	LT	CR 37 (BRUSH RUN RD.)	16	27	48	66.7	66.7	5.1	3.4	1.00	1.9	1.25	2.4
2	KNO	U.S. 36	LT	CR 37 (BRUSH RUN RD.)	40	18	81	220.0	220.0	16.5	11.0	1.00	6.2	1.25	7.7
2	KNO	U.S. 36	RT	CR 37 (BRUSH RUN RD.)	45	23	108	327.5	327.5	24.6	16.4	1.00	9.1	1.25	11.4
2	KNO	U.S. 36	LT	CR 37 (BRUSH RUN RD.)	50	36	140	488.9	488.9	36.7	24.5	1.00	13.6	1.25	17.0
2	KNO	U.S. 36	RT	CR 37 (BRUSH RUN RD.)	25	18	70	122.3	122.3	9.2	6.2	1.00	3.4	1.25	4.3
2	KNO	U.S. 36	RT	CR 38 (WOODS CHURCH RD.)	45	29	123	380.0	380.0	28.5	19.0	1.00	10.6	1.25	13.2
2	KNO	U.S. 36	LT	CR 37 (BRUSH RUN RD.)	30	23	73	160.0	160.0	12.0	8.0	1.00	4.5	1.25	5.6
2	KNO	U.S. 36	RT	CR 37 (BRUSH RUN RD.)	30	26	76	170.0	170.0	12.8	8.5	1.00	4.8	1.25	6.0
<b>LOCATION 2 (TOTALS CARRIED TO SUB-SUMMARY)</b>								<b>9,090.2</b>	<b>683.6</b>	<b>455.9</b>		<b>254.3</b>		<b>317.3</b>	
3	KNO			<b>U.S. 36 / 62 CONNECTOR RD.</b>											
3	KNO		CL	* AT U.S. 36	82	25	85	273.0	273.0	20.5	13.7	1.00	7.6	1.25	9.5
3	KNO		LT.	ALLEY	15	12	34	38.4	38.4	2.9	2.0	1.00	1.1	1.25	1.4
3	KNO		LT.	BRIDGE ST.	25	18	52	97.3	97.3	7.3	4.9	1.00	2.8	1.25	3.4
3	KNO		CL	* AT U.S. 62	55	36	130	287.0	287.0	21.6	14.4	1.00	8.0	1.25	10.0
<b>LOCATION 3 (TOTALS CARRIED TO SUB-SUMMARY)</b>								<b>695.7</b>	<b>52.3</b>	<b>35.0</b>		<b>19.5</b>		<b>24.3</b>	

EXTRA AREAS DATA

KNO - 36 - 20.44

BRIDGE TREATMENT

LOCATION 2

- DETAIL ① KNO-36-2429 - BUTT JOINT AT APPROACH SLABS  
KNO-36-2665 - SAME AS ROADWAY, NO DEDUCTIONS
- DETAIL ② KNO-36-2693 - REMOVE 2.0" ASPHALT AND PLACE 2.25" OVER BRIDGE AND APPROACH SLABS
- DETAIL ① KNO-36-2950 - BUTT JOINT AT APPROACH SLABS
- DETAIL ① KNO-36-3111 - BUTT JOINT AT APPROACH SLABS
- DETAIL ③ KNO-36-3268 - REMOVE 1.25" ASPHALT AND PLACE 1.25" SURFACE COURSE ONLY
- DETAIL ③ KNO-36-3282 - REMOVE 1.25" ASPHALT AND PLACE 1.25" SURFACE COURSE ONLY
- DETAIL ③ KNO-36-3428 - REMOVE 1.25" ASPHALT AND PLACE 1.25" SURFACE COURSE ONLY

SEE SHEET 11 FOR BRIDGE DETAILS

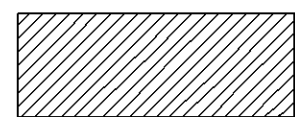

DEDUCTIONS = PAVEMENT/SHOULDER WIDTHS X (BRIDGE LENGTH + APPROACH SLABS)

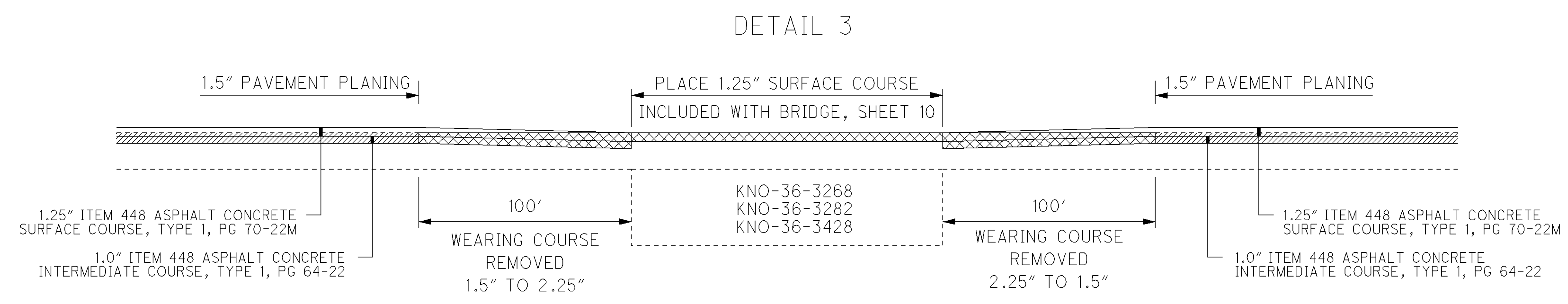
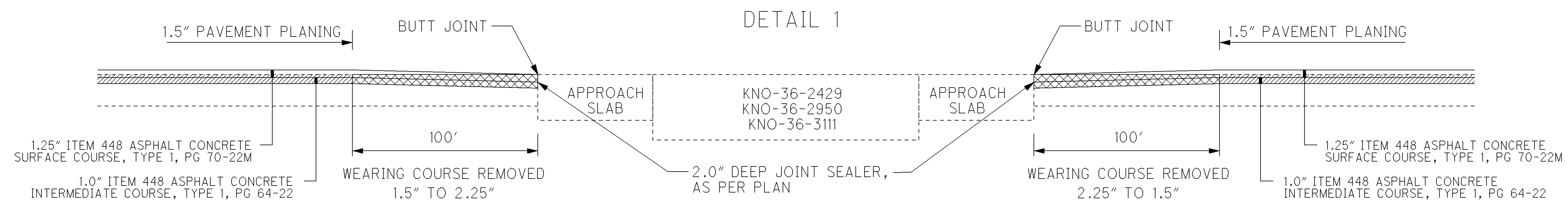
BRIDGE DATA

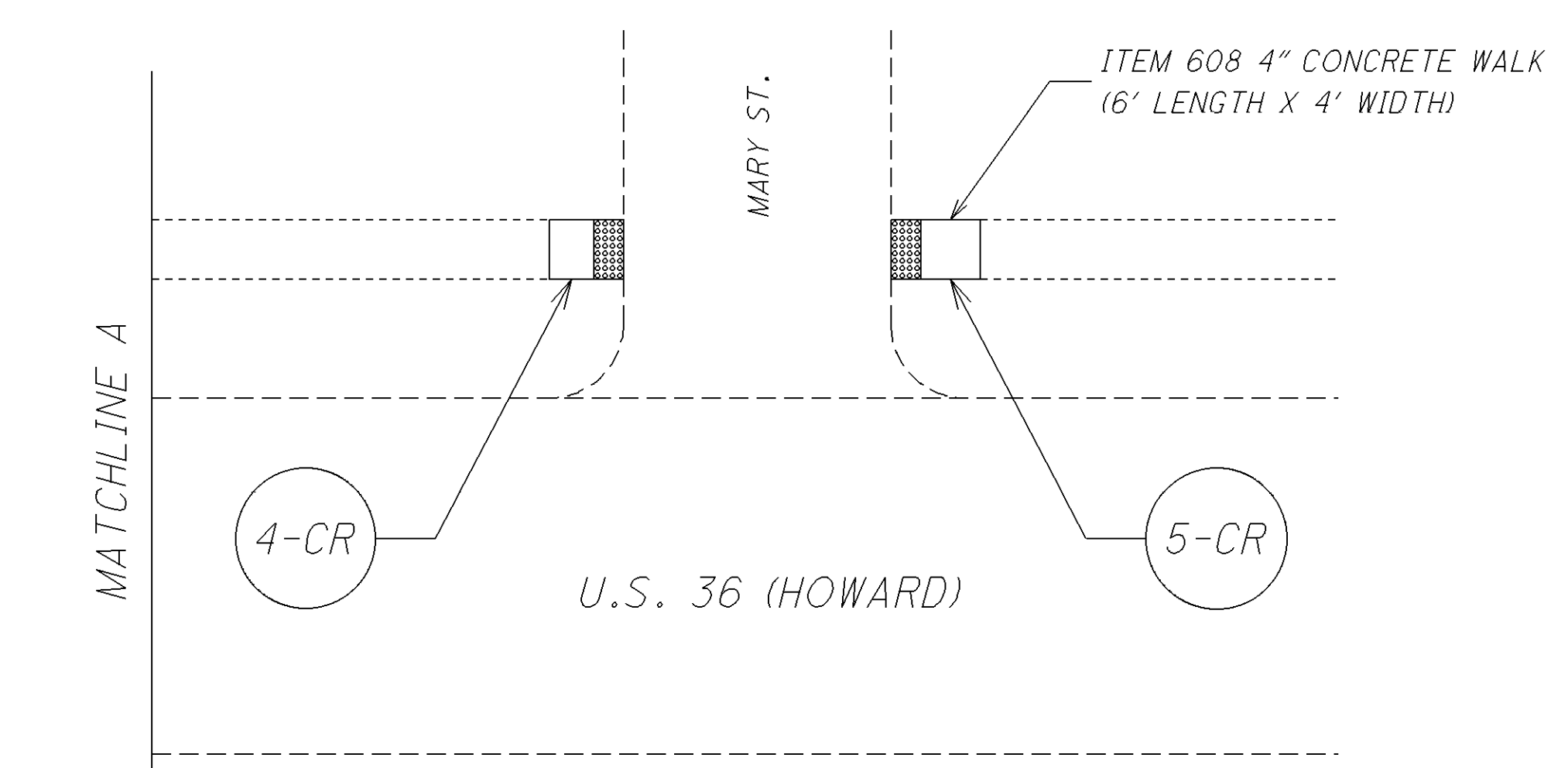
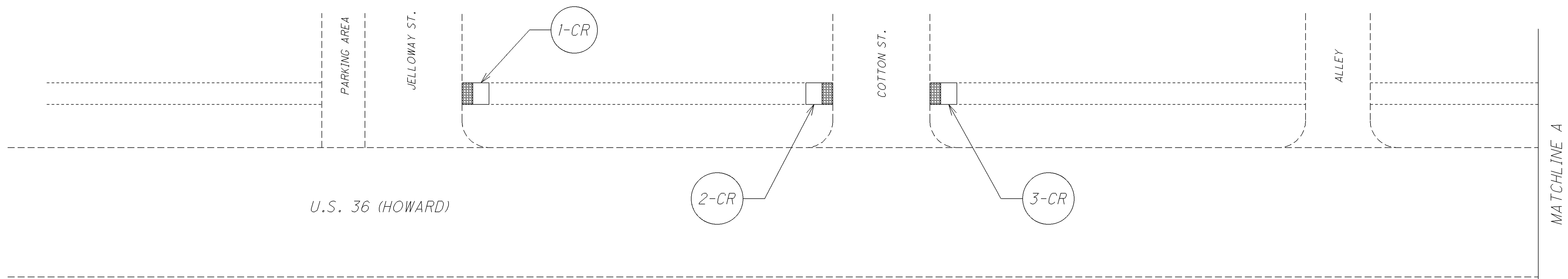
LOCATION	COUNTY, ROUTE, BRIDGE NO.	LENGTH (BRIDGE LIMITS)	WIDTH	AREA	APPROACH SLAB LENGTH	APPROACH SLAB WIDTH	APPROACH SLAB AREA (INCLUDES BOTH APPROACH SLABS)	DETAIL (SHEET 11)	BRIDGE DATA													
									MAINLINE DEDUCTIONS (CARRIED TO SHEET 5)	SHOULDER DEDUCTIONS (CARRIED TO SHEET 7)	PAVEMENT PLANING, ASPHALT CONCRETE DEDUCTIONS (CARRIED TO SHEET 5)	202 WEARING COURSE REMOVED	407		448 ASPHALT CONCRETE				516 2" DEEP JOINT SEALER, AS PER PLAN			
													SQ.YD.	SQ.YD.	SQ.YD.	SQ.YD.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./S.Y.	TACK COAT @ 0.075 GAL./S.Y.		S U B S T R A C T I O N	INTERMEDIATE COURSE, TYPE 1, PG 64-22	S U B S T R A C T I O N
2	KNO-36-2429	133	40	591.2	25	40.0	222.3	1	488.0	81.3	1,021.3	533.3									80.0	
2	KNO-36-2693	132	40	586.7	15	26.0	86.7	2	432.0	58.7	698.7	940.1	33.7	50.5	1.00	18.7	1.25	23.4				
2	KNO-36-2950	134	40.3	600.1	15	40.0	133.4	1	437.3	72.9	970.6	533.3									80.0	
2	KNO-36-3111	380	48	2,026.7	25	48.0	266.7	1	1,146.7	191.1	1,680.0	533.3									96.0	
2	KNO-36-3268	41	27.8	126.7				3	109.3	18.2	642.7	660.0		9.5			1.25	4.4				
2	KNO-36-3282	45	30	150.0				3	120.0	20.0	653.3	683.3		11.3			1.25	5.2				
2	KNO-36-3428	37	30	123.4				3	98.7	16.4	632.0	656.7		9.3			1.25	4.3				
SUB-TOTALS									2,832.0	458.6	6,298.6											
LOCATION 2 TOTALS (CARRIED TO SUB-SUMMARY)												4,540.0	33.7	80.6			18.7		37.3		256.0	

BRIDGE DECK TREATMENT DATA

KNO-36-20.44

 - INDICATES PAVEMENT PLANING  
 - INDICATES WEARING COURSE REMOVED

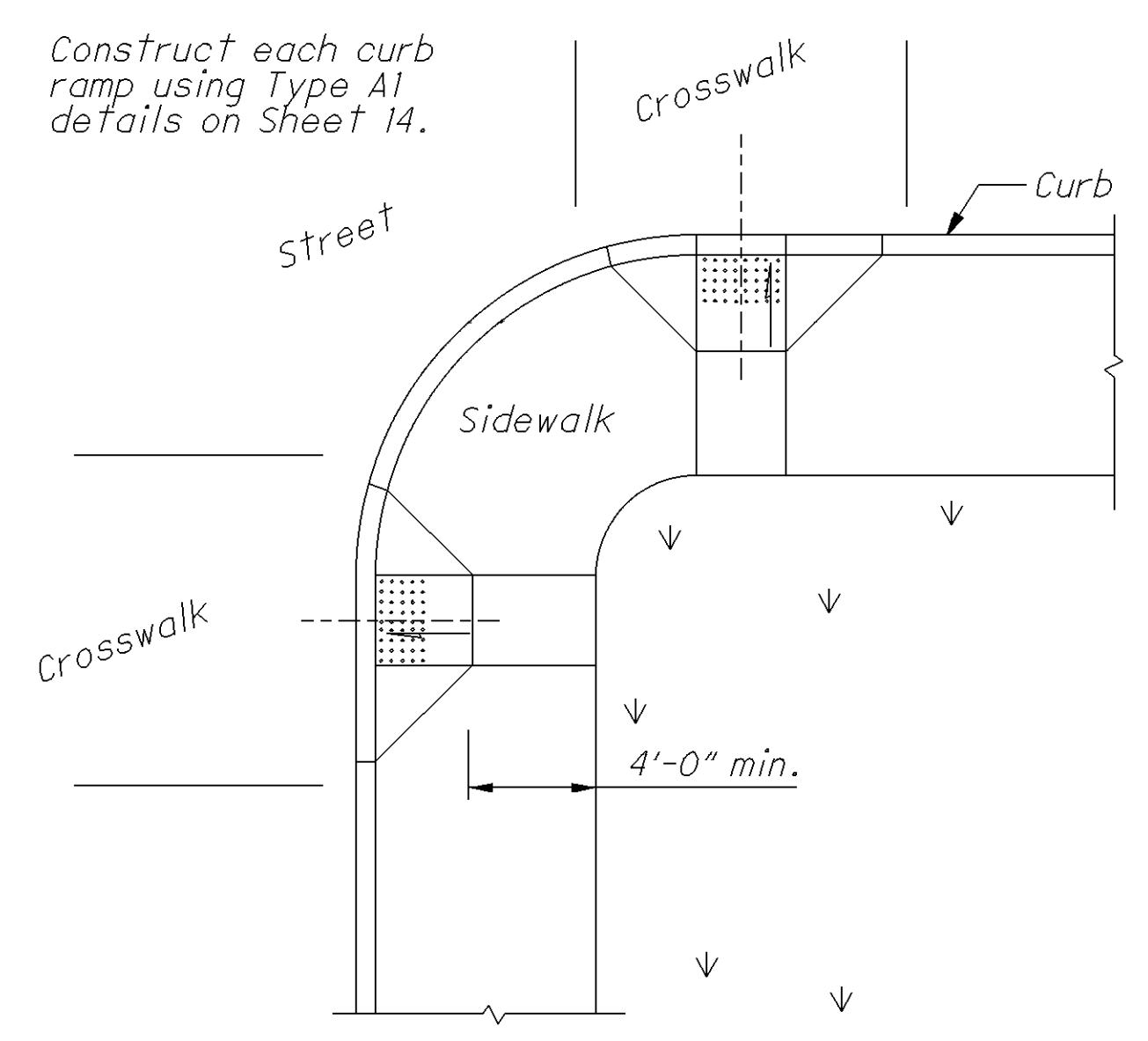




SEE SHEETS 13-15 FOR CURB RAMP AND DETECTABLE WARNING DETAILS

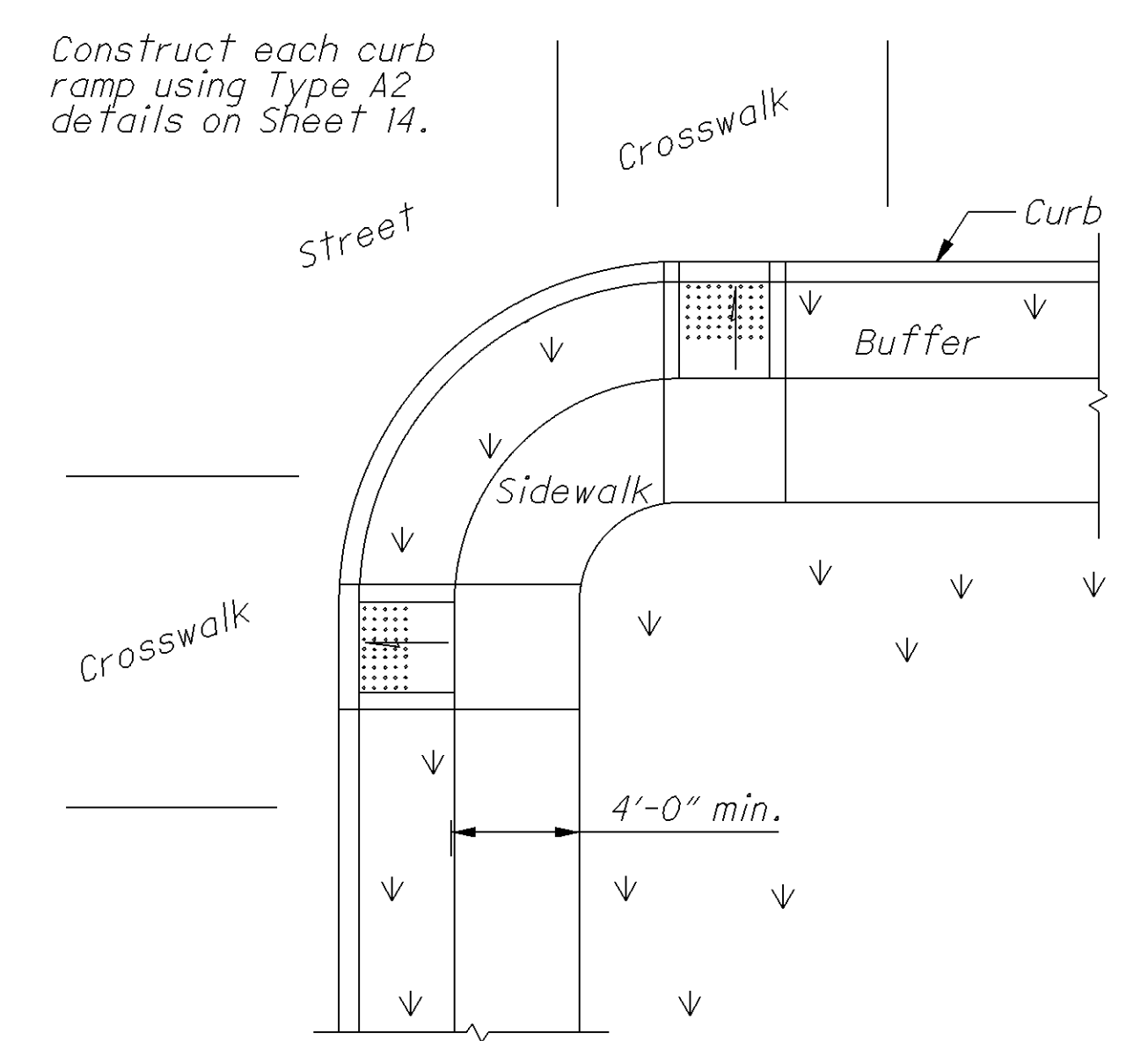
NOTE:  
IN ORDER TO PLACE A DETECTABLE WARNING IN EXISTING SIDEWALK,  
THE CONTRACTOR SHALL REMOVE 5 FEET OF THE EXISTING SIDEWALK  
OR THE THE NEAREST EXISTING JOINT BEYOND 5 FEET.

REFERENCE NO.	SHEET NO.	LOCATION	SIDE	202		608		SPECIAL-MISC.: DETECTABLE WARNING	690			609	COMMENTS	
				WALK REMOVED	CURB REMOVED	4" CONCRETE WALK, (CURB RAMP AREA)	4" CONCRETE WALK, (EXTRA WALK AREA)		SPECIAL-MISC.: CURB RAMPS,	TYPE A1	TYPE A2			TYPE D
				SQ. FT.	FT.	SQ. FT.	SQ. FT.							
CL./LT./RT.														
		<b>U.S. 36</b>												
		<b>HOWARD</b>												
1-CR	12	JELLOWAY ST	LT.	20.0		12.0		8					NORTHEAST CORNER	
2-CR	12	COTTON ST	LT.	20.0		12.0		8					NORTHWEST CORNER	
3-CR	12	COTTON ST	LT.	20.0		12.0		8					NORTHEAST CORNER	
4-CR	12	MARY ST	LT.	20.0		12.0		8					NORTHWEST CORNER	
5-CR	12	MARY ST	LT.	20.0		12.0	20.0	8					NORTHEAST CORNER	
<b>SUB-TOTALS</b>						<b>60.0</b>	<b>20.0</b>							
<b>TOTALS (CARRIED TO LOCATION 2 SUB-SUMMARY)</b>				<b>100.0</b>		<b>80.0</b>		<b>40</b>						

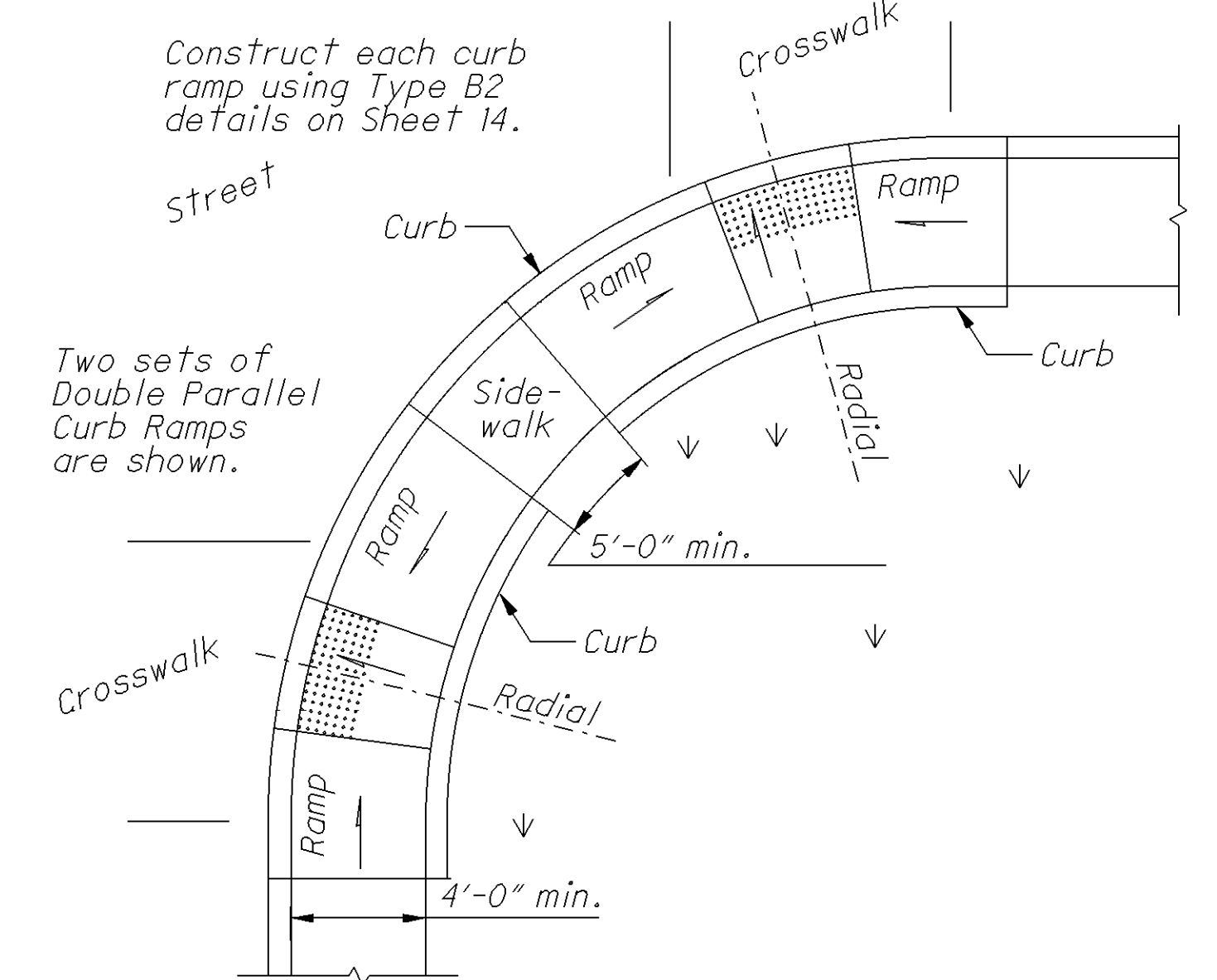


Use curb ramps with flared sides at locations with wide sidewalks.

PERPENDICULAR CURB RAMPS

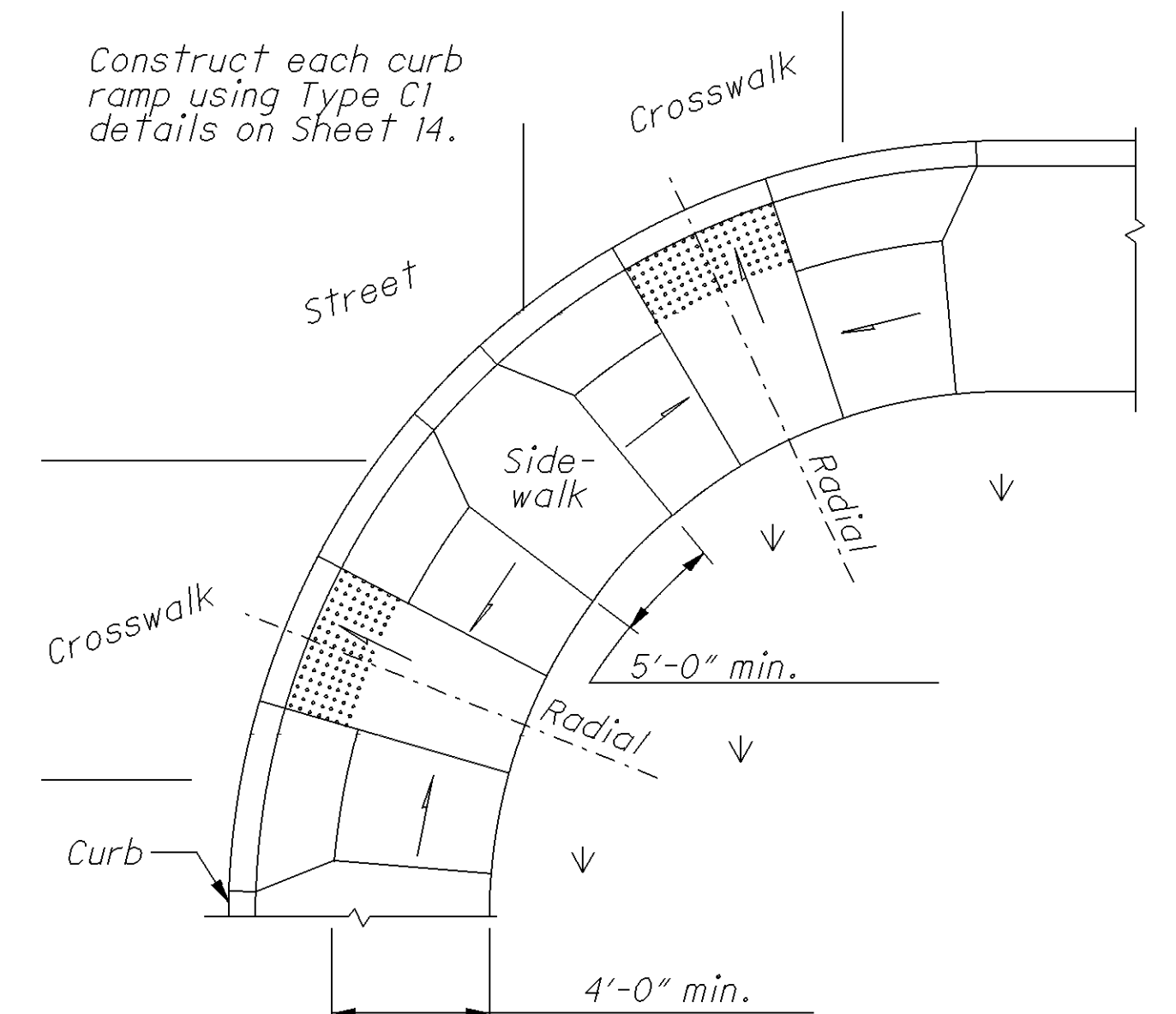


Use curb ramps with returned curbs where buffer is wide enough to accommodate ramp slope.



Place on streets having wide turning radius and where sidewalks are narrow.

PARALLEL CURB RAMPS



Curb ramp placement where streets have wide turning radius, and sufficient sidewalk width.

COMBINATION CURB RAMPS

NOTES

GENERAL: This drawing shows curb ramp types details and placement examples for curb ramp construction, including the installation of detectable warnings.

Curb ramp types are shown on Sheet 14 and include Perpendicular, Parallel, and Combined types as specified to be constructed in the locations shown in the project plans.

The contractor may adjust the placement of curb ramps if existing field conditions warrant with the approval of the Engineer.

Excavate, form, place, finish, and cure according to 608.03.A, 608.03.B, 608.03.C, and 608.03.E.

DETECTABLE WARNINGS: Install Detectable Warnings on each curb ramp with approved materials, as shown on Sheet 15. Install these proprietary products as per manufacturer's written instructions.

DRAINAGE: Contractor is to ensure the base of each constructed curb ramp allows for proper drainage, without exceeding allowable cross slope or ramp slopes. Vertical change in level exceeding 1/8" between the 1) pavement and gutter, and 2) gutter and ramp, are not allowed.

JOINTS: Provide expansion joints in the curb ramp as extensions of walk joints and consistent with Item 608.03 requirements for a new concrete walk. Provide a 1/2" Item 705.03 expansion joint filler around the edge of ramps built in existing concrete walks. Lines shown on this drawing indicate the ramp edges and slope changes, and do not necessarily indicate joint lines.

METHOD OF MEASUREMENT: The Department will measure Curb Ramps by the number of each completed curb ramp. The Department will measure Detectable Warnings in existing curb ramps and at grade crossings by the number of square feet completed.

Concrete Walk and Curb, Item 608 and 609, will be measured through out the curb ramp area and paid for under their respective Items.

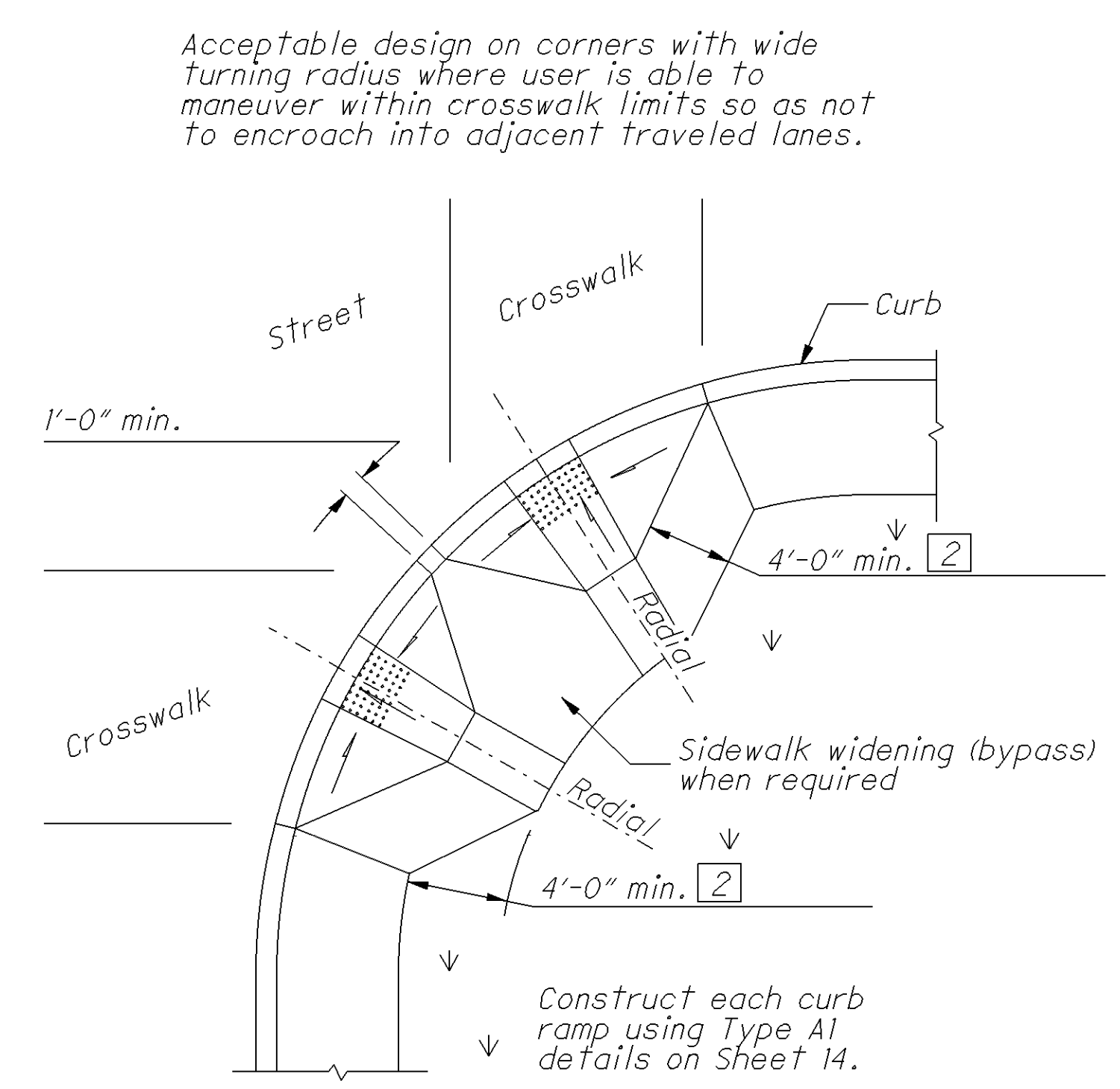
METHOD OF PAYMENT: New Curb Ramps constructed in new or existing Walk are paid for under Item 690 Special Misc.: Curb Ramp, Type -- (A1, A2, B1, B2, B3, C1, C2, or D) each, and includes the cost of any additional materials and installation (including detectable warnings), grading, forming and finishing.

Detectable Warnings constructed in existing curb ramps or for at-grade crossing locations are paid for under Item 690-Special Misc.: Detectable Warning (Sq. Ft.) and is full compensation for excavation, backfill, base course material, reinforcing steel, expansion joint materials, and any incidentals required to complete the installation as specified. The work to cast the tiles in place will also require removal of existing pavement or sidewalk (Item 202) to the nearest joint, or if no joint exists, a minimum of 4 feet.

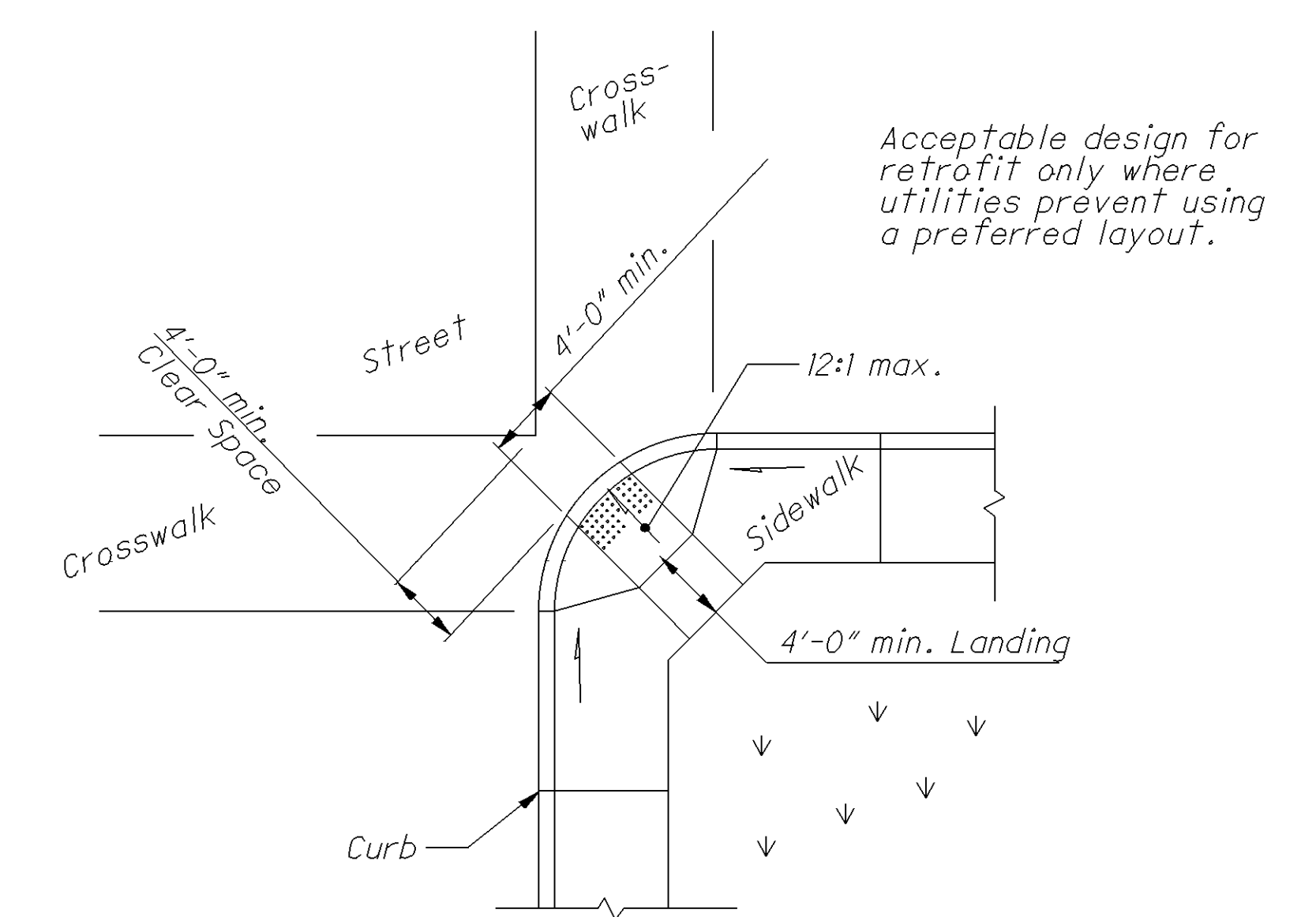
Removal of existing curb, pavement, walk (or existing curb ramps) are paid under Item 202.

LEGEND

② May be reduced to 3'-4" in existing sidewalks to better fit the walk configuration or where site conditions are restricted by narrow walks, pole foundations, drainage inlets, etc. The width may be tapered.



PERPENDICULAR RAMPS



DIAGONAL RAMP (Type D)

Use this design only for existing walks, and when site constraints prohibit other designs. The diagonal Type D ramp may be constructed as either a Perpendicular, Parallel or Combination curb ramp type. Avoid using where curb radii are less than 20'-0" .

ACCEPTABLE CONSTRUCTION PLACEMENT

NOTES

The running slope of the ramp is preferred to be 12:1 or flatter. In existing sidewalks, where the maximum ramp slope is not feasible due to site constraints (e.g. utility poles or vaults, right-of-way limits) it may be reduced as follows:

- A) 10:1 for a max. rise of 6",
- B) 8:1 for a max. rise of 3",
- C) 6:1 over a max. run of 2'-0" for historic areas where a flatter slope is not feasible.

To prevent chasing the grade indefinitely, the transition from existing sidewalk to the curb ramp area is not required to exceed 15 feet in length.

While ramps may be skewed to the crosswalk, the entire lower landing area must fall within the cross walk that the ramp serves and cannot be located in the traveled lane of opposing traffic.

The counter slope of the gutter or street at the foot of a curb ramp, landing, or blended transitions shall be 20:1 or flatter.

The bottom edge of the ramp shall change planes perpendicular to the landing.

The edge of the curb shall be flush with the edge of the adjacent pavement and gutter and surface slopes that meet grade breaks shall also be flush.

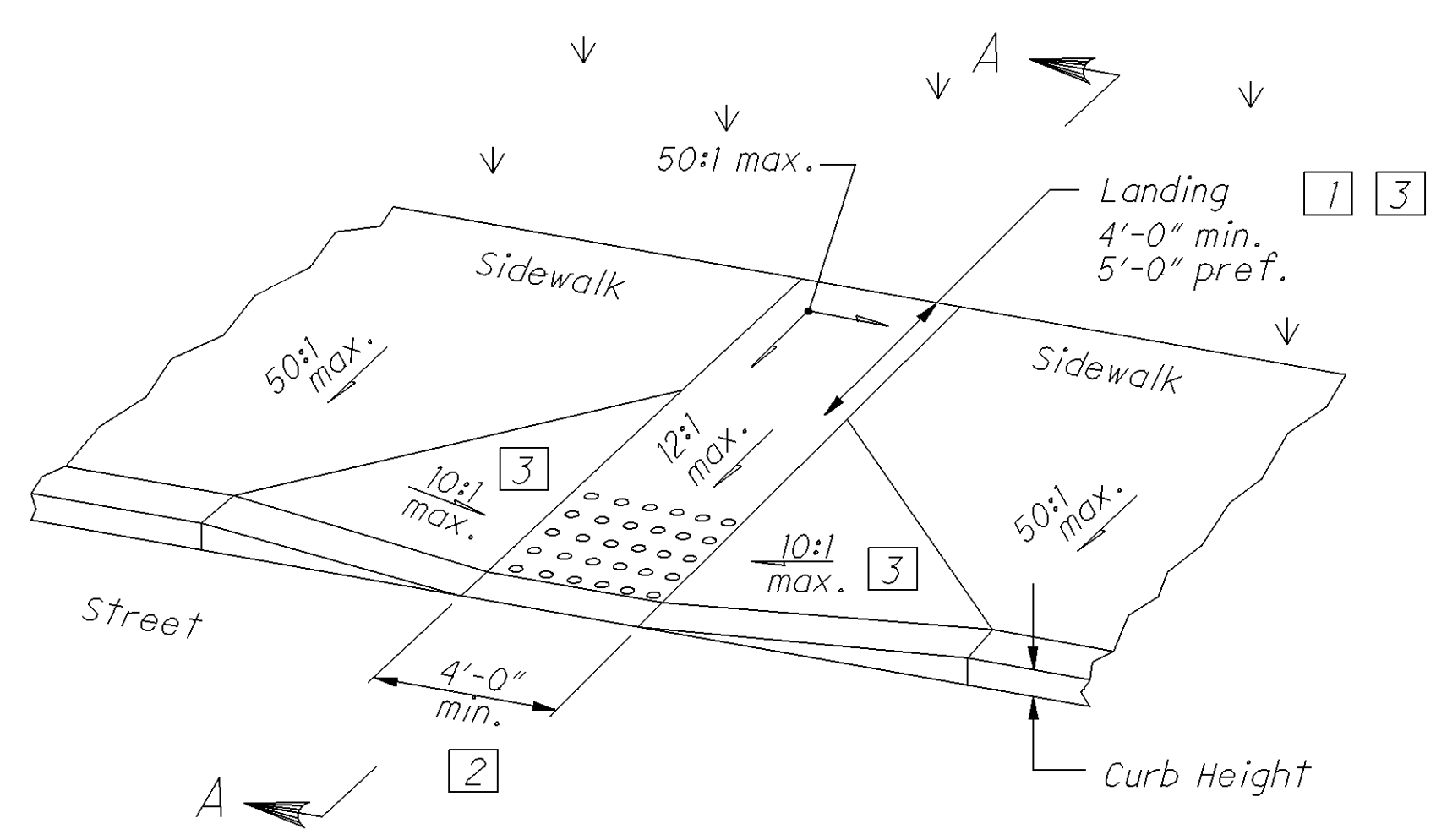
Ramp landings shall be 4' min. x 4' min. with a 50:1 or flatter cross slope and running slope, unless otherwise shown.

LEGEND

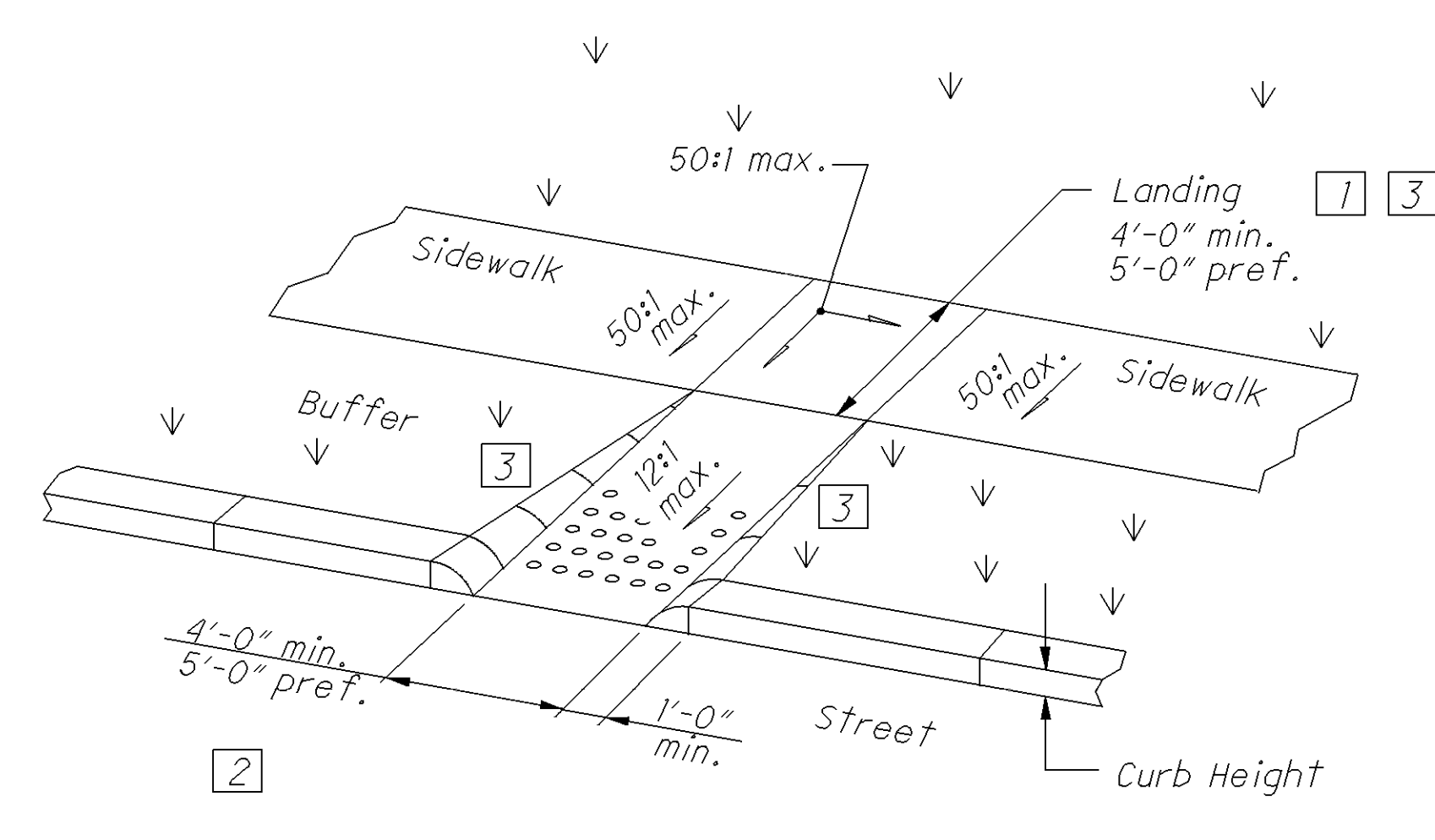
- 1 Dimension may be reduced to 3'-0" in existing sidewalks if the landing is unconstrained along the back edge.
- 2 May be reduced to 3'-4" in existing sidewalks to better fit the walk configuration or where site conditions are restricted by narrow walks, pole foundations, drainage inlets, etc. The width may be tapered.
- 3 Where landing width (D) has been reduced to 3'-0" the flared sides shall have a maximum slope of 12:1.

Flared sides are not required where the edges of a curb ramp are protected by landscaping or other barriers to travel by wheelchair users or pedestrians across the edge of the curb ramp. However, if the flared sides are used in these areas, they may be of any slope.

See Sheet 15 for Sections.

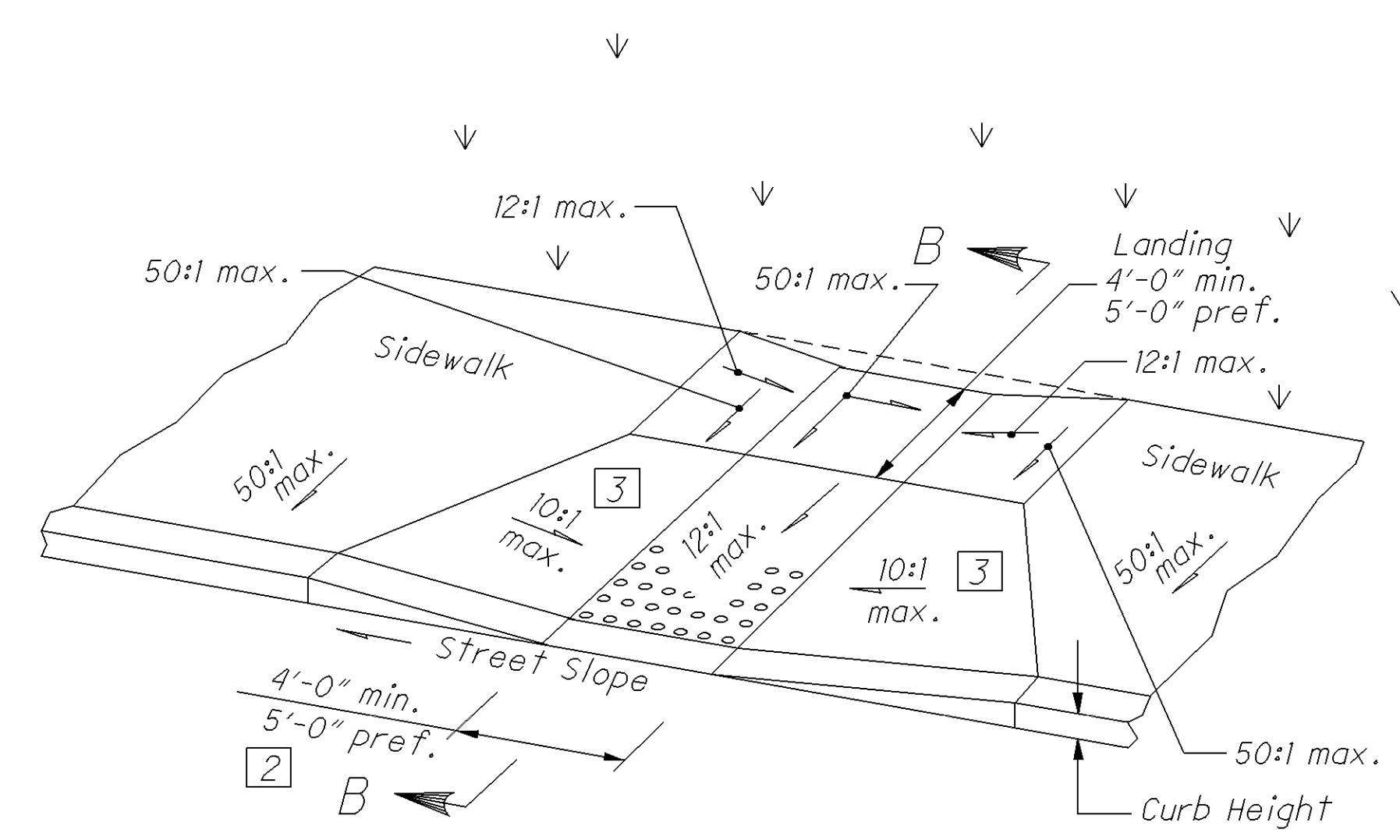


Type A1 (Perpendicular with flared sides)

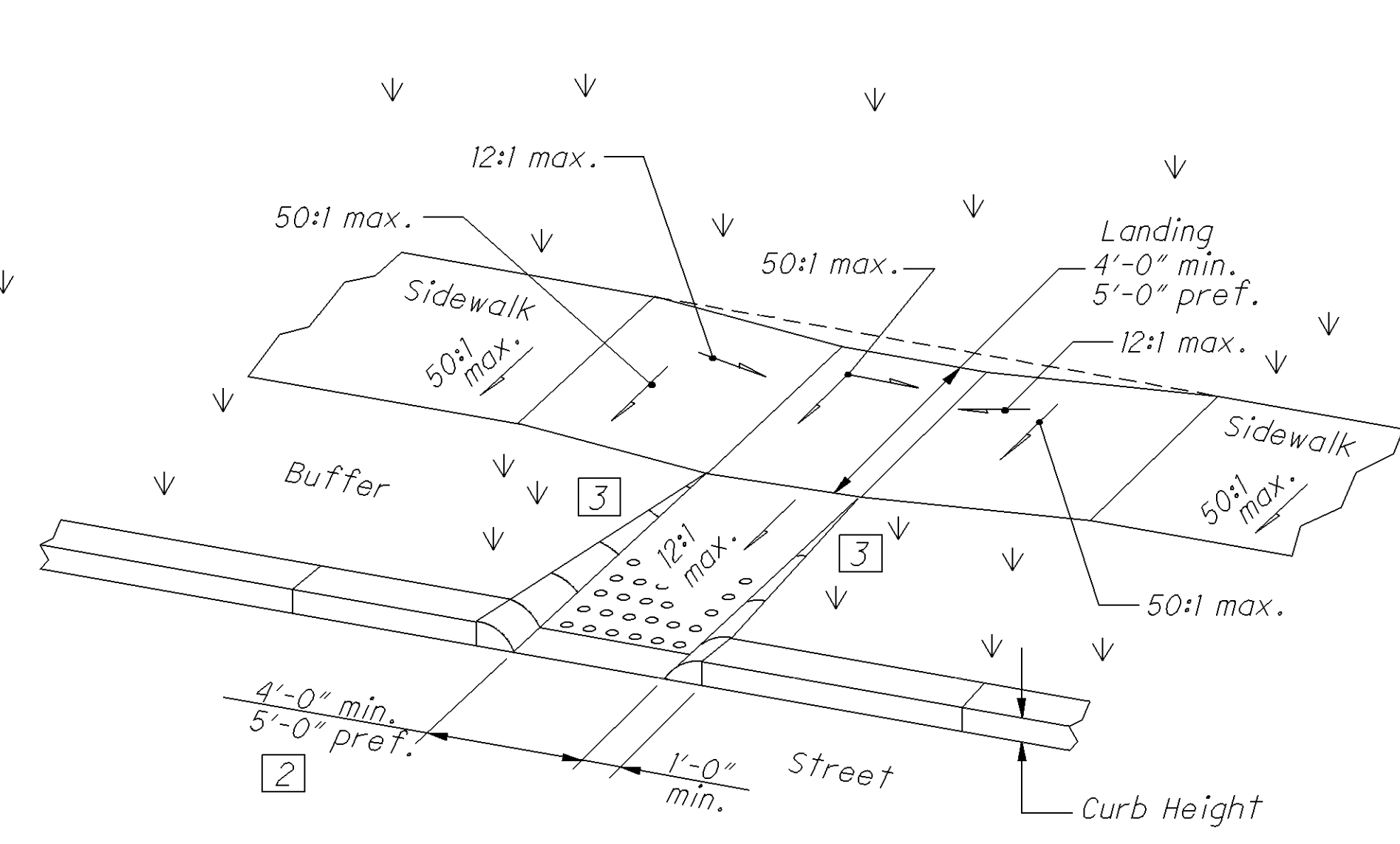


Type A2 (Perpendicular with returned curb)

PERPENDICULAR CURB RAMP DETAILS

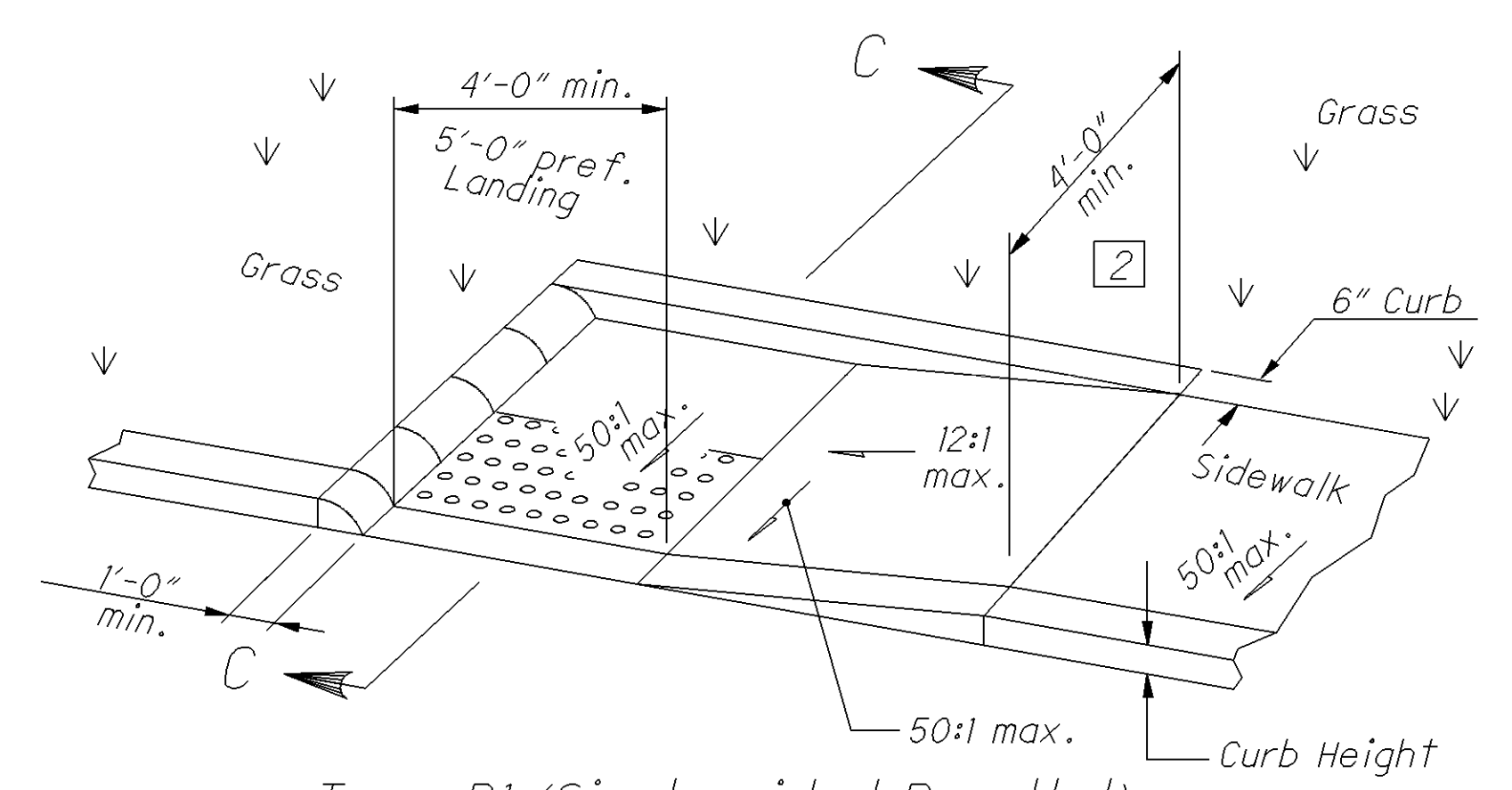


Type C1 (Combined with flared sides)

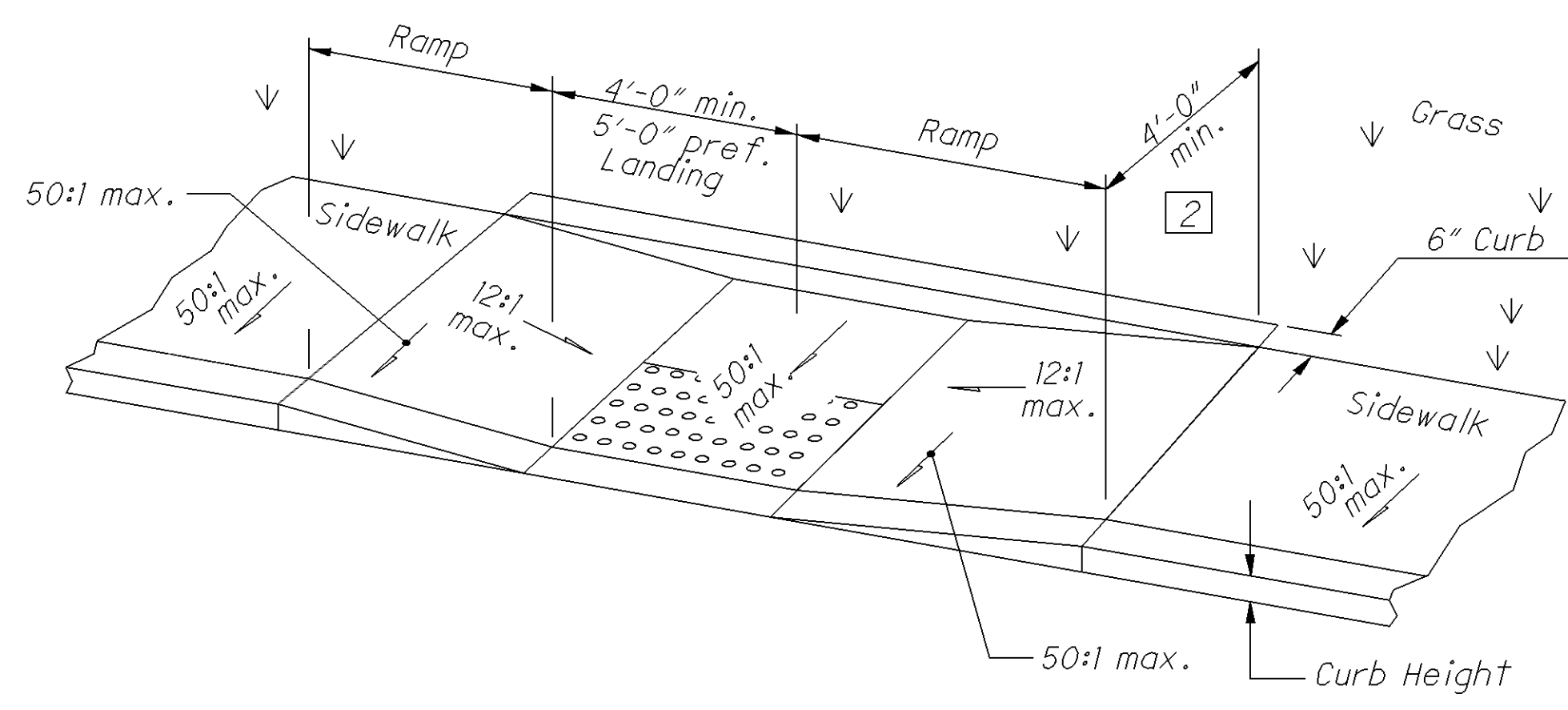


Type C2 (Combined with returned curb)

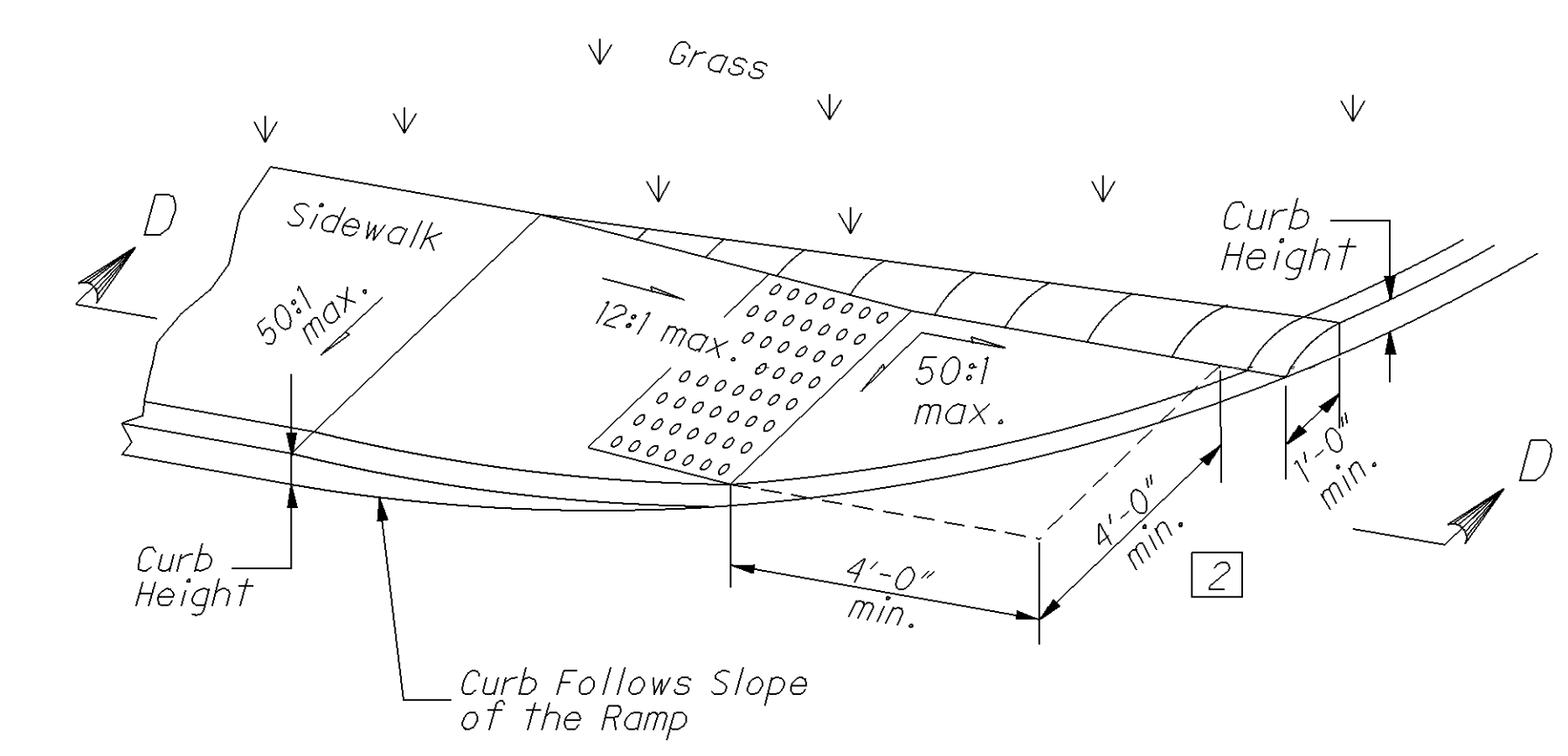
COMBINED CURB RAMP DETAILS



Type B1 (Single sided Parallel)



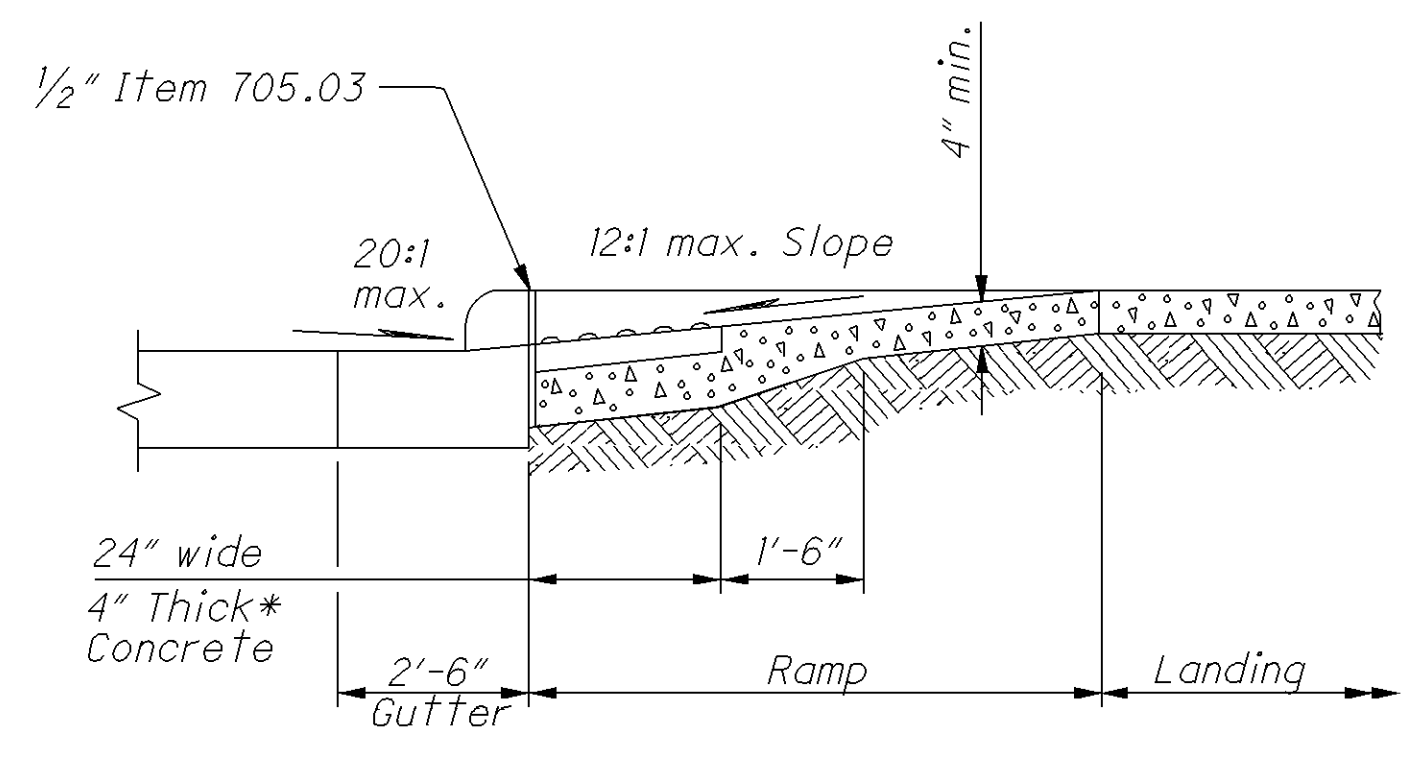
Type B2 (Double sided Parallel)



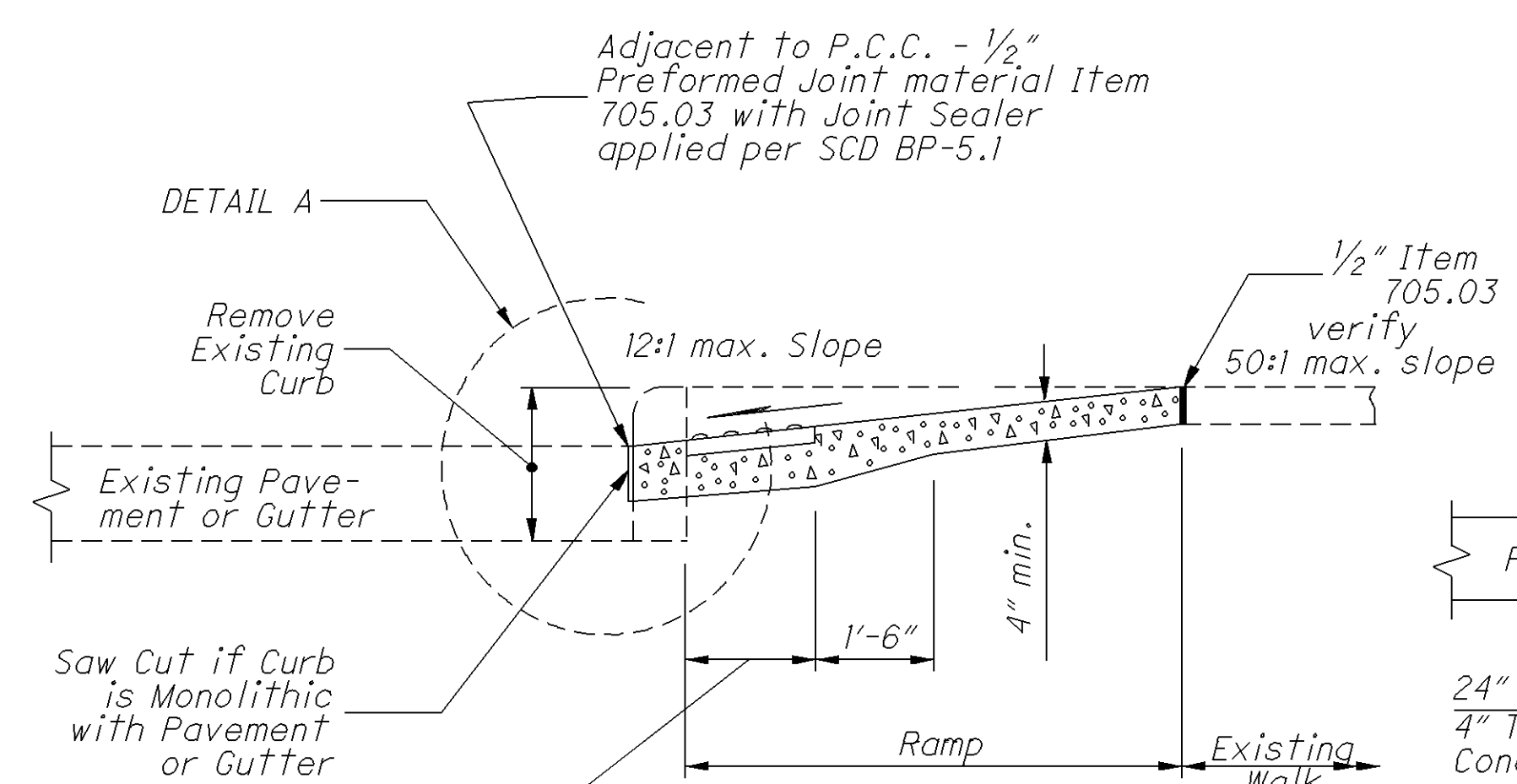
Type B3 (Single sided Parallel)

PARALLEL CURB RAMP DETAILS

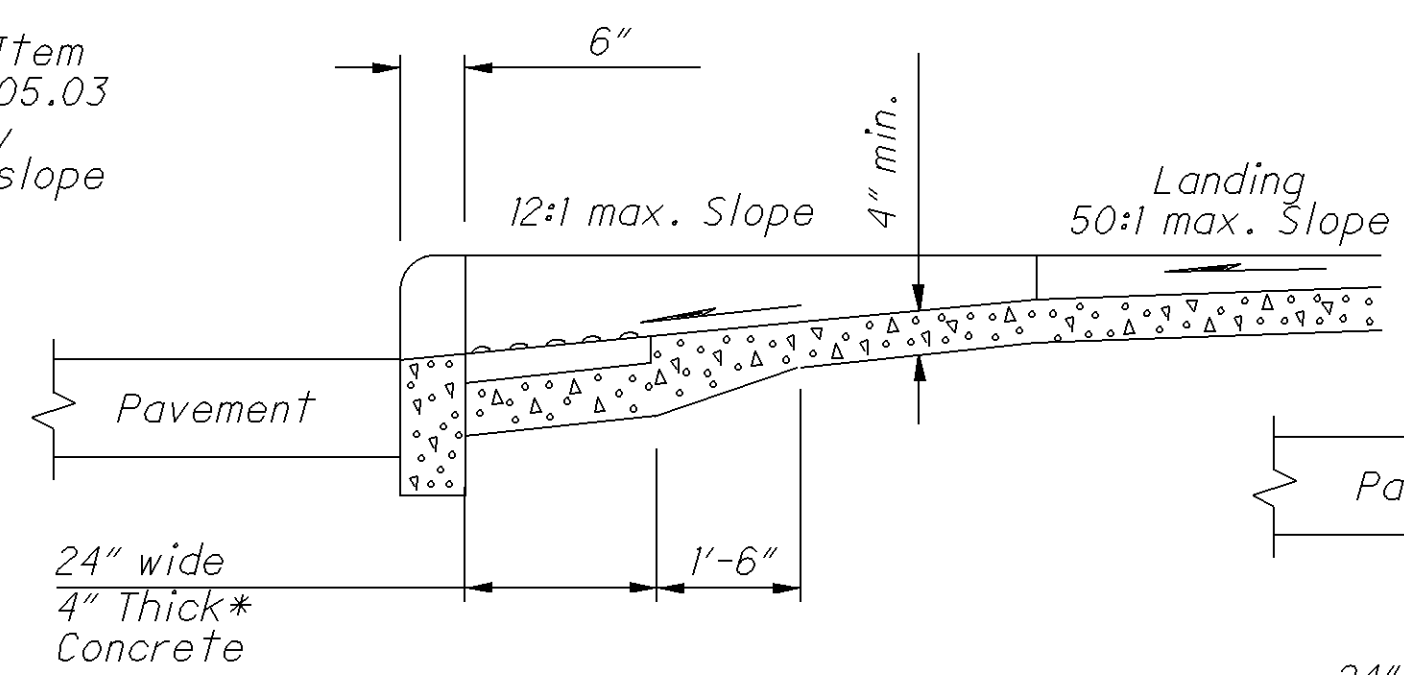
81229\_CRD\_002.DGN 1/28/11



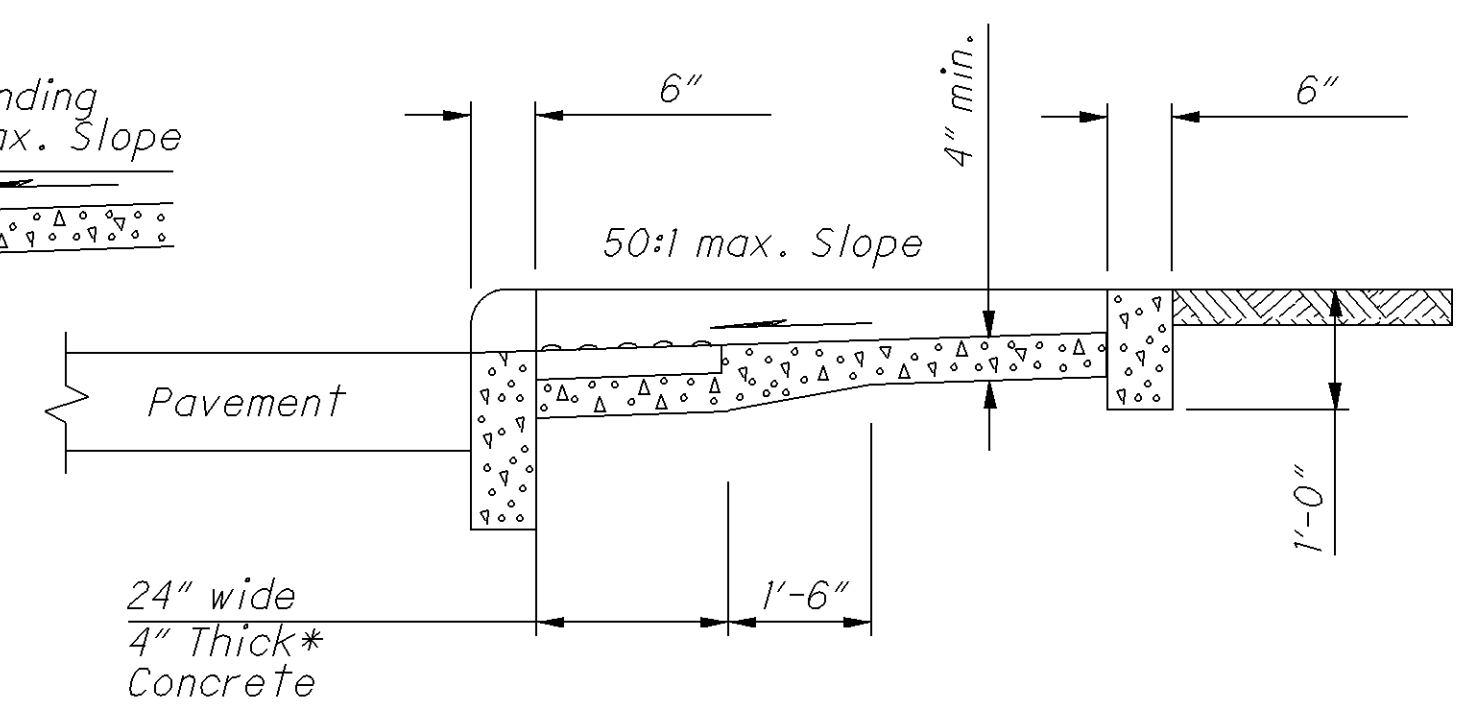
New gutter shown.  
**SECTION A-A  
NORMAL DETAIL**  
See Sheet 14.



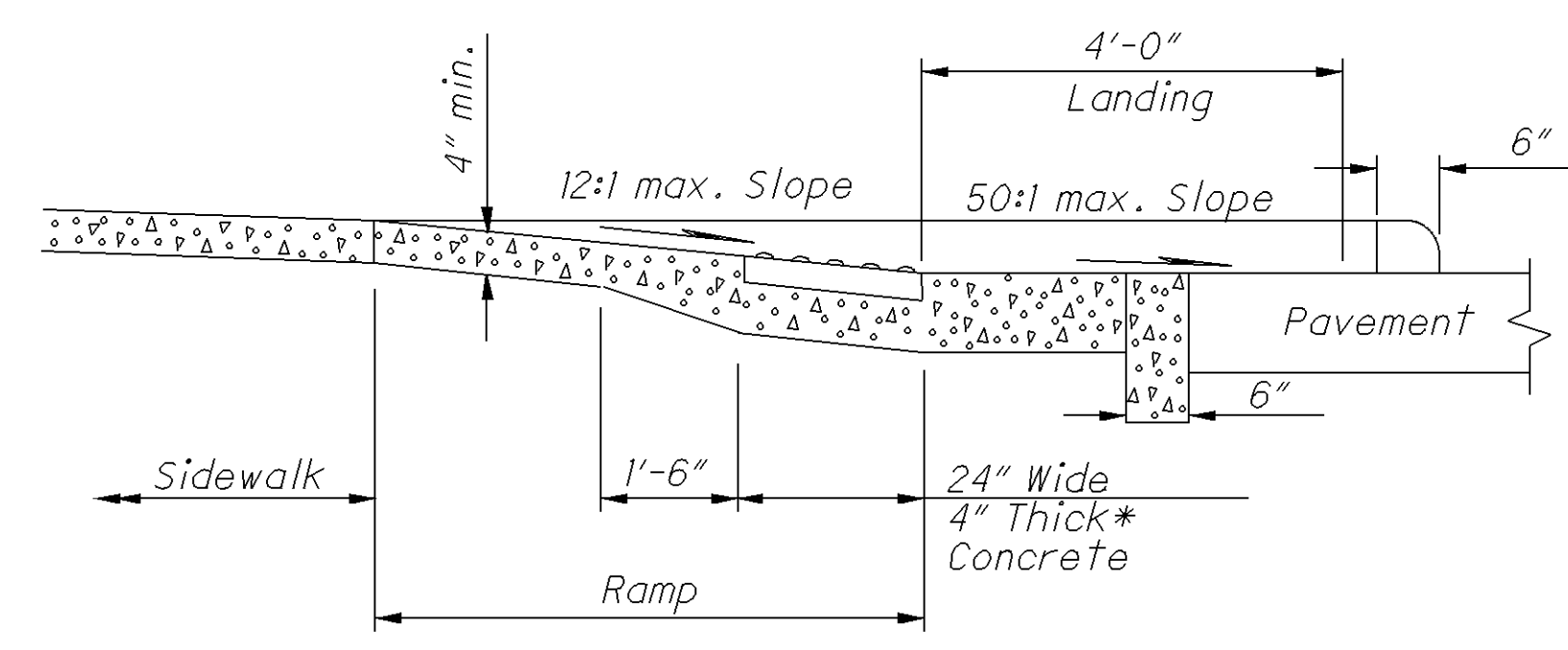
**SECTION A-A  
EXISTING WALK DETAIL**  
See Sheet 14.



**SECTION B-B**  
See Sheet 14.

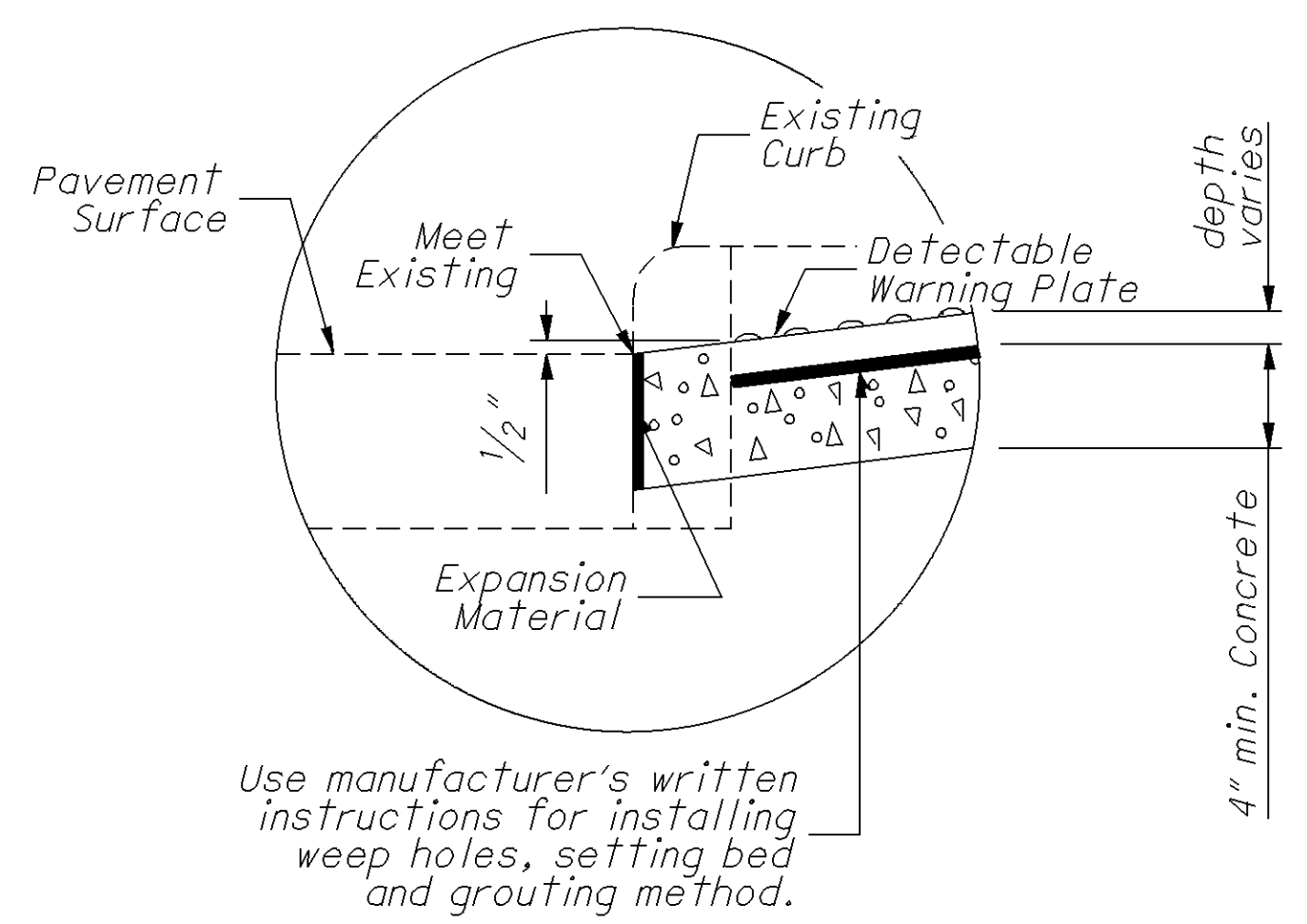


**SECTION C-C**  
See Sheet 14.



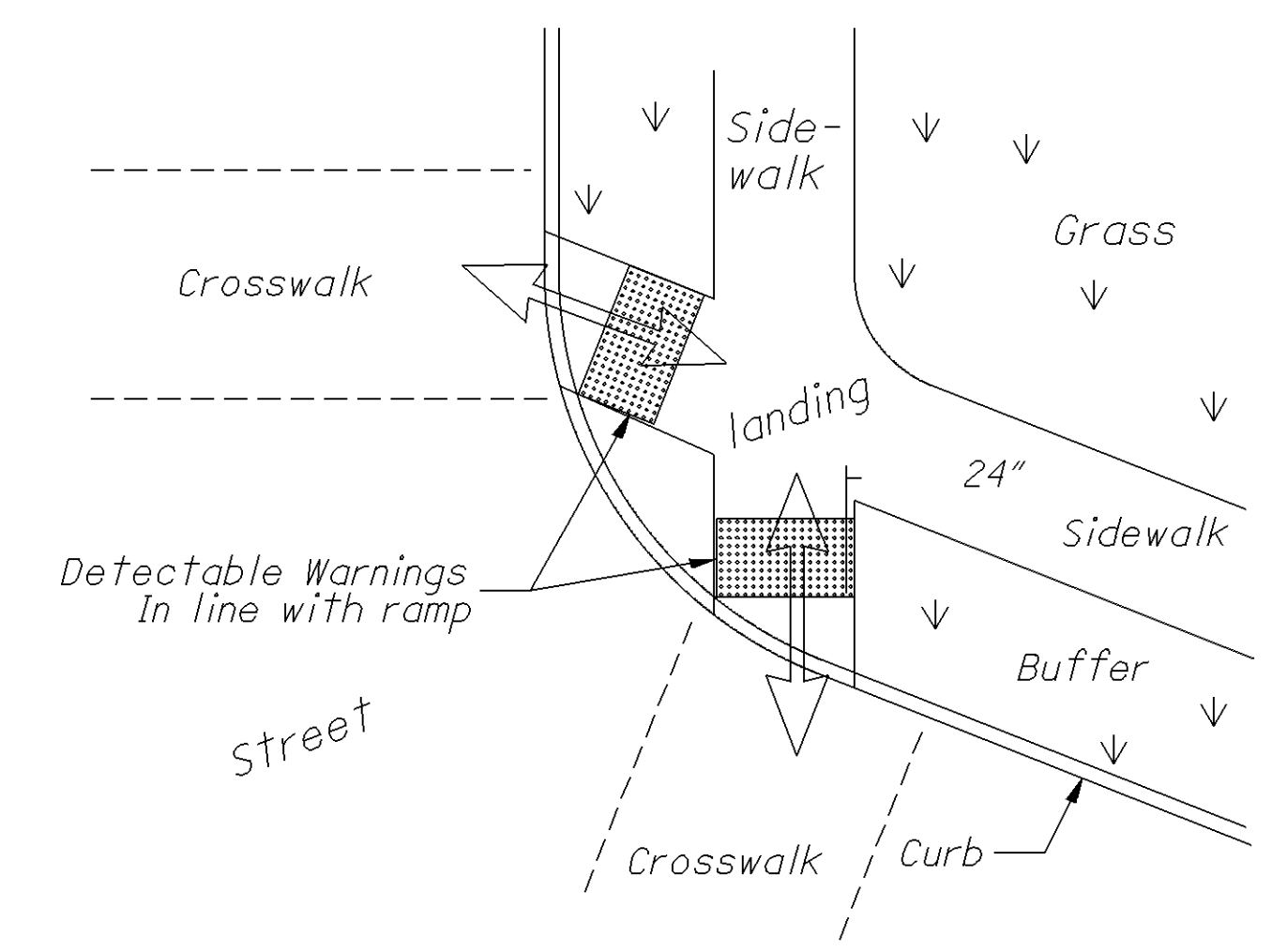
**SECTION D-D**  
See Sheet 14.

\*Where possible, pour ramp area integral with the curb, otherwise use 6" thick walk.



Use manufacturer's written instructions for installing weep holes, setting bed and grouting method.

**DETAIL A**



**DETECTABLE WARNING ALIGNMENT**

**DETECTABLE WARNINGS NOTES**

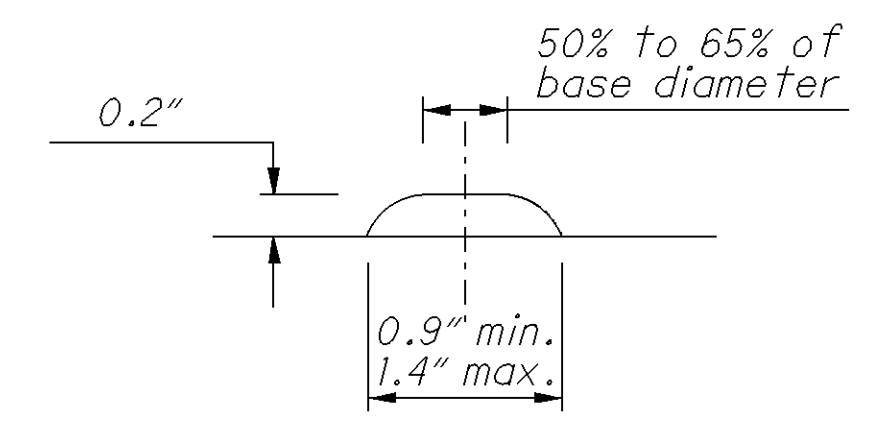
**GENERAL:** Detectable Warnings are a distinctive surface pattern of truncated domes which are detectable by cane or underfoot to alert people with vision impairments of their approach to streets and hazardous drop-offs.

**PLACEMENT:** Detectable warnings are to be installed at any location where pedestrians might cross paths with vehicular traffic lanes, such as the base of curb ramps or at blended curbs. A 24" strip of domes is to be installed for the full width of the ramp or walk. Typical street corner placement locations are shown on Sheet 13.

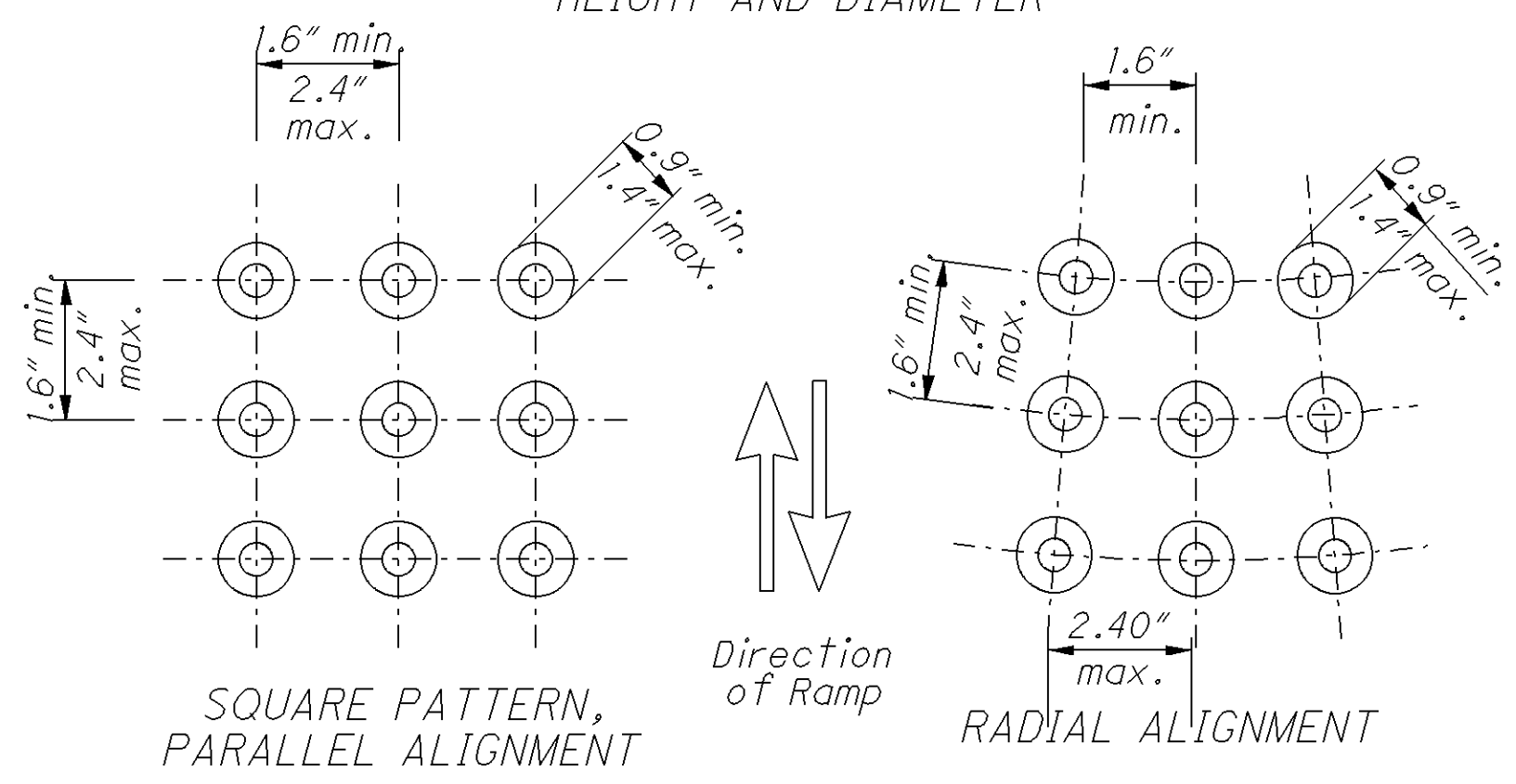
The depth of concrete underneath detectable warning products shall be a minimum of 4". See DETAIL A.

**ALIGNMENT:** Truncated domes should be aligned with the primary direction of the ramp as shown on the DETECTABLE WARNING ALIGNMENT Detail. Normally the detectable warnings should be flush with the back of the curb, but in skewed conditions at least one corner of the 24" strip should be adjacent to the back of curb. For non-standard layouts, detectable warning materials may have to be mitered and placed segmentally.

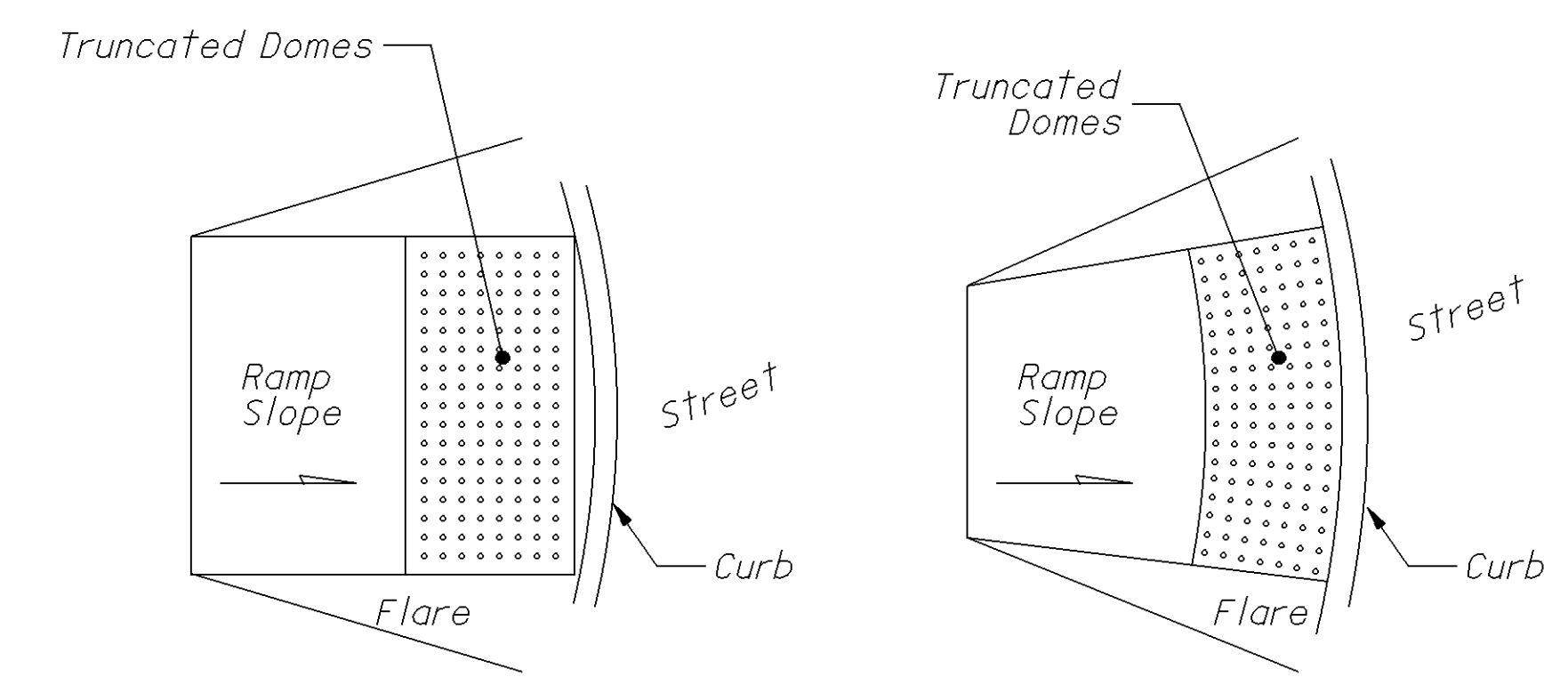
**PRODUCTS & COLORS:** Color of the detectable warnings should contrast with surrounding concrete walk and ramp. Black is not an acceptable color. Approved products and guidance on color may be found on the Office of Roadway Engineering Service's Detectable Warnings Approved List. Install products as per manufacturer's printed instructions.



**HEIGHT AND DIAMETER**



**TRUNCATED DOMES DETAILS**



**DOME ALIGNMENT ON RADIUS CURB**

ITEM 817 EDGE LINE										
LOCATION	COUNTY	ROUTE	S.L.M.		TOTAL LENGTH (MILES)	INFORMATION ONLY			TOTAL EDGE LINE MILES	REMARKS
						WHITE EDGE LINE QUANTITIES				
			FROM	TO		TOTAL MILES	HIGHWAY MILES	RAMP MILES		
1	KNO	U.S. 36	20.44	20.68	0.24	0.48	0.48		0.48	
1	KNO	U.S. 36	20.77	20.82	0.05	0.10	0.10		0.10	
LOCATION 1 (TOTAL CARRIED TO SUB-SUMMARY)									0.58	
2	KNO	U.S. 36	20.68	20.77	0.09	0.18	0.18		0.18	
2	KNO	U.S. 36	20.82	35.87	15.05	30.10	30.10		30.10	
LOCATION 2 (TOTAL CARRIED TO SUB-SUMMARY)									30.28	
3	KNO	U.S. 36 / 62 CONNECTOR ROAD			0.12	0.24	0.24		0.24	
LOCATION 3 (TOTAL CARRIED TO SUB-SUMMARY)									0.24	

ITEM 817 CENTER LINE										
LOCATION	COUNTY	ROUTE	S.L.M.		TOTAL LENGTH (MILES)	INFORMATION ONLY		TOTAL CENTER LINE MILES	REMARKS	
						CENTER LINE QUANTITIES				
			FROM	TO		TOTAL MILES	EQUIVALENT SOLID LINE			
1	KNO	U.S. 36	20.44	20.68	0.24	0.24	0.373	0.24		
1	KNO	U.S. 36	20.77	20.82	0.05	0.05	0.013	0.05		
LOCATION 1 (TOTAL CARRIED TO SUB-SUMMARY)									0.29	
2	KNO	U.S. 36	20.68	20.77	0.09	0.09	0.022	0.09		
2	KNO	U.S. 36	20.82	35.87	15.05	15.05	20.670	15.14	ADD 0.09 MILE FOR TURN LANE EAST KNOX SCHOOL	
LOCATION 2 (TOTAL CARRIED TO SUB-SUMMARY)									15.23	
3	KNO	U.S. 36 / 62 CONNECTOR ROAD			0.12	0.12	0.240	0.12		
LOCATION 3 (TOTAL CARRIED TO SUB-SUMMARY)									0.12	

EDGE / CENTER LINE DATA

KNO - 36 - 20.44



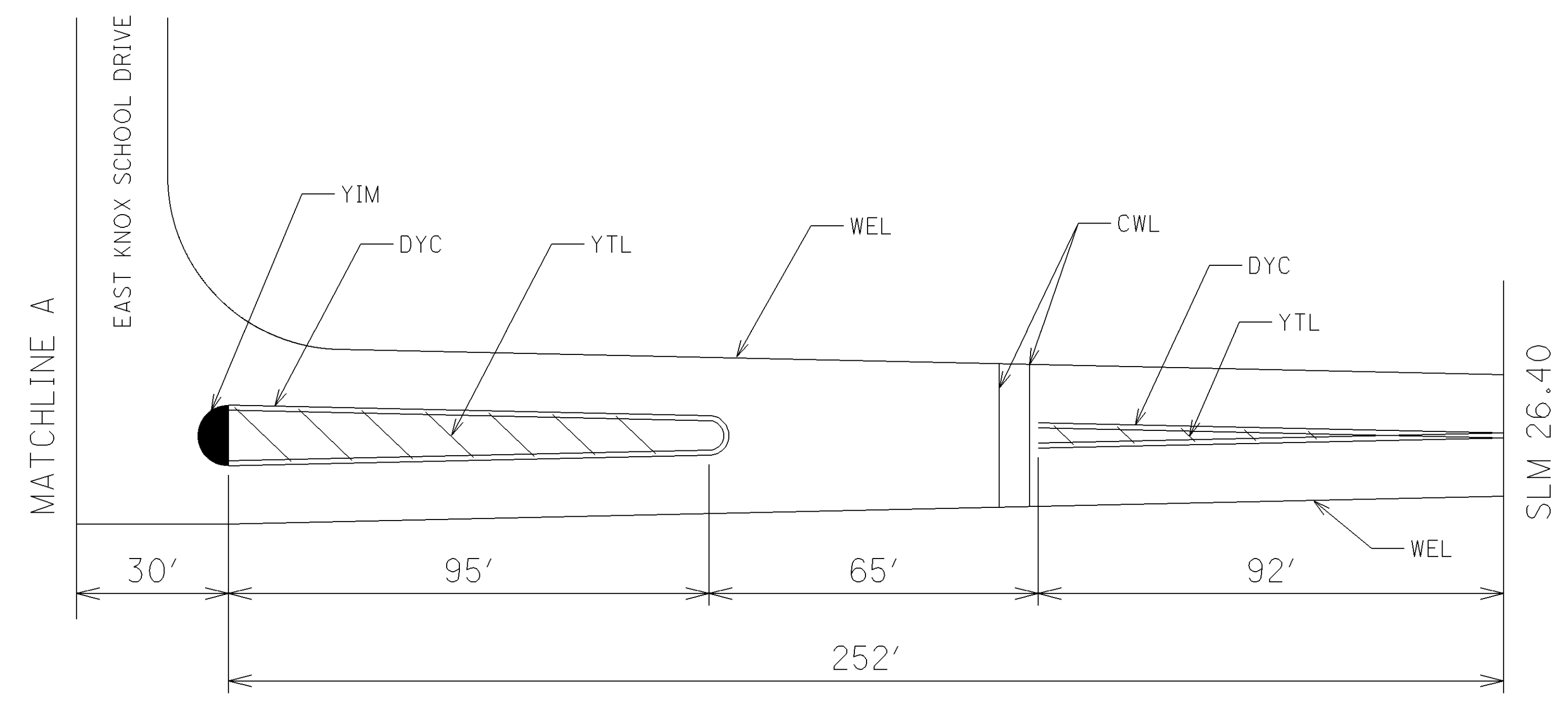
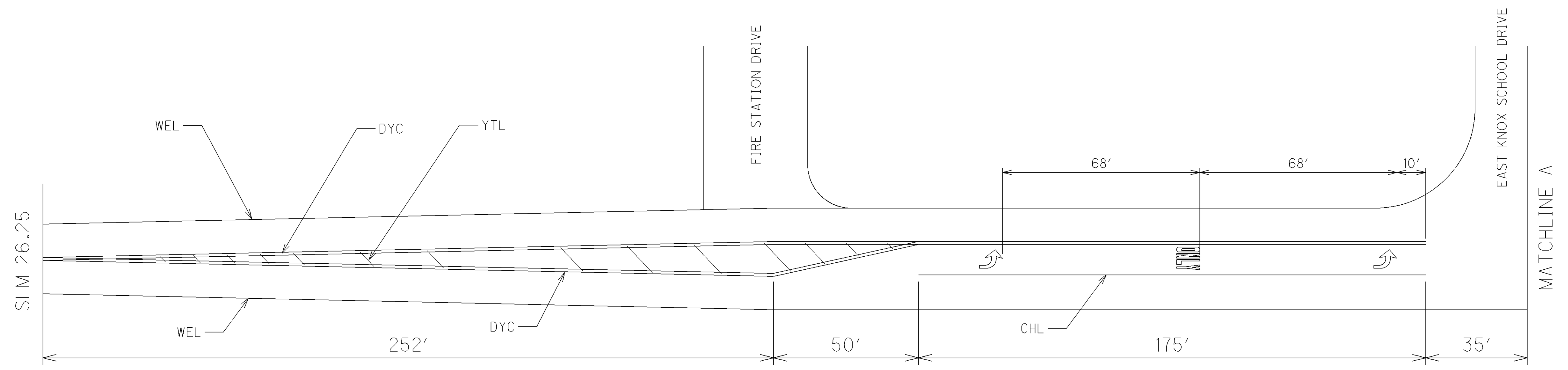
644 THERMOPLASTIC AUXILIARY MARKING

LOCATION	COUNTY	ROUTE	DESCRIPTION	SIDE	TRANVERSE/DIAGONAL LINES (24")		STOP LINE (24")	12" CROSSWALK LINE	8" CHANNELIZING LINE	WORD ON PAVEMENT		SCHOOL SYMBOL MARKING		LANE ARROW		ISLAND MARKING	RAILROAD MARKING SYMBOL	REMARKS
					WHITE FT.	YELLOW FT.				ONLY		72" EACH	96" EACH	LEFT EACH	RIGHT EACH			
										72" EACH	96" EACH							
1	KNO	U.S. 36	U.S. 36															
1	KNO	U.S. 36	ON U.S. 36 AT UPPER GILCHRIST RD	CL			24		100		1			1				PLACE AS DIRECTED
<b>LOCATION 1 (TOTALS CARRIED TO SUB-SUMMARY)</b>							24		100		1			1				
			U.S. 36															
2	KNO	U.S. 36	CR 8 (GILCHRIST RD.)	LT			18											PLACE 20' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	SR 308	RT			52											PLACE 19' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	CR 46 (VINCENT RD)	LT			26											PLACE 20' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	TWP RD 240 (McMANIS RD)	RT			31											PLACE 21' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	TWP RD 237 (DEPOLO RD)	RT			11											PLACE 20' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	CR 34 (SCHENICK CREEK RD)	RT			50											PLACE 21' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	CR 3 (MONROE MILLS RD)	LT			29											PLACE 20' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	GRANT STREET	LT			12											PLACE 18' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	TWP RD 239 (GRANT ST)	RT			10											PLACE 19' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	CR 4A (COOLING CT)	LT		376	44		225		1			2		57		TURN LANE QUANTITIES FOR APPLE VALLEY INCLUDED
2	KNO	U.S. 36	ON U.S. 36 - TURN LANE FOR SCHOOL	CL		216			56		1			2		47		SEE DETAIL ON SHEET 18
2	KNO	U.S. 36	CR 34 (SCHENICK RD)	RT			26											PLACE 18' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	ON U.S. 36	CL					48									PLACE AS DIRECTED
2	KNO	U.S. 36	JELLOWAY	LT			13		76									PLACE AS DIRECTED
2	KNO	U.S. 36	COTTON	LT			12		48									PLACE AS DIRECTED
2	KNO	U.S. 36	ALLEY	LT			6		28									PLACE AS DIRECTED
2	KNO	U.S. 36	MARY	LT			13		50									PLACE AS DIRECTED
2	KNO	U.S. 36	ON U.S. 36 SLM 26.57	CL								2						PLACE AS DIRECTED
2	KNO	U.S. 36	HOWARD-DANVILLE RD.	LT			32											PLACE 24' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	HOWARD ST.	RT			22											PLACE 25' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	PPESVILLE RD.	RT			24											PLACE 24' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	HUMBERT RD.	LT			14											PLACE 23' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	CAREY LANE	LT			14											PLACE 18' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	MLL ST	LT			14											PLACE 20' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	MLL ST	RT			17											PLACE 20' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	BRIDGE ST.	RT			17											PLACE 35' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	S.R. 715	LT			10											PLACE AS DIRECTED
2	KNO	U.S. 36	TR 226 (AUSTIN RD)	RT			26											PLACE 24' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	CR 36 (RUTLEDGE RD)	LT			31											PLACE 24' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	CR 36 (RUTLEDGE RD)	RT			35											PLACE 24' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	BRUSH RUN RD	RT			16											PLACE 22' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	BRUSH RUN RD	LT			16											PLACE 19' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	BRUSH RUN RD	LT			24											PLACE 24' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	BRUSH RUN RD	RT			30											PLACE 24' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	BRUSH RUN RD	LT			31											PLACE 24' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	BRUSH RUN RD	RT			13											PLACE 22' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	WOODS CHURCH RD	RT			30											PLACE 24' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	BRUSH RUN RD	LT			25											PLACE 25' FROM U.S. 36 CENTER LINE
2	KNO	U.S. 36	BRUSH RUN RD	RT			24											PLACE 24' FROM U.S. 36 CENTER LINE
<b>LOCATION 2 (TOTALS CARRIED TO SUB-SUMMARY)</b>							592	816	306	400		2		2	4		104	
			U.S. 36 / 62 CONNECTOR RD.															
3	KNO		ON CONNECTOR RD AT U.S. 36	CL			26											PLACE 36' FROM U.S. 36 CENTER LINE
3	KNO		ALLEY	LT.			10											PLACE 20' FROM CONNECTOR CENTER LINE
3	KNO		BRIDGE ST	LT.			12											PLACE 24' FROM CONNECTOR CENTER LINE
3	KNO		ON CONNECTOR RD AT U.S. 62	CL			45											PLACE 24' FROM U.S. 62 CENTER LINE
<b>LOCATION 3 (TOTALS CARRIED TO SUB-SUMMARY)</b>								93										

CALCULATED  
LME  
CHECKED  
DNM

AUXILIARY MARKING DATA

KNO - 36 - 20.44



- DYC = DOUBLE YELLOW CENTER LINE
- WEL = WHITE EDGE LINE
- CWL = CROSSWALK LINE
- CHL = CHANNELIZING LINE
- YIM = YELLOW ISLAND MARKING
- YTL = YELLOW TRANSVERSE/DIAGONAL LINE

QUANTITIES CARRIED TO SHEETS 16 & 17.

DETAIL	SEE STD. DWG. TC-65.11
1	TAPERED ACCELERATION LANE
2	DECELERATION LANE
3	MULTILANE DIVIDED/ CONTROLLED ACCESS

DETAIL	SEE STD. DWG. TC-65.11
4	4 LANE DIVIDED TO 2 LANE TRANSITION
5	4 LANE UNDIVIDED TO 2 LANE TRANSITION
6	ONE LANE BRIDGE
7	STOP APPROACH
8	THRU APPROACH
9	TWO WAY LEFT TURN LANE

DETAIL	SEE STD. DWG. TC-65.11
10	APPROACH W/LT. TURN LANE
11	HORIZONTAL CURVE 40'
12	HORIZONTAL CURVE ALT.
GAP	CENTERLINE AT 80' TYP.

CALCULATED  
LME  
CHECKED  
DNM

ITEM 621 RPM SUB-SUMMARY

LOCATION	COUNTY	ROUTE	BEGIN LOG POINT SLM	END LOG POINT SLM	LENGTH		DETAIL	621 PRISMATIC RETRO-REFLECTOR COLORS					REMARKS	
								RPM	INFORMATION ONLY					
									ONE-WAY	TWO-WAY				
					MILES	LIN.FT.		EACH	WHITE	YELLOW	YELLOW / YELLOW	WHITE / RED	YELLOW / RED	
1	KNO	U.S. 36	20.44	20.47	0.03	158	7/11	25	16		9			PC 20.43 PT 20.47 L = 211' DEG 5
1	KNO	U.S. 36	20.47	20.51	0.04	211	GAP	3			3			
1	KNO	U.S. 36	20.51	20.57	0.06	317	11	9			9			PC 20.51 PT 20.57 L = 370' DEG 5
1	KNO	U.S. 36	20.57	20.68	0.11	581	GAP	7			7			
1	KNO	U.S. 36	20.77	20.82	0.05	264	GAP	3			3			
(LOCATION 1 SUB-TOTALS)									16		31			
LOCATION 1 (TOTAL CARRIED TO SUB-SUMMARY)								47						
2	KNO	U.S. 36	20.68	20.77	0.09	475	GAP	6			6			
2	KNO	U.S. 36	20.82	21.14	0.32	1,690	GAP	21			21			
2	KNO	U.S. 36	21.14	21.18	0.04	211	11	5			5			PC 21.14 PT 21.18 L = 211' DEG 5
2	KNO	U.S. 36	21.18	21.25	0.07	370	GAP	5			5			
2	KNO	U.S. 36	21.25	21.30	0.05	264	11	7			7			PC 21.25 PT 21.30 L = 264' DEG 8
2	KNO	U.S. 36	21.30	21.61	0.31	1,637	GAP	20			20			
2	KNO	U.S. 36	21.61	21.66	0.05	264	11	7			7			PC 21.61 PT 21.66 L = 264' DEG 7
2	KNO	U.S. 36	21.66	22.06	0.40	2,112	GAP	26			26			
2	KNO	U.S. 36	22.06	22.11	0.05	264	11	7			7			PC 22.06 PT 22.11 L = 264' DEG 5
2	KNO	U.S. 36	22.11	22.15	0.04	211	GAP	3			3			
2	KNO	U.S. 36	22.15	22.18	0.03	158	11	4			4			PC 22.15 PT 22.18 L = 158' DEG 9
2	KNO	U.S. 36	22.18	22.73	0.55	2,904	GAP	36			36			
2	KNO	U.S. 36	22.73	22.80	0.07	370	11	9			9			PC 22.73 PT 22.80 L = 370' DEG 6
2	KNO	U.S. 36	22.80	23.18	0.38	2,006	GAP	25			25			
2	KNO	U.S. 36	23.18	23.28	0.10	528	11	13			13			PC 23.18 PT 23.28 L = 528' DEG 6
2	KNO	U.S. 36	23.28	23.39	0.11	581	GAP	7			7			
2	KNO	U.S. 36	23.39	23.43	0.04	211	11	5			5			PC 23.39 PT 23.43 L = 211' DEG 5
2	KNO	U.S. 36	23.43	25.86	2.43	12,830	GAP	160			160			
2	KNO	U.S. 36	25.86	25.90	0.04	211	11	5			5			PC 25.86 PT 25.90 L = 211' DEG 6
2	KNO	U.S. 36	25.90	26.50	0.60	3,168	GAP	40			40			
2	KNO	U.S. 36	26.50	26.71	0.21	1,109	12	32			32			PC 26.59 PT 26.62 L = 158' DEG 14
2	KNO	U.S. 36	26.71	27.39	0.68	3,590	GAP	45			45			
2	KNO	U.S. 36	27.39	27.50	0.11	581	11	15			15			PC 27.39 PT 27.50 L = 581' DEG 5
2	KNO	U.S. 36	27.50	27.55	0.05	264	GAP	3			3			
(LOCATION 2 SUB-TOTALS)											506			
LOCATION 2 (TOTAL CARRIED TO SHEET 20)								506						

RAISED PAVEMENT MARKER DATA

KNO - 36 - 20.44

DETAIL	SEE STD. DWG. TC-65.11
1	TAPERED ACCELERATION LANE
2	DECELERATION LANE
3	MULTILANE DIVIDED/ CONTROLLED ACCESS

DETAIL	SEE STD. DWG. TC-65.11
4	4 LANE DIVIDED TO 2 LANE TRANSITION
5	4 LANE UNDIVIDED TO 2 LANE TRANSITION
6	ONE LANE BRIDGE
7	STOP APPROACH
8	THRU APPROACH
9	TWO WAY LEFT TURN LANE

DETAIL	SEE STD. DWG. TC-65.11
10	APPROACH W/LT. TURN LANE
11	HORIZONTAL CURVE 40'
12	HORIZONTAL CURVE ALT.
GAP	CENTERLINE AT 80' TYP.

ITEM 621 RPM SUB-SUMMARY														
L O C A T I O N	C O U N T Y	R O U T E	B E G I N L O G P O I N T S L M	E N D L O G P O I N T S L M	L E N G T H		D E T A I L	621	P R I S M A T I C R E T R O - R E F L E C T O R C O L O R S					R E M A R K S
					R P M	I N F O R M A T I O N O N L Y								
						E A C H		O N E - W A Y		T W O - W A Y				
M I L E S	L I N. F T.							W H I T E	Y E L L O	Y E L L O / Y E L L O	W H I T E / R E D	Y E L L O / R E D		
LOCATION 2 (TOTAL CARRIED FROM PREVIOUS SHEET)								506						
2	KNO	U.S. 36	27.55	27.62	0.07	370	11	9			9			PC 27.55 PT 27.62 L = 370' DEG 9
2	KNO	U.S. 36	27.62	27.70	0.08	422	GAP	5			5			
2	KNO	U.S. 36	27.70	27.81	0.11	581	11	15			15			PC 27.70 PT 27.81 L = 581' DEG 8
2	KNO	U.S. 36	27.81	27.86	0.05	264	GAP	3			3			
2	KNO	U.S. 36	27.86	27.91	0.05	264	11	7			7			PC 27.86 PT 27.91 L = 264' DEG 9
2	KNO	U.S. 36	27.91	27.94	0.03	158	GAP	2			2			
2	KNO	U.S. 36	27.94	28.21	0.27	1,426	12	56			56			PC 28.03 PT 28.18 L = 792' DEG 11
2	KNO	U.S. 36	28.21	28.24	0.03	158	11	4			4			PC 28.21 PT 28.24 L = 158' DEG 6
2	KNO	U.S. 36	28.24	28.49	0.25	1,320	12	43			43			PC 28.33 PT 28.40 L = 370' DEG 14
2	KNO	U.S. 36	28.49	28.75	0.26	1,373	GAP	17			17			
2	KNO	U.S. 36	28.75	28.79	0.04	211	11	5			5			PC 28.75 PT 28.79 L = 211' DEG 6
2	KNO	U.S. 36	28.79	28.85	0.06	317	GAP	4			4			
2	KNO	U.S. 36	28.85	28.90	0.05	264	11	7			7			PC 28.85 PT 28.90 L = 264' DEG 6
2	KNO	U.S. 36	28.90	29.17	0.27	1,426	GAP	18			18			
2	KNO	U.S. 36	29.17	29.23	0.06	317	11	8			8			PC 29.17 PT 29.23 L = 317' DEG 6
2	KNO	U.S. 36	29.23	30.05	0.82	4,330	GAP	54			54			
2	KNO	U.S. 36	30.05	30.13	0.08	422	11	11			11			PC 30.05 PT 30.13 L = 422' DEG 9
2	KNO	U.S. 36	30.13	30.24	0.11	581	12	20			20			PC 30.18 PT 30.22 L = 211' DEG 10
2	KNO	U.S. 36	30.24	30.39	0.15	792	12	28			28			PC 30.24 PT 30.30 L = 317' DEG 13
2	KNO	U.S. 36	30.39	35.87	5.48	28,934	GAP	362			362			
(LOCATION 2 SUB-TOTALS)											678			
LOCATION 2 (TOTAL CARRIED TO SUB-SUMMARY)								1,184						
3	KNO	U.S. 36 / 62 CONNECTOR RD			0.12	634	7/GAP	48	32		16			40' SPACING ON CL, STOP AT EACH END
(LOCATION 3 SUB-TOTALS)									32		16			
LOCATION 3 (TOTAL CARRIED TO SUB-SUMMARY)								48						

LOCATIONS (S.L.M.)	SIDE	202	203	606						626	659				690		REMARKS  (ADDED DIMENSIONS DO NOT INCLUDE ANCHOR ASSEMBLY GUARDRAIL)
		GUARDRAIL REMOVED	EMBANKMENT	GUARDRAIL, TYPE 5	ANCHOR ASSEMBLY, TYPE A	ANCHOR ASSEMBLY, TYPE E	ANCHOR ASSEMBLY, TYPE T	BRIDGE TERMINAL ASSEMBLY, TYPE 4	SPECIAL - RESHAPING BERM	BARRIER REFLECTOR	SEEDING AND MULCHING	COMMERCIAL FERTILIZER	LIME	WATER	SPECIAL - MAILBOX SUPPORT SYSTEM, SINGLE	SPECIAL - MAILBOX SUPPORT SYSTEM, DOUBLE	
	LT./RT.	FT.	CU. YD.	FT.	EACH	EACH	EACH	EACH	FT.	EACH	SQ. YD.	TON	ACRE	M. GAL.	EACH	EACH	
<b>U.S. 36 (EASTBOUND)</b>																	
32.04	RT.	187.5		250.0			2		275.0	4							ADD TYPE T TO EAST END, ADD 62.5' AND TYPE T TO WEST END
32.10	RT.	100.0	2.0	225.0			1		287.5	4	50	0.01	0.01	0.27			ADD 25' AND TYPE E TO EAST END, ADD 100' AND TYPE T TO WEST END
32.23	RT.	125.0	2.0	175.0		1	1		237.5	4	50	0.01	0.01	0.27			ADD 50' AND TYPE E TO EAST END, ADD TYPE T TO WEST END
32.35	RT.	325.0	2.0	512.5		1	1		575.0	7	50	0.01	0.01	0.27			ADD 37.5' AND TYPE T TO EAST END, ADD 150' AND TYPE E TO WEST END
* 32.68	RT.	300.0	2.0	362.5		1	1	2	425.0	6	50	0.01	0.01	0.27			ADD 25' AND TYPE E TO EAST END, ADD 37.5' AND TYPE T TO WEST END
33.19	RT.	125.0	2.0	187.5		1	1		25.0	4	50	0.01	0.01	0.27			ADD 62.5' AND TYPE T TO EAST END, ADD TYPE E TO WEST END
33.46	RT.	62.5		87.5			2		112.5	3					1		ADD 37.5' AND TYPE T TO EAST END, ADD TYPE T TO WEST END
33.67	RT.	1,112.5	4.0	1,012.5		2			1,112.5	13	100	0.02	0.02	0.54	1		ADD TYPE E TO EAST END, ADD TYPE E TO WEST END
33.98	RT.	500.0	4.0	425.0		2			525.0	7	100	0.02	0.02	0.54	1	2	ADD TYPE E TO EAST END, ADD 25' AND TYPE E TO WEST END
* 34.28	RT.	287.5	4.0	187.5		2		2	287.5	4	100	0.02	0.02	0.54			ADD TYPE E TO EAST END, ADD TYPE E TO WEST END
34.45	RT.	612.5		637.5	1		1		675.0	8							ADD 12.5' AND TYPE A TO EAST END, ADD 12.5' AND TYPE T TO WEST END
34.75	RT.	812.5	2.0	800.0		1	3		887.5	10	50	0.01	0.01	0.27			ADD TYPE T TO EAST END, ADD 25' AND TYPE E TO WEST END
* 32.68	LT.	300.0	4.0	625.0		2		2	725.0	9	100	0.02	0.02	0.54			ADD 250' AND TYPE E TO EAST END, ADD 75' AND TYPE E TO WEST END
33.19	LT.	125.0	2.0	87.5		1	1		150.0	3	50	0.01	0.01	0.27			ADD TYPE T TO EAST END, ADD 12.5' AND TYPE E TO WEST END
34.02	LT.	175.0	2.0	125.0		1	1		187.5	3	50	0.01	0.01	0.27			ADD TYPE T TO EAST END, ADD TYPE E TO WEST END
34.15	LT.	637.5	2.0	700.0		1	1		762.5	9	50	0.01	0.01	0.27			ADD 50' AND TYPE E TO EAST END, ADD 12.5' AND TYPE T TO WEST END
* 34.28	LT.	262.5	2.0	400.0		1	1	2	462.5	6	50	0.01	0.01	0.27			ADD 50' AND TYPE E TO EAST END, ADD 100' AND TYPE T TO WEST END
<b>TOTALS (CARRIED TO LOC. 2 SUB-SUMMARY)</b>		<b>6,050.0</b>	<b>36.0</b>	<b>6,800.0</b>	<b>1</b>	<b>17</b>	<b>17</b>	<b>8</b>	<b>7,712.5</b>	<b>104</b>	<b>900</b>	<b>0.18</b>	<b>0.18</b>	<b>4.86</b>	<b>3</b>	<b>2</b>	

\* - DO NOT DISTURB GUARDRAIL ON BRIDGE

ITEM 690 SPECIAL - MAILBOX SUPPORT SYSTEM

THIS WORK SHALL CONSIST OF FURNISHING AND ERECTING MAILBOX SUPPORTS AND ANY ASSOCIATED MOUNTING HARDWARE IN ACCORDANCE WITH PLAN DETAILS, AND ATTACHING AN OWNER-SUPPLIED MAILBOX AT LOCATIONS SPECIFIED IN THE PLAN, OR OTHERWISE ESTABLISHED BY THE ENGINEER.

WOOD POSTS SHALL BE NOMINAL 4" BY 4" SQUARE OR 4 1/2" DIAMETER ROUND, AND CONFORM TO T10.14.

STEEL POSTS SHALL BE NOMINAL PIPE SIZE 2" I.D. AND CONFORM TO AASHTO M 181.

HARDWARE (PLATES, SCREWS, BOLTS, ETC.) SHALL BE COMMERCIAL-GRADE GALVANIZED STEEL.

POSTS SHALL BE SET PER THE FIRST PARAGRAPH OF 606.03, AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO BOXES MAY BE MOUNTED ON A SINGLE POST.

THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS, AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POST MASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO A NEW LOCATION.

PAYMENT UNDER THIS ITEM SHALL BE LIMITED TO FINAL PERMANENT INSTALLATIONS. TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.10. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY.

MAILBOX SUPPORTS, COMPLETE IN PLACE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR ITEM 690 SPECIAL-MAILBOX SUPPORT SYSTEM, (SINGLE)(DOUBLE).

LOCATION 1 (80% FED / 20% STATE) URBAN

LOCATION 1 (80% FED / 20% STATE) URBAN								ITEM	ITEM EXT.	LOCATION 1 TOTAL	UNIT	DESCRIPTION
Sht. 2	Sht. 3	Sht. 4	Sht. 5	Sht. 7	Sht. 16	Sht. 17	Sht. 19					
20								202	23500	20	SQ YD	WEARING COURSE REMOVED
			4,823	176				254	01000	4,999	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE
			362	14				407	10000	376	GALLON	TACK COAT
			242	9				407	14000	251	GALLON	TACK COAT FOR INTERMEDIATE COURSE
273								408	10001	273	GALLON	PRIME COAT, AS PER PLAN
2			135	5				448	46020	142	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22
2			168	7				448	46904	177	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M
3								614	12460	3	EACH	WORK ZONE MARKING SIGN
	1							614	13000	1	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
			0.30					614	21400	0.30	MILE	WORK ZONE CENTER LINE, CLASS II
			0.30					614	21550	0.30	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT
				38				617	10101	38	CU YD	COMPACTED AGGREGATE, AS PER PLAN
							47	621	00100	47	EACH	RPM
	47							621	54000	47	EACH	RAISED PAVEMENT MARKER REMOVED
		1						632	26501	1	EACH	DETECTOR LOOP, AS PER PLAN
						100		644	00400	100	FT	CHANNELIZING LINE
						24		644	00500	24	FT	STOP LINE
						1		644	01300	1	EACH	LANE ARROW
						1		644	01410	1	EACH	WORD ON PAVEMENT, 96"
					0.58			817	00100	0.58	MILE	EDGE LINE
					0.29			817	00300	0.29	MILE	CENTER LINE

CALCULATED  
LME  
CHECKED  
DNM

LOCATION 1 SUB-SUMMARY

KNO - 36 - 20.44

LOCATION 2 (80% FED / 20% STATE) RURAL											ITEM	ITEM EXT.	LOCATION 2 TOTAL	UNIT	DESCRIPTION
Sht. 2	Sht. 3	Sht. 5	Sht. 7	Sht. 9	Sht. 10	Sht. 12	Sht. 16	Sht. 17	Sht. 20	Sht. 21					
2,700				9091	4,540						202	23500	16,331	SQ YD	WEARING COURSE REMOVED
						100					202	30000	100	SQ FT	WALK REMOVED
										6,050.0	202	38000	6,050.0	FT	GUARDRAIL REMOVED
										36	203	20000	36	CU YD	EMBANKMENT
	7										209	60500	7	MILE	LINEAR GRADING
	2,500										253	02000	2,500	CU YD	PAVEMENT REPAIR
		209,112	610								254	01000	209,722	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE
		15,944	46	684	81						407	10000	16,755	GALLON	TACK COAT
		10,630	31	456	34						407	14000	11,151	GALLON	TACK COAT FOR INTERMEDIATE COURSE
14,212											408	10001	14,212	GALLON	PRIME COAT, AS PER PLAN
76		5,906	18	255	19						448	46020	6,274	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22
95		7,382	22		38						448	46904	7,537	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M
				318							448	47020	318	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22
					256						516	31011	256	FT	2" DEEP JOINT SEALER, AS PER PLAN
										6,800.0	606	13000	6,800.0	FT	GUARDRAIL, TYPE 5
										1	606	25000	1	EACH	ANCHOR ASSEMBLY, TYPE A
										17	606	26100	17	EACH	ANCHOR ASSEMBLY, TYPE E
										17	606	26500	17	EACH	ANCHOR ASSEMBLY, TYPE T
										8	606	35140	8	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4
										7,713	606	50000	7,713	FT	SPECIAL - RESHAPING BERM
						80					608	10000	80	SQ FT	4" CONCRETE WALK
120											614	12460	120	EACH	WORK ZONE MARKING SIGN
	6										614	13000	6	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
		15.02									614	21400	15.02	MILE	WORK ZONE CENTER LINE, CLASS II
		15.02									614	21550	15.02	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT
			1,949								617	10101	1,949	CU YD	COMPACTED AGGREGATE, AS PER PLAN
									1,184		621	00100	1,184	EACH	RPM
	1,204										621	54000	1,204	EACH	RAISED PAVEMENT MARKER REMOVED
										104	626	00100	104	EACH	BARRIER REFLECTOR
								400			644	00400	400	FT	CHANNELIZING LINE
								816			644	00500	816	FT	STOP LINE
								306			644	00600	306	FT	CROSSWALK LINE
								592			644	00700	592	FT	TRANSVERSE/DIAGONAL LINE
								104			644	00900	104	SQ FT	ISLAND MARKING
								2			644	01110	2	EACH	SCHOOL SYMBOL MARKING, 96"
								4			644	01300	4	EACH	LANE ARROW
								2			644	01410	2	EACH	WORD ON PAVEMENT, 96"
										900	659	10000	900	SQ YD	SEEDING AND MULCHING
										0.18	659	20000	0.18	TON	COMMERCIAL FERTILIZER
										0.18	659	31000	0.18	ACRE	LIME
										5	659	35000	5	M GAL	WATER
										3	690	50100	3	EACH	SPECIAL - MAILBOX SUPPORT SYSTEM, SINGLE
										2	690	50200	2	EACH	SPECIAL - MAILBOX SUPPORT SYSTEM, DOUBLE
						40					690	98200	40	SQ FT	SPECIAL - MISC.: DETECTABLE WARNING
								30.28			817	00100	30.28	MILE	EDGE LINE
								15.23			817	00300	15.23	MILE	CENTER LINE

CALCULATED  
LIME  
CHECKED  
DNM

LOCATION 2 SUB-SUMMARY

KNO - 36 - 20.44

LOCATION 3 (80% FED / 20% STATE) RURAL								ITEM	ITEM EXT.	LOCATION 3 TOTAL	UNIT	DESCRIPTION
Sht. 2	Sht. 3	Sht. 5	Sht. 7	Sht. 9	Sht. 16	Sht. 17	Sht. 20					
				696				202	23500	696	SQ YD	WEARING COURSE REMOVED
		1,690	282					254	01000	1,972	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE
		127	22	53				407	10000	202	GALLON	TACK COAT
		85	15	35				407	14000	135	GALLON	TACK COAT FOR INTERMEDIATE COURSE
113								408	10001	113	GALLON	PRIME COAT, AS PER PLAN
		47	8	20				448	46020	75	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22
		59	10					448	46904	69	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M
				25				448	47020	25	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22
6								614	12460	6	EACH	WORK ZONE MARKING SIGN
	2							614	13000	2	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
		0.12						614	21400	0.12	MILE	WORK ZONE CENTER LINE, CLASS II
		0.12						614	21550	0.12	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT
			16					617	10101	16	CU YD	COMPACTED AGGREGATE, AS PER PLAN
							48	621	00100	48	EACH	RPM
	32							621	54000	32	EACH	RAISED PAVEMENT MARKER REMOVED
						93		644	00500	93	FT	STOP LINE
					0.24			817	00100	0.24	MILE	EDGE LINE
					0.12			817	00300	0.12	MILE	CENTER LINE

LOCATION 3 SUB-SUMMARY

KNO - 36 - 20.44



100% STATE SHT. 4	LOCATION 1 SUB-SUMMARY SHT. 22	LOCATION 2 SUB-SUMMARY SHT. 23	LOCATION 3 SUB-SUMMARY SHT. 24	100% STATE	80% FED/ 20% STATE URBAN	80% FED/ 20% STATE RURAL	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
	20	16,331	695		20	17,027	202	23500	17,047	SQ YD	WEARING COURSE REMOVED	
		100				100	202	30000	100	SQ FT	WALK REMOVED	
		8,050.0				8,050.0	202	38900	8,050.0	FT	GUARDRAIL REMOVED	
		36				36	203	20000	36	CU YD	EMBANKMENT	
		7				7	209	60500	7	MILE	LINEAR GRADING	
		2,500				2,500	253	02000	2,500	CU YD	PAVEMENT REPAIR	
	4,999	209,722	1,972		4,999	211,694	254	01000	216,693	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE	
	376	16,755	202		376	16,957	407	10000	17,333	GALLON	TACK COAT	
	251	11,151	135		251	11,286	407	14000	11,537	GALLON	TACK COAT FOR INTERMEDIATE COURSE	
	273	14,212	113		273	14,325	408	10001	14,596	GALLON	PRIME COAT, AS PER PLAN	2
	142	6,274	75		142	6,349	448	46020	6,491	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22	
	177	7,537	69		177	7,606	448	46904	7,783	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M	
		318	25			343	448	47020	343	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG84-22	
		256				256	516	31011	256	FT	2" DEEP JOINT SEALER, AS PER PLAN	2
		8,800.0				8,800.0	606	13900	8,800.0	FT	GUARDRAIL, TYPE 5	
		1				1	606	25000	1	EACH	ANCHOR ASSEMBLY, TYPE A	
		17				17	606	26100	17	EACH	ANCHOR ASSEMBLY, TYPE E	
		17				17	606	26500	17	EACH	ANCHOR ASSEMBLY, TYPE T	
		8				8	606	35140	8	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4	
		7,713				7,713	606	50000	7,713	FT	SPECIAL - RESHAPING BERM	3
		80				80	508	10000	80	SQ FT	4" CONCRETE WALK	
	3	120	6		3	126	614	12450	129	EACH	WORK ZONE MARKING SIGN	
	1	6	2		1	8	614	13000	9	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
	0.30	15.02	0.12		0.30	15.14	614	21400	15.44	MILE	WORK ZONE CENTER LINE, CLASS II	
	0.30	15.02	0.12		0.30	15.14	614	21550	15.44	MILE	WORK ZONE CENTER LINE, CLASS III, 842 PAINT	
	38	1,949	16		38	1,965	617	10101	2,003	CU YD	COMPACTED AGGREGATE, AS PER PLAN	2
	47	1,184	48		47	1,232	621	00100	1,279	EACH	RPM	
	47	1,204	32		47	1,236	621	64000	1,283	EACH	RAISED PAVEMENT MARKER REMOVED	
		104				104	626	00100	104	EACH	BARRIER REFLECTOR	
	1				1		632	26501	1	EACH	DETECTOR LOOP, AS PER PLAN	4
	100	400			100	400	644	00400	500	FT	CHANNELIZING LINE	
	24	516	93		24	909	644	00500	933	FT	STOP LINE	
		306				306	644	00600	306	FT	CROSSWALK LINE	
		592				592	644	00700	592	FT	TRANSVERSE/DIAGONAL LINE	
		104				104	644	00800	104	SQ FT	ISLAND MARKING	
		2				2	644	01110	2	EACH	SCHOOL SYMBOL MARKING, 96"	
	1	4			1	4	644	01300	5	EACH	LANE ARROW	
	1	2			1	2	644	01410	3	EACH	WORD ON PAVEMENT, 96"	
		900				900	659	10000	900	SQ YD	SEEDING AND MULCHING	
		0.18				0.18	659	20000	0.18	TON	COMMERCIAL FERTILIZER	
		0.18				0.18	659	31000	0.18	ACRE	LIME	
		5				5	659	35000	5	M GAL	WATER	
		3				3	690	50100	3	EACH	SPECIAL - MAILBOX SUPPORT SYSTEM, SINGLE	21
		2				2	690	50200	2	EACH	SPECIAL - MAILBOX SUPPORT SYSTEM, DOUBLE	21
		40				40	690	98200	40	SQ FT	SPECIAL - MISC.: DETECTABLE WARNING	
4,000					4,000		690	98800	4,000	TON	SPECIAL - MISC.: HAULING RACP	
	0.58	30.28	0.24		0.58	30.52	817	00100	31.10	MILE	EDGE LINE	
	0.29	15.23	0.12		0.29	15.35	817	00300	15.64	MILE	CENTER LINE	
							103	05000		LUMP	PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND	
							614	11000		LUMP	MAINTAINING TRAFFIC	
							619	16000	2	MONTH	FIELD OFFICE, TYPE A	
							623	10000		LUMP	CONSTRUCTION LAYOUT STAKES	
							624	10000		LUMP	MOBILIZATION	

CALCULATED	LIME	CHECKED	DNM
<b>GENERAL SUMMARY</b>			
<b>KNO - 36 - 20.44</b>			
25			
25			