

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
704	(1)N & TS-1	McLEAN	497	496
STA. 0+200.000		TO STA. 0+350.000		
FED. ROAD DIST. NO. _		ILLINOIS FED. AID PROJECT		

CONTRACT NO. 70514

GENERAL UTILITY NOTES:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH:
 - "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" FIFTH EDITION, DATED MAY, 2008.
 - IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
 - CITY OF BLOOMINGTON "SUBDIVISION REGULATIONS", ADOPTED AUGUST, 2008.
- VERIFY THE ELEVATION OF POSSIBLE CONFLICTING UTILITIES PRIOR TO CONSTRUCTING PROPOSED WATER MAINS. ANY CONFLICTS MUST IMMEDIATELY BE BROUGHT TO THE ENGINEER'S ATTENTION.
- ALL OPEN EXCAVATIONS SHALL BE PROTECTED WITH SAFETY FENCE, BARRIERS OR BARRICADES IN ACCORDANCE WITH OSHA.
- CONTRACTOR TO COORDINATE ALL UTILITY CONSTRUCTION WITH THE APPROPRIATE UTILITY COMPANIES.
- THE MINIMUM HORIZONTAL SEPARATION BETWEEN THE CLOSEST TWO POINTS OF A WATER AND SEWER LINE IS TEN FEET (10'). THE MINIMUM VERTICAL SEPARATION BETWEEN THE CLOSEST TWO POINTS OF A WATER AND SEWER LINE IS EIGHTEEN INCHES (18'). WHEN A SEWER LINE CROSSES A WATER MAIN, A MINIMUM OF 18" SEPARATION IS REQUIRED PLUS THE REQUIRED ENCASMENT OVER OR UNDER THE WATER MAIN. SEE THE ABOVE REFERENCED "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS FOR ENCASMENT REQUIREMENTS AND FURTHER WATER & SEWER SEPARATION NOTES.
- THE CONTRACTOR WILL MAINTAIN A RECORD DRAWING SET WITH WITNESS DIMENSIONS TO ALL CONNECTIONS. THESE DRAWINGS WILL BE SUBMITTED TO THE ENGINEER PRIOR TO FINAL ACCEPTANCE.

WATER MAIN NOTES:

- ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 4'-0" ABOVE THE TOP OF PIPE.
- ALL HYDRANT LEADS SHOULD BE 6" DUCTILE IRON SPECIAL CLASS 85.
- FIRE HYDRANTS, VALVES, TEES AND HYDRANT LEADS SHOWN IN THE PLAN DRAWINGS AS "FIRE HYDRANT, VALVE AND TEE ASSEMBLY" SHALL BE PAID FOR INDIVIDUALLY AS ENUMERATED IN THE SCHEDULE OF PRICES. 90% OF ELBOWS SHOWN IN THE PLAN DRAWINGS AS "PARALLEL MOUNT FIRE HYDRANT, VALVE AND TEE ASSEMBLY" SHALL ALSO BE PAID FOR INDIVIDUALLY.
- DIMENSIONS SHOWN ARE TO CENTERLINE OF PIPE OR FITTING.
- WATER MAIN TRENCHES AND WATER SERVICE UNDER EXISTING PAVEMENT AND SIDEWALKS SHALL BE BACKFILLED WITH TRENCH BACKFILL UP TO THE SURFACING SUB GRADE ELEVATION.
- A #12 THIN SINGLE STRAND ELECTRIC CABLE SUITABLE FOR DIRECT BURIAL SHALL BE INSTALLED ON ALL WATER MAIN. THE CABLE SHALL BE TAPED OR ATTACHED TO THE PIPE IN AN APPROVED MANNER DURING INSTALLATION AND PRIOR TO BACKFILLING. TWO FEET OF SLACK SHALL BE PROVIDED AT ALL VALVE BOXES AND FIRE HYDRANTS. THE SLACK SHALL BE WRAPPED AROUND THE VALVE BOX OR FIRE HYDRANT AT FINISHED GRADE.
- REFER TO SHEET C5.1 FOR ADDITIONAL WATER MAIN NOTES, INCLUDING SPECIFIC CITY OF BLOOMINGTON WATER MAIN MATERIAL STANDARDS.

TRENCH, BEDDING AND BACKFILL NOTES:

- TRENCH WIDTH REQUIREMENTS BELOW THE TOP OF THE PIPE SHALL NOT BE LESS THAN 18 INCHES NOR MORE THAN 18 INCHES WIDER THAN OUTSIDE SURFACE OF ANY PIPE, CONDUIT OR CABLE, AND SHALL BE THE LEAST PRACTICAL WIDTH THAT WILL ALLOW FOR COMPACTION OF TRENCH BACKFILL.
- TRENCH STABILIZATION MATERIAL, IF REQUIRED, SHALL BE CRUSHED ROCK OR OTHER APPROVED MATERIAL WITH 100% PASSING THE # 30 SIEVE AND 80%-85% PASSING THE # 40 SIEVE. THIS MATERIAL SHALL HAVE A MAXIMUM FREEZE-THAW LOSS OF 15% WHEN TESTED IN ACCORDANCE WITH LABORATORY TEST METHOD 51, METHOD C. THE PLASTICITY INDEX SHALL NOT EXCEED 4.
- ACCURATELY GRADE TRENCH BOTTOM TO PROVIDE UNIFORM BEARING AND SUPPORT FOR EACH SECTION OF PIPE ON BEDDING MATERIAL AT EVERY JOINT ALONG ENTIRE LENGTH, EXCEPT WHERE NECESSARY TO EXCAVATE FOR BELL HOLES, PROPER SEALING OR PIPE JOINTS OR OTHER REQUIRED CONNECTIONS. DIG BELL HOLES AND DEPRESSIONS FOR JOINTS AFTER TRENCH BOTTOM HAS BEEN GRADED. DIG NO DEEPER, LONGER, OR WIDER THAN NEEDED TO MAKE PROPER JOINT CONNECTION.
- PLACE TRENCH AND STRUCTURE EXCAVATION BACKFILL 18 INCHES OR MORE ABOVE TOP OF PIPE IN 6 INCH MAXIMUM LIFTS AND COMPACT TO 90% STANDARD PROCTOR DRY DENSITY (ASTM D998) IN UNSURFACED AREAS AND TO 90% STANDARD PROCTOR DRY DENSITY IN SURFACED AREAS INSTALLED A MINIMUM COVER OF 8 FEET OF COMPACTED BACKFILL ABOVE PIPE ENVELOPE BEFORE USING HEAVY COMPACTION EQUIPMENT.
- GRANULAR BEDDING AGGREGATE FOR WATER MAIN PIPE SHALL MEET THE FOLLOWING GRADATION:

SEIVE SIZE	1/2"	1"	3/4"	1/2"	3/8"	4"	8"
% PASSING:	100	85-100	60-100	20-85	10-85	0-30	0-8
- GRANULAR TRENCH BACKFILL SHALL MEET THE FOLLOWING GRADATION:

SEIVE SIZE	1"	3/4"	4"	8"	30"	30"
% PASSING:	100	85-100	30-75	10-60	15-40	0-38
- HAND PLACE AND COMPACT BACKFILL MATERIAL TO 18 INCHES ABOVE TOP OF PIPE TO 90% STANDARD PROCTOR DRY DENSITY (ASTM D998) IN SURFACED AREAS AND TO 90% STANDARD DRY DENSITY IN UNSURFACED AREAS.
- ALL TRENCH BACKFILL IN TRENCHES SHALL BE JETTED.

IDOT STANDARDS

- 70304-02-LANE CLOSURE, 2L, SW, SLOW MOVING OPERATIONS DAY ONLY FOR SPEEDS GREATER THAN OR EQUAL TO 45 MPH.
- 70302-04-URBAN LANE CLOSURE, 2L, SW, UNDIVIDED.
- 70302-04-TRAFFIC CONTROL DEVICES.
- 70401-04-LANE CLOSURE MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS GREATER THAN OR EQUAL TO 45 MPH.
- 70302-04-URBAN LANE CLOSURE, MULTILANE, TW OR SW WITH NONTRAVERSABLE MEDIAN.
- 70701-04-URBAN LANE CLOSURE, MULTILANE INTERSECTION.

SURFACE RESTORATION NOTES:

- ALL DISTURBED AREAS NOT PAVED OR HARD SURFACE ON THE SITE SHALL RECEIVE TOPSOIL AS NECESSARY TO ESTABLISH GROWTH OF GRASS. UTILIZING EXISTING TOPSOIL SHALL BE AN ACCEPTABLE METHOD OF SURFACE RESTORATION, PROVIDED THE CLAY CONTENT OF THE SOIL IS NOT SUFFICIENTLY HIGH TO PREVENT GROWTH. THE ENGINEER SHALL MAKE THE FINAL DETERMINATION OF THE SUITABILITY OF THE ON-SITE SOIL. SCARPED AREAS TO RECEIVE TOPSOIL TO A DEPTH OF 4". REMOVE ALL STONES, WOOD AND OTHER DEBRIS LARGER THAN 4" FROM AREAS TO RECEIVE TOPSOIL. DO NOT COMPACT TOPSOIL.
- ALL DISTURBED YARD & LAWN AREAS SHALL BE SEEDING ACCORDING TO I.D.O.T. ARTICLE 90 USING CLASS 1 OR CLASS II MIXTURE AS APPROPRIATE FOR THE CONDITIONS.
- SEEDING AREAS SHALL BE MULCHED IN ACCORDANCE WITH I.D.O.T. ARTICLE 90, METHOD 1 OR METHOD 2.
- SODDING OR HYDRO SEEDING SHALL BE CONSIDERED SUITABLE ALTERNATES.
- THE COST FOR SURFACE RESTORATION SHALL BE INCLUDED IN THE COST FOR THE VARIOUS WATER MAIN PAY ITEMS.
- COST FOR PAVEMENT REPAIR SHALL BE INCLUDED IN THE COST FOR THE VARIOUS WATER MAIN PAY ITEMS.

UTILITY NOTE:

THE LOCATIONS OF UTILITY MAINS, STRUCTURES, AND SERVICE CONNECTIONS PLOTTED ON THIS DRAWING ARE APPROXIMATE ONLY AND WERE OBTAINED FROM RECORDS MADE AVAILABLE TO SHIVE-HATTERY, INC. AND AS MARKED IN THE FIELD ALL MADE PART OF THIS SURVEY. THERE MAY BE OTHER EXISTING UTILITY MAINS, STRUCTURES AND SERVICE CONNECTIONS NOT KNOWN TO SHIVE-HATTERY, INC. AND NOT SHOWN ON THIS DRAWING.

PAVEMENT NOTES:

- THE CONTRACTOR SHALL REPAIR THOSE PAVEMENT AREAS IN THE ROADWAY EXCAVATED OR DAMAGED AS A RESULT OF WATER MAIN CONSTRUCTION OPERATIONS. SUCH WORK SHALL BE IN ACCORDANCE WITH ARTICLE 462. THIS OPERATION SHOULD ALSO INCLUDE APPLICATION OF PRIME COAT PRIOR TO PLACEMENT OF HMA, PAID FOR AS A SEPARATE PAY ITEM. THE HMA MIXTURE COMPOSITION UTILIZED FOR PAVEMENT PATCHING SHALL BE SURFACE COURSE, MIX'D, N/A. PAVEMENT PATCHING SHALL BE FLUSH WITH THE EXISTING ROADWAY SURFACE.

EXISTING LEGEND

	CURB DUCT
	STORM MANHOLE
	FIRE HYDRANT
	WATER VALVE
	POWER POLE
	DOWN GUY
	SIGN
	UNDERGROUND ELECTRIC
	STORM SEWER
	WATER MAIN
	SANITARY MANHOLE
	CONIFEROUS TREE WITH DIA.
	DECIDUOUS TREE WITH DIA.
	BURR WEED
	TELEPHONE PEDESTAL
	STREET LIGHT
	CLEAN OUT
	WATER VALVE
	GAS METER
	GAS VALVE
	CABLE PEDESTAL
	GUARD POST
	YARD LIGHT
	CHAINLINK FENCE
	WOOD FENCE

PROPOSED LEGEND

	WATER MAIN
	WATER VALVE
	FIRE HYDRANT
	ASPHALT PAVEMENT REPLACEMENT
	CONCRETE PAVEMENT REPLACEMENT
	GRAVEL PAVEMENT REPLACEMENT
	WATER MAIN ENCASMENT WITH RESTRAINED JOINTS
	RESTRAINED WATER MAIN

BY	DATE
FINAL SURVEY PLOTTED	
NOTE BOOK TEMPLATE	
AREAS CHECKED	
NO.	

BY	DATE
ORIGINAL SURVEY PLOTTED	
NOTE BOOK TEMPLATE	
AREAS CHECKED	
NO.	

BEFORE DIGGING CALL J.U.L.I.E. AT 1-800-892-0123