

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE OFFICE OF COMMUNICATIONS. THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS. INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTICE TO OFFICE OF COMMUNICATIONS TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO OFFICE OF COMMUNICATIONS
RAMP & ROAD CLOSURES	>= 2 WEEKS > 12 HOURS & < 2 WEEKS < 12 HOURS	21 CALENDAR DAYS PRIOR TO CLOSURE 14 CALENDAR DAYS PRIOR TO CLOSURE 4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE 2 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTICE TO OFFICE OF COMMUNICATIONS TIME TABLE.

NOTIFY THE FOLLOWING FOR ANY CLOSURES AND/OR RESTRICTIONS:

DISTRICT PUBLIC INFORMATION OFFICER BY EMAIL AT: DOT.D08.PIO@DOT.OHIO.GOV  
 DISTRICT PERMIT SECTION BY EMAIL AT: D08.PERMITS@DOT.OHIO.GOV  
 CENTRAL OFFICE SPECIAL HAUL PERMITS BY EMAIL AT: HAULING.PERMITS@DOT.OHIO.GOV  
 DISTRICT TRAFFIC, DETOUR SECTION BY EMAIL AT: DOT.D08.DETOURS@DOT.OHIO.GOV

ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASK:

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS (CONTINUED)

LEOS (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) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 20 HOURS  
 THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

ITEM 614, MAINTAINING TRAFFIC (SIGNS AND BARRICADES)

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND TYPE III BARRICADES OF THE TYPE AND LOCATION AS DEPICTED ON SHEETS 7 AND 8.

ITEM 614, MAINTAINING TRAFFIC

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 20 CONSECUTIVE CALENDAR DAYS PER LOCATION FROM MAY 22 TO AUGUST 11, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEETS 7 AND 8. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$5,000 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE

ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
RAMP & ROAD CLOSURES < 12 HOURS	>=2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
> 12 HOURS & < 2 WEEKS		7 CALENDAR DAYS PRIOR TO CLOSURE
		2 BUSINESS DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.



W20-H1-60

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.

DESIGNATED LOCAL DETOUR ROUTES

IN ADDITION TO THE OFFICIAL, SIGNED DETOUR ROUTE, A LOCAL ROUTE HAS BEEN DETERMINED TO BE THE SECONDARY, UNSIGNED DETOUR ROUTE OR "DESIGNATED LOCAL DETOUR ROUTE." THESE ROUTES ARE SHOWN ON THE DETOUR MAP ON THE SHEETS LISTED IN THE PROJECT LOCATION WITH DETOURS TABLE ON THIS SHEET. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THESE ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTES SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DETERMINED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DETERMINED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DESIGNATED LOCAL DETOUR ROUTE.

ITEM 301, ASPHALT CONCRETE BASE, PG 64-22	20 CY
ITEM 304, AGGREGATE BASE	20 CY
ITEM 407, TACK COAT	20 GAL
ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	30 CY
ITEM 642, EDGE LINE, 6"	0.2 MILE
ITEM 642, CENTER LINE	0.1 MILE

ITEM 614 - DETOUR SIGNING

THE CONTRACTOR SHALL PROVIDE, MAINTAIN, AND SUBSEQUENTLY REMOVE ALL DETOUR SIGNING AND SUPPORTS AS SHOWN ON SHEETS 7 AND 8 ON STANDARD CONSTRUCTION DRAWING MT-101.60. ALL WORK SHALL BE PAID FOR UNDER ITEM 614, DETOUR SIGNING.

CALCULATED  
MLB  
CHECKED  
AG

MAINTENANCE OF TRAFFIC GENERAL NOTES

CLI/ WAR SR 350  
8.97 / 1.56

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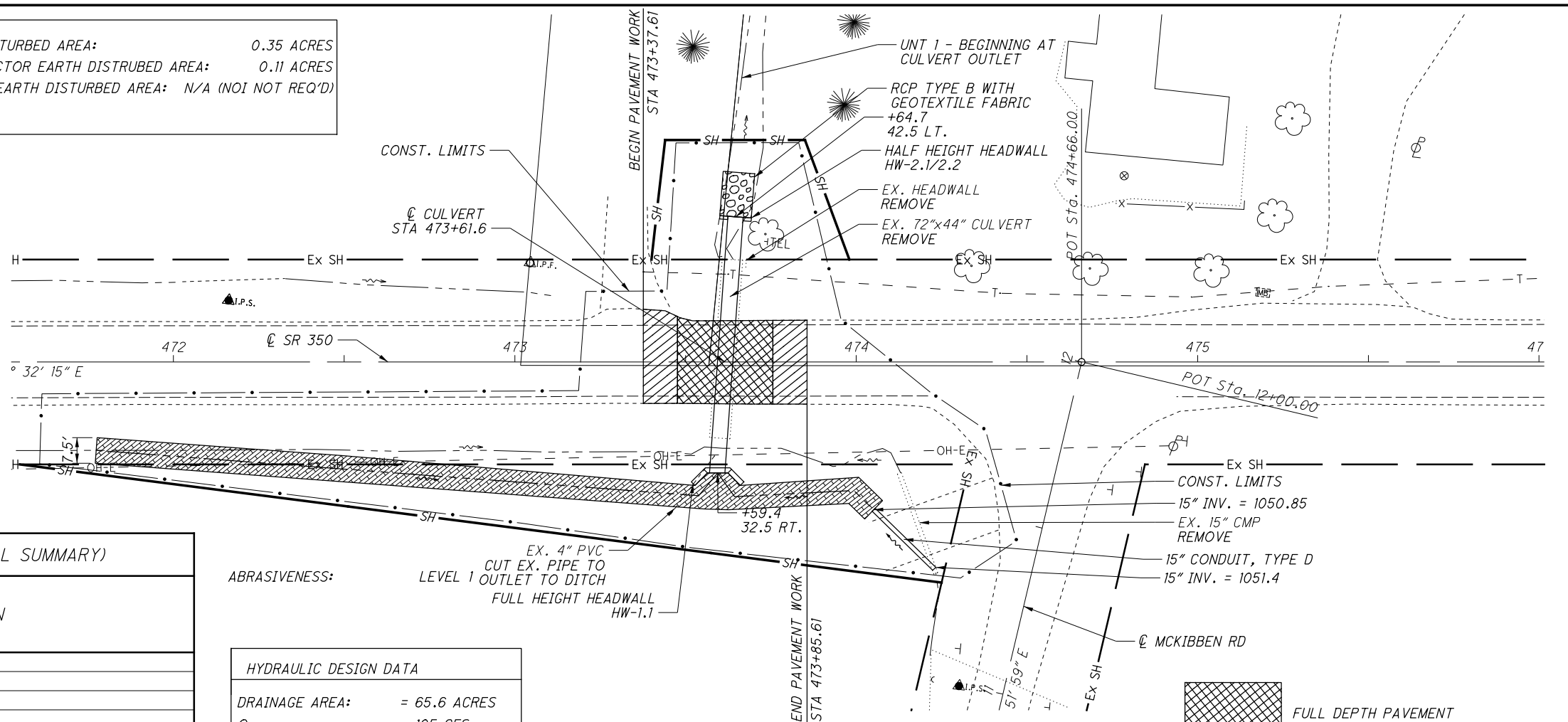
SHEET NUM.										PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
4	6	10	11	15						01/STR/C V	EXT	TOTAL				
ROADWAY																
LS			2	2						LS	201	11000	LS		CLEARING AND GRUBBING	
										4	202	20010	4	EACH	HEADWALL REMOVED	
		142								142	202	23010	142	SY	PAVEMENT REMOVED, ASPHALT	
			44							44	202	35100	44	FT	PIPE REMOVED, 24" AND UNDER	
			40							40	202	35200	40	FT	PIPE REMOVED, OVER 24"	
			LS	LS						LS	202	11000	LS		STRUCTURE REMOVED	
				37.5						37.5	202	38000	37.5	FT	GUARDRAIL REMOVED	
				2						2	202	42010	2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E	
		161								161	204	10000	161	SY	SUBGRADE COMPACTION	
			36							36	204	3000	36	CY	EXCAVATION OF SUBGRADE	
			LS	LS						LS	878	25000	LS		INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	
			242	2						244	203	10000	244	CY	EXCAVATION	
			111	53						164	203	20000	164	CY	EMBANKMENT	
			36							36	203	35141	36	CY	GRANULAR MATERIAL, TYPE E, AS PER PLAN	4
			148							148	204	50001	148	SY	GEOTEXTILE FABRIC, AS PER PLAN	4
				275						275	606	15050	275	FT	GUARDRAIL, TYPE MGS	
				25						25	606	15100	25	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
				2						2	606	26150	2	EACH	ANCHOR ASSEMBLY, MGS TYPE E, NCHRP 350 OR MASH 2016	
				2						2	606	26500	2	EACH	ANCHOR ASSEMBLY, TYPE T	
EROSION CONTROL																
			12	11						23	601	32104	23	CY	ROCK CHANNEL PROTECTION, TYPE B WITH GEOTEXTILE FABRIC	
296										296	659	00300	296	CY	TOPSOIL	
1,174										1,174	659	10000	1,174	SY	SEEDING AND MULCHING	
0.36										0.36	654	11000	0.36	TON	COMMERCIAL FERTILIZER	
0.55										0.55	659	31000	0.55	ACRE	LIME	
14.4										14.4	659	35000	14.4	MGAL	WATER	
			170							170	670	00700	170	SY	DITCH EROSION PROTECTION	
										1	832	30000	1	EACH	EROSION CONTROL	
DRAINAGE																
			74							74	611	22200	74	FT	54" CONDUIT, TYPE A, 706.02, 707.02 ALUMINIZED, 707.04, 707.33	
				41						41	611	53000	41	FT	38" X 60" CONDUIT, TYPE A, 706.04	
			14.5	25.8						40.3	602	20000	40.3	CY	CONCRETE MASONRY	
			25							25	611	06400	25	FT	15" CONDUIT, TYPE D	
PAVEMENT																
		106								106	254	01000	106	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 1.25" DEPTH	
		25								25	301	46000	25	CY	ASPHALT CONCRETE BASE, PG64-22	
		25								25	304	20000	25	CY	AGGREGATE BASE	
		24								24	407	20000	24	GAL	NON-TRACKING TACK COAT	
		16								16	441	50000	16	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
TRAFFIC CONTROL																
			2	2						4	621	00100	4	EACH	RPM	
			2	2						4	621	54000	4	EACH	RAISED PAVEMENT MARKER REMOVED	
			6	6						12	626	00110	12	EACH	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL	
			0.02	0.02						0.04	642	00104	0.04	MILE	EDGE LINE, 6", TYPE 1	
			0.01	0.01						0.02	642	00300	0.02	MILE	CENTER LINE, TYPE 1	
STRUCTURE 20 FOOT SPAN AND UNDER (CLI-350-0897 & WAR-350-0156)																
										LS	503	11100	LS		SOFFERDAMS AND EXCAVATION BRACING	
MAINTENANCE OF TRAFFIC																
20										20	614	11110	20	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
LS										LS	614	12420	LS		DETOUR SIGNING	
20										20	301	46000	20	CY	ASPHALT CONCRETE BASE, PG64-22	
20										20	304	20000	20	CY	AGGREGATE BASE	
20										20	407	10000	20	GAL	TACK COAT	
30										30	441	50000	30	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
0.02										0.02	642	00104	0.02	MILE	EDGE LINE, 6", TYPE 1	
0.01										0.01	642	00300	0.01	MILE	CENTER LINE, TYPE 1	
INCIDENTALS																
										LS	614	11000	LS		MAINTAINING TRAFFIC	
										LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
										LS	624	10000	LS		MOBILIZATION	

CALCULATED	MLB	CHECKED	TRB
GENERAL SUMMARY			
CLI / WAR SR 350			
8.97 / 1.56			
9			
20			

EXISTING STRUCTURE	
TYPE:	METAL PIPE ARCH
SIZE:	72" X 44", 40' LONG
SKEW:	4° LF
ALIGNMENT:	TANGENT
CFN:	1849218
OLD CFN:	143500900
DATE BUILT:	UNKNOWN
CONDITION:	POOR
LATITUDE:	N 39° 21' 30.23"
LONGITUDE:	W 83° 50' 50.28"

PROPOSED STRUCTURE	
ROUND PIPE	
SIZE:	54" DIAMETER, 74' LONG
SKEW:	4° LF
ALIGNMENT:	TANGENT
CFN:	1978083
DESIGN SERVICE LIFE:	75 YEARS
STREAM pH:	6.5

PROJECT EARTH DISTURBED AREA: 0.35 ACRES  
 ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.11 ACRES  
 NOTICE OF INTENT EARTH DISTURBED AREA: N/A (NOI NOT REQ'D)



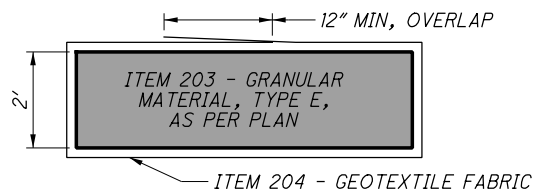
ESTIMATED QUANTITIES (CARRIED TO GENERAL SUMMARY)			
ITEM	GRAND TOTAL	UNIT	DESCRIPTION
201	LS	LUMP	CLEARING AND GRUBBING
202	2	EA	HEADWALL REMOVED
202	44	FT	PIPE REMOVED, UNDER 24"
202	40	FT	PIPE REMOVED, OVER 24"
202	LS	LS	STRUCTURE REMOVED
204	36	CY	EXCAVATION OF SUBGRADE
878	S	LUMP	INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS
203	36	CY	GRANULAR MATERIAL, TYPE E, AS PER PLAN
204	148	CY	GEOTEXTILE FABRIC, AS PER PLAN
601	12	CY	ROCK CHANNEL PROTECTION, TYPE B WITH GEOTEXTILE FABRIC
670	170	SY	DITCH & SLOPE EROSION PROTECTION
611	74	FT	54" CONDUIT, TYPE A, 706.02, 707.02 ALUMINIZED, 707.04, 707.33
611	25	FT	15" CONDUIT, TYPE D
602	14.5	CY	CONCRETE MASONRY
621	2	EA	RPM
621	2	EA	RAISED PAVEMENT MARKER REMOVED
626	6	EA	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL)
642	0.02	MI	EDGE LINE
642	0.01	MI	CENTER LINE
503	LS	LUMP	COFFERDAMS AND EXCAVATION BRACING

ABRASIVENESS:

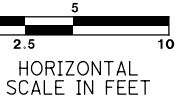
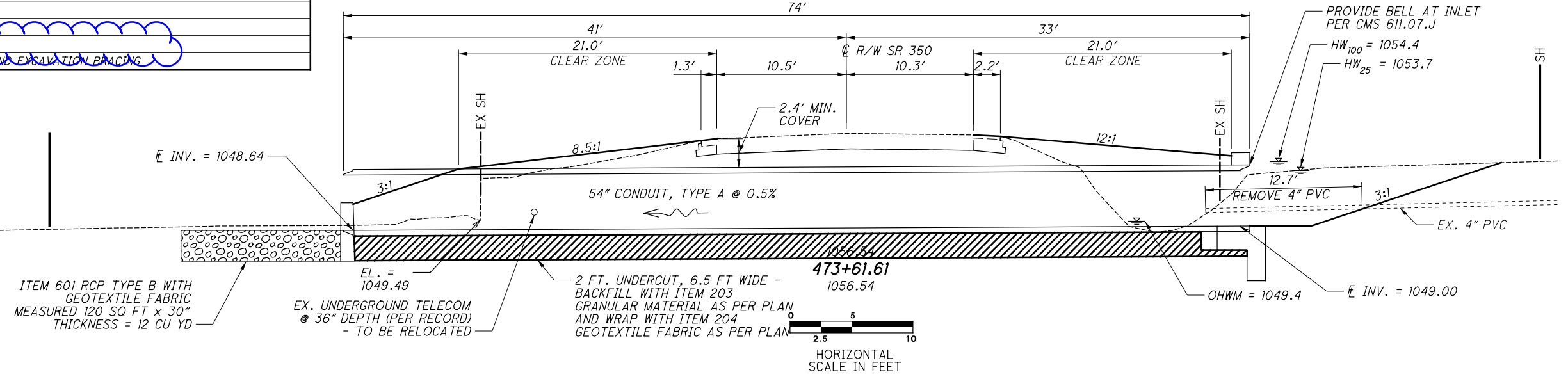
HYDRAULIC DESIGN DATA	
DRAINAGE AREA:	= 65.6 ACRES
Q <sub>25</sub>	= 105 CFS
Q <sub>100</sub>	= 125 CFS
HW <sub>25</sub>	= 1054.0 FT
HW <sub>100</sub>	= 1054.8 FT
ROADWAY	= 1056.5 FT
V <sub>25</sub>	= 9.3 FPS
V <sub>100</sub>	= 10.0 FPS
OHWM	= 1049.4

**CULVERT UNDERCUT DETAIL**

PROVIDE A 2 FOOT UNDERCUT AS SHOWN IN THE CULVERT PROFILE VIEW ON THIS SHEET AND IN THE CULVERT UNDERCUT DETAIL BELOW. THE WIDTH OF THE UNDERCUT SHALL BE THE WIDTH OF THE CULVERT PLUS 1 FOOT ON EACH SIDE FOR EXCAVATION AND BEDDING PER CMS 611. THE CULVERT UNDERCUT SHALL BE BACKFILLED WITH ITEM 203-GRANULAR MATERIAL, TYPE E, AS PER PLAN AND WRAPPED WITH ITEM 204-GEOTEXTILE FABRIC.



- FULL DEPTH PAVEMENT STA. 473+47.61 - STA. 473+75.61
- PLANING AND RESURFACE STA 473+37.61 - STA 473+47.61 STA 473+75.61 - STA 473+85.61
- ITEM 670 - DITCH EROSION PROTECTION



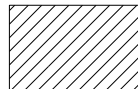
PLAN AND DETAIL  
 CLI-350-0897

CLI/ WAR SR 350  
 8.97 / 1.56

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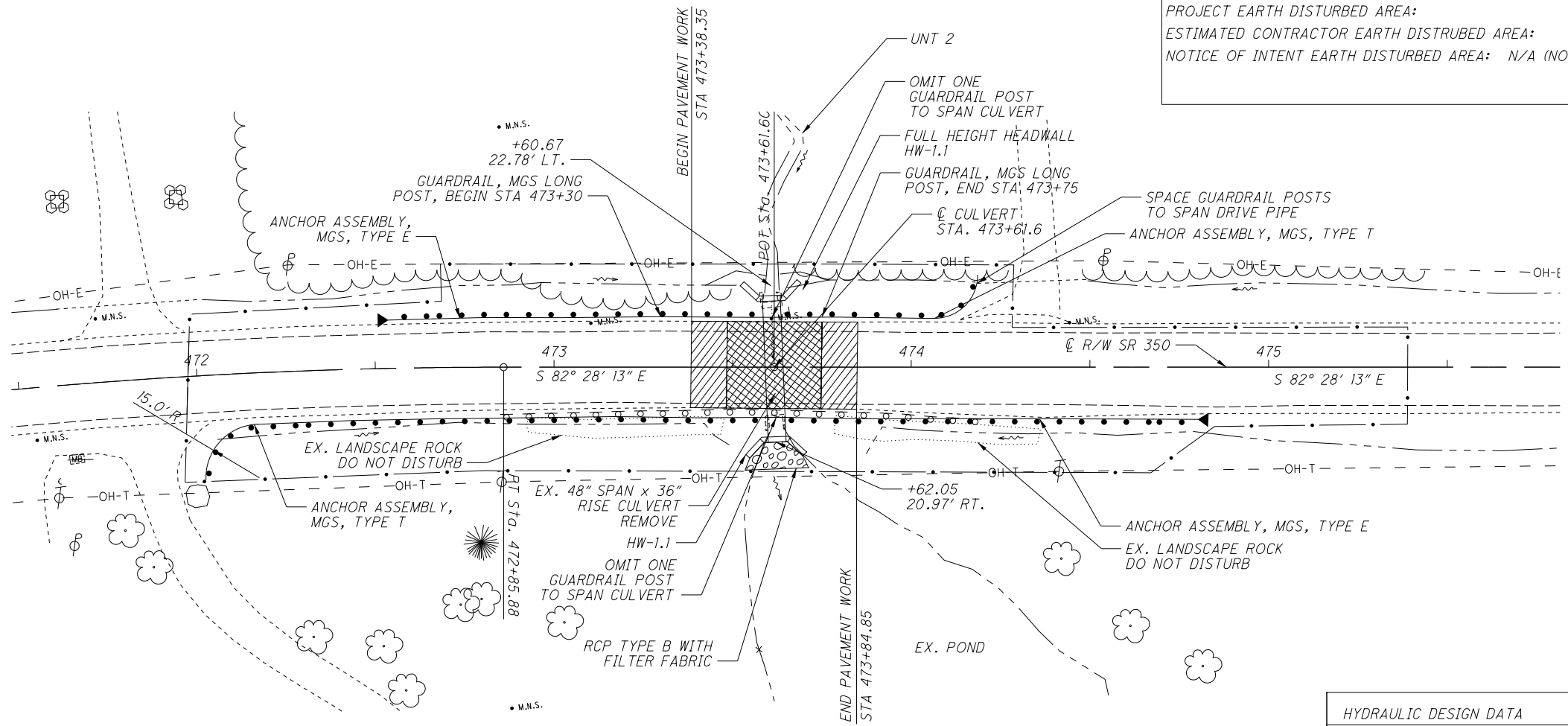
EXISTING STRUCTURE	
TYPE:	CONCRETE SLAB TOP
SIZE:	48" SPAN X 36" RISE, 32' LONG
SKEW:	3° RF
ALIGNMENT:	TANGENT
CFN:	1857032
OLD CFN:	833500157
DATE BUILT:	UNKNOWN
CONDITION:	SERIOUS
LATITUDE:	N 39° 24' 24.95"
LONGITUDE:	W 84° 7' 21.45"

PROPOSED STRUCTURE	
ELLIPTICAL CONCRETE PIPE	
SIZE:	60" SPAN x 38" RISE, 43' LONG
SKEW:	3° RF
ALIGNMENT:	TANGENT
CFN:	1978084
DESIGN SERVICE LIFE:	75 YEARS
STREAM pH:	6.5
ABRASIVENESS:	LEVEL 3

 PLANING AND RESURFACE  
STA. 473+38.35 - STA. 473+48.35  
STA. 473+74.85 - STA. 473+84.85

 FULL DEPTH PAVEMENT  
STA. 473+48.35 - STA. 473+74.85

PROJECT EARTH DISTURBED AREA: 0.41 ACRES  
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.10 ACRES  
NOTICE OF INTENT EARTH DISTURBED AREA: N/A (NOI NOT REQ'D)



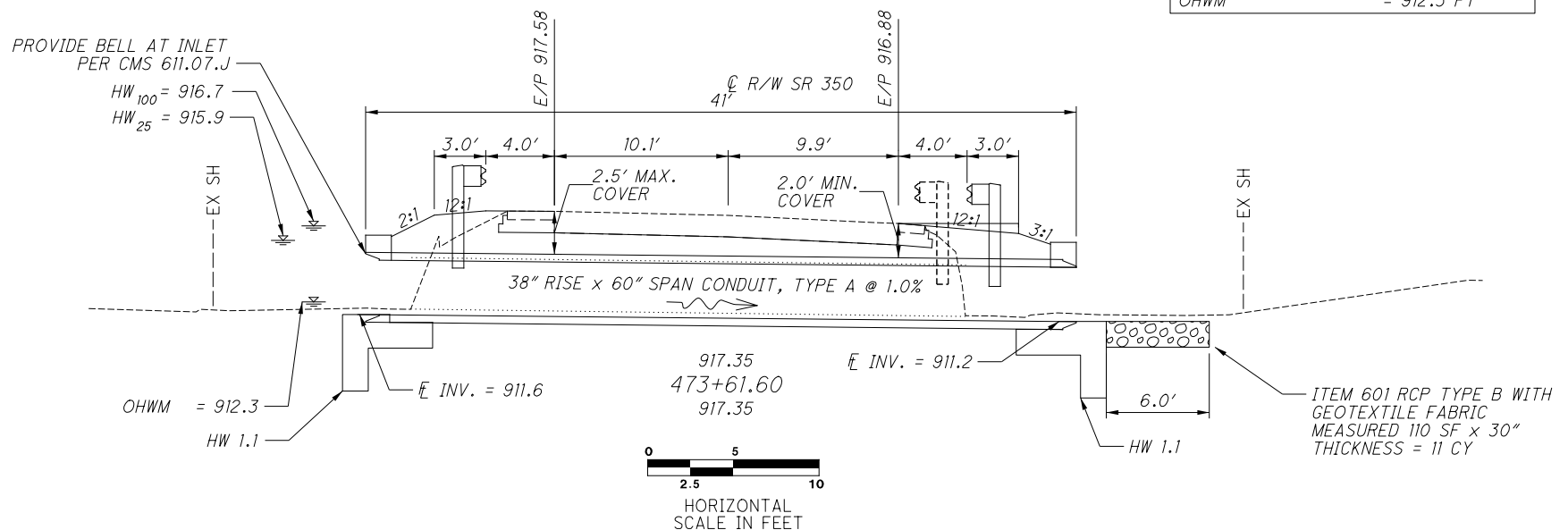
ESTIMATED QUANTITIES (CARRIED TO GENERAL SUMMARY)

ITEM	GRAND TOTAL	UNIT	DESCRIPTION
201	LS	LUMP	CLEARING AND GRUBBING
202	2	EA	HEADWALL REMOVED
202	LS	LUMP	STRUCTURE REMOVED
202	37.5	FT	GUARDRAIL REMOVED
202	2	EA	ANCHOR ASSEMBLY REMOVED, TYPE E
878	LS	LUMP	INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS
606	275	FT	GUARDRAIL, TYPE MGS
606	25	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS
606	2	EA	ANCHOR ASSEMBLY, MGS TYPE E
606	2	EA	ANCHOR ASSEMBLY, MGS TYPE T
601	11	CY	ROCK CHANNEL PROTECTION, TYPE B WITH GEOTEXTILE FABRIC
611	41	FT	38"x60" CONDUIT, TYPE A, 706.04
602	25.8	CY	CONCRETE MASONARY
621	2	EA	RPM
621	2	EA	RAISED PAVEMENT MARKER REMOVED
626	6	EA	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL)
642	0.02	MI	EDGE LINE
642	0.01	MI	CENTER LINE
600	LS	LUMP	COFFERDAMS AND EXCAVATION BRACING

CONSTRUCT HEADWALLS PER HW-1.1 USING 60" PIPE DIAMETER (θ=0°) WITH THE FOLLOWING REVISIONS:

PIPE SIZE	CONC. CU YD	STEEL (LBS)
60" x 38"	12.9	1166

HYDRAULIC DESIGN DATA	
DRAINAGE AREA:	= 67.6 ACRES
Q <sub>25</sub>	= 87 CFS
Q <sub>100</sub>	= 104 CFS
HW <sub>25</sub>	= 915.9 FT
HW <sub>100</sub>	= 916.7 FT
ROADWAY	= 917.3 FT
V <sub>25</sub>	= 10.0 FPS
V <sub>100</sub>	= 11.8 FPS
OHWM	= 912.3 FT



PLAN AND DETAIL  
WAR-350-0156

CLI / WAR SR 350  
8.97 / 1.56

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