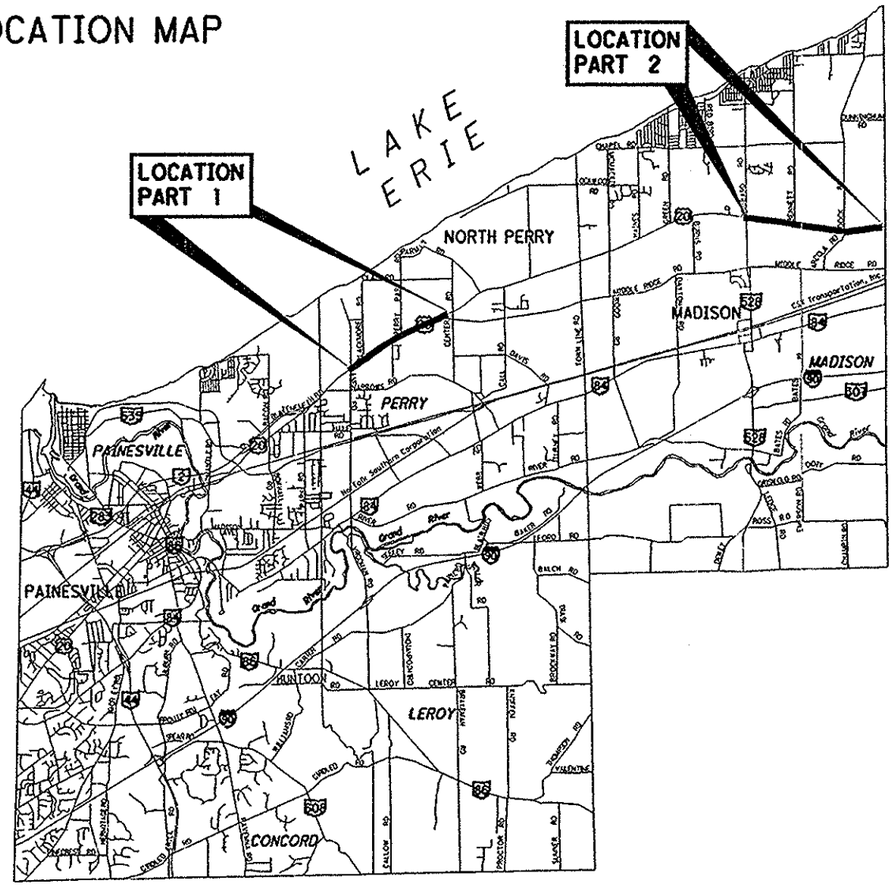
LAK - US-20-20.85/27.95
080557 PID - 81520
Dist 12 9/24/2008

OHIO DEPARTMENT OF TRANSPORTATION

LOCATION MAP



PART 1: LATITUDE: N 41°-46'-26"± LONGITUDE: W 81°-09'-56"±
PART 2: LATITUDE: N 41°-47'-58"± LONGITUDE: W 81°-01'-32"±

PROJECT DESCRIPTION: PAVEMENT PLANING AND RESURFACING, US-20, LAKE COUNTY

LAK-20-20.85/27.95

PART	COUNTY	ROUTE	SECTIONS	PROJECT TERMINI BEGIN	PROJECT TERMINI END	NET LENGTH MILES	CITY OR TOWNSHIP
1	LAK	U.S.-20		20.73±	22.42±	1.69±	PERRY TOWNSHIP
2	LAK	U.S.-20		27.95±	30.40±	2.45±	MADISON TOWNSHIP

INDEX OF SHEETS:

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MISC. DETAILS 36-40

2008 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 OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

Approved [signature] PE
District Deputy Director

Date 6/26/08

Approved [signature]
Director, Department of Transportation

Date 7-15-08

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)

PLAN PREPARED BY:
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 12 PRODUCTION

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

STATE OF OHIO
ERIC M. KALLIO
E-59990
REGISTERED PROFESSIONAL ENGINEER

ERIC M. KALLIO
SIGNED: Eric M. Kallio
DATE: 6/26/08

STANDARD DRAWINGS		STANDARD DRAWINGS		STANDARD DRAWINGS		SUPPLEMENTAL SPECIFICATIONS	
BP-2.5	07-28-00	MT-35.10	04-20-01	TC-52.10	01-19-07		
BP-3.1	10-19-07	MT-95.31	09-05-06	TC-52.20	01-19-07		
BP-7.1	01-19-07	MT-95.32	09-05-06				
		MT-105.10	10-18-02				
		MT-105.11	10-18-02	TC-65.10	01-21-05		
				TC-65.11	01-21-05	800	07-18-08
		TC-41.10	10-19-07	TC-71.10	01-19-07	832	04-25-06
		TC-41.20	01-19-01				

FEDERAL PROJECT NO. 100% STATE
PID NO. 81520
RAILROAD INVOLVEMENT NONE
LAK-20-20.85/27.95
1/40

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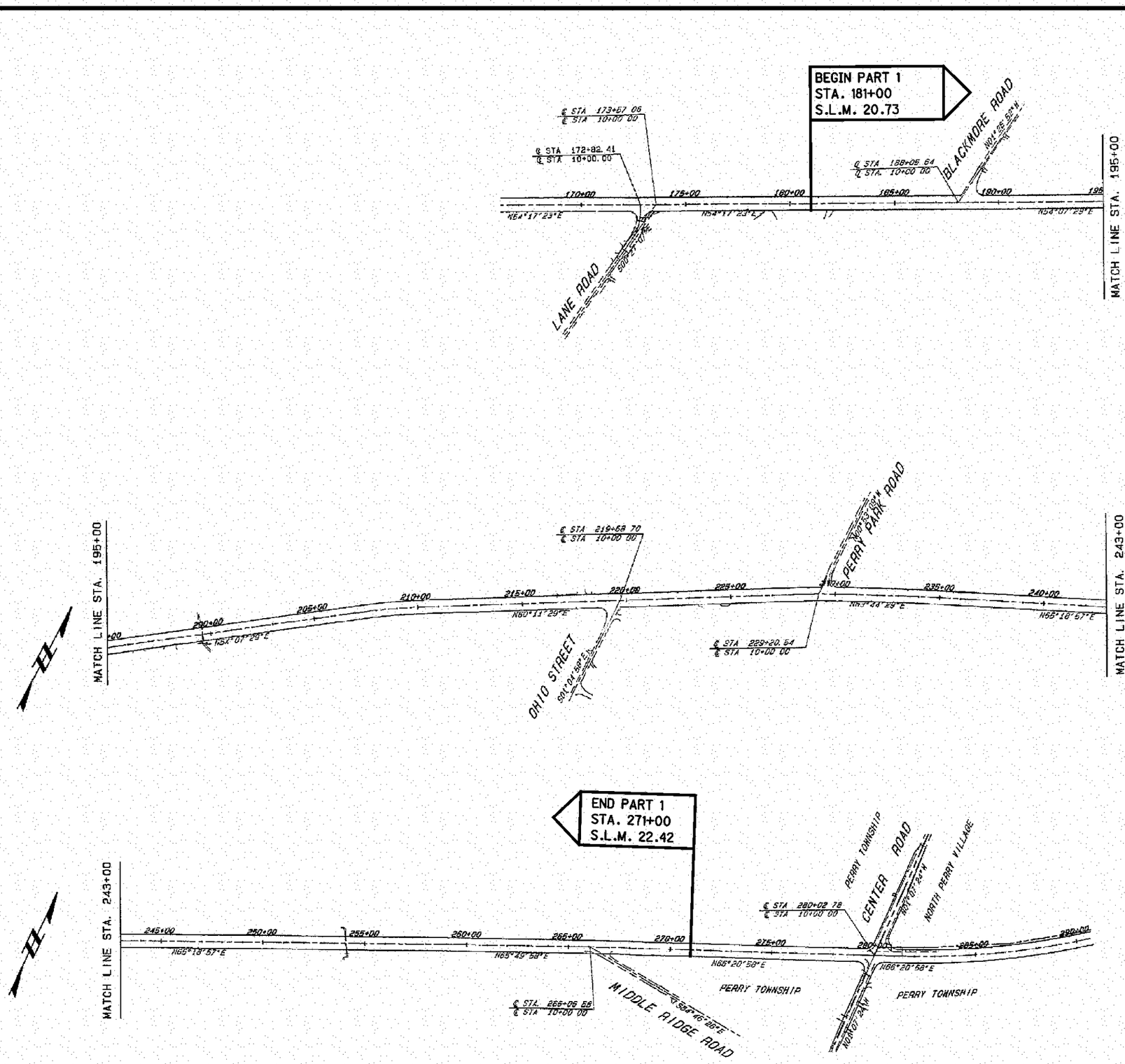

NOT TO SCALE

Schematic Sheet - Part 1 - Sta. 166+30 To Sta. 290+60

LAK-20-20.85/27.95

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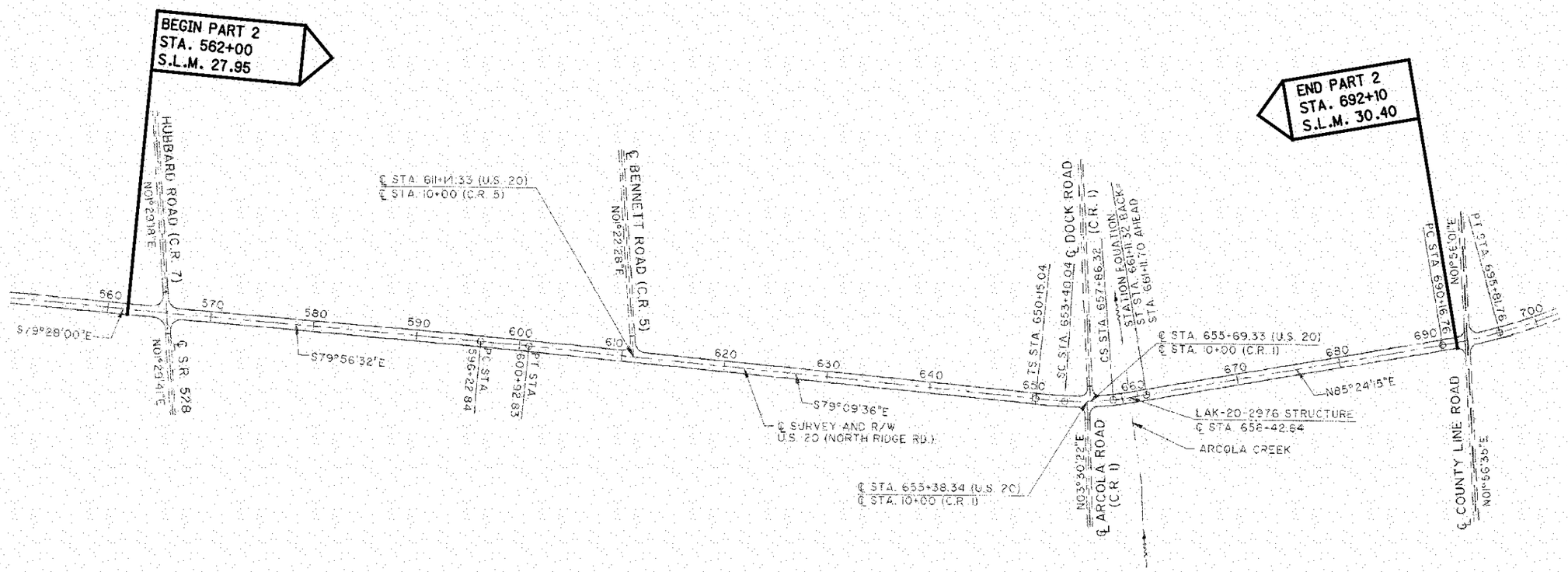

NOT TO SCALE

Schematic Sheet - Part 2 - Sta. 550+50 To Sta. 702+50

LAK-20-20.85/27.95

3/40

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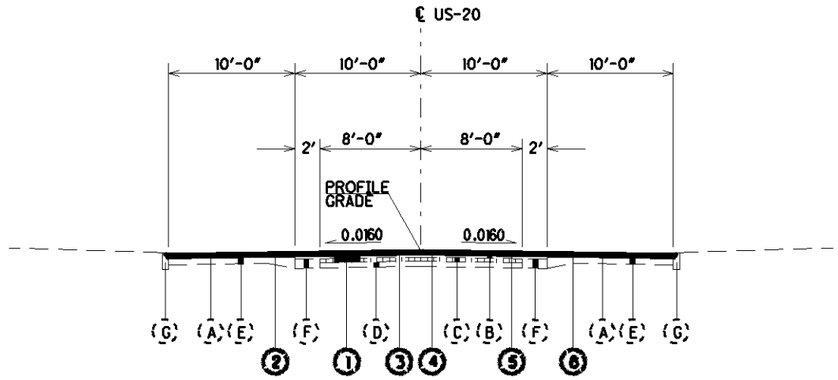
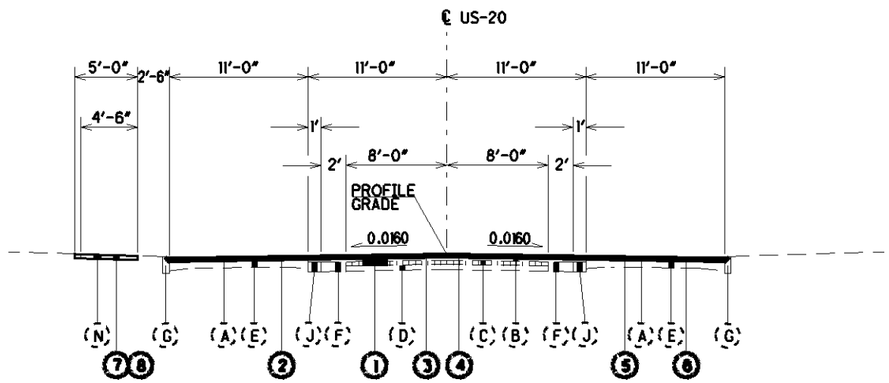


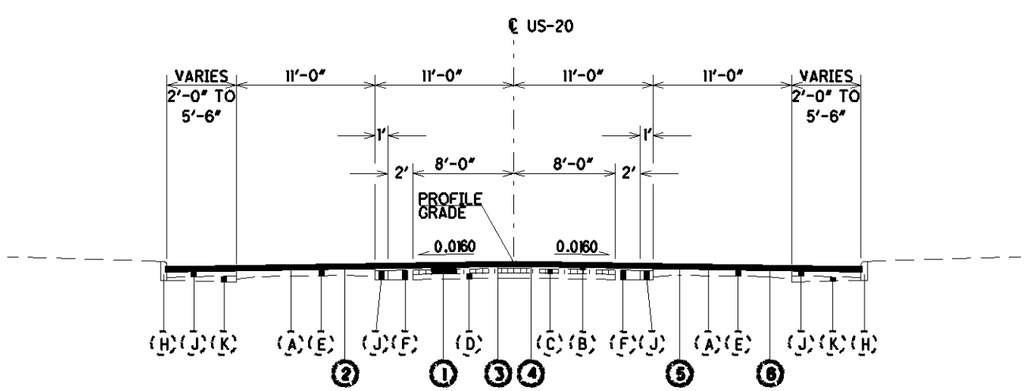
PART 1 (US-20)

STA. 181+40 TO STA. 270+80



PART 2 (US-20)

STA. 570+51 TO STA. 650+75
STA. 661+00 TO STA. 688+92



PART 2 (US-20)

STA. 560+61 TO STA. 564+92
STA. 566+56 TO STA. 570+51

EXISTING

- (A) ASPHALT OVERLAY (3-3/4"±)
- (B) ASPHALT OVERLAY (6"±)
- (C) 4" BRICK
- (D) 5" CONCRETE BASE
- (E) 7" CONCRETE BASE
- (F) 9" CONCRETE BASE
- (G) SANDSTONE CURB
- (H) CONCRETE CURB
- (J) ASPHALT BASE
- (K) SUBBASE
- (L) 8" CONCRETE BASE
- (M) 12" CONCRETE APPROACH SLAB
- (N) 4" CONCRETE WALK

PROPOSED

1. ITEM 253 - PAVEMENT REPAIR, AS PER PLAN
2. ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, 2-3/4"
3. ITEM 407 - TACK COAT
4. ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE
5. ITEM 424 - 1" FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, AS PER PLAN
6. ITEM 448 - 1-3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22
7. ITEM 202 - WALK REMOVED
8. ITEM 608 - CONCRETE WALK

CALCULATED EMK
CHECKED EMK

SCALE IN FEET 0 6 12

TYPICAL SECTIONS

LAK-20-20.85/27.95

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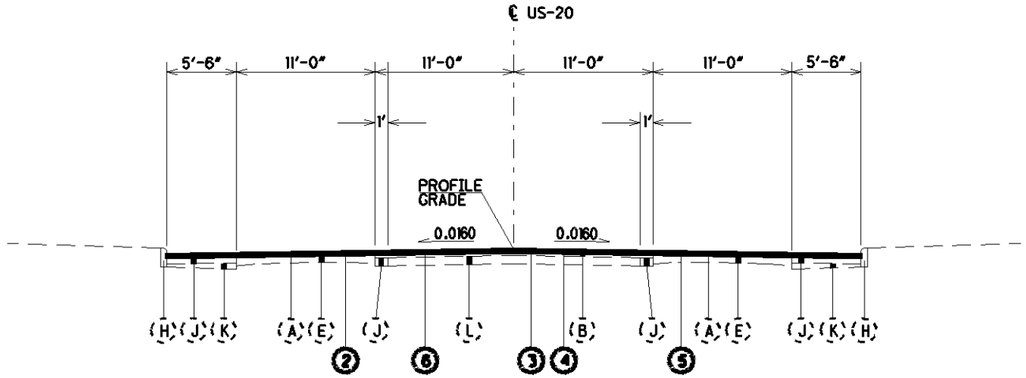
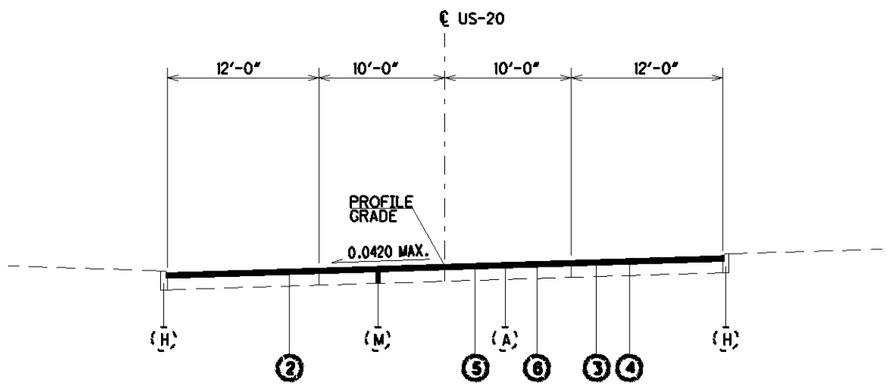


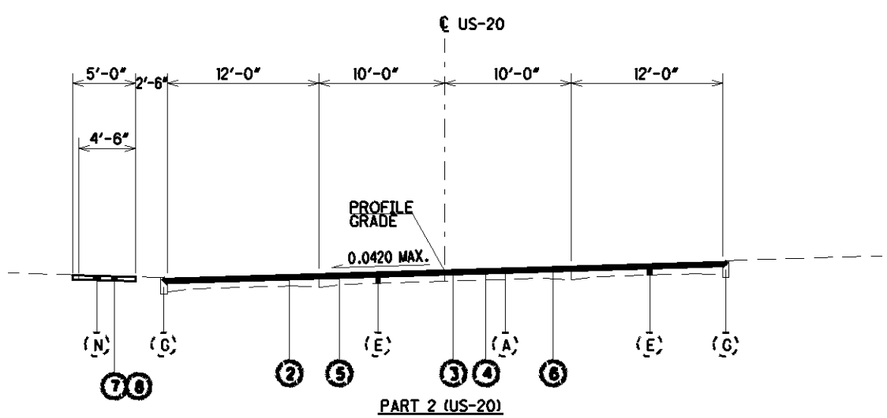
PART 2 (US-20)

STA. 564+92 TO STA. 566+56



PART 2 (US-20)

STA. 658+07 TO STA. 658+25
BRIDGE LAK-20-2976
STA. 658+75 TO STA. 658+93



PART 2 (US-20)

STA. 650+75 TO STA. 658+07
STA. 658+93 TO STA. 661+00
STA. 688+92 TO STA. 692+59

SEE SHEET 4 FOR LEGEND

CALCULATED EMK
CHECKED EMK

SCALE IN FEET 0 6 12

TYPICAL SECTIONS

LAK-20-20.85/27.95

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GENERAL

PROJECT DESCRIPTION

THIS PROJECT INVOLVES PLANING 2-1/2" OF THE EXISTING ASPHALT OVERLAY AND PLACING A 1-1/2" ASPHALT CONCRETE SURFACE COURSE ON A 1" INTERMEDIATE ASPHALT CONCRETE COURSE.

THE ALIGNMENT OF THE EXISTING PAVEMENT WILL NOT BE CHANGED. THE PROFILE OF THE PROPOSED SURFACE WILL BE SIMILAR TO THAT OF THE EXISTING PAVEMENT.

RIGHT OF WAY

ALL WORK IS TO BE PERFORMED WITHIN THE EXISTING RIGHT OF WAY

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.

COOPERATION AMONG CONTRACTORS

THE CONTRACTOR SHALL COOPERATE AND COORDINATE HIS/HER OPERATIONS WITH THE CONTRACTORS ON OTHER PROJECTS THAT MAY BE IN FORCE DURING THE LIFE OF THE CONTRACT. NO WAIVER OF ANY PROVISIONS OF 105.08 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS IS INTENDED.

EXISTING TYPICAL SECTIONS

EXISTING TYPICAL SECTIONS HAVE BEEN TAKEN FROM THE RECORDS AND ARE BELIEVED TO REPRESENT THE EXISTING PAVEMENT, BUT THE STATE DOES NOT GUARANTEE THE ACCURACY OF THE SECTION.

FOR FURTHER INFORMATION IN REGARD TO THE EXISTING TYPICAL SECTIONS, THE CONTRACTOR SHALL REFER TO THE PREVIOUS CONSTRUCTION PLANS.

THESE PLANS MAY BE REVIEWED AT:
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT 12 OFFICE
5500 TRANSPORTATION BOULEVARD
GARFIELD HEIGHTS, OHIO 44125

EQUIPMENT OPERATION AND MATERIAL STORAGE

IN ORDER TO PROVIDE FOR THE SAFETY OF THE TRAVELING PUBLIC, THE CONTRACTOR'S ATTENTION IS DIRECTED TO 614.03. IN ADDITION, THE FOLLOWING PROVISIONS SHALL APPLY:

1) ANY REMOVED ITEMS SHALL NOT BE STORED ON THE RIGHT OF-WAY FOR MORE THAN THIRTY DAYS.

2) THE STORAGE OF EQUIPMENT, MATERIALS, AND VEHICLES WITHIN THE HIGHWAY RIGHT-OF-WAY WILL BE PERMITTED. THE NUMBER OF AREAS AND EXACT LOCATIONS SHALL BE APPROVED BY THE ENGINEER.

3) ALL DISTURBED AREAS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE STATE.

4) ALL WORK VEHICLES AND EQUIPMENT THAT ENTERS THE WORK ZONE MORE THAN ONCE A DAY MUST BE EQUIPPED WITH AT LEAST ONE FLASHING, ROTATING, OR OSCILLATING AMBER LIGHT THAT IS VISIBLE IN ALL DIRECTIONS OF TRAFFIC FOR AT LEAST ONE QUARTER OF A MILE, DAY OR NIGHT.

ITEM 619 - FIELD OFFICE, TYPE B

A TYPE B FIELD OFFICE IS REQUIRED FOR THIS PROJECT.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 619 - FIELD OFFICE, TYPE B . . . . . **6 MONTH**

PLAN SHEET STATIONING

THE ROADWAY WAS NOT SURVEYED PRIOR TO THE PREPARATION OF THESE PLANS. PREVIOUS CONSTRUCTION PLAN STATIONING WAS USED TO PREPARE PLAN SHEETS AND CALCULATE ESTIMATED PAVEMENT AREA QUANTITIES AND PAVEMENT MARKING QUANTITIES.

UTILITIES

THE FOLLOWING UTILITIES AND OWNERS ARE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT. THE OHIO DEPARTMENT OF TRANSPORTATION HAS USED THE BEST AVAILABLE INFORMATION TO DETERMINE THE UTILITY COMPANIES SERVING THIS AREA, BUT CANNOT GUARANTEE THE UTILITY COMPANY LIST IS COMPLETE.

AT&T
13630 LORAIN AVE. - 4TH FLOOR
CLEVELAND, OHIO 44111
PHONE: (216) 476-6142
FAX: (216) 476-6013

DOMINION EAST OHIO GAS COMPANY
1201 EAST 55TH STREET
CLEVELAND, OHIO 44111
PHONE: (216) 736-6675
FAX: (216) 736-6883

THE ILLUMINATING COMPANY
6896 MILLER ROAD
BRECKSVILLE, OHIO 44141
PHONE: (440) 546-8748
FAX: (440) 546-8775

ADELPHIA CABLE
14300 SOUTH INDUSTRIAL PARKWAY
MAPLE HEIGHTS, OHIO 44137
PHONE: (216) 663-4003
FAX: (216) 381-3262

LAKE COUNTY DEPARTMENT OF UTILITIES
ADMINISTRATION BUILDING
105 MAIN STREET
PAINESVILLE, OHIO 44077
PHONE: (440) 664-3247

LAKE COUNTY ENGINEER
550 BLACKBROOK ROAD
PAINESVILLE, OHIO 44077
PHONE: (440) 350-2770

WESTERN RESERVE TELEPHONE
245 NORTH MAIN STREET
HUDSON, OHIO 44236
PHONE: (216) 656-8483

SOME 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.

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ROADWAY

ITEM 608 - CURB RAMP, AS PER PLAN

IMPROVE EXISTING CURB RAMPS BY PROVIDING A LANDING AREA WITH TRUNCATED DOMES. IMPROVE EXISTING SIDEWALK AT ITS CURRENT WIDTH AND LOCATION. WORK AROUND EXISTING UTILITY FEATURES AND WITHIN THE EXISTING BACK OF SIDEWALK. CONSTRUCT RAMPS CONFORMING TO THE DETAILS SHOWN RELATED TO THE SIZE AND CROSS-SLOPE OF THE LANDING AREA AND WITH TRUNCATED DOMES AS SHOWN ON STD. DRAWING BP-7.1.

MINIMIZE DISTURBED AREAS ADJACENT TO CURB RAMPS, CURB, AND SIDEWALK.

IN ADDITION TO THE CMS REQUIREMENTS FOR ITEM 608, CURB RAMP, A.P.P. WORK SHALL INCLUDE ANY SAWCUTTING OF ADJACENT WALK OR CURB AND ANY ADDITIONAL EXCAVATION NEEDED TO PLACE THE PROPOSED TRUNCATED DOMES.

ITEM 659 - SEEDING, MISC.: SEEDING AND MULCHING

THIS ITEM SHALL BE USED TO SEED AND MULCH ALL DISTURBED AREAS ADJACENT TO CURB RAMPS, CURB, AND SIDEWALK, AS DIRECTED BY THE ENGINEER. USE CLASS 1 LAWN MIXTURE.

AT DISTURBED AREAS, REMOVE TOP 2" OF SOIL AND REPLACE WITH MATERIAL CONFORMING TO 659.05.

PROVIDE A SINGLE APPLICATION OF COMMERCIAL FERTILIZER PER THE REQUIMENTS OF 659.04.

PLACEMENT OF TOPSOIL AND APPLICATION OF FERTILIZER ARE INCIDENTAL TO THIS ITEM.

THE FOLLOWING ESTIMATED QUANTITY IS CARRIED TO THE GENERAL SUMMARY FOR THIS PURPOSE.

ITEM 659 - SEEDING, MISC.:SEEDING AND MULCHING. . **LUMP SUM**

DRAINAGE AND EROSION CONTROL

REVIEW OF DRAINAGE FACILITIES

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

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

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

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 604 DRAINAGE ITEMS.

CASTINGS ADJUSTED TO GRADE

ALL CASTINGS SHALL BE ADJUSTED TO THE FINISHED ROADWAY ELEVATION BY THE CONTRACTOR. THE TIME BETWEEN ADJUSTING THE CASTINGS AND RESURFACING SHALL BE KEPT TO AN ABSOLUTE MINIMUM. NO ADJUSTING RINGS SHALL BE PERMITTED. WHEN PERFORMING THIS WORK, THE PAVEMENT SHALL BE SAWCUT PRIOR TO REMOVAL AND HOOKBOLTS SHALL BE USED WHERE PRACTICAL TO CONNECT EXISTING PAVEMENT TO NEW CONCRETE. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 604 - MONUMENT BOX ADJUSTED TO GRADE,
AS PER PLAN . . . . . .3 **EA.**
ITEM 604 - CATCH BASIN ADJUSTED TO GRADE,
AS PER PLAN D . . . . . 5 **EA.**
ITEM 604 - MANHOLE ADJUSTED TO GRADE,
AS PER PLAN . . . . . 15 **EA.**

ITEM 604 - CATCH BASIN, MONUMENT BOX, OR MANHOLE RECONSTRUCTED TO GRADE

THE CONTRACTOR AND FIELD ENGINEER SHALL FIELD CHECK ALL EXISTING CATCH BASINS, MANHOLES, OR MONUMENT BOXES LOCATED WITHIN THE LIMITS OF THE PROJECT. ANY CASTING FOUND THAT EXHIBITS SUBSTANTIAL DETERIORATION AND REQUIRES MORE WORK THAN IS SPECIFIED UNDER CASTINGS ADJUSTED TO GRADE, SHALL BE RECONSTRUCTED TO GRADE AS DIRECTED BY THE ENGINEER.

ITEM 604 - MONUMENT BOX RECONSTRUCTED TO GRADE. . 2 **EA.**
ITEM 604 - CATCH BASIN RECONSTRUCTED TO GRADE . . 1 **EA.**
ITEM 604 - MANHOLE RECONSTRUCTED TO GRADE . . . . 5 **EA.**

ITEM SPECIAL - MISCELLANEOUS METAL

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CASTINGS OF THE REQUIRED TYPE, SIZE AND STRENGTH (HEAVY) FOR THE PARTICULAR STRUCTURE IN QUESTION. ALL MATERIALS SHALL MEET ITEM 604 OF THE SPECIFICATIONS AND SHALL HAVE THE PRIOR APPROVAL OF THE ENGINEER.

THE CONTRACTOR IS CAUTIONED TO USE EXTREME CARE IN THE REMOVAL, STORAGE AND REPLACEMENT OF ALL EXISTING CASTINGS. CASTINGS DAMAGED BY THE NEGLIGENCE OF THE CONTRACTOR, AS DETERMINED BY THE ENGINEER, SHALL BE REPLACED WITH THE PROPER NEW CASTINGS AT THE EXPENSE OF THE CONTRACTOR.

THE CONTRACTOR SHALL NOT ORDER MATERIALS UNTIL AUTHORIZED BY THE ENGINEER, AND IF NONE ARE NEEDED, THE ITEM SHALL BE NON-PERFORMED.

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

ITEM SPECIAL - MISCELLANEOUS METAL . . . . . **20000 LBS.**

ITEM 604-CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN A
ITEM 604-CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN B
ITEM 604-CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN C

THE EXISTING CATCH BASINS, AS IDENTIFIED BY THE ENGINEER, SHALL BE RECONSTRUCTED AS OUTLINED BELOW. THE CATCH BASIN SHALL BE PLACED AT THE SAME ELEVATION AS THE EXISTING CATCH BASIN. THE CONTRACTOR SHALL FIELD VERIFY ALL FLOW LINE ELEVATIONS PRIOR TO COMMENCING REPAIR WORK.

THIS ITEM WILL INCLUDE ANY, SAWCUTTING, REMOVAL OF CONCRETE AROUND CASTING, PLACEMENT OF DOWELS, ANY CURB AND A 12" DEPTH F.S. CONCRETE AS DETAILED ON SHEET 38. THE FOLLOWING ESTIMATED QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY:

THE EXISTING "SINGLE-GRATE" CATCH BASIN (OLD-STYLE C.B. 11-A, SEE SHEET 39) SHALL BE CONSIDERED:
ITEM 604 - CATCH BASIN RECONSTRUCTED TO
GRADE, AS PER PLAN A . . . . . 1 **EA.**

THE EXISTING "DOUBLE-GRATE" CATCH BASIN (OLD-STYLE C.B. 11-A, SEE SHEET 39) SHALL BE CONSIDERED:
ITEM 604 - CATCH BASIN RECONSTRUCTED TO
GRADE, AS PER PLAN B . . . . . 3 **EA.**

THE EXISTING "SINGLE-GRATE" CATCH BASIN (SIMILAR IN STYLE TO CURRENT C.B. NO. 6) SHALL BE CONSIDERED:
ITEM 604 - CATCH BASIN RECONSTRUCTED TO
GRADE, AS PER PLAN C . . . . . 20 **EA.**

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE ABOVE WORK SHALL BE PAID FOR UNDER ITEM 604 - CATCH BASIN RECONSTRUCTED TO GRADE AS PER PLAN A, B OR C.

CALCULATED EMK
CHECKED LDH

GENERAL NOTES

LAK-20-20.85/27.95

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ITEM 604-CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN A
ITEM 604-CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN B
ITEM 604-CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN C

THE EXISTING CATCH BASINS, AS IDENTIFIED BY THE ENGINEER, SHALL BE ADJUSTED AS OUTLINED BELOW.THE CATCH BASIN SHALL BE PLACED AT THE SAME ELEVATION AS THE EXISTING CATCH BASIN. THE CONTRACTOR SHALL FIELD VERIFY ALL FLOW LINE ELEVATIONS PRIOR TO COMMENCING REPAIR WORK.

THIS ITEM WILL INCLUDE ANY, SAWCUTTING, REMOVAL OF CONCRETE AROUND CASTING, PLACEMENT OF DOWELS, ANY CURB AND A 12" DEPTH F.S. CONCRETE AS DETAILED ON SHEET 38. THE FOLLOWING ESTIMATED QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY:

THE EXISTING "SINGLE-GRATE" CATCH BASIN (OLD-STYLE C.B. 11-A, SEE SHEET 39) SHALL BE CONSIDERED:
ITEM 604 - CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN A . . . . . **2 EA.**

THE EXISTING "DOUBLE-GRATE" CATCH BASIN (OLD-STYLE C.B. 11-A, SEE SHEET 39) SHALL BE CONSIDERED:
ITEM 604 - CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN B . . . . . **8 EA.**

THE EXISTING "SINGLE-GRATE" CATCH BASIN (SIMILAR IN STYLE TO CURRENT C.B. NO. 6) SHALL BE CONSIDERED:
ITEM 604 - CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN C . . . . . **79 EA.**

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE ABOVE WORK SHALL BE PAID FOR UNDER ITEM 604 - CATCH BASIN ADJUSTED TO GRADE AS PER PLAN A, B OR C.

PAVEMENT

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN A

THIS ITEM SHALL BE USED FOR THE REPAIR OF UNSOUND, COLD-PATCH, OR POP-OUT AREAS OF LONGITUDINAL JOINTS AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE PERFORMED AFTER THE MILLING OPERATION AND PRIOR TO RESURFACING. THE DEPTH OF THE REPAIR SHALL BE 3" BELOW THE TOP OF THE PLANED SURFACE. THE WIDTH OF THE REPAIR SHALL BE 12" CENTERED ON THE EXISTING JOINT AS SHOWN ON SHEET 37.

FOR ADDITIONAL NOTES, DETAILS, AND QUANTITIES, SEE SHEET 37.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN B

THIS ITEM SHALL BE USED FOR THE REPAIR OF UNSOUND, COLD-PATCH, OR POP-OUT AREAS OF TRANSVERSE JOINTS AND CRACKS AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE PERFORMED AFTER THE MILLING OPERATION AND PRIOR TO RESURFACING. THE DEPTH OF THE REPAIR SHALL BE 3" BELOW THE TOP OF THE PLANED SURFACE. THE WIDTH OF THE REPAIR SHALL BE 12" CENTERED ON THE EXISTING JOINT OR CRACK AS SHOWN ON SHEET 37.

FOR ADDITIONAL NOTES, DETAILS, AND QUANTITIES, SEE SHEET 37.

ITEM 253 - PAVEMENT REPAIR, AS PER PLAN

THIS WORK ITEM IS FOR USE AS DIRECTED BY THE ENGINEER FOR THE PURPOSE OF PAVEMENT REPAIR. ALL LABOR AND MATERIAL NECESSARY TO PERFORM THIS WORK AND SECTION 250 OF THE CMS SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 253.

DEPTH OF PAVEMENT REPAIR REMOVAL SHALL TYPICALLY BE 4 INCHES, MEASURED AFTER THE PAVEMENT HAS BEEN PLANED. THE MATERIAL ENCOUNTERED TO BE REMOVED COULD BE EXISTING ASPHALT LAYERS OR BRICK. THE DEPTH OF REPAIR SHALL BE DIRECTED BY THE ENGINEER IF UNSOUND MATERIAL IS ENCOUNTERED AFTER THE REMOVAL OF THE 4 INCHES.

THE FOLLOWING ITEM HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 253 - PAVEMENT REPAIR, AS PER PLAN . . . **200 CU.YD.**

ITEM 424 - FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, AS PER PLAN

THE COURSE AGGREGATE FOR THIS ITEM SHALL BE LIMITED TO A BLEND OF AIR COOLED BLAST FURNACE SLAG (ACBFS) OR TRAP ROCK FROM ONTARIO AND LIMESTONE. THE CONTRACTOR SHALL USE A MINIMUM OF 50% OF ACBFS OR TRAP ROCK FROM ONTARIO WITH LIMESTONE COMPRISING THE REMAINING PERCENTAGE.

SECTION 424.08 SHALL BE REVISED TO READ "FOR TYPE B MIXES COMPLY WITH ALL REQUIREMENTS OF 446."

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN

THIS ITEM SHALL BE USED TO REMOVE THE EXISTING ASPHALT OVERLAY FULL WIDTH TO A DEPTH OF (2-3/4") TWO AND THREE-QUARTER INCHES.

AREAS WHICH HAVE TRANSVERSE WEDGES (BUTT JOINTS) ARE TO BE REMOVED IN TWO PASSES AS REQUIRED FOR MAINTAINING TRAFFIC. NO ADDITIONAL PAYMENT SHALL BE MADE FOR THE SECOND PASS.

PRIOR TO PLANING THE PAVEMENT, THE CONTRACTOR SHALL FIELD SURVEY THE LOCATIONS OF THE EXISTING PAVEMENT MARKINGS AND TRAFFIC LOOP DETECTORS WITHIN THE PROJECT LIMITS FOR THE PLACEMENT OF TEMPORARY MARKINGS AND PROPOSED FINAL PAVEMENT MARKINGS. THE FIELD SURVEY SHALL BE USED IN CONJUNCTION WITH THE PLAN SHEETS. THE PLAN SHEETS SHALL BE USED FOR REFERENCE, WITH THE FIELD SURVEY BEING USED TO CONFIRM THE PLANS. ANY DISCREPANCIES BETWEEN THE PLANS AND THE FIELD SURVEY, THE FIELD SURVEY SHALL DICTATE. ALL COSTS ASSOCIATED WITH THIS SURVEY SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN.

ITEM 407 - TACK COAT

THE RATE OF APPLICATION OF THE 407 - TACK COAT SHALL BE SUBJECT TO ADJUSTMENTS, AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.10 GAL/SQ.YD. FOR ESTIMATION 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 ADJUSTMENTS, AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.05 GAL/SQ.YD. FOR ESTIMATION PURPOSES ONLY.

DRIVE APRONS

THE FOLLOWING ESTIMATED QUANTITY SHALL BE USED AS DIRECTED BY THE ENGINEER TO REPLACE DRIVE APRONS THAT ARE DAMAGED OR FOUND TO BE UNSALVAGEABLE WHEN REPLACING THE CONCRETE WALK.

ITEM 202-PAVEMENT REMOVED . . . . . **200 SQ. YD.**
ITEM 452-6" NON-REINFORCED CONCRETE PAVEMENT . . **75 SQ. YD.**
ITEM 452-8" NON-REINFORCED CONCRETE PAVEMENT . **125 SQ. YD.**

ITEM 252 - FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT

THIS WORK SHALL BE PERFORMED AT LOCATIONS AS DETERMINED BY THE ENGINEER.

SEE SHEET 37 FOR DETAILS AND QUANTITIES.

ASPHALT CONCRETE SURFACE COURSES

IN ADDITION TO THE GUTTER SEALING REQUIREMENTS SPECIFIED ON SCD BP-3.1 AND IN 401.15, AFTER COMPLETION OF THE SURFACE COURSE, THE CONTRACTOR SHALL SEAL, WITH ASPHALT BINDER, THE FOLLOWING LOCATIONS:

- ALL CASTINGS INCLUDING BUT NOT LIMITED TO MONUMENTS, MANHOLES, WATER VALVES, CATCH BASINS.
- BUTT JOINTS AND FEATHER JOINTS INCLUDING BRIDGE APPROACHES.
- FOREWORD JOINT FOR DRIVEWAY ASPHALT AND TRAILING JOINT WHEN BUTTING TO EXISTING ASPHALT DRIVE.
- PERIMETER OF ALL PAVEMENT REPAIRS WHEN PAVEMENT REPAIRS ARE NOT OVERLAID WITH ASPHALT CONCRETE.
- ALL LONGITUDINAL AND TRANSVERSE COLD JOINTS (SHALL BE SEALED PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS).

THE MATERIAL USED SHALL BE A HOT APPLIED PG 64-22 BINDER. THE WIDTH OF THE SEALER SHALL BE 4 INCHES AS PER 401.15. ANY ADDITIONAL COSTS ASSOCIATED WITH THE WORK IDENTIFIED IN THIS NOTE SHALL BE INCLUDED IN THE APPROPRIATE ASPHALT CONCRETE SURFACE COURSE ITEM OF WORK.

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TRAFFIC CONTROL

ITEM 621 - RAISED PAVEMENT MARKER REMOVED

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO REMOVE AND DISPOSE OF RPMS.

ITEM 621-RAISED PAVEMENT MARKER REMOVED . . . . . **775 EACH**

ITEM 646 - EPOXY PAVEMENT MARKINGS, AS PER PLAN

THE EPOXY PAVEMENT MARKING MATERIAL FURNISHED FOR THIS PROJECT SHALL BE EPOPLEX LS-60 AS FURNISHED BY EPOPLEX, MAPLESIDE, NJ.

ITEM 646 - EPOXY PAVEMENT MARKINGS - (POLYCARB) - ALTERNATE BID

THE EPOXY PAVEMENT MARKING MATERIAL SHALL BE MARK 55.4 AS FURNISHED BY POLYCARB, CLEVELAND, OH. PAYMENT WILL BE AT THE NORMAL CONTRACT UNIT PRICE AS SPECIFIED IN ITEM 646.

ITEM 632 - DETECTOR LOOP, AS PER PLAN

PRIOR TO PLANING THE PAVEMENT, THE CONTRACTOR SHALL FIELD SURVEY THE LOCATIONS OF THE EXISTING LOOP DETECTORS WITHIN THE PROJECT LIMITS. THE SURVEY SHALL INCLUDE THE LOCATION OF THE LOOP, SIZE OF THE LOOP, OFFSET FROM CURB AND/OR CENTERLINE AND THE LOCATION OF THE STUB. A COPY OF THIS SURVEY SHALL BE GIVEN TO THE PROJECT ENGINEER.

AN ESTIMATED QUANTITY OF ITEM 632 - DETECTOR LOOP, AS PER PLAN HAS BEEN PROVIDED AS A CONTINGENCY WHEN WIRE IS CUT, BROKEN, OR DESTROYED DUE TO PAVEMENT PLANING, OR BUTT JOINT OPERATIONS.

NEW LOOP DETECTORS SHALL BE PLACED AT THE SAME LOCATIONS AND SAME SIZE AS THE EXISTING.

WHEN REPLACING THE LOOP DETECTORS, THE LOOP DETECTOR WIRE SHALL BE REPLACED TO THE PULL BOX OR POLE, WHICHEVER IS APPLICABLE, UNDER ITEM 632 AND TC-82.10. THE NEW CABLE SPLICE KITS SHALL BE INCLUDED IN THIS PAY ITEM.

THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER, 7 DAYS PRIOR TO PLANING THROUGH AN INTERSECTION TO ADJUST SIGNAL OPERATION AS NEEDED. THE DETECTOR LOOPS SHALL BE PLACED IN THE INTERMEDIATE COURSE PRIOR TO THE PLACEMENT OF THE SURFACE COURSE.

REFER TO PLAN SHEETS FOR APPROXIMATE LOCATION. THESE LOCATIONS ARE FROM RECORD PLANS AND FIELD VERIFICATION OF LOOPS IS NEEDED.

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

ITEM 632 - DETECTOR LOOP, AS PER PLAN . . . . . **8 EACH**

DETECTOR LOOP LOCATIONS:

REF.	LOCATIONS:	6' X 40' LOOP SIZE	6' X 30' LOOP SIZE	6' X 20' X 30' LOOP SIZE	6' X 6' LOOP SIZE
		EACH	EACH	EACH	EACH
L-1	U. S. -20 WEST OF S. R.-528	1			
L-2	U. S. -20 EAST OF S. R.-528	1			
L-3	S. R.-528		1		
L-4	S. R.-528			1	
L-5	HUBBARD RD.		1		
L-6	HUBBARD RD.			1	
L-7	COUNTY LINE RD.				1
L-8	COUNTY LINE RD.				1
TOTALS PER TYPE:		2	2	2	2
GRAND TOTAL:		8			

CALCULATED EMK
CHECKED LDH

GENERAL NOTES

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ITEM 614 - MAINTAINING TRAFFIC

GENERALLY THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS AS TO MAKE THE PROPOSED REPAIR WITH A MINIMUM OF HAZARD DELAY AND INCONVENIENCE TO THE MOTORISTS USING THE HIGHWAY AFFECTED BY THE WORK DONE UNDER THIS CONTRACT:

FURTHERMORE, IN ADDITION TO THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, THE FOLLOWING SPECIFIC PROVISIONS ARE MANDATORY.

I. NOTIFICATION

SINCE FUNCTIONAL TRAFFIC CONTROL IS A MAJOR CONCERN ON THIS PROJECT, IT IS ESSENTIAL THAT THE MOTORING PUBLIC BE ADEQUATELY FOREWARNED OF FUTURE LANE CLOSURES AND TRAFFIC CONSTRICTIONS. THEREFORE, THE CONTRACTOR SHALL SUBMIT A WRITTEN SCHEDULE TO THE ENGINEER & THE ODOT-DISTRICT 12-PUBLIC INFORMATION OFFICE (216-584-2007) INDICATING THE LOCATIONS AND DATES OF THE LANE CLOSURES AT LEAST 3 DAYS PRIOR TO THE IMPLEMENTATION OF ANY SUCH CLOSURES

USE PORTABLE CHANGEABLE MESSAGE SIGNS TO ALERT MOTORISTS 3 DAYS PRIOR TO THE IMPLEMENTATION OF ANY CHANGES SUCH AS LANE CLOSURES OR OTHER RESTRICTIONS.

II. NIGHTTIME WORK

THE CONTRACTOR IS NOT PERMITTED TO WORK AT NIGHT. (THE HOURS FROM SUNSET TO SUNRISE OR 7:00 P.M. TO 7:00 A.M., MONDAY THROUGH FRIDAY, ON SATURDAY OR SUNDAY BETWEEN THE HOURS OF 7:00 P.M. AND 8:30 A.M.)

III. RESTRICTIONS

1. ALL CLOSURES SHALL BE IN ACCORDANCE WITH THE APPLICABLE STANDARD CONSTRUCTION DRAWING(S).
2. ALL THROUGH TRAFFIC LANES SHALL BE KEPT OPEN AT ALL TIMES EXCEPT DURING HOURS OF CONSTRUCTION.

NOTWITHSTANDING THE ABOVE, NO LANE CLOSURES SHALL OCCUR DURING THE PERIOD BEGINNING AT 12:00 NOON ON THE DAY PRECEDING AND CONTINUING UNTIL NOON ON THE DAY FOLLOWING LEGAL HOLIDAYS AND HOLIDAY WEEKENDS SUCH AS MEMORIAL DAY, FOURTH OF JULY, AND LABOR DAY. FURTHERMORE, NO LANE CLOSURES SHALL BE IMPLEMENTED OR IN PLACE DURING INCREASED TRAFFIC VOLUMES CAUSED BY SPECIAL EVENTS OR WHEN THE ENGINEER DEEMS THE CLIMATOLOGICAL CONDITIONS TOO HAZARDOUS.

IV. MAINTENANCE OF TRAFFIC SYSTEMS

A. WHEN REQUIRED

WHENEVER ANY PART OF THE TRAVELED SURFACE IS BEING WORKED UPON OR IS OTHERWISE NOT SUITABLE FOR SAFE AND CONVENIENT USE BY VEHICLES, TRAFFIC CONTROL DEVICES SUFFICIENT TO PROTECT SUCH AREAS TO ASSURE THE SAFE AND CONVENIENT PASSAGE OF VEHICULAR TRAFFIC SHALL BE INSTALLED AND MAINTAINED. SUCH TRAFFIC CONTROL DEVICES AND THE MANNER IN WHICH THEY ARE USED SHALL BE CONSISTENT WITH THESE PLANS AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, HERINAFTER REFERED TO AS THE "MANUAL". THE TRAFFIC CONTROL DEVICE SYSTEM SHALL CONSTITUTE THE MINIMUM PROVISIONS FOR TRAFFIC CONTROL FOR EACH PARTICULAR SITUATION. WHENEVER THE ENGINEER DEEMS IT NECESSARY ESPECIALLY WHERE A GRADE, CURVE, OR MERGE CONDITIONS EXISTS, HE MAY DIRECT THAT ADDITIONAL OR ALTERNATIVE DEVICES BE USED.

B. CONDITIONS

DURING ALL PARTS OF THIS PROJECT, FLAGGERS, SIGNING, BARRICADES, FLASHING ARROWS, ETC. SHALL BE LOCATED AS INDICATED IN THE MANUAL OR AS SHOWN IN THE STANDARD DRAWINGS. TWO-WAY TRAFFIC SHALL BE MAINTAINED ON ONE LANE AT LEAST 10' WIDE AT ALL TIMES.

C. ADVANCE WARNING SIGNS

ALL ADVANCE WARNING SIGNS FOR ANY CONDITION WHICH RESTRICTS TRAFFIC SHALL BE ERECTED BEFORE ANY SUCH RESTRICTION IS PUT INTO EFFECT. ALL SUCH SIGNS SHALL BE COVERED OR REMOVED FROM THE VIEW OF TRAFFIC WHENEVER THEY ARE NOT APPLICABLE.

D. FLAGGERS

AT LEAST TWO FLAGGERS ARE REQUIRED FOR EACH CLOSURE, THE CONTRACTOR SHALL FURNISH ADDITIONAL FLAGGERS AS DIRECTED BY THE ENGINEER.

E. PROTECTION OF PUBLIC

PERSONAL CARS SHALL NOT BE PARKED WITHIN THE R/W.

F. FAILURE TO COMPLY

IF THERE IS ANY FAILURE TO COMPLY WITH PROVISIONS FOR TRAFFIC CONTROL SET OUT IN THESE PLANS AND NOTES, OR WITH THE PROVISIONS OF THE "MANUAL", THE HIGHWAY IN THE VICINITY OF THE WORK AREA SHALL NOT BE CONSIDERED IN A CONDITION FOR THE SAFE AND CONVENIENT USE BY THE TRAVELING PUBLIC. ANY FAILURE TO KEEP THE HIGHWAY, IN THE VICINITY OF THE WORK AREA, IN A CONDITION FOR THE SAFE AND CONVENIENT USE BY THE TRAVELING PUBLIC SHALL BE CONSIDERED A BREACH OF THIS CONTRACT. WORK SHALL BE SUSPENDED UNTIL THE CONTRACTOR COMPLIES WITH THE PROVISIONS OF THE AFOREMENTIONED ITEMS.

V. MAINTENANCE OF TRAFFIC MATERIALS

A. SIGNS

SIGN DIMENSIONS AND SPECIFICATIONS, INCLUDING LETTER SIZES SHALL BE AS PROVIDED IN THE "MANUAL", OR IN DESIGN DRAWINGS PROVIDED BY THE DEPARTMENT OF TRANSPORTATION. THE SIGNS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER PRIOR TO THE START OF THE PROJECT.

B. SIGN SUPPORTS

SIGN SUPPORTS SHALL BE OF SUFFICIENT SIZE AND MASS AS TO FIRMLY SUPPORT THE SIGNS AT THE APPROPRIATE HEIGHT. SUPPORTS SHALL BE AS SHOWN ON THE STANDARD DRAWINGS.

C. FLASHING ARROWS

WHENEVER ANY PART OF THE TRAVELED SURFACE IS CLOSED, THE MOTORIST SHALL BE WARNED AND DIVERTED BY THE CONTRACTOR THROUGH THE USE OF ONE FLASHING ARROW BARRICADE FOR EACH LANE CLOSED. THE CONTRACTOR SHALL REFER TO STANDARD DRAWING MT-35.10 AND THE PROVISIONS SET FORTH IN THE "MANUAL" FOR ALL INFORMATION REGARDING FURNISHING, MAINTAINING, AND USE OF FLASHING ARROW BARRICADES. PAYMENT FOR THE ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 - MAINTAINING TRAFFIC.

D. DRUMS

DRUMS SHALL BE IN ACCORDANCE WITH PERTINENT SECTIONS OF THE "MANUAL". ALL COSTS FOR INSTALLING, MAINTAINING AND SUBSEQUENT REMOVAL OF SAID DRUMS SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

E. CONES

CONES, IF UTILIZED, SHALL BE LOCATED AS SHOWN IN THE "MANUAL" AND THE STANDARD DRAWINGS.

F. FLASHERS

FLASHERS SHALL BE 12 VOLT BATTERY-OPERATED MODELS WITH 7 INCH DIAMETER YELLOW LENSES ILLUMINATED BY RAPID INTERMITTENT FLASHES OF SHORT DURATION AND SHALL BE PLACED ON ALL SIGNS AT ALL TIMES AS REQUIRED BY THE "MANUAL" AND THE STANDARD CONSTRUCTION DRAWING.

VI. PAYMENT

PAYMENT FOR PROVIDING, ERECTING, MAINTAINING AND REMOVING TEMPORARY MAINTENANCE OF TRAFFIC CONTROL DEVICES SHALL BE MADE UNDER THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC.

CALCULATED EMK
CHECKED LDH

MAINTENANCE OF TRAFFIC NOTES

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SUSPENSION OF WORK

IF THE CONTRACTOR FAILS TO COMPLY WITH THE PROVISIONS FOR TRAFFIC CONTROL AS SET FORTH IN THESE PLANS OR WITH PROVISIONS OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, THE ENGINEER SHALL SUSPEND WORK UNTIL THE CONTRACTOR COMPLIES WITH THE NECESSARY REQUIREMENTS.

MAINTENANCE OF TRAFFIC CONTROL ZONES

THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN THE SIGNS, DRUMS OR CONES SPECIFIED IN THE STANDARD DRAWINGS. WHEN THE CONTRACTOR IS NOTIFIED OF DEFICIENCIES HE SHALL CORRECT THE DEFICIENCIES AS SOON AS POSSIBLE.

CONSTRUCTION TRAFFIC

ALL CONSTRUCTION TRAFFIC SHALL USE ACCEPTABLE TRUCK ROUTES TO ACCESS THE CONSTRUCTION AREA. USE OF LOCAL RESIDENTIAL STREETS IS STRICTLY PROHIBITED UNLESS ALLOWED IN WRITING BY THE LOCAL ENFORCEMENT AUTHORITY. ANY DAMAGE CAUSED BY THE CONTRACTOR'S ACTIONS SHALL BE REPAIRED AT NO COST TO THE STATE.

MAJOR WORK ITEMS

THE FOLLOWING MAJOR WORK ITEMS WILL REQUIRE TRAFFIC MAINTENANCE WHICH SHALL BE INCORPORATED INTO THE CONTRACTORS SEQUENCE OF OPERATIONS.

A. PLANE ASPHALT CONCRETE
B. PERFORM PAVEMENT REPAIRS
C. PLACE ASPHALT CONCRETE COURSES
D. PLACE PROPOSED PAVEMENT MARKINGS

ITEM 630 - SIGNING MISC.: ADDITIONAL SIGNS, GROUND MOUNTED, AS DIRECTED BY THE ENGINEER

WHEN ADDITIONAL SIGNING IS NEEDED TO MAINTAIN TRAFFIC, THE CONTRACTOR SHALL FURNISH THE SIGN OR SIGNS AS DIRECTED BY THE ENGINEER. THESE SIGNS SHALL BE GROUND MOUNTED AND MEET ALL THE SPECIFICATIONS OF THE PLAN, PROPOSAL AND CURRENT YEAR CMS.

PAYMENT FOR THIS ITEM SHALL INCLUDE BUT NOT BE LIMITED TO THE COST TO FURNISH AND ERECT THE SIGN, INCLUDING DRIVE POSTS OR OTHER APPROVED METHODS OF SUPPORT, MAINTAINING THE SIGN AND REMOVAL OF THE SIGN.

THE FOLLOWING QUANTITY SHALL BE CARRIED TO THE GENERAL SUMMARY:

ITEM 630 - SIGNING MISC.: ADDITIONAL SIGNS, GROUND MOUNTED, AS DIRECTED BY THE ENGINEER . . . . . 200 SQ. FT.

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR

IN ADDITION TO THE REQUIREMENTS OF ITEM 614 AND THE LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD), A UNIFORMED LAW ENFORCEMENT OFFICER AND OFFICIAL PATROL CAR WITH WORKING TOP MOUNTED EMERGENCY FLASHING LIGHTS SHALL BE PROVIDED FOR CONTROLLING TRAFFIC FOR THE FOLLOWING TASKS:

- FOR PART WIDTH PAVING OF ENTRANCE/EXIT RAMPS.

- FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED.

- WHEN DIRECTED BY THE ENGINEER.

LAW ENFORCEMENT OFFICERS (L.E.O.'S) SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED. THE LEO'S ARE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH THEY ARE EMPLOYED BY THE CONTRACTOR, THE PROJECT ENGINEER SHALL HAVE CONTROL OVER THEIR PLACEMENT. THE OFFICIAL PATROL CAR SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE.

LAW ENFORCEMENT OFFICERS WITH PATROL CAR REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614 - LAW ENFORCEMENT OFFICER W/PATROL CAR . . 400 HRS

THE HOURS PAID SHALL INCLUDE MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

IF THE CONTRACTOR WISHES TO UTILIZE LEO'S FOR FLAGGING AND TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THESE PLANS,THE CONTRACTOR MAY DO SO AT HIS OWN EXPENSE.

ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC

THIS ITEM SHALL BE USED TO PROVIDE TEMPORARY ASPHALT RAMPS FOR TRANSVERSE DISCONTINUITIES. RAMPING SHALL BE PLACED AT THE RATE OF 1" PER 10 FT OR TO BE USED AS DIRECTED BY THE ENGINEER.

TEMPORARY ASPHALT RAMPS SHALL BE REMOVED AS PART OF THIS ITEM.

ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC . . . . . 250 CU. YD.

ITEM 614 - WORK ZONE PAVEMENT MARKINGS

WORK ZONE MARKINGS SHALL BE PLACED AT THE LOCATIONS OF THE PERMANENT MARKINGS ACCORDING TO THE PREVIOUSLY PERFORMED FIELD SURVEY CONDUCTED BEFORE THE START OF THE PLANING OPERATIONS.

AFTER THE PAVEMENT PLANING PROCESS IS COMPLETED, AND AGAIN AFTER THE ASPHALT INTERMEDIATE COURSE IS PLACED, THE FOLLOWING WORK ZONE MARKINGS SHALL BE USED:

ITEM 614 - WORK ZONE CENTER LINE, CLASS I, 642 PAINT . . . . . 8.44 MI.
ITEM 614 - WORK ZONE LANE LINE, CLASS I, 642 PAINT . . . . . 16.56 MI.
ITEM 614 - WORK ZONE STOP LINE, CLASS I, 642 PAINT . . . . . 524 FT.
ITEM 614 - WORK ZONE CROSS WALK, CLASS I, 642 PAINT . . . . . 1034 FT.
ITEM 614 - WORK ZONE CHANNELIZING, CLASS I, 642 PAINT . . . . . 650 FT.
ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 642 PAINT . . . . . 16.04 MI.

AFTER THE SURFACE COURSE IS PLACED, THE FOLLOWING WORK ZONE MARKINGS SHALL BE USED:

ITEM 614 - WORK ZONE CENTER LINE, CLASS II, 642 PAINT . . . . . 4.22 MI.
ITEM 614 - WORK ZONE LANE LINE, CLASS II, 642 PAINT . . . . . 8.28 MI.
ITEM 614 - WORK ZONE STOP LINE, CLASS I, 642 PAINT . . . . . 262 FT.
ITEM 614 - WORK ZONE CROSS WALK, CLASS I, 642 PAINT . . . . . 517 FT.
ITEM 614 - WORK ZONE CHANNELIZING, CLASS I, 642 PAINT . . . . . 325 FT.
ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 642 PAINT . . . . . 8.02 MI.

CONTRACTOR'S EQUIPMENT - OPERATION AND STORAGE

VEHICLES AND EQUIPMENT SHALL ALWAYS MOVE WITH, AND NOT ACROSS OR AGAINST THE FLOW OF TRAFFIC. VEHICLES AND OTHER EQUIPMENT SHALL NOT PARK OR STOP EXCEPT WITHIN DESIGNATED WORK AREAS; AND SHALL NOT ENTER AND LEAVE WORK AREAS IN A MANNER WHICH WILL BE HAZARDOUS TO, OR INTERFERE WITH THE NORMAL TRAFFIC FLOW. PERSONAL VEHICLES WILL NOT BE PERMITTED TO PARK WITHIN THE RIGHT-OF-WAY EXCEPT IN SPECIFIC AREAS DESIGNATED BY THE ENGINEER.

EQUIPMENT, VEHICLES AND MATERIALS SHALL NOT BE STORED OR PARKED WITHIN 30 FEET OF THE TRAVELED WAY UNLESS 6 FEET BEHIND PCB OR GUARDRAIL.

ALL WORK VEHICLES AND EQUIPMENT THAT ENTERS THE WORK ZONE MORE THAN ONCE A DAY MUST BE EQUIPPED WITH AT LEAST ONE FLASHING, ROTATING, OR OSCILLATING AMBER LIGHT THAT IS VISIBLE IN ALL DIRECTIONS OF TRAFFIC FOR AT LEAST ONE QUARTER OF A MILE, DAY OR NIGHT.

CALCULATED EMK CHECKED LDH

MAINTENANCE OF TRAFFIC NOTES

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APPLICATION FOR USE OF WEIGHTED CHANNELIZER (GRABBER CONE)

THE WEIGHTED CHANNELIZER MAY BE USED ON THIS PROJECT AS DESCRIBED BELOW:

THE WEIGHTED CHANNELIZER SHALL BE PREDOMINANTLY ORANGE IN COLOR AND SHALL BE MADE OF A LIGHTWEIGHT, FLEXIBLE, AND DEFORMABLE MATERIAL. THEY SHALL BE AT LEAST 42 INCHES IN HEIGHT WITH A WEIGHTED BASE. THEY MAY HAVE A "HANDLE" OR LIFTING DEVICE WHICH EXTENDS ABOVE THE 42" MINIMUM HEIGHT.

THE MARKINGS ON THE WEIGHTED CHANNELIZER SHALL BE HORIZONTAL, CIRCUMFERENTIAL, ALTERNATING ORANGE AND WHITE RETROREFLECTIVE STRIPES 4 INCHES WIDE. EACH WEIGHTED CHANNELIZER SHALL HAVE A MINIMUM OF TWO ORANGE AND TWO WHITE STRIPES. ANY NONRETRO- REFLECTIVE SPACES BETWEEN THE HORIZONTAL ORANGE AND WHITE STRIPES, SHALL NOT EXCEED 2 INCHES WIDE. THE WEIGHTED CHANNELIZER SHALL HAVE A 2-INCH MINIMUM WIDTH, REGARDLESS OF ORIENTATION.

USE OF WEIGHTED CHANNELIZERS ON ODOT MAINTAINED HIGHWAY SHALL BE AS FOLLOWS:

ON FREEWAYS AND MULTILANE HIGHWAYS USE OF WEIGHTED CHANNELIZERS ON FREEWAYS AND MULTILANE HIGHWAYS SHALL BE LIMITED TO SHORT-TERM OPERATION, GENERALLY TWELVE HOURS OR LESS, FOR EITHER DAY OR NIGHT. UPON COMPLETION OF WORK WITHIN THE ABOVE NOTED TIME PERIOD, THE WEIGHTED CHANNELIZERS SHALL BE REMOVED. THE WEIGHTED CHANNELIZERS MAY AGAIN BE PLACED ON THE HIGHWAY WHEN THE WORK IS TO RESUME ON THE FOLLOWING DAY OR NIGHT. ANY LANE CLOSURE USING CHANNELIZATION DEVICES, EXPECTED TO REMAIN FOR MORE THAN TWELVE HOURS, SHALL REQUIRE THE USE OF DRUMS OR BARRIERS.

WHEN USED AT NIGHT, WEIGHTED CHANNELIZERS SHALL ONLY BE PLACED IN THE "TANGENT AREA." THE "TANGENT AREA" IS DEFINED AS THE AREA AFTER THE TRANSITION TAPER WHERE THE WORK TAKES PLACE. DRUMS SHALL BE USED IN THE TRANSITION TAPERS FOR NIGHT OPERATIONS.

MAXIMUM SPACING OF THE WEIGHTED CHANNELIZER SHALL BE 40 FT.

STEPS SHOULD BE TAKEN TO ENSURE THAT THE WEIGHTED CHANNELIZERS WILL NOT BE BLOWN OVER OR DISPLACED BY WIND OR MOVING TRAFFIC. BALLASTS SHOULD NOT PRESENT A HAZARD IF THE WEIGHTED CHANNELIZERS ARE INADVERTENTLY STRUCK, NOR SHOULD THEY AFFECT THE VISIBILITY OF THE WEIGHTED CHANNELIZERS. ALL BALLASTS USED SHOULD BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

MAINTAINING TRAFFIC AND SEQUENCE OF OPERATIONS

ALL ASPHALT CONCRETE OPERATIONS SHALL BE CONDUCTED IN A MANNER THAT WILL ASSURE MINIMUM DANGER AND INCONVENIENCE TO THE HIGHWAY USERS. THE PROCEDURE FOR THE REMOVAL OR PLACEMENT OF ANY EXISTING OR PROPOSED ASPHALT COURSE SHALL BE SUCH THAT NO GREATER THAN 1 ½" DISCONTINUITY IN THE ELEVATION OF THE TRAVELED SURFACE SHALL BE EXPOSED TO TRAFFIC.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS ANY PARTIAL-WIDTH REMOVAL OR RESURFACING JOINT EXCEPT AS NECESSARY DURING THE ACTUAL REMOVAL OR PAVING OPERATION. ANY PARTIAL-WIDTH LONGITUDINAL JOINTS WHICH MUST BE EXPOSED TO TRAFFIC SHALL BE RAMPED USING ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC AT A RATE NOT STEEPER THAN 6:1.

TEMPORARY TRANSVERSE REMOVAL OR PAVING JOINTS WHICH MUST BE EXPOSED TO TRAFFIC SHALL BE RAMPED USING ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC AT A RATE NOT TO EXCEED 1" IN 10'.

FOR REMOVAL OF EXISTING OVERLAYS, A TRANSITION MAY BE PLANED INTO THE EXISTING OVERLAY AND MAY BE SUBSTITUTED FOR THE ASPHALT RAMPS PREVIOUSLY DESCRIBED, PROVIDED THE TRANSITION IS REMOVED IN A SUBSEQUENT OPERATION WITHIN 24 HOURS.

WHENEVER ANY PART OF THE TRAVELED SURFACE IS CLOSED, THE MOTORISTS SHALL BE WARNED AND DIVERTED BY THE CONTRACTOR THROUGH THE USE OF A FLASHING ARROW, IN ADDITION TO THOSE PROVISIONS SET FORTH IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

PERMANENT PAVEMENT MARKINGS

AFTER PLACING THE SURFACE COURSE, THE CONTRACTOR MAY PLACE THE PERMANENT PAVEMENT MARKINGS AT LOCATIONS SHOWN IN THE TYPICALS AND THE PLAN SHEETS INSTEAD OF PLACING THE WORK ZONE PAVEMENT MARKINGS, WHICH SHALL BE NON-PERFORMED AT THESE LOCATIONS.

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, AND REMOVE WHEN NO LONGER NEEDED A PORTABLE CHANGEABLE MESSAGE SIGN(S).

THE PCMS SHALL BE OF THE TYPE SHOWN ON THE LIST OF APPROVED PCMS MAINTAINED BY THE DIRECTOR. THE PCMS SHALL BE A CLASS I OR II TYPE UNIT.

THE PORTABLE CHANGEABLE MESSAGE SIGN SHALL BE MOUNTED ON A TRAILER. THE LOCATION OF THE PCMS SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS UNIT SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS WILL BE OFF.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS.

THE CONTRACTOR SHALL PROVIDE TO THE ENGINEER THE SOFTWARE NECESSARY TO CONTROL THE PCMS REMOTELY.

NO FLIP DISK UNITS ARE ALLOWED.

AT THE DIRECTION OF THE ENGINEER THE PCMS MAY BE REMOVED FOR PERIODS OR TIMES WHEN NOT IN USE. NO PAYMENT WILL BE MADE FOR THESE TIMES (EX. WINTER MONTHS).

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC AND THE ENTIRE COST TO CONTROL TRAFFIC ACCRUED BY THE DEPARTMENT WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24 HOURS PER DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE BID PER SIGN MONTH FOR EACH ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

THERE SHALL BE TWO CLASS I OR II CHANGEABLE MESSAGE SIGNS AT 6 MONTHS EACH.

ITEM 614 - PORTABLE CHANGEABLE MESSAGE
SIGN, AS PER PLAN . . . . . **12 SIGN-MONTHS**

CALCULATED EMK
CHECKED LDH

MAINTENANCE OF TRAFFIC NOTES

LAK-20-20.85/27.95

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WORKSITE TRAFFIC SUPERVISOR

THE CONTRACTOR SHALL EMPLOY (OTHER THAN THE SUPERINTENDENT) AND SUBJECT TO THE APPROVAL OF THE ENGINEER, A CERTIFIED WORKSITE TRAFFIC SUPERVISOR (WTS). THE WTS MAY BE CERTIFIED FROM ONE OF THE FOLLOWING ORGANIZATIONS:

1) AMERICAN TRAFFIC SAFETY SERVICE ASSOCIATION A.T.S.S.A. PHONE NUMBER 1-800-272-8772, CERTIFIED WORKSITE TRAFFIC SUPERVISOR (WTS)

2) THE NATIONAL SAFETY COUNCIL, TRAFFIC CONTROL ZONES SUPERVISORS COURSE, PHONE NUMBER 1-800-441-5103

3) NATIONAL HIGHWAY INSTITUTE, DESIGN AND OPERATION OF WORK ZONE TRAFFIC CONTROL, PHONE NUMBER 1-703-235-0528

A CERTIFIED WTS SHALL BE PRESENT WHEN THE CONTRACTOR OR SUBCONTRACTOR INSTALLS A TRAFFIC RESTRICTION, LANE CLOSURE, ETC. THE CONTRACTOR OR SUBCONTRACTOR MUST PRESENT A COPY OF CERTIFICATES FOR ALL WTS TO THE ENGINEER. A WTS MUST BE PRESENT WHEN THE WORK ZONE IS BEING SET UP OR REMOVED. HE MUST APPROVE THE WORK ZONE BEFORE HE LEAVES OR PERFORMS OTHER DUTIES.

THE WTS POSITION IS ESTABLISHED FOR THE PURPOSE OF MONITORING THE TRAFFIC CONTROL PLAN (TCP) AND CORRECTING ANY TRAFFIC CONTROL DEFICIENCIES IN THE WORK ZONE. THE WTS MUST ALSO COORDINATE WITH ALL LAW ENFORCEMENT AGENCIES RESPONSIBLE FOR THE ROADWAY UNDER CONSTRUCTION AND RETRIEVE ALL CRASH REPORTS (OH-1) THAT OCCUR WHEN THE WORK ZONE TRAFFIC CONTROL DEVICES ARE IN PLACE. THE WTS SHALL OVERSEE ALL OPERATIONS THAT AFFECT THE MOVEMENT OF VEHICULAR AND PEDESTRIAN TRAFFIC THROUGH THE WORK ZONE. TRAFFIC CONTROL AND CRASH DATA EVALUATION WILL BE THE WTS MAIN RESPONSIBILITY WHEN A WORK ZONE IS IN PLACE.

DAILY, INCLUDING WEEKEND AND HOLIDAYS, THE WTS SHALL SPEND A MINIMUM OF ONE HOUR REVIEWING THE WORK ZONE AND/OR CRASH DATA FOR DEFICIENCIES AND MAINTAINING THE WORK ZONE.

WEEKLY, THE WTS MUST RETRIEVE/COLLECT ALL CRASH REPORTS (OH-1) FROM ALL LAW ENFORCING AGENCIES, EVALUATE THE CRASHES, AND RECOMMEND SOLUTIONS TO ADDRESS ANY ISSUES WITH THE TCP THAT ARE POTENTIALLY CREATING CRASHES WITHIN THE WORK ZONE. THE WTS MUST PRESENT THESE SOLUTIONS TO THE ENGINEER FOR APPROVAL WEEKLY. UPON APPROVAL BY THE ENGINEER AND THE DISTRICT WORK ZONE TRAFFIC MANAGER (DWZTM), THE CONTRACTOR MUST IMPLEMENT THE RECOMMENDED SOLUTIONS TO THE WORK ZONE WITHIN ONE WEEK - ADDITIONAL COST TO BE PAID UNDER CONSTRUCTION AND MATERIALS SPECIFICATIONS 109. THE WTS MUST INSPECT THE WORK ZONE AT THE BEGINNING AND THE END OF EACH WORK DAY AND ONE TIME PER WEEK DURING THE HOURS OF DARKNESS. THE FOLLOWING ITEMS SHALL BE INCLUDED, BUT NOT RESTRICTED TO, IN EACH REVIEW: TRAFFIC CONTROL DEVICE CONDITION; PLACEMENT; VISIBILITY; TRAFFIC FLOW CONDITIONS; INCIDENTS; CONGESTION POINTS; DELAYS; ADEQUACY OF ADVANCED INFORMATIONAL SIGNS BEYOND PROJECT LIMITS; INTERACTION OF WORK VEHICLES AND TRAFFIC; ACCIDENTS; PROPER STORAGE OF MATERIALS AND EQUIPMENT; CONFORMANCE WITH TCP; ADEQUACY OF TCP; CONFLICTING OR NON-CONFORMING PAVEMENT MARKINGS. THE WTS SHALL HAVE THE NECESSARY AUTHORITY TO IMMEDIATELY PERFORM ANY CORRECTIVE WORK A RECORD OF EACH DAYS REVIEW SHALL BE GIVEN TO THE ENGINEER THE FOLLOWING DAY IN WRITING AND SHALL INCLUDE ALL DEFICIENCIES AND RESOLUTIONS TO THE DEFICIENCIES. THE INSPECTION WILL BE DOCUMENTED ON THE LONG/SHORT TERM WORK ZONE REVIEW FORM PROVIDED BY ODOT. WEEKLY, THE INSPECTION FORM MUST BE ACCOMPANIED BY ALL OF THE OH-1 CRASH REPORTS AND THE PROPOSED SOLUTIONS TO ANY IDENTIFIED CRASH PROBLEMS.

IF THE RESTRICTIONS ARE SHORT TERM, THE WTS SHALL MONITOR THE ZONE FOR COMPLIANCE, DURING LANE CLOSURES; HE SHALL MAKE SURE ALL TRAFFIC CONTROL ITEMS ARE FUNCTIONING PROPERLY. TRAFFIC CONTROL AND CRASH DATA EVALUATION WILL BE THE WTS MAIN RESPONSIBILITY DURING IMPLEMENTATION OF ZONES OR SHORT TERM ZONES. THE WTS SHALL PROVIDE THE DWZTM A SKETCH OF THE TRAFFIC CONTROL PLAN EVERYDAY THERE IS TO BE A SHORT TERM TRAFFIC RESTRICTION, LANE CLOSURE, ETC. THIS TCP SHALL SHOW HOW THE WORK ZONES ARE TO BE IMPLEMENTED.

THE WTS SHALL BE ON STANDBY 24 HOUR BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. A 24 HOUR CONTACT NUMBER(S) SHALL BE MADE AVAILABLE TO THE ENGINEER TO CONTACT THE WTS.

FAILURE OF THE CONTRACTOR TO COMPLY WITH ANY OF THE ABOVE, SHALL CONSTITUTE CAUSE FOR THE PROJECT ENGINEER TO DEDUCT $500.00 PER DAY FROM MONEY DUE TO THE CONTRACTOR NOT AS A PENALTY, BUT AS A LIQUIDATED DAMAGE.

PAYMENT FOR THE WTS SHALL BE INCLUDED UNDER THE ITEM 614, WORKSITE TRAFFIC SUPERVISOR BY MONTH.

THE FOLLOWING ESTIMATED QUANTITY SHALL BE CARRIED TO THE GENERAL SUMMARY TO BE USED AS DETAILED ABOVE:

ITEM 614 - WORKSITE TRAFFIC SUPERVISOR . . . . . **6 MONTH**

SEQUENCE OF OPERATIONS

PRIOR TO STARTING WORK ON PART 2, THE CONTRACTOR SHALL COMPLETE PHASE 1, 2 AND 3 OF PART 1.

PART 2 SHALL BE BROKEN INTO TWO SECTIONS. SECTION ONE WILL BE FROM STA. 562+00 TO STA. 578+00. SECTION TWO WILL BE FROM STA. 578+00 TO 692+10.

THE MAINTENANCE OF TRAFFIC DETAILS FOR PART 1 AND SECTION TWO OF PART 2 ARE SHOWN ON SHEETS 14 & 14A. PHASES 1, 2 AND 3 ARE LONG TERM CLOSURES PROVIDED TO PLANE THE EXISTING ASPHALT, PERFORM PAVEMENT REPAIRS, PLACE INTERMEDIATE COURSE AND TEMPORARY PAVEMENT MARKINGS. PHASES 1, 2 & 3 SHALL HAVE A 15 DAY TIME LIMIT FOR EACH PHASE WITHIN EACH PART. REPAIR AREAS SHALL BE CLEARLY DELINEATED WITHIN THE LANE CLOSURES. TURNING MOVEMENTS, TO PRIVATE OR COMMERCIAL DRIVES OR SIDE ROADS, THROUGHOUT THE WORK ZONE, SHALL BE PERMITTED WITH THE CONTRACTOR PROVIDING ACCESS VIA DRUMS AND ASPHALT CONCRETE FOR MAINTAINING TRAFFIC, IF NECESSARY. PHASE 4 AND PHASE 5 ARE SHORT TERM CLOSURES THAT WILL ALLOW THE CONTRACTOR TO PLACE THE SURFACE COURSE AND PAVEMENT MARKINGS. TRAFFIC SHALL BE RETURNED TO NORMAL CONFIGURATION OUTSIDE OF THE PERMITTED CLOSURE TIMES.

THE MAINTENANCE OF TRAFFIC FOR SECTION ONE OF PART 2, STA. 562+00 TO STA. 578+00, THE INTERSECTION OF US-20 AND SR-528 AND HUBBARD RD., SHALL CONSIST OF SHORT TERM LANE CLOSURES. THE CONTRACTOR SHALL COMPLETE WORK WITHIN THIS SECTION IN 7 DAYS. THE CONTRACTOR SHALL PLANE EXISTING ASPHALT, PERFORM PAVEMENT REPAIRS, PLACE INTERMEDIATE AND SURFACE COURSES AND PAVEMENT MARKINGS BETWEEN THE HOURS OF 7 AM AND 5 PM. THE MAXIMUM ALLOWED PAVEMENT DROPOFF SHALL NOT BE GREATER THAN 1-1/2" WHEN THE PAVEMENT IS EXPOSED TO TRAFFIC AFTER EACH WORKING DAY. IF A DROPOFF GREATER THAN 1-1/2" IS TO REMAIN, IT SHALL BE RAMPED WITH ASPHALT CONCRETE FOR MAINTAINING TRAFFIC OR PLANED IN A WEDGE AT A RATE NO STEEPER THAN 6:1.

CALCULATED EMK CHECKED LDH

MAINTENANCE OF TRAFFIC NOTES

LAK-20-20.85/27.95

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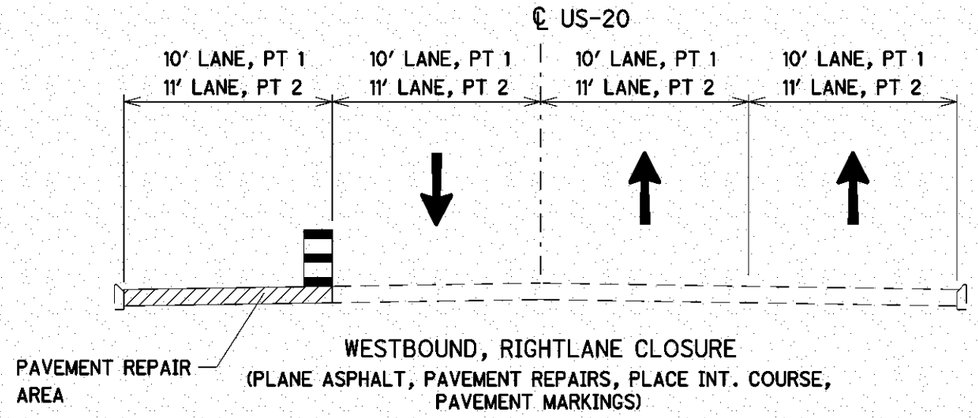
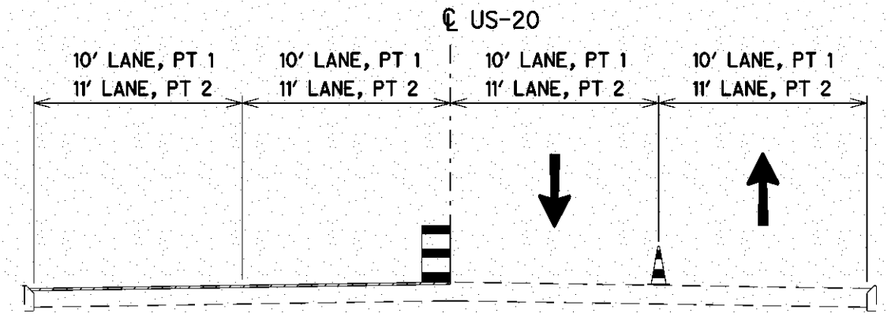
PHASE 3



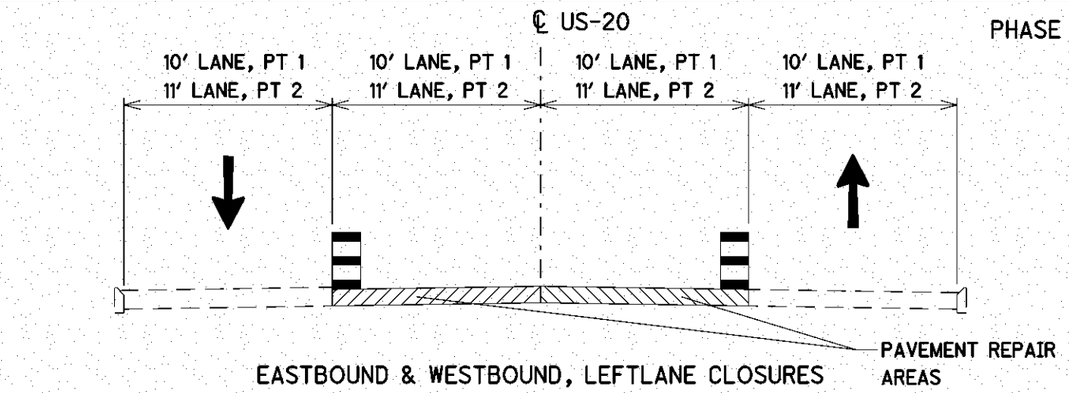
WESTBOUND, RIGHTLANE CLOSURE
(PLANE ASPHALT, PAVEMENT REPAIRS, PLACE INT. COURSE, PAVEMENT MARKINGS)
LONG TERM CLOSURE
CONTRACTOR PERMITTED TO WORK WITHIN CLOSED LANE FROM 8:00 AM TO 8:00 PM
(SEE SHEET 14A FOR ALTERNATE MOT FOR PHASE 3)

PHASE 5



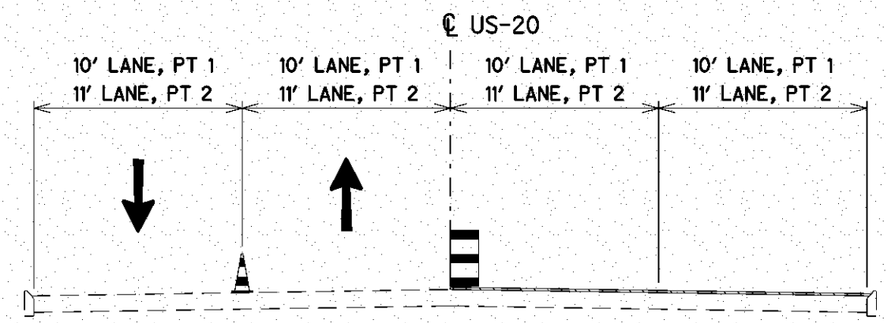
WESTBOUND
PLACE SURFACE COURSE, PAVEMENT MARKINGS AND RPM'S
7:00 AM TO 5:00 PM
(OUTSIDE OF WORKING HOURS, 7:00 AM TO 5:00 PM, ALL LANES SHALL BE OPENED AS PER PHASE 4A)

PHASE 2



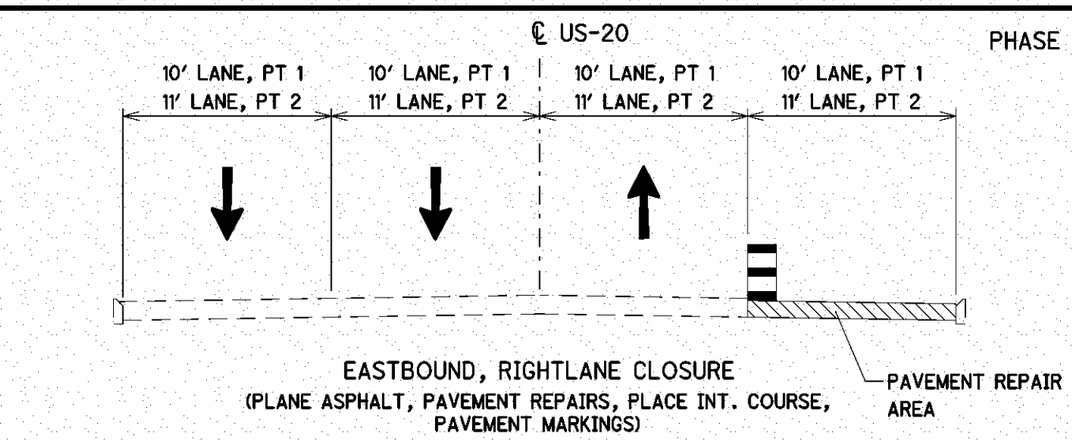
EASTBOUND & WESTBOUND, LEFTLANE CLOSURES
(PLANE ASPHALT, PAVEMENT REPAIRS, PLACE INT. COURSE, PAVEMENT MARKINGS)
LONG TERM CLOSURE

PHASE 4



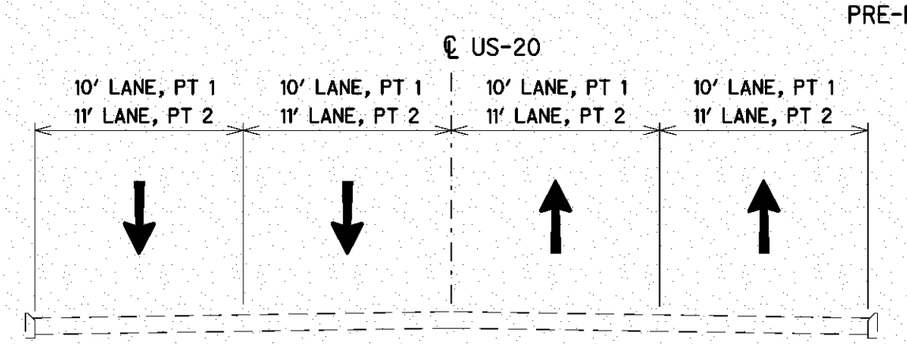
EASTBOUND
PLACE SURFACE COURSE, PAVEMENT MARKINGS AND RPM'S
7:00 AM TO 5:00 PM
(OUTSIDE OF WORKING HOURS, 7:00 AM TO 5:00 PM, ALL LANES SHALL BE OPENED AS PER PHASE 4A)

PHASE 1



EASTBOUND, RIGHTLANE CLOSURE
(PLANE ASPHALT, PAVEMENT REPAIRS, PLACE INT. COURSE, PAVEMENT MARKINGS)
LONG TERM CLOSURE
CONTRACTOR PERMITTED TO WORK WITHIN CLOSED LANE FROM 6:00 AM TO 3:00 PM
(SEE SHEET 14A FOR ALTERNATE MOT FOR PHASE 1)

PRE-PHASE 4



ALL LANES OPEN
MAINTAIN TRAFFIC ON INTERMEDIATE COURSE

CALCULATED EMK
CHECKED EMK

MAINTENANCE OF TRAFFIC DETAILS

LAK-20-20.85/27.95

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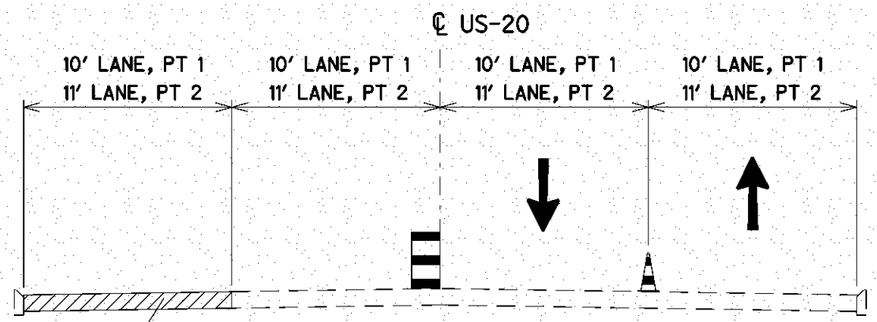
PHASE 3 ALTERNATE



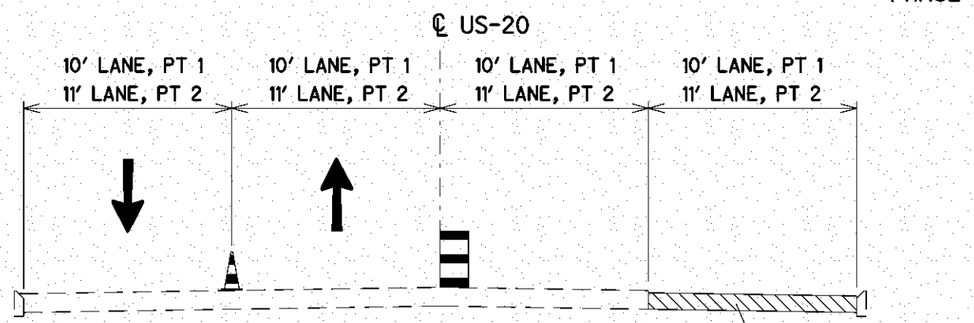
WESTBOUND, RIGHTLANE CLOSURE

(PLANE ASPHALT, PAVEMENT REPAIRS, PLACE INT. COURSE, PAVEMENT MARKINGS)

CONTRACTOR PERMITTED TO WORK WITHIN CLOSED LANE FROM 8:00 AM TO 8:00 PM

(OUTSIDE OF WORKING HOURS, 8:00 AM TO 8:00 PM, TRAFFIC PATTERN SHALL BE AS PER PHASE 3)

PHASE 1 ALTERNATE



EASTBOUND, RIGHTLANE CLOSURE

(PLANE ASPHALT, PAVEMENT REPAIRS, PLACE INT. COURSE, PAVEMENT MARKINGS)

CONTRACTOR PERMITTED TO WORK WITHIN CLOSED LANE FROM 6:00 AM TO 3:00 PM

(OUTSIDE OF WORKING HOURS, 6:00 AM TO 3:00 PM, TRAFFIC PATTERN SHALL BE AS PER PHASE 1)

CALCULATED EMK CHECKED EMK

MAINTENANCE OF TRAFFIC DETAILS

LAK-20-20.85/27.95

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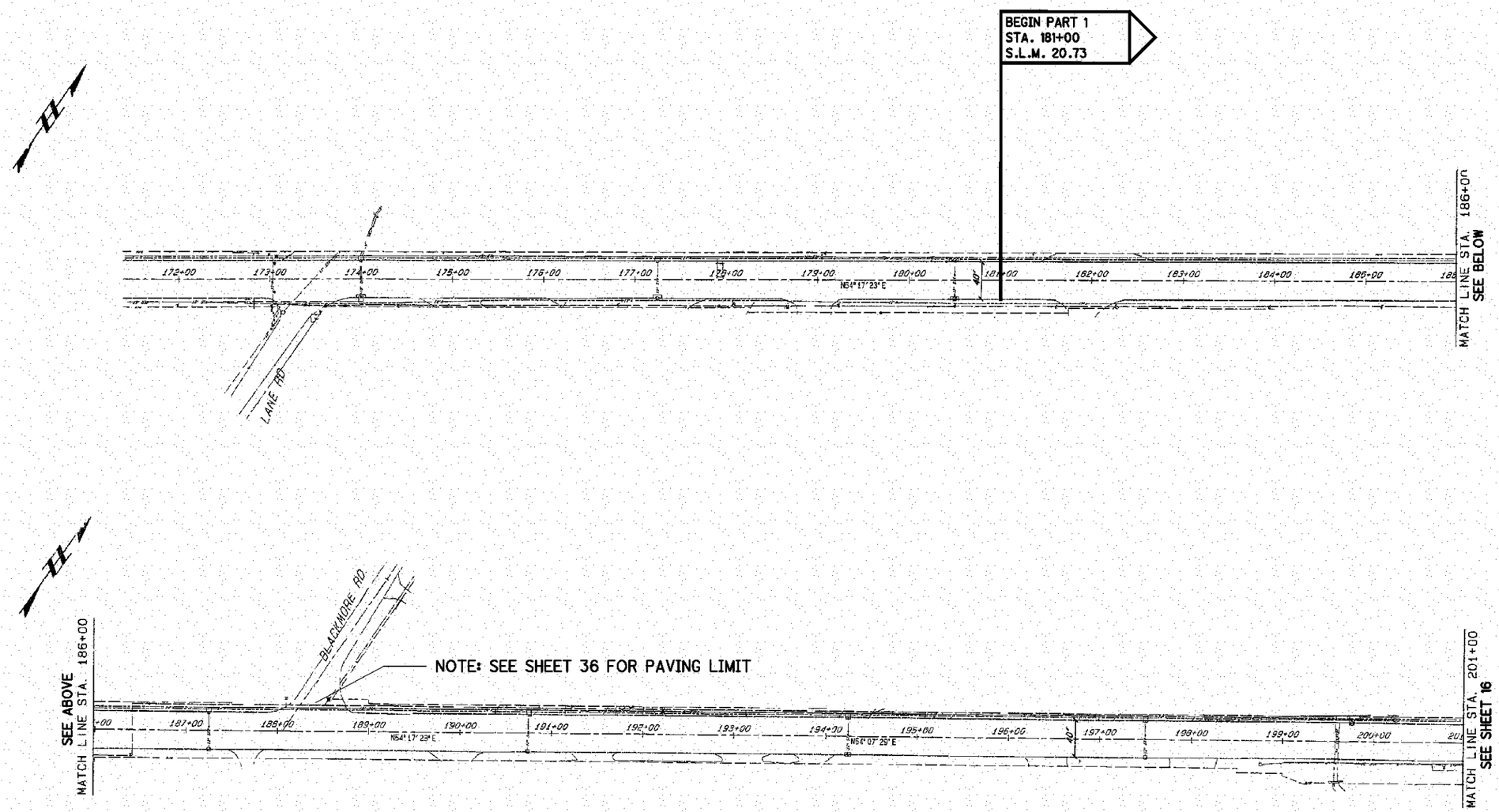

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Part 1

Plan Sheet - Sta. 171+25 To Sta. 201+00

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Part 1

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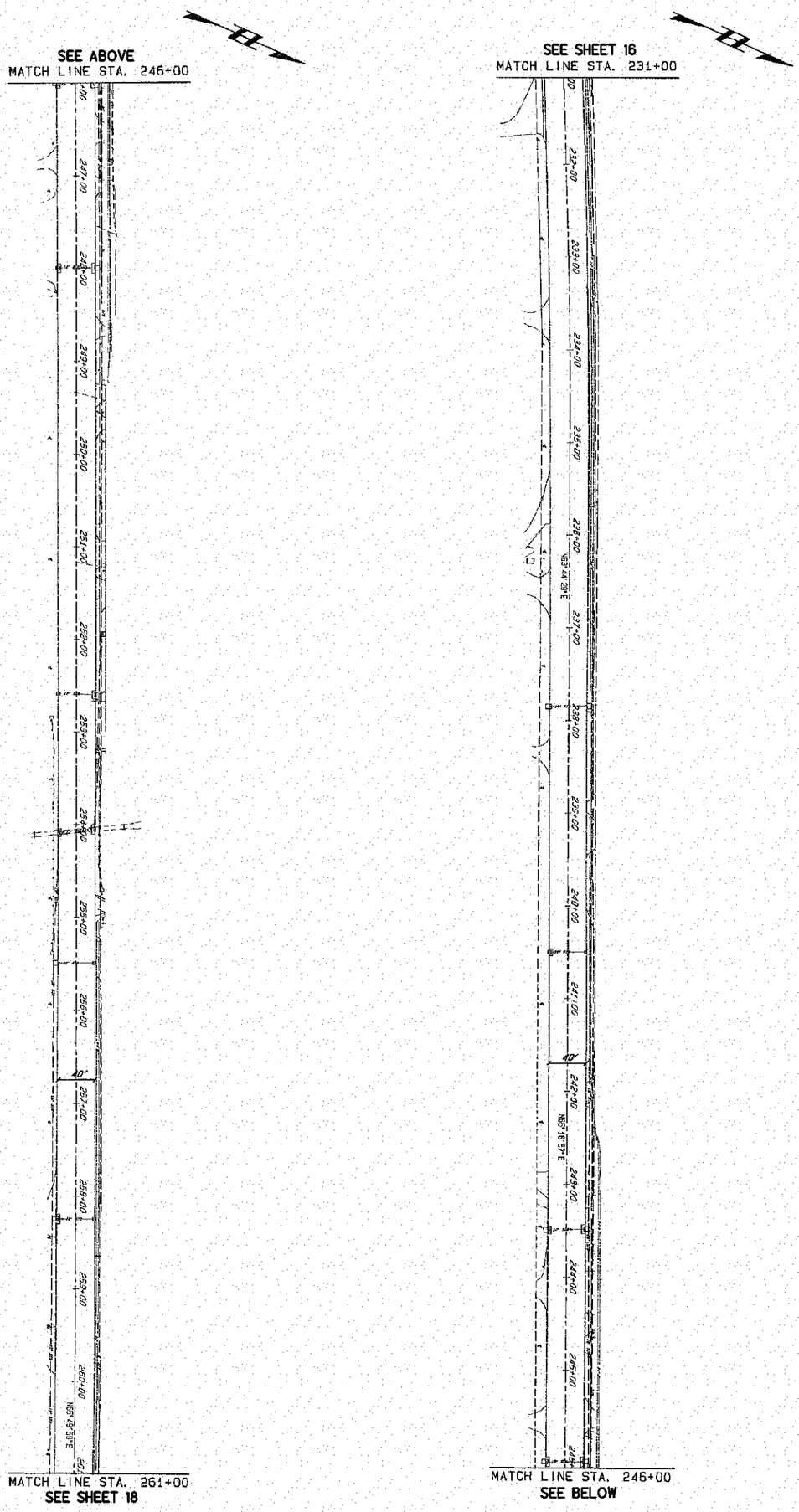
SEE ABOVE
MATCH LINE STA. 246+00
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SEE SHEET 18
SEE SHEET 16
MATCH LINE STA. 231+00
MATCH LINE STA. 246+00
SEE BELOW

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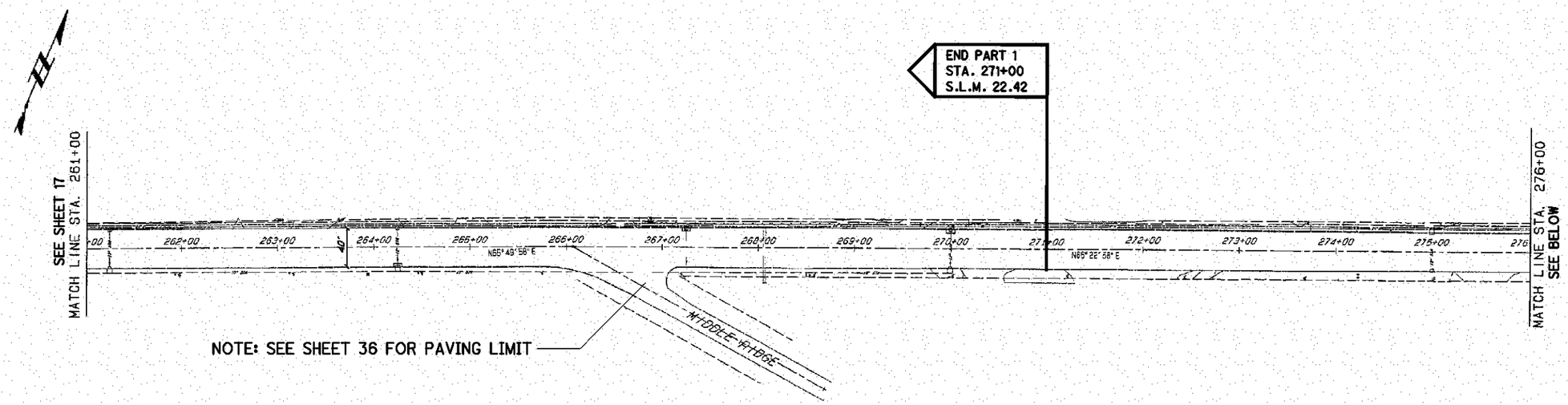

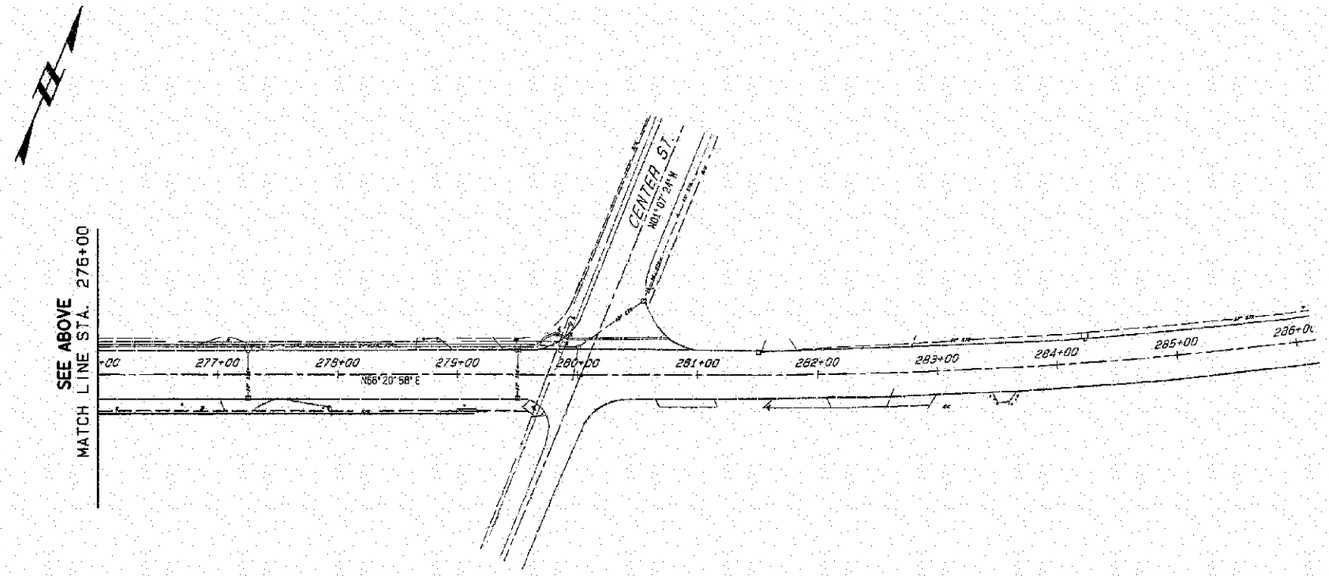

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Part 1

Plan Sheet - Sta. 261+00 To Sta. 286+25

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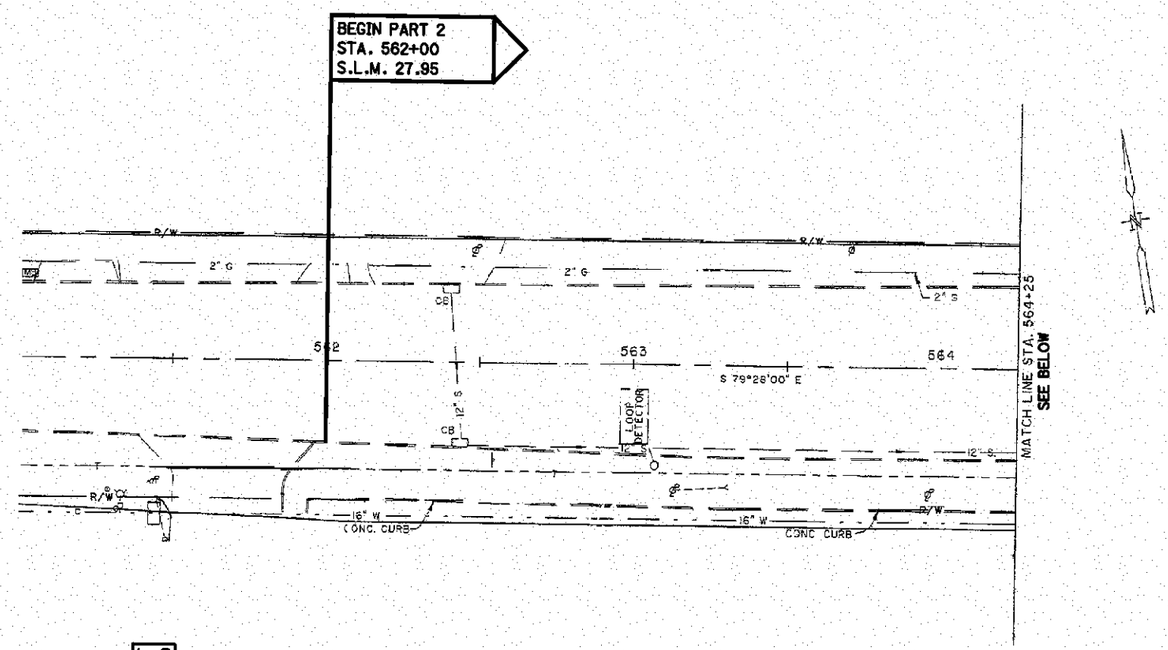

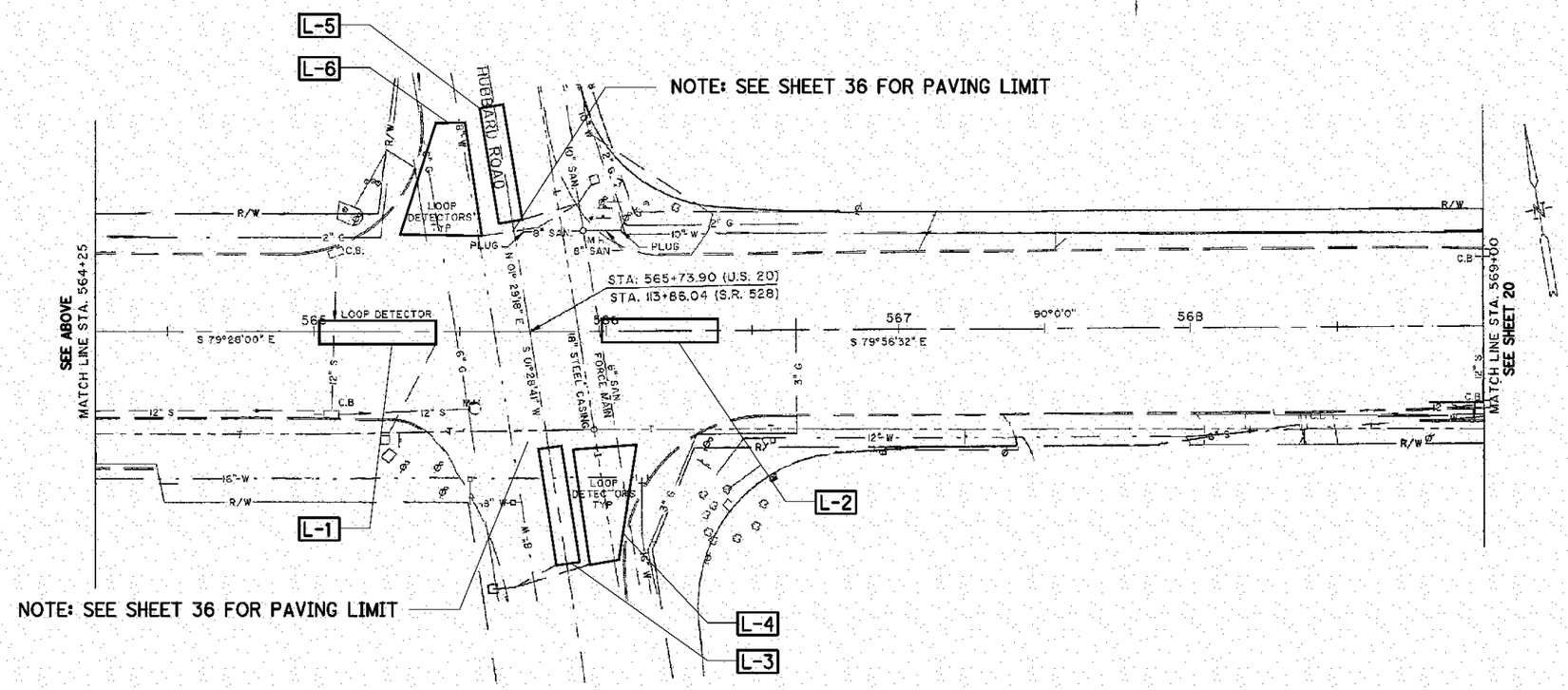

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Part 2

Plan Sheet - Sta. 561+00 To Sta. 569+00

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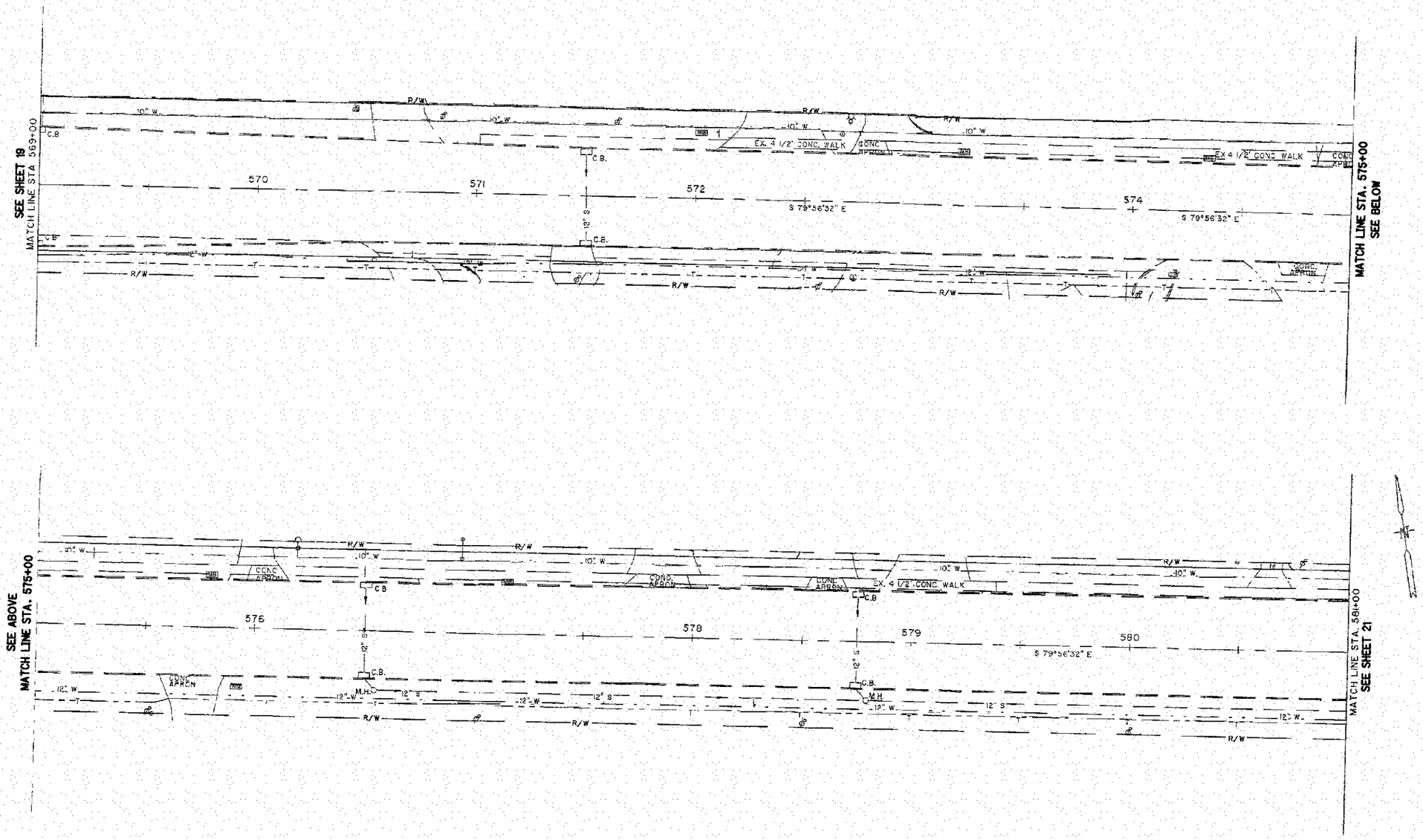

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Part 2

Plan Sheet - Sta. 569+00 To Sta. 581+00

LAK-20-20.85/27.95

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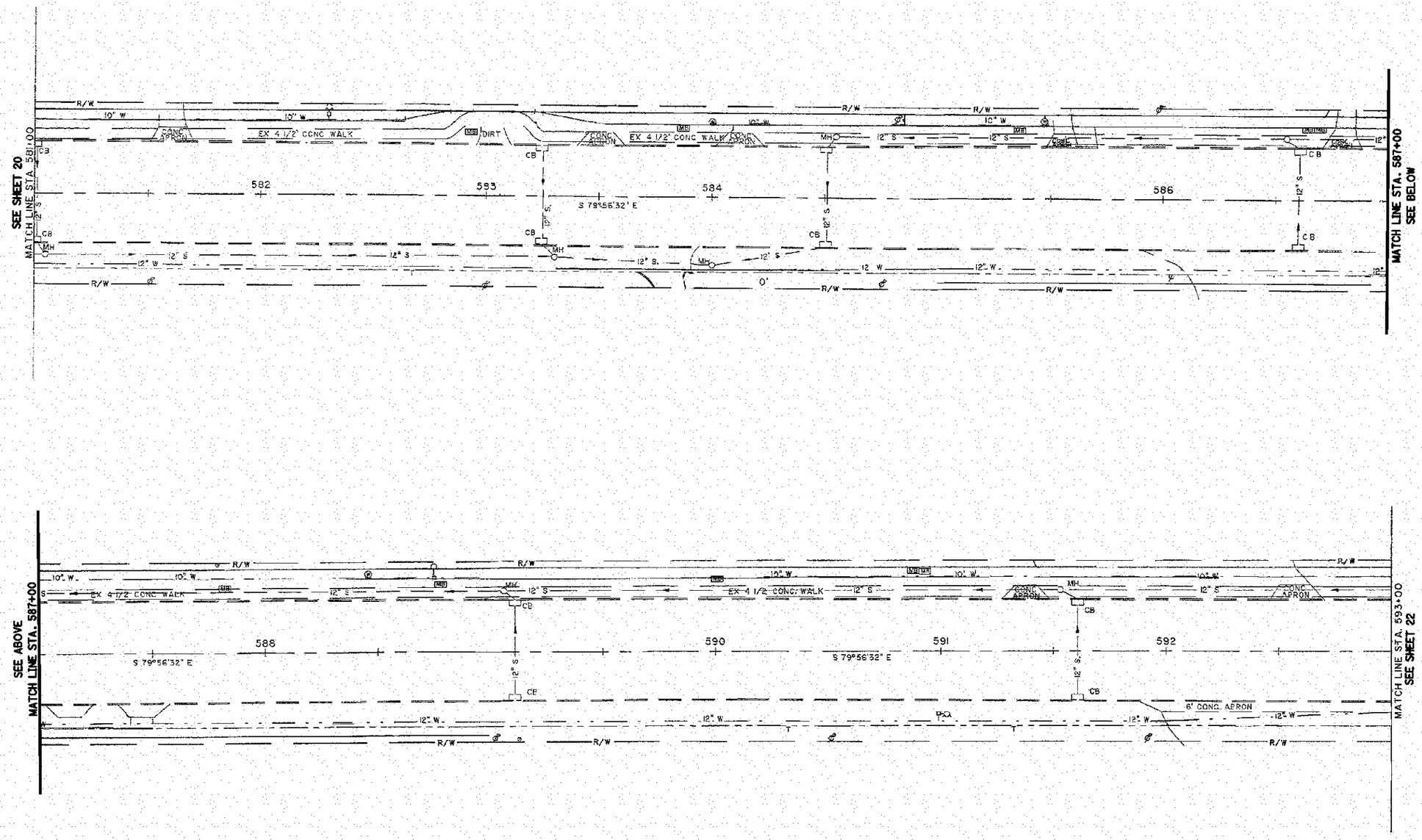

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Part 2

Plan Sheet - Sta. 581+00 To Sta. 593+00

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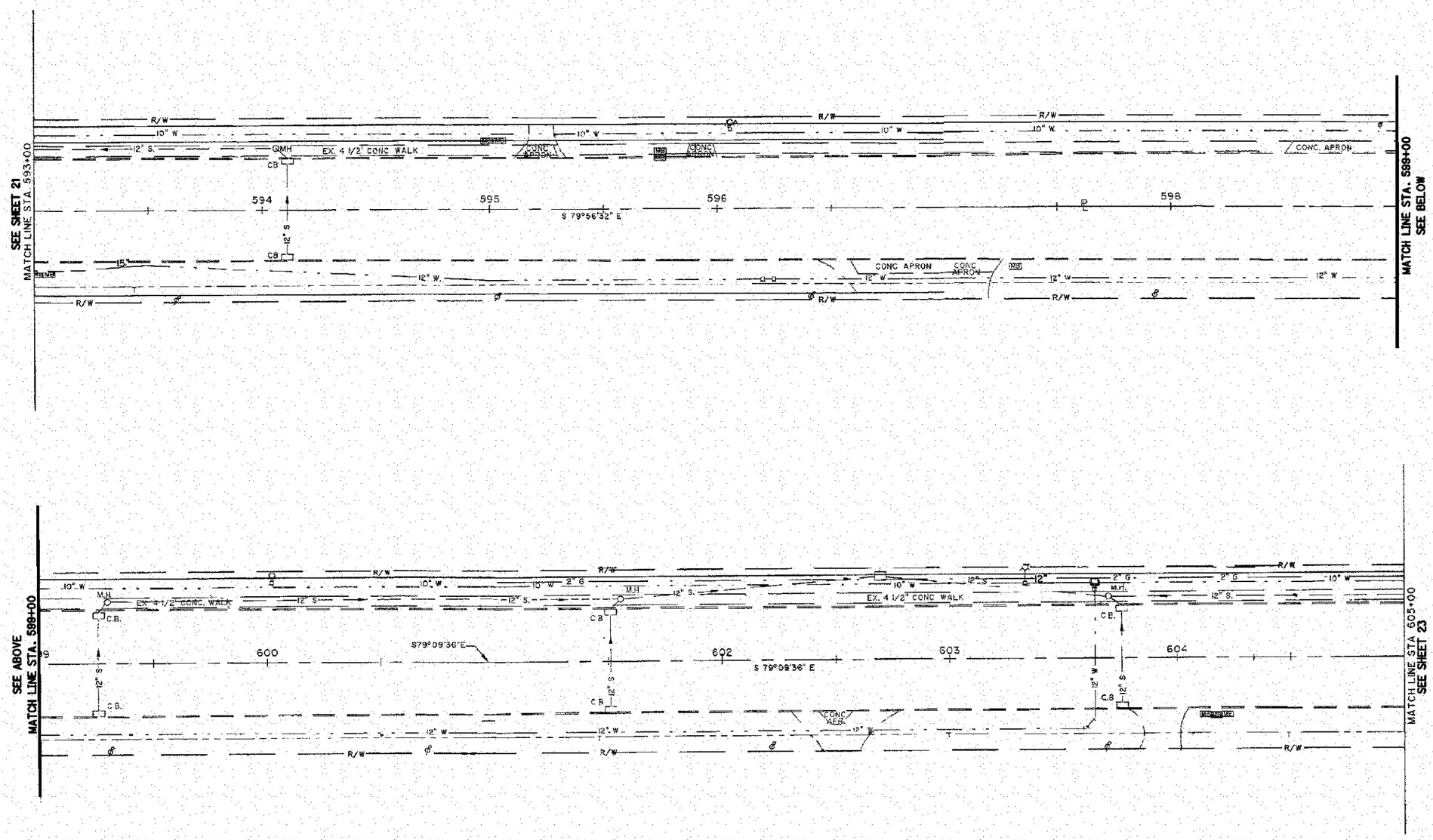

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Part 2

Plan Sheet - Sta. 593+00 To Sta. 605+00

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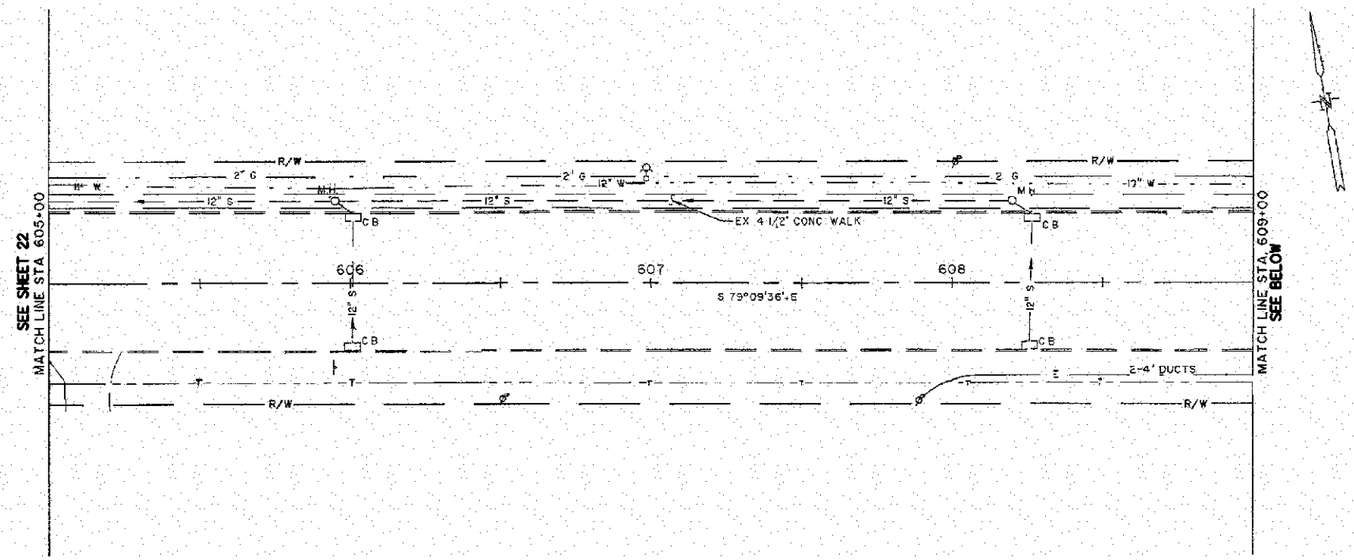

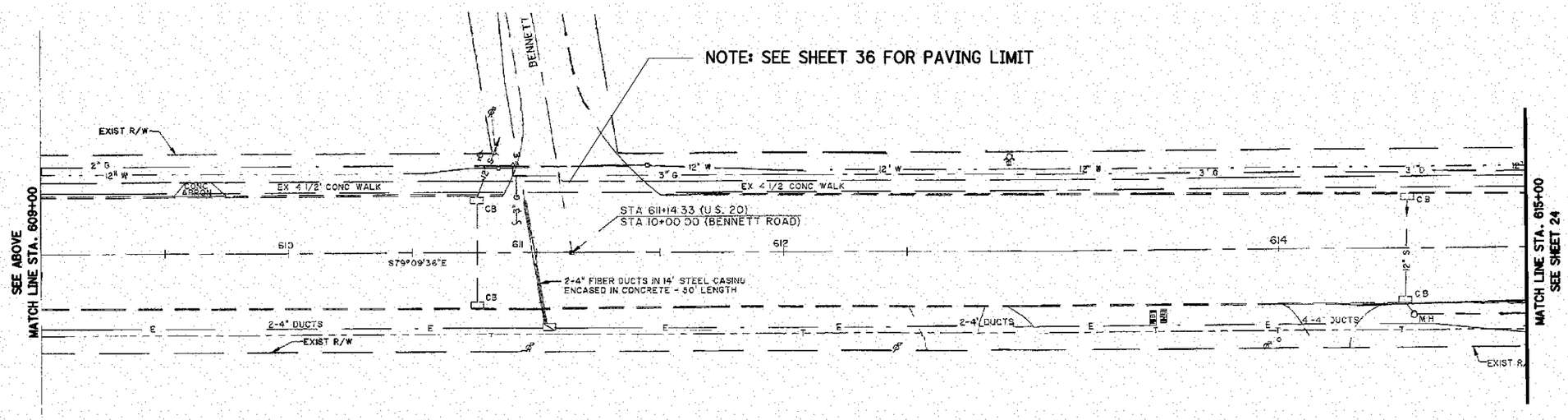

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Part 2

Plan Sheet - Sta. 605+00 To Sta. 615+00

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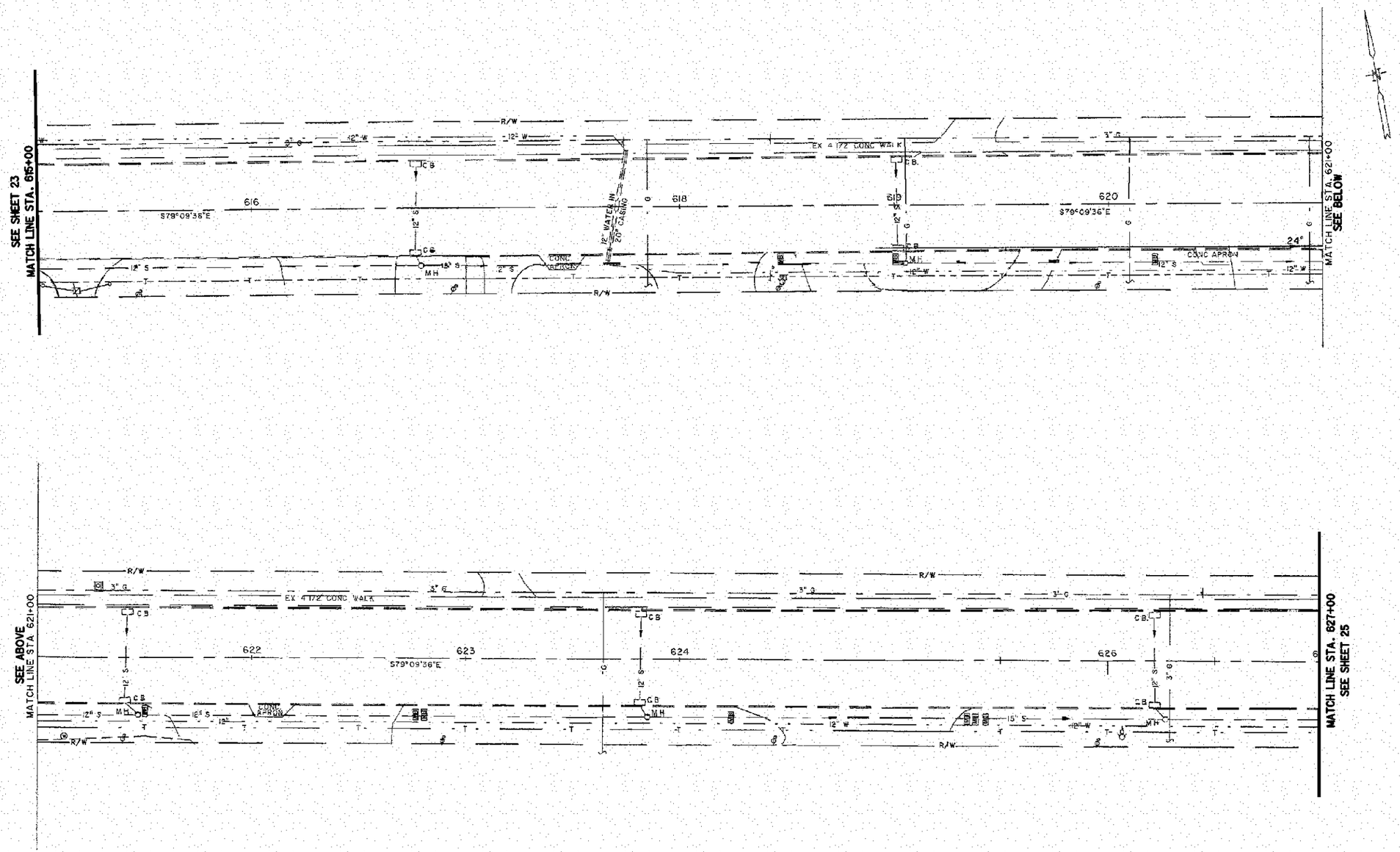

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Part 2

Plan Sheet - Sta. 615+00 To Sta. 627+00

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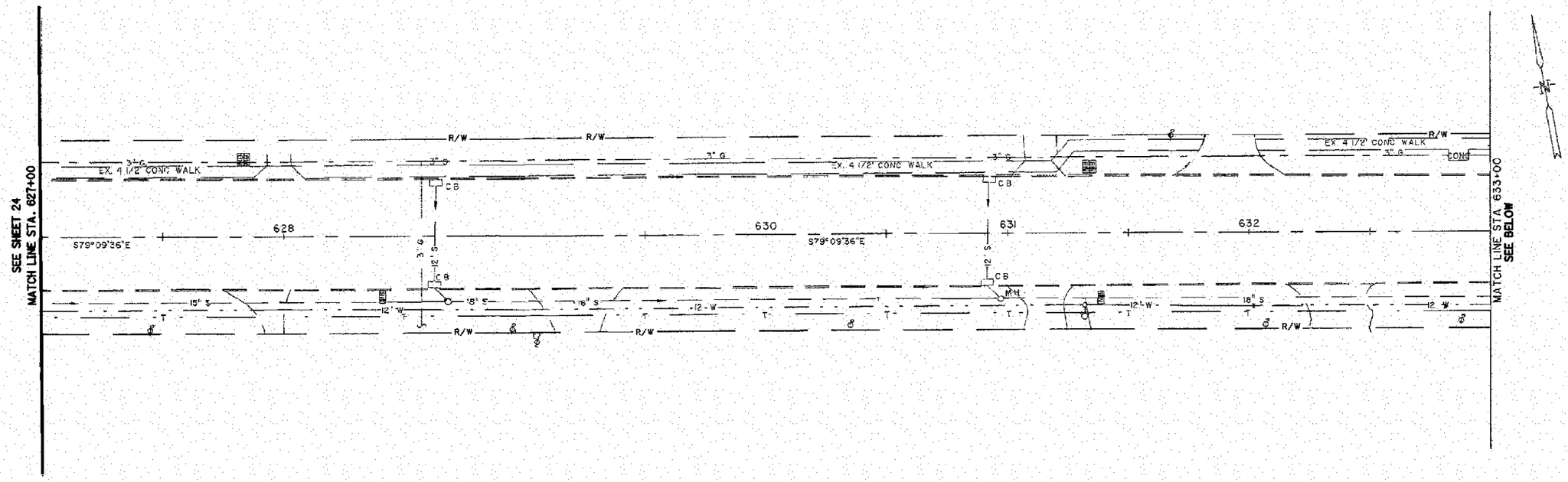

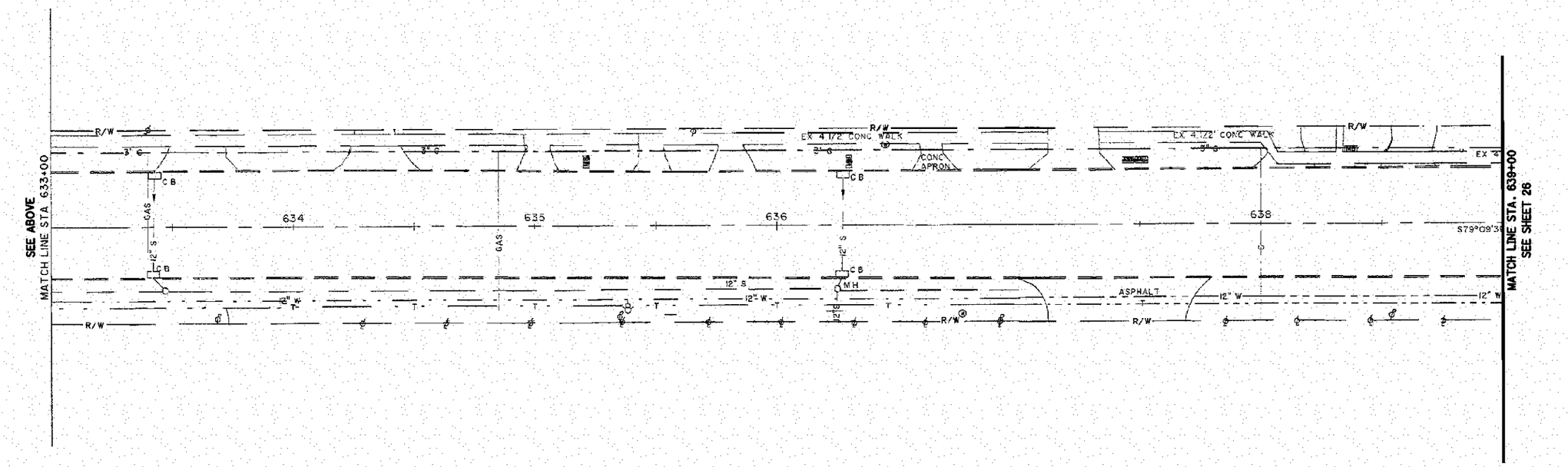

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Part 2

Plan Sheet - Sta. 627+00 To Sta. 639+00

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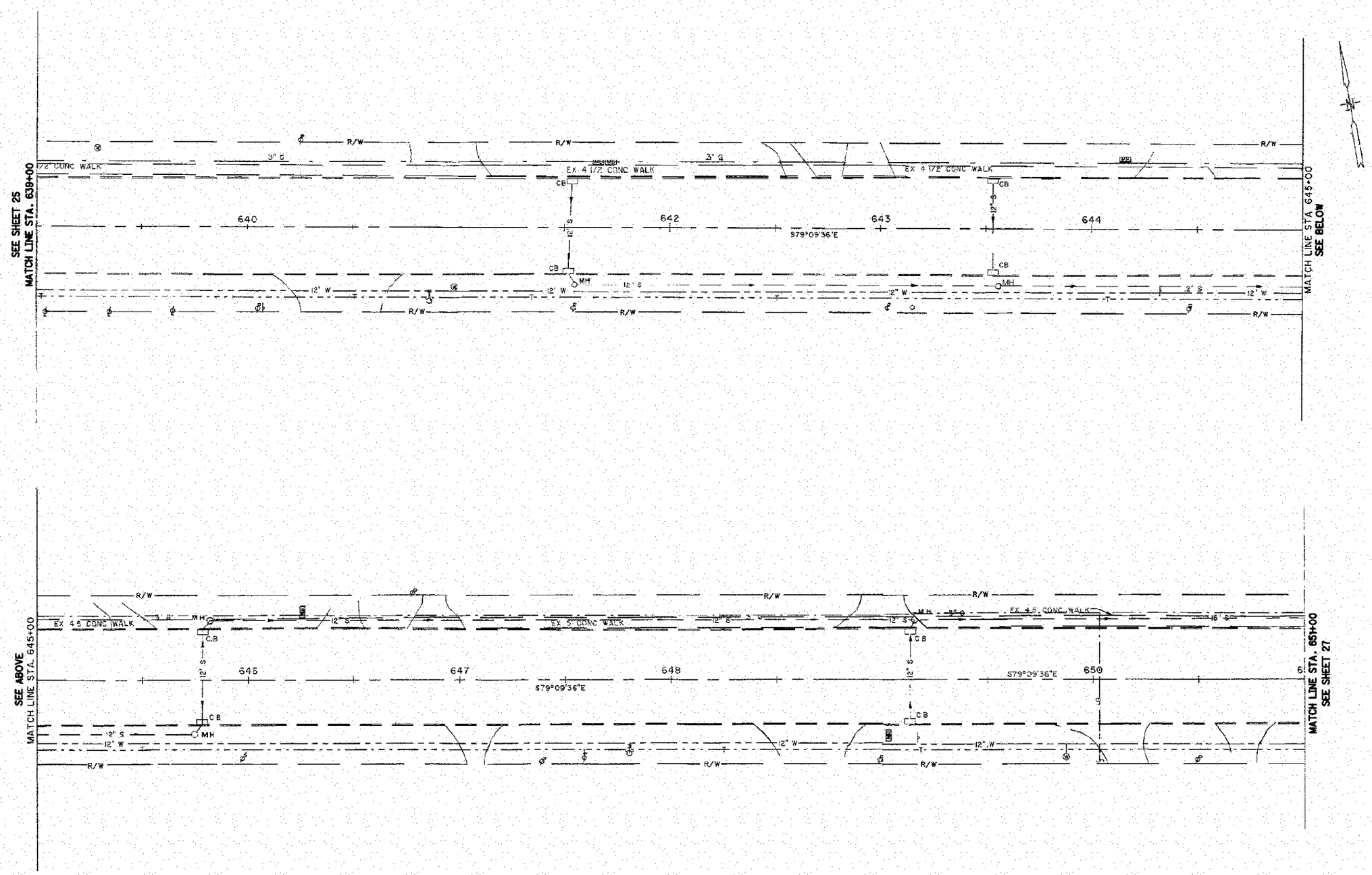

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Part 2

Plan Sheet - Sta. 639+00 To Sta. 651+00

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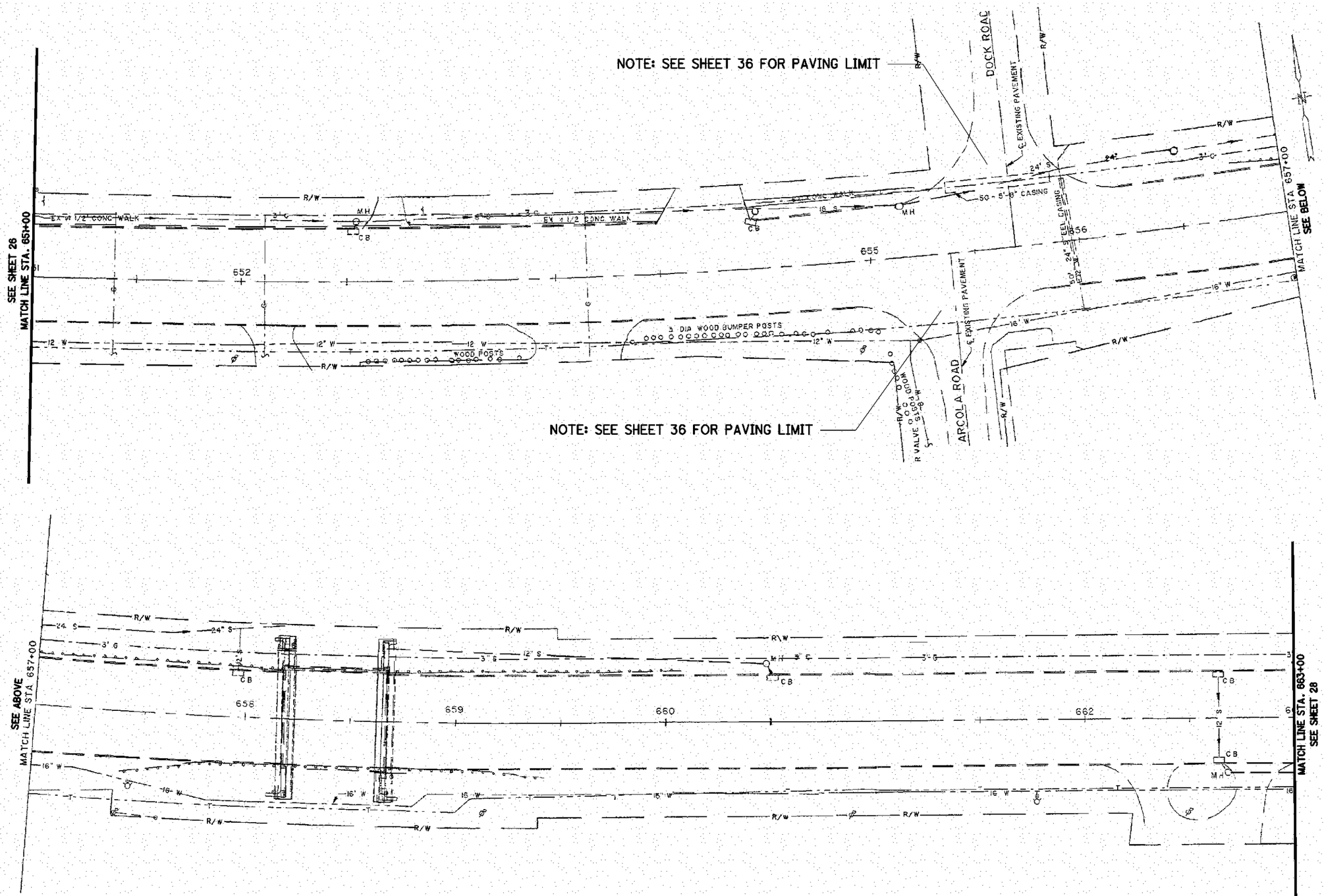

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Part 2

Plan Sheet - Sta. 651+00 To Sta. 663+00

LAK-20-20.85 / 27.95

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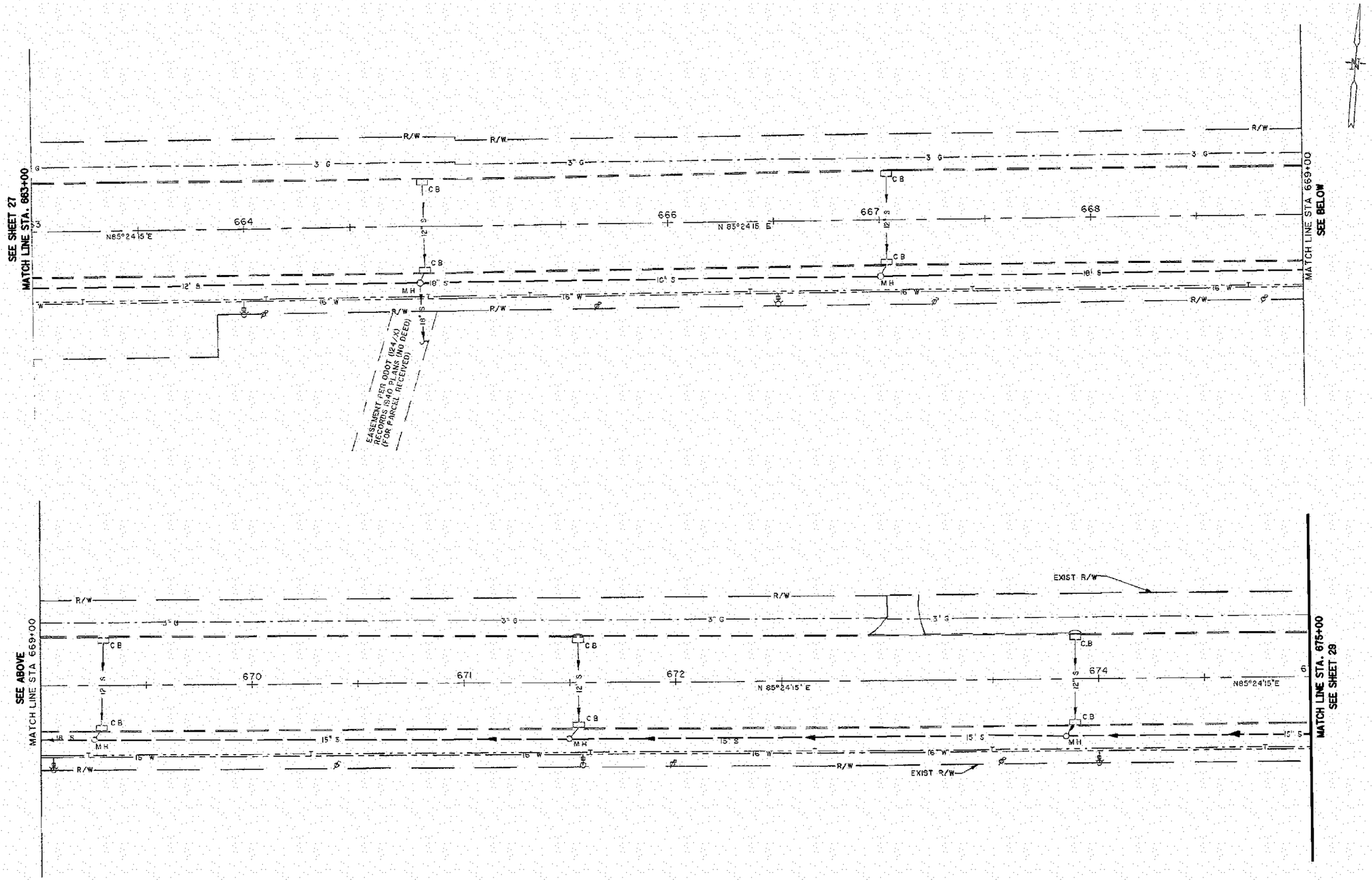

NOT TO SCALE

Part 2

Plan Sheet - Sta. 663+00 To Sta. 675+00

LAK-20-20.85/27.95

28/40

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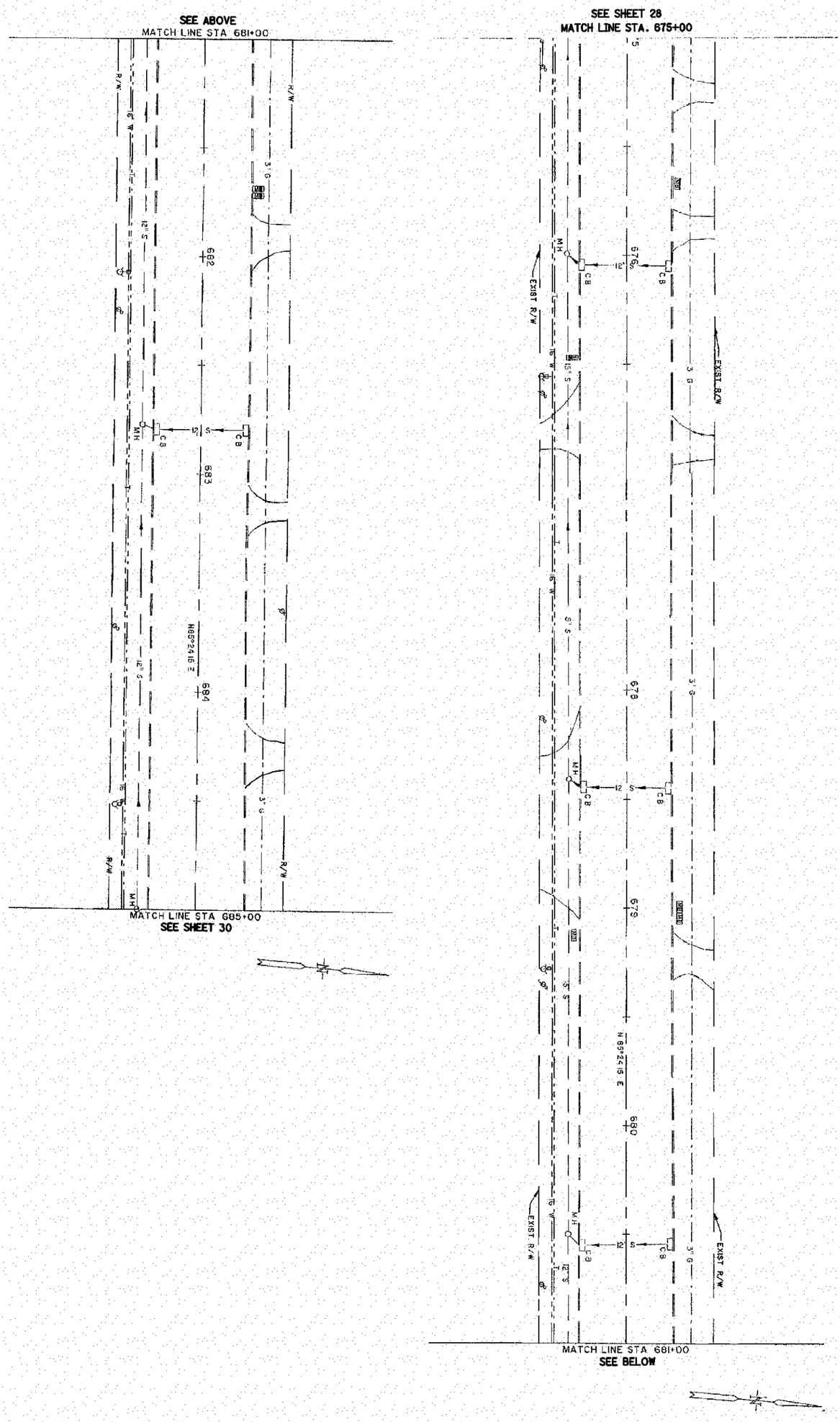
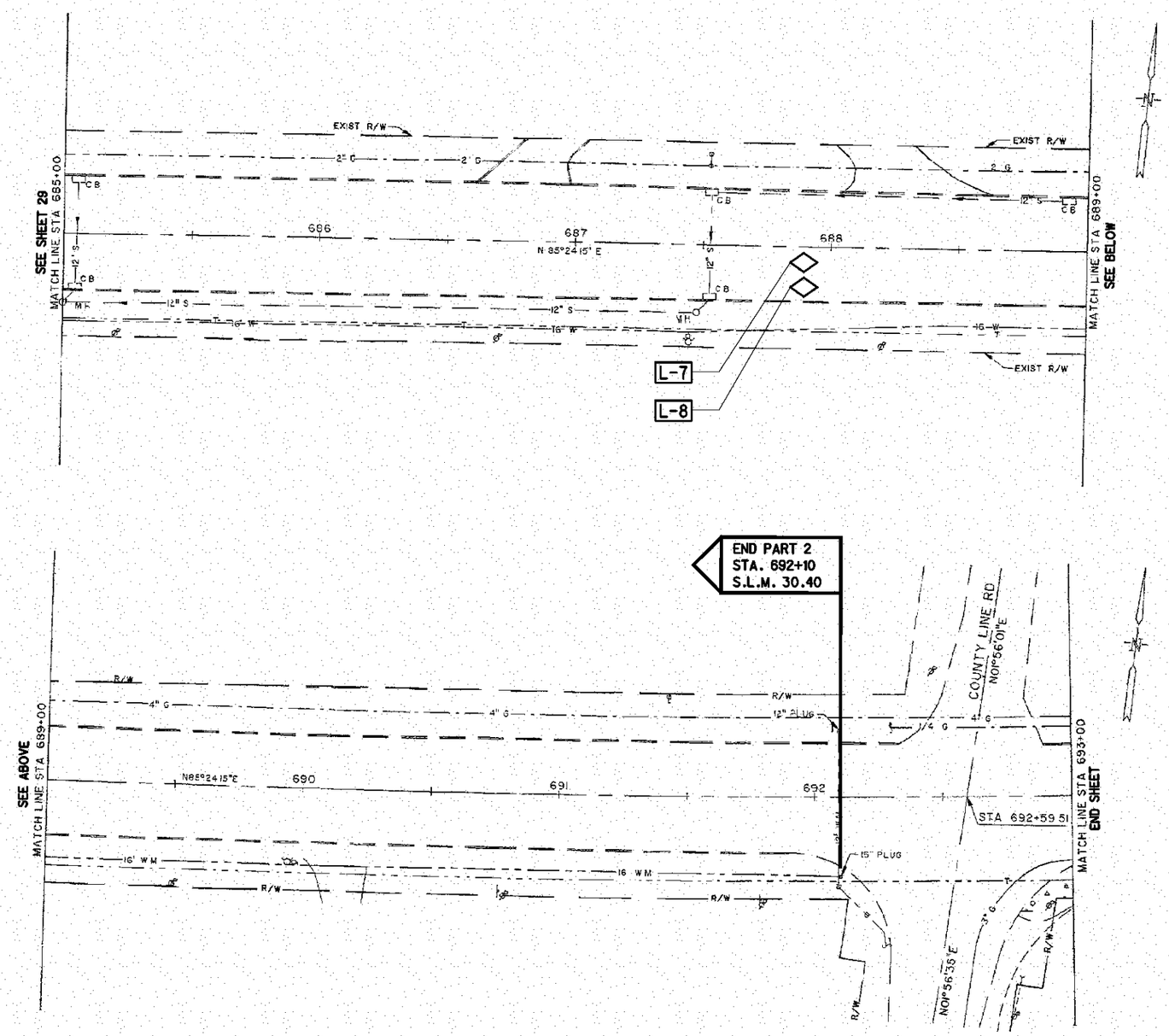

SEE ABOVE
MATCH LINE STA 681+00
SEE SHEET 28
MATCH LINE STA. 675+00
EXIST R/W
EXIST R/W
EXIST R/W
EXIST R/W
N65°24'16" E
N65°24'16" E
MATCH LINE STA 685+00
SEE SHEET 30
MATCH LINE STA 681+00
SEE BELOW

NOT TO SCALE



NOT TO SCALE

Part 2

Plan Sheet - Sta. 685+00 To Sta. 693+00

LAK-20-20.85/27.95

30/40

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NORMAL PROJECT PARTICIPATION

LOCATION	LOCATIONS - FROM PLAN RECORD STATION FROM	TO	LENGTH FEET	AVERAGE WIDTH FEET	PAVEMENT AREA SQ. FT.	SQ. YD.	254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN 2-3/4" SQ. YD.		407 TACK COAT RATE = 0.10 GAL./SQ.YD. GAL.	407 TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./SQ.YD. GAL.	424 1" FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, AS PER PLAN CU. YD.	448 1-3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-22 CU. YD.		
U.S.-20, PART 1	181+00	271+00	9000.00	40	360000	40000	40000		4000	2000	1111.1	1944.4		
	BLACKMORE RD		20.00	CADD	1235	137	137		14	7	3.8	6.7		
	OHIO STREET		20.00	CADD	1405	156	156		16	8	4.3	7.6		
	PERRY PARK RD		20.00	CADD	890	99	99		10	5	2.7	4.8		
	MIDDLE RIDGE RD		20.00	CADD	1602	178	178		18	9	4.9	8.7		
U.S.-20, PART 2	562+00	562+68	68.00	53.75	3655	406	406		41	20	11.3	19.7		
	562+68	568+80	612.00	55	33660	3740	3740		374	187	103.9	181.8		
	568+80	570+51	171.00	49.5	8465	941	941		94	47	26.1	45.7		
	570+51	692+10	12159.00	44	534996	59444	59444		5944	2972	1651.2	2889.6		
	HUBBARD RD		20.00	CADD	1538	171	171		17	9	4.7	8.3		
	S.R.-528		20.00	CADD	1675	186	186		19	9	5.2	9.0		
	BENNETT RD		20.00	CADD	975	108	108		11	5	3.0	5.3		
	DOCK RD		20.00	CADD	1232	137	137		14	7	3.8	6.7		
	ARCOLA RD		20.00	CADD	1005	112	112		11	6	3.1	5.4		
TOTALS TO GENERAL SUMMARY							105815		10581	5291	2939	5144		

CALCULATED EMK
CHECKED LDH

PAVEMENT SUBSUMMARY

LAK-20-20.85/27.95

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LOCATION	LOCATIONS STATION FROM	LOCATIONS STATION TO	LENGTH FEET	202 WALK REMOVED SQ. FT.	608 4" CONCRETE WALK SQ. FT.	608 6" CONCRETE WALK SQ. FT.	608 8" CONCRETE WALK SQ. FT.	608 CURB RAMP, AS PER PLAN EACH
U.S.-20, PART 2	570+80	572+15	135	608	675			
	572+15	573+15	100	450			500	
	573+15	574+80	165	743	825			
	574+80	575+00	20	90		100		
	575+00	575+95	95	428	475			
	575+95	576+15	20	90		100		
	576+15	576+45	30	135	150			
	576+45	577+05	60	270			300	
	577+05	577+70	65	293	325			
	577+70	578+10	40	180			200	
	578+10	578+90	80	360	400			
	578+90	579+70	80	360			400	
	579+70	580+55	85	383	425			
	580+55	580+85	30	135			150	
	580+85	581+50	65	293	325			
	581+50	581+70	20	90		100		
	581+70	582+95	125	563	625			
	582+95	583+15	20	90		100		
	583+15	583+40	25	113	125			
	583+40	584+70	130	585			650	
	584+70	585+45	75	338	375			
	585+45	585+65	20	90		100		
	585+65	586+70	105	473	525			
	586+70	586+90	20	90		100		
	586+90	587+65	75	338	375			
	587+65	588+55	90	405			450	
	588+55	588+90	35	158	175			
	588+90	589+95	105	473			525	
	589+95	591+30	135	608	675			
	591+30	591+50	20	90		100		
	591+50	592+40	90	405	450			
	592+40	592+60	20	90		100		
	592+60	595+15	255	1148	1275			
	595+15	595+35	20	90		100		
	595+35	595+90	55	248	275			
	595+90	596+10	20	90		100		
	596+10	598+45	235	1058	1175			
	598+45	599+95	150	675			750	
	599+95	610+95	1100	4950	5500			1
	611+45	612+35	90	405			450	1
	612+35	619+25	690	3105	3450			
	619+25	619+60	35	158			175	
	619+60	623+10	350	1575	1750			
	623+10	623+45	35	158			175	
	623+45	626+40	295	1328	1475			
	627+45	627+90	45	203	225			
	627+90	628+10	20	90		100		
LEFT COULMN TOTALS				**25088**	**22050**	**1100**	**4725**	**2**

LOCATION	LOCATIONS STATION FROM	LOCATIONS STATION TO	LENGTH FEET	202 WALK REMOVED SQ. FT.	608 4" CONCRETE WALK SQ. FT.	608 6" CONCRETE WALK SQ. FT.	608 8" CONCRETE WALK SQ. FT.	608 CURB RAMP, AS PER PLAN EACH
U.S.-20, PART 2	628+10	629+25 +/-	115	518	575			
	629+75 +/-	631+00	125	563	625			
	631+00	631+20	20	90		100		
	631+20	631+75	55	248	275			
	632+05	633+45	140	630	700			
	633+75	634+25	50	225	250			
	634+45	634+95	50	225	250			
	634+95	635+15	20	90		100		
	635+15	635+45	30	135	150			
	635+45	635+60	15	68		75		
	635+60	635+75	15	68	75			
	635+75	635+95	20	90		100		
	635+95	636+60	65	293	325			
	636+60	636+80	20	90		100		
	636+80	637+15	35	158	175			
	637+15	637+40	25	113			125	
	637+40	638+05	65	293	325			
	638+05	638+25	20	90		100		
	638+25	638+55	30	135	150			
	638+55	638+75	20	90		100		
	638+75	640+75	200	900	1000			
	640+75	640+95	20	90		100		
	640+95	642+50	155	698	775			
	642+50	643+05	55	248		275		
	643+05	644+25	120	540	600			
	644+25	644+45	20	90		100		
	644+45	645+40	95	428	475			
	645+40	645+60	20	90		100		
	645+60	646+35	75	338	375			
	646+35	646+55	20	90		100		
	646+55	646+80	25	113	125			
	646+80	647+00	20	90		100		
	647+00	647+20	20	90	100			
	647+20	650+30	310	1395		1550		
	650+30	654+05	375	1688	1875			
	654+05	654+55	50	225		250		
	654+55	655+20	65	293	325			
NW U.S.-20/ HUBBARD	565+20 +/-			40	40			1
SW U.S.-20/ S.R.-528	565+30 +/-			90	90			1
SE U.S.-20/ S.R.-528	566+25 +/-			25	25			1
RIGHT COULMN TOTALS				**11765**	**9500**	**3250**	**125**	**3**
LEFT COULMN TOTALS				**25088**	**22050**	**1100**	**4725**	**2**
TOTALS TO GENERAL SUMMARY				**36853**	**31750**	**4350**	**4850**	**5**

CALCULATED EMK
CHECKED LDH

SIDEWALK SUBSUMMARY

LAK-20-20.85/27.95

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SIDE	LOCATIONS - FROM PLAN RECORD		646	646	646	646	646	646	646	646	646	646		621	621			
	LOCATIONS		CENTER LINE, YELLOW, DOUBLE SOLID, AS PER PLAN	EDGE LINE, AS PER PLAN (WHITE)	LANE LINE, AS PER PLAN	CHANNELIZING LINE, AS PER PLAN	STOP LINE, AS PER PLAN	CROSSWALK LINE, AS PER PLAN	TRANSVERSE/DIAGONAL LINE, AS PER PLAN	LANE ARROW, AS PER PLAN	WORD "ONLY" ON PAVEMENT, 72", AS PER PLAN	SCHOOL SYMBOL MARKING, 72", AS PER PLAN		RPM (YELLOW/YELLOW)	RPM (WHITE/RED)			REMARKS
	BEGIN STATION	END STATION	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	EACH	EACH	EACH	EACH		EACH	EACH			
NORMAL PROJECT PARTICIPATION	**PART 1**																	
	181+00	271+00	9000	18000	18000									113	226			
	BLACKMORE RD.						12											
	OHIO ST.						12											
	PERRY PARK RD.						12											
	MIDDLE RIDGE RD.						14											
	PART 2																	
	562+00	563+20	240		240				84					5	4			
	563+20	564+93	173		346	155	33			2	1			3	11			
	565+30							138										
	566+40	568+22	182		364	170	33			2	1	2		3	11			
	568+22	570+50	456		456				134					6	6			
	570+50	571+40	180	180	180				24					2	2			
	571+40	692+10	12070	24140	24140		22	88				2		150	300			
	SR-528						35	165										
	HUBBARD RD.						31	126										
	BENNETT RD.						14											
	ARCOLA RD.						14											
	DOCK RD.						30											
	TOTALS TO GENERAL SUMMARY		22301	42320	43726	325	282	517	242	4	2	4		282	580			
			4.22 MILE	8.02 MILE	8.28 MILE									862 EACH				

CALCULATED EMK
CHECKED LDH

PAVEMENT MARKING SUBSUMMARY

LAK-20-20.85/27.95

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SHEET NUMBER 7	8	9						31	32		37	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
																ROADWAY	
	200											202	33000	200	SQ YD	PAVEMENT REMOVED	
									6885			202	36000	6885	SQ FT	WALK REMOVED	
											20	203	10000	20	CU YD	EXCAVATION	
									5750			608	0000	5750	SQ FT	6" CONCRETE WALK	
									4350			608	10000	4350	SQ FT	6" CONCRETE WALK	
									4850			608	30000	4850	SQ FT	6" CONCRETE WALK	
									5			608	47000	5	EACH	CURB RAMP, AS PER PLAN	7
																EROSION CONTROL	
1000												659	08700	1000		SEEDING, MISC. SEEDING AND MULCHING	7
												849	60000	600	EACH	EROSION CONTROL	
																DRAINAGE	
	2											604	08001	2	EACH	CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN A	8
	8											604	08001	3	EACH	CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN B	8
	79											604	08001	79	EACH	CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN C	8
5												604	08001	5	EACH	CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN D	7
												604	09500		EACH	CATCH BASIN RECONSTRUCTED TO GRADE	
												604	0950		EACH	CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN A	7
5												604	09600	5	EACH	CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN B	7
20												604	09600	20	EACH	CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN C	7
15												604	3450	15	EACH	MANHOLE ADJUSTED TO GRADE, AS PER PLAN	7
5												604	35000	5	EACH	MANHOLE RECONSTRUCTED TO GRADE	
3												604	38001	3	EACH	MONUMENT BOX ADJUSTED TO GRADE, AS PER PLAN	7
2												604	39600	2	EACH	MONUMENT BOX RECONSTRUCTED TO GRADE	
20000												SP-01A	60160000	20000	POUND	MISCELLANEOUS METAL	7
																PAVEMENT	
											250	250	01001	250	SQ YD	PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN A	8
											885	26	01001	885	SQ YD	PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN B	8
											2600	253	01000	2600	SQ YD	FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT	
											7700	292	07000	7700	FT	FULL DEPTH PAVEMENT SAWING	
200												253	02001	200	CU YD	PAVEMENT REPAIR, AS PER PLAN	8
									6585			254	01001	6585	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN	8
											20	304	20000	20	CU YD	AGGREGATE BASE	
									10681			407	10000	10681	GAL	TACK COAT	
									6291			407	11000	6291	GAL	TACK COAT FOR INTERMEDIATE COURSE	
									2939			424	12001	2939	CU YD	PORTLAND CEMENT CONCRETE PAVEMENT, TYPE B, AS PER PLAN	8
									541			446	76000	541	CU YD	ASPHALT CONCRETE PRESERVATION COURSE, TYPE B, PG64-22	
75												452	10000	75	SQ YD	6" NON REINFORCED CONCRETE PAVEMENT	
25												452	12000	25	SQ YD	8" NON REINFORCED CONCRETE PAVEMENT	

GENERAL SUMMARY

LAK-20-20.85 / 27.95

EMK
LDH

SHEET NUMBER 6			9		11	12	13				33		ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
																	TRAFFIC CONTROL	
											842		621	00100	842	EACH	RPM	
			775										621	54000	775	EACH	RAISED PAVEMENT MARKER REMOVED	
			8										632	26501	8	EACH	DETECTOR LOOP, AS PER PLAN	9
											8.02		646	10001	8.02	MILE	EDGE LINE, AS PER PLAN	9
											8.28		646	10101	8.28	MILE	LANE LINE, 6", AS PER PLAN	9
											4.22		646	10201	4.22	MILE	CENTER LINE, AS PER PLAN	9
											325		646	10301	325	FT	CHANNELIZING LINE, AS PER PLAN	9
											262		646	10401	262	FT	STOP LINE, AS PER PLAN	9
											517		646	10501	517	FT	CROSSWALK LINE, AS PER PLAN	9
											242		646	10601	242	FT	TRANSVERSE / DIAGONAL LINE, AS PER PLAN	9
											4		646	20101	4	EACH	SCHOOL SYMBOL MARKING, 72", AS PER PLAN	9
											4		646	20301	4	EACH	LANE ARROW, AS PER PLAN	9
											2		646	20401	2	EACH	WORD ON PAVEMENT, 72", AS PER PLAN	9
																	ALTERNATE BID	
											8.02		646	10001	8.02	MILE	EDGE LINE, AS PER PLAN - (POLYCARB) - ALTERNATE BID	9
											8.28		646	10101	8.28	MILE	LANE LINE, 6", AS PER PLAN - (POLYCARB) - ALTERNATE BID	9
											4.22		646	10201	4.22	MILE	CENTER LINE, AS PER PLAN - (POLYCARB) - ALTERNATE BID	9
											325		646	10301	325	FT	CHANNELIZING LINE, AS PER PLAN - (POLYCARB) - ALTERNATE BID	9
											262		646	10401	262	FT	STOP LINE, AS PER PLAN - (POLYCARB) - ALTERNATE BID	9
											517		646	10501	517	FT	CROSSWALK LINE, AS PER PLAN - (POLYCARB) - ALTERNATE BID	9
											242		646	10601	242	FT	TRANSVERSE / DIAGONAL LINE, AS PER PLAN - (POLYCARB) - ALTERNATE BID	9
											4		646	20101	4	EACH	SCHOOL SYMBOL MARKING, 72", AS PER PLAN - (POLYCARB) - ALTERNATE BID	9
											4		646	20301	4	EACH	LANE ARROW, AS PER PLAN - (POLYCARB) - ALTERNATE BID	9
											2		646	20401	2	EACH	WORD ON PAVEMENT, 72", AS PER PLAN - (POLYCARB) - ALTERNATE BID	9
																	MAINTENANCE OF TRAFFIC	
					400								614	11100	400	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR	
							6						614	11500	6	MONTH	WORKSITE TRAFFIC SUPERVISOR	13
					250								614	13000	250	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
						12							614	18601	12	SN MT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	12
					16.56								614	20100	16.56	MILE	WORK ZONE LANE LINE, CLASS I, 642 PAINT	
					8.28								614	20500	8.28	MILE	WORK ZONE LANE LINE, CLASS II, 642 PAINT	
					8.44								614	21100	8.44	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	
					4.22								614	21500	4.22	MILE	WORK ZONE CENTER LINE, CLASS II, 642 PAINT	
					24.06								614	22100	24.06	MILE	WORK ZONE EDGE LINE, CLASS I, 642 PAINT	
					975								614	23200	975	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT	
					786								614	26200	786	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	
					1551								614	27200	1551	FT	WORK ZONE CROSSWALK LINE, CLASS I, 642 PAINT	
					200								630	97800	200	SQ FT	SIGNING, MISC.: ADDITIONAL SIGNS, GROUND MOUNTED, AS DIRECTED BY THE ENGINEER	11
													614	11000	LUMP		MAINTAINING TRAFFIC	
6													619	16010	6	MONTH	FIELD OFFICE, TYPE B	
													623	10000	LUMP		CONSTRUCTION LAYOUT STAKES	
													624	10000	LUMP		MOBILIZATION	

CALCULATED EMK
CHECKED LDH

GENERAL SUMMARY

LAK-20-20.85/27.95

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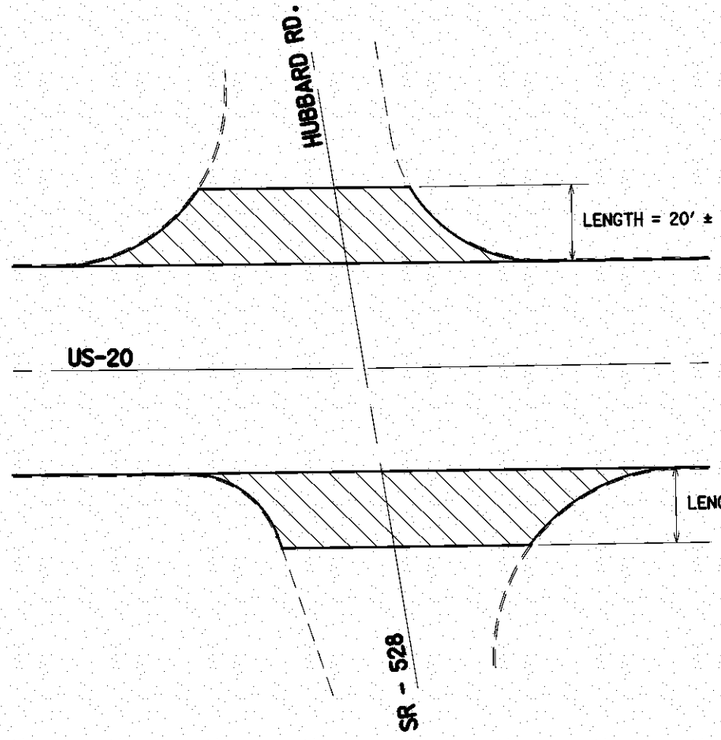

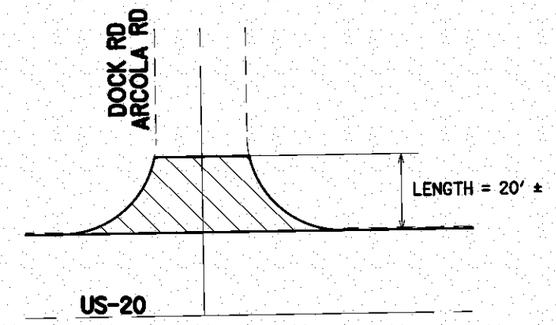

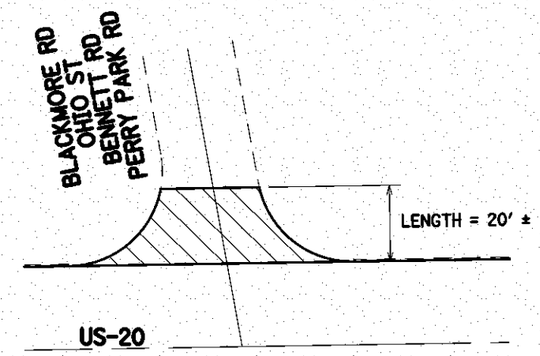

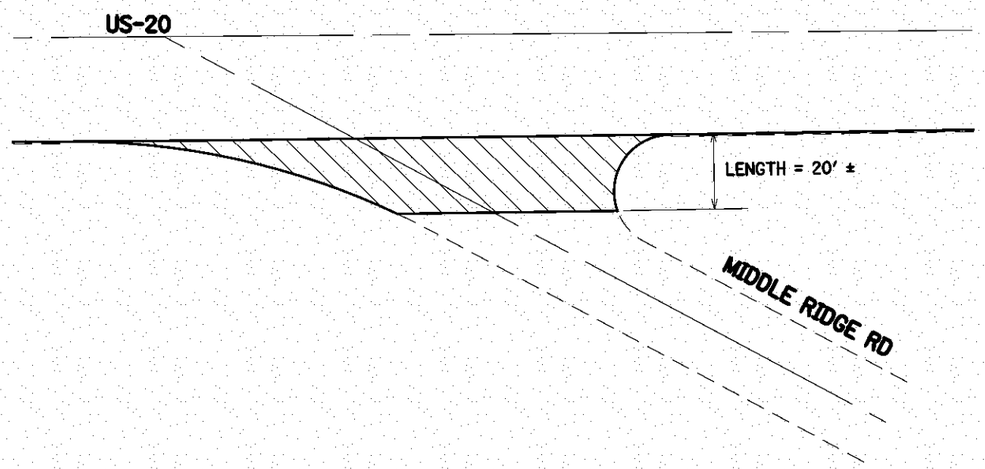

- SIDE ROAD PAVING LIMITS

CALCULATED EMK
CHECKED LDH

PAVEMENT OVERLAY DETAILS

LAK-20-20.85/ 27.95

36
40

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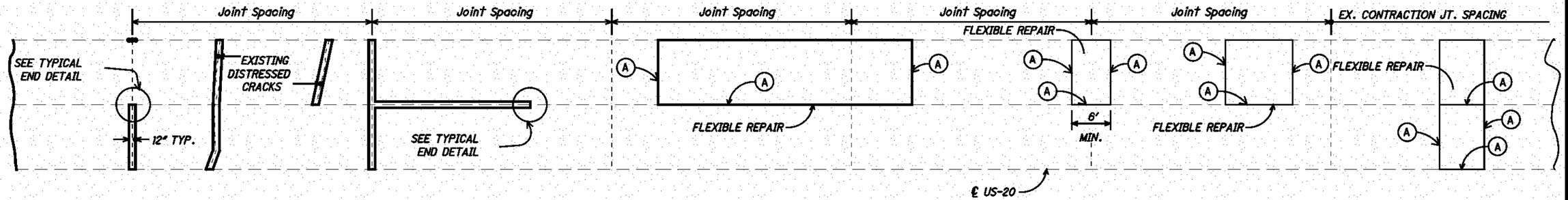
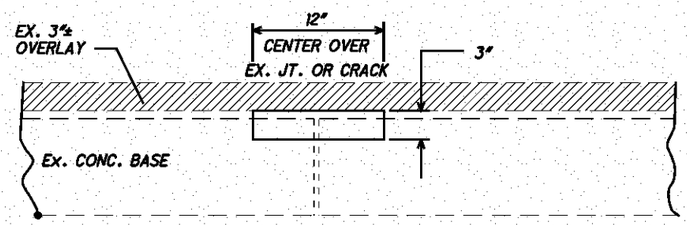


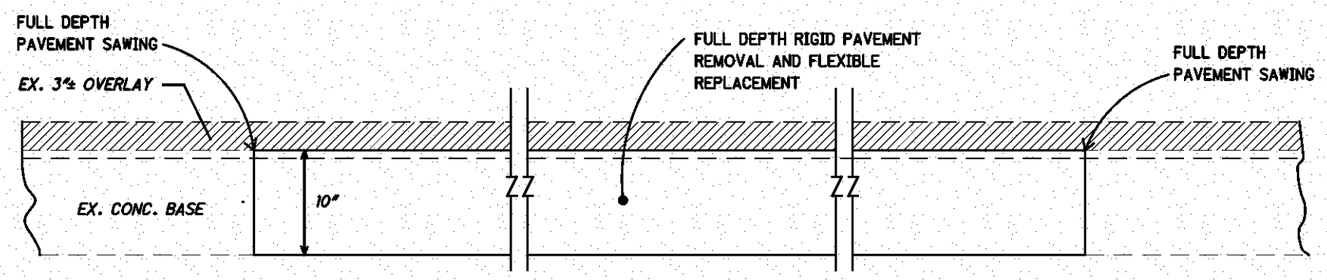
PARTIAL DEPTH JOINT OR CRACK REPAIR

TYPICAL FULL DEPTH PAVEMENT REPAIRS

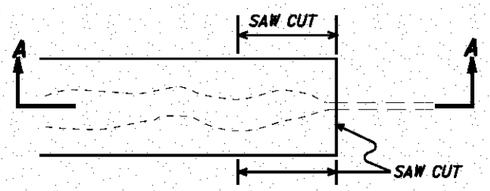
(A) ITEM 252 - FULL DEPTH PAVEMENT SAWING



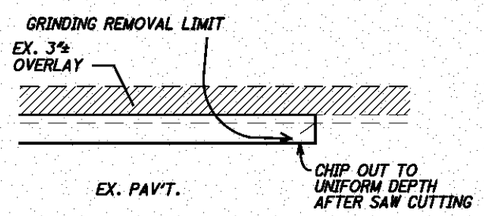
ITEM 251 - PARTIAL DEPTH PAV'T REPAIR



ITEM 252 - FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT



DISTRESSED JOINT-PLAN VIEW



SECTION A-A

TYPICAL END DETAIL

NO SEPARATE PAYMENT WILL BE MADE FOR THESE SAW CUTS

- WEARING COURSE REMOVED

SEE GENERAL NOTES ON SHEET NO. 8 FOR ADDITIONAL INFORMATION.

ESTIMATED QUANTITIES *		
ITEM 252	FULL DEPTH RIGID PAVEMENT REMOVAL FLEXIBLE REPLACEMENT	2,600 SQ.YD.
ITEM 252	FULL DEPTH PAVEMENT SAWING	7,700 FT.
ITEM 203	EXCAVATION	20 CU.YD.
ITEM 304	AGGREGATE BASE	20 CU.YD.

ESTIMATED QUANTITIES *
ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN A 250 SQ. YD.
ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN B 885 SQ. YD.

CALCULATED EMK CHECKED LDH

PAVEMENT REPAIR DETAILS & ESTIMATED QUANTITIES

LAK-20-20.85/27.95

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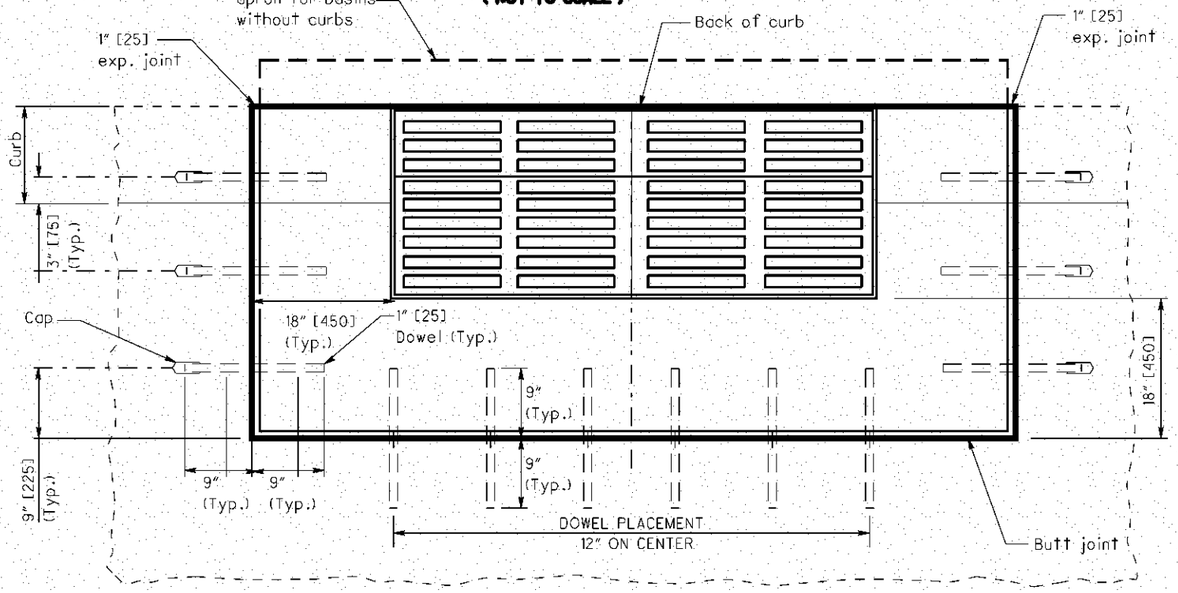
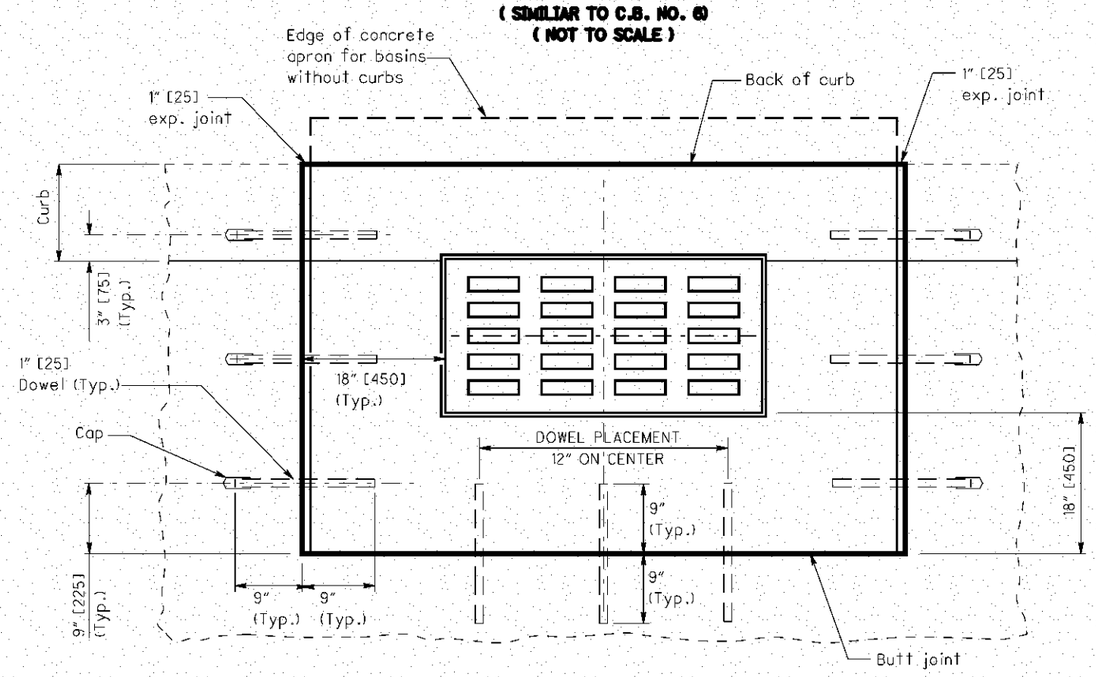
DRAINAGE DETAIL
TYPE "A","B" CATCH BASIN
(SIMILIAR TO OLD C.B. NO.11-A)
(NOT TO SCALE)



CONCRETE PLACEMENT AROUND CASTING (TYPICAL)

DRAINAGE DETAIL
TYPE "C" CATCH BASIN
(SIMILIAR TO C.B. NO. 6)
(NOT TO SCALE)



CONCRETE PLACEMENT AROUND CASTING (TYPICAL)

CALCULATED
CHECKED

DRAINAGE DETAIL SHEET

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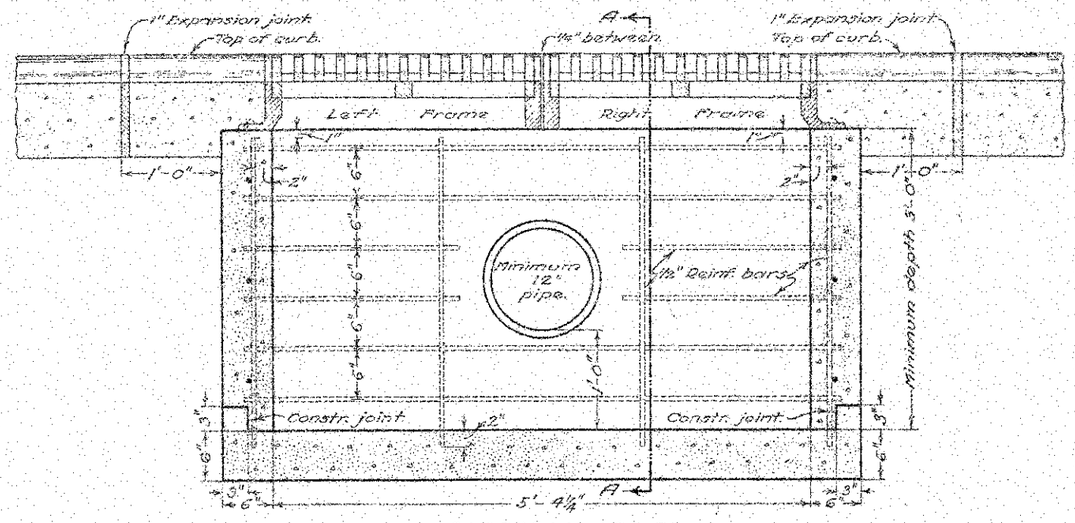
PROVIDED FOR REFERENCE PURPOSES ONLY

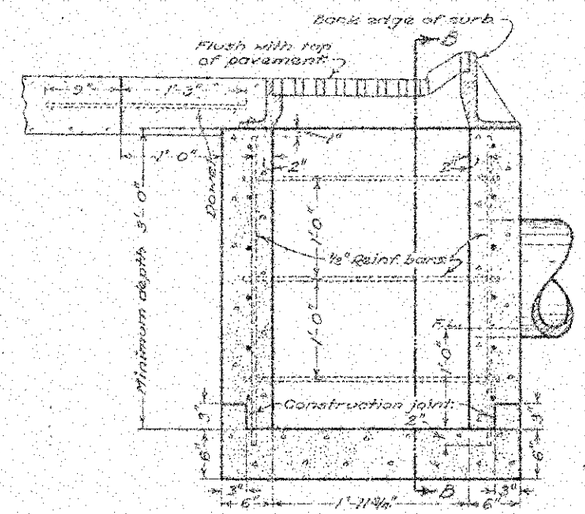
NOTE:

INFORMATION FROM RECORD PLANS.
THIS SHEET PROVIDED FOR
REFERENCE PURPOSES.
CONTRACTOR SHALL FIELD VERIFY
EXISTING CONDITIONS.

STANDARD Nº 11-A CATCH BASIN



SECTION B-B



SECTION A-A

CATCH BASIN

NOTES

CASTINGS shall be of cast iron in accordance with Material Details. The design shall be essentially the same and equally as strong as those shown hereon and shall be given one coat of asphaltum paint as per specifications.

WEIGHTS approximately are:—
Grate 250 lbs. each.
Frame (right or left) 334 lbs. each.

BEARING AREAS of frame and grate shall be machined to provide a firm and even seat for any portion of the grate. Frames and grates to be matched and marked.

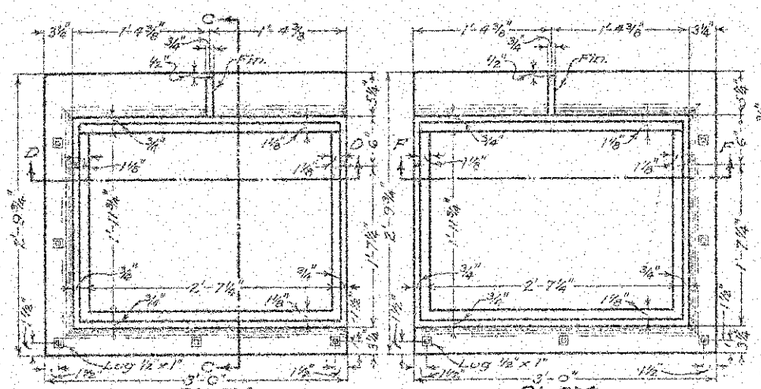
REINFORCE side walls with deformed bars vertical in each corner. Other bars, horizontal and vertical, to be placed as shown hereon.

DOWELS to be ½ inch round smooth, bars 24 inches long spaced as shown hereon.

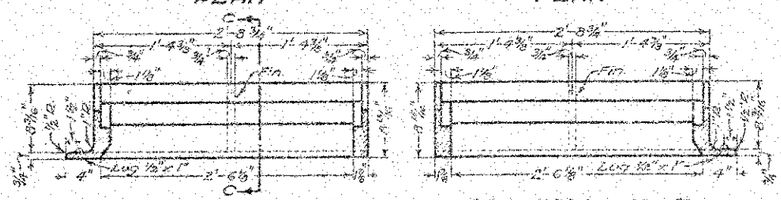
CONCRETE to be 1:5½ mix.

BRICK side walls when used in place of reinforced concrete, shall be 8 inches in thickness and be plastered on the inside and outside with 1:2 cement mortar ½ inch thick.

Outlet pipe to be placed at direction of the engineer.

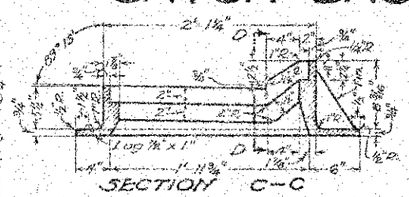


PLAN PLAN

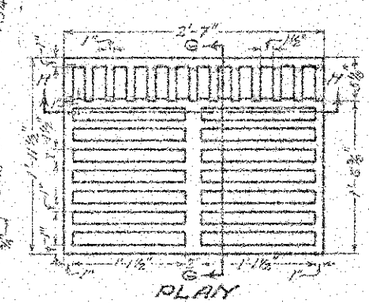


SECTION D-D LEFT FRAME SECTION F-F RIGHT FRAME

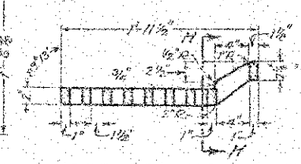
FRAMES



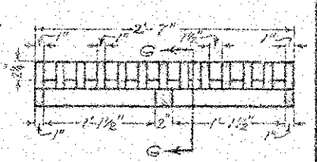
SECTION C-C



PLAN

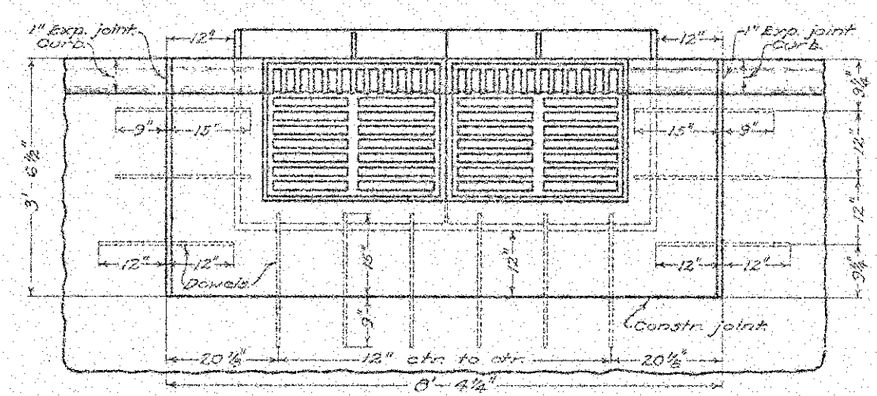


SECTION G-G



SECTION H-H

GRATE



PLAN OF CATCH BASIN AND PAVEMENT JOINTS

BUREAU OF LOCATION & DESIGN
OHIO DEPARTMENT OF HIGHWAYS
3-21-38

CATCH BASINS

STANDARD CONSTRUCTION DRAWING
I-8 C.B.
Nº 11-A

APPROVED K. L. R. CHIEF ENGINEER

DRAINAGE DETAIL

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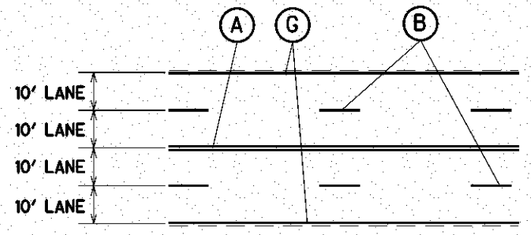
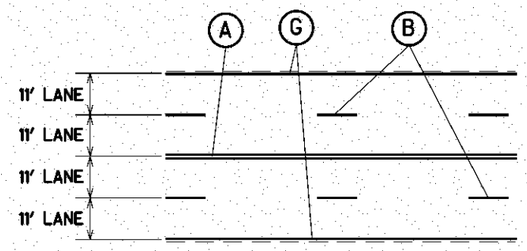


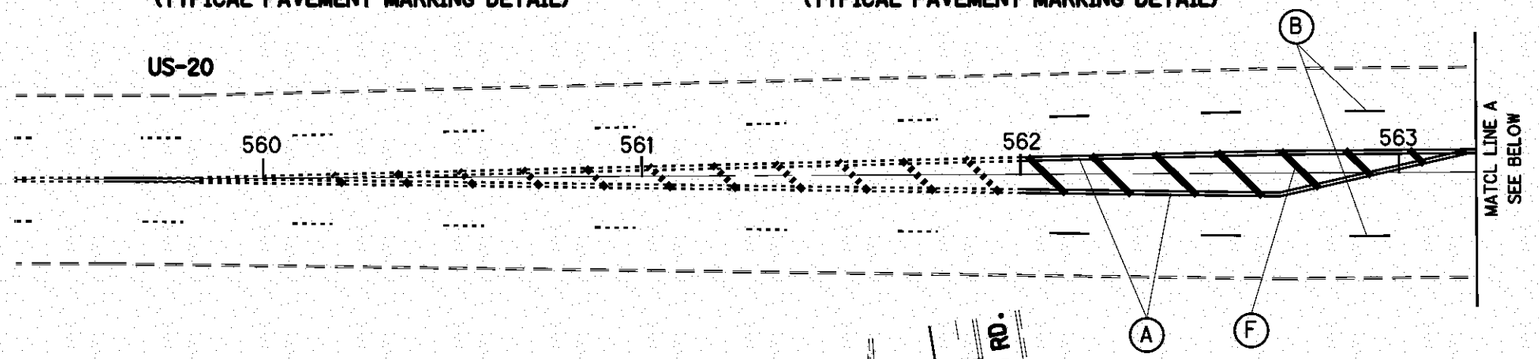
PART 1
(TYPICAL PAVEMENT MARKING DETAIL)

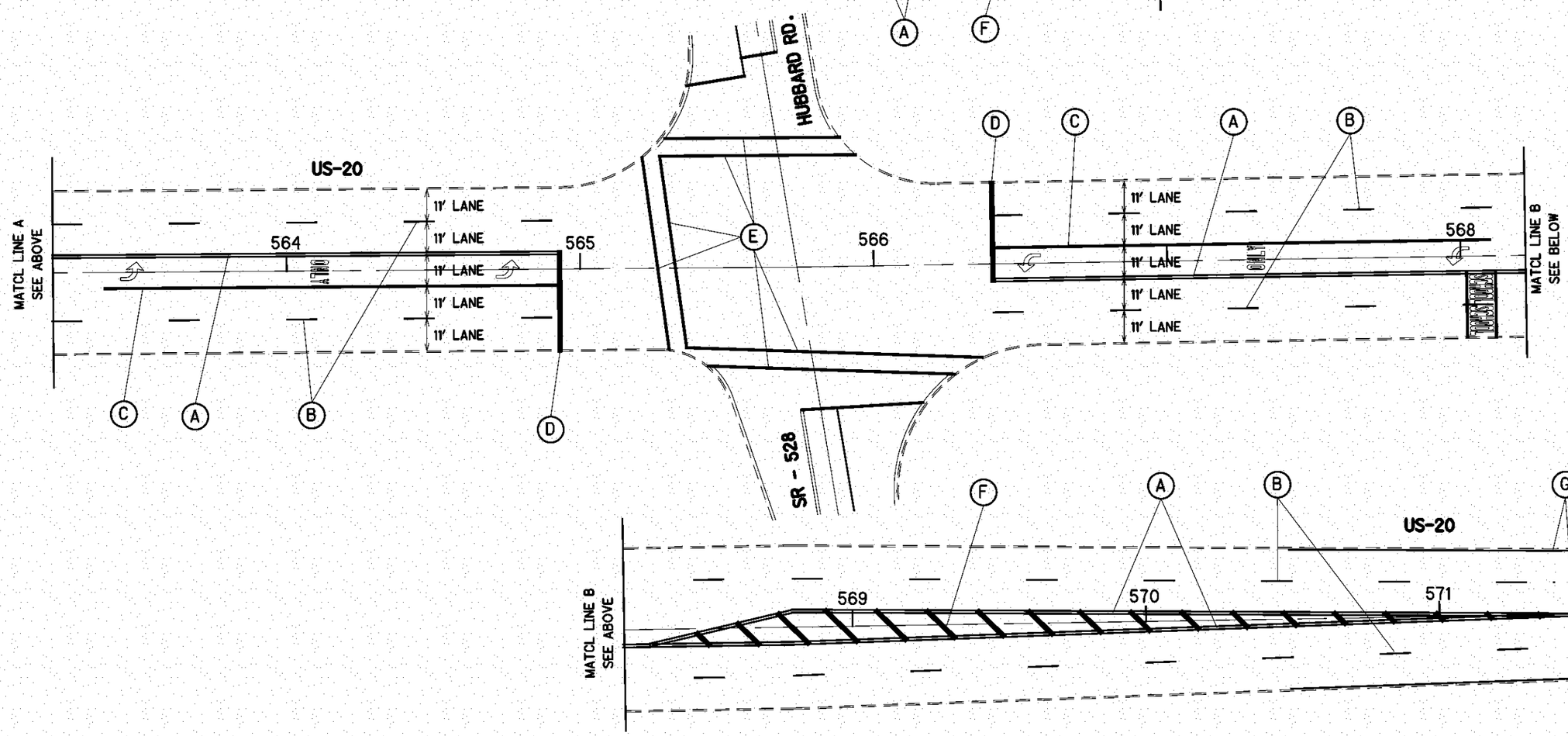


PART 2
(TYPICAL PAVEMENT MARKING DETAIL)

LEGEND

- (A) CENTER LINE, DOUBLE SOLID
- (B) LANE LINE
- (C) CHANNELIZING LINE
- (D) STOP LINE
- (E) CROSSWALK LINE
- (F) TRANSVERSE LINE (YELLOW)
- (G) EDGE LINE





CALCULATED EMK
CHECKED LDH

PAVEMENT MARKING DETAILS

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