

						TITLE:		N DD0 1	- O.T.
				PROJ. ENG. VP		NE	NEXUS GAS TRANSMISSION PROJECT RESIDENTIAL DRAWING MP 0.44 TO MP 0.55		
				CHECKED BY: DOB					
#	0	ISSUED FOR FERC FILING	200CT15	DRAWN BY: RSM		LOC.: COLUMBIANA COUNTY, OHIO REV.:(REV.:0
<u>ত</u>	REV.#	DESCRIPTION	DATE	SCALE : 1" = 50'	DATE	YR.: 2017	W.O.	DWG.NO.	TGPI-P-8001



IN GENERAL, THE FOLLOWING MEASURES WILL BE TAKEN ON RESIDENTIAL PROPERTIES:

- LOCAL RESIDENTS WILL BE NOTIFIED OF THE PROPOSED CONSTRUCTION SCHEDULE IN ADVANCE OF CONSTRUCTION ACTIVITIES.
- SAFETY FENCE WILL BE INSTALLED ALONG THE EDGE OF THE CONSTRUCTION WORKSPACE (CWS) FOR A MINIMUM OF 100 FEET ON BOTH SIDES OF RESIDENCES. TO MAINTAIN EQUIPMENT, MATERIAL AND SPOIL WITHIN THE CWS.
- PRESERVE ALL MATURE TREES AND LANDSCAPING WHERE PRACTICAL, CONSISTENT WITH CONSTRUCTION SAFETY. UNLESS OTHERWISE AGREED WITH THE LANDOWNER.
- COMPLETE INSTALLATION OF WELDED PIPELINE SECTIONS AS QUICKLY AS REASONABLY POSSIBLE, CONSISTENT WITH PRUDENT PIPELINE CONSTRUCTION PRACTICES. TO MINIMIZE CONSTRUCTION TIME AFFECTING RESIDENCES.
- BACKFILL THE TRENCH AS SOON AS THE PIPELINE IS INSTALLED OR PLACE TEMPORARY STEEL PLATES OVER THE TRENCH TO MAINTAIN LAND OWNER ACCESS, AS NECESSARY.
- COMPLETE FINAL CLEANUP (INCLUDING FINAL GRADING) AND INSTALLATION OF PERMANENT EROSION CONTROL MEASURES WITHIN 10 DAYS AFTER THE TRENCH IS BACKFILLED, WEATHER CONDITIONS PERMITTING.
- CONFIGURE USE OF CWS TO PROVIDE ACCESS FOR EMERGENCY VEHICLES AND TO RESIDENTIAL DRIVEWAYS, INCLUDING MATERIALS AVAILABLE ON SITE TO PROVIDE TEMPORARY BRIDGING ACROSS THE PIPELINE TRENCH IF NECESSARY.
- ACCESS TO HOMES WILL BE MAINTAINED DURING CONSTRUCTION EXCEPT FOR THE BRIEF PERIOD ESSENTIAL FOR LAYING THE NEW PIPELINE. IN WHICH CASE HOME OWNERS WILL BE NOTIFIED IN ADVANCE.
- WHERE THE PIPELINE FACILITIES CROSS RESIDENTIAL PROPERTIES, TOPSOIL WILL BE STRIPPED AND STOCKPILED SEPARATELY FROM THE SUBSOIL DURING GRADING WITHIN THE CONSTRUCTION WORKSPACE.
- DISTURBED RESIDENTIAL LAWNS WILL BE RESEEDED WITH A SEED MIXTURE ACCEPTABLE TO LANDOWNER OR COMPARABLE TO THE ADJOINING LAWN.
- FOR EROSION AND SEDIMENTATION TYPICAL FIGURES REFER TO DWG ES-0001 THRU DWG ES-0038.

CONSTRUCTION TECHNIQUES

- EXCAVATION OF THE PIPELINE TRENCH WILL NOT BE INITIATED UNTIL THE PIPE IS READY FOR INSTALLATION.
- ONE OF THE FOLLOWING TECHNIQUES SHALL BE UTILIZED FOR A LONGITUDINAL DISTANCE OF 100 FEET EITHER SIDE OF AN OCCUPIED RESIDENTIAL STRUCTURE LOCATED WITHIN 50 FEET OF THE CWS:
 - STANDARD CONSTRUCTION TECHNIQUES WILL BE USED IF CWS PERMITS AND OTHER NECESSARY ARRANGEMENTS HAVE BEEN MADE TO ACCOMMODATE THE RESIDENT'S AFFECTED. THE STANDARD CONSTRUCTION TECHNIQUE WILL REQUIRE THAT THE RIGHT OF WAY BE CLEARED AND GRADED WITHIN THE CONSTRUCTION WORKSPACE THEN TRENCHING OPERATIONS FOLLOWED BY STRINGING, WELDING, COATING AND INSPECTION OF THE "STRING" SECTION OF THE PIPELINE; THE LENGTH OF THE RESIDENTIAL STRUCTURE PLUS 100 FEET EITHER SIDE. THE STRING SECTION WOULD THEN BE LOWERED INTO THE TRENCH AND THE SECTION BACKFILLED.
 - STOVE-PIPE CONSTRUCTION TECHNIQUE THIS TECHNIQUE IS TYPICALLY USED WHEN THE PIPELINE IS TO BE INSTALLED IN VERY CLOSE PROXIMITY TO AN EXISTING STRUCTURE AND AN OPEN TRENCH WOULD HAVE AN ADVERSE EFFECT. THE TECHNIQUE INVOLVES INSTALLING ONE JOINT OF PIPE AT A TIME, IN WHICH THE WELDING, WELD INSPECTION, AND COATING ACTIVITIES ARE ALL PERFORMED IN THE OPEN TRENCH, THEREBY REDUCING THE WIDTH OF THE CONSTRUCTION ROW.
 - DRAG SECTION TECHNIQUE THIS TECHNIQUE IS ANOTHER METHOD THAT REDUCES THE WIDTH OF THE CONSTRUCTION ROW AND IS NORMALLY PREFERRED OVER THE STOVE-PIPE METHOD. THIS TECHNIQUE INVOLVES TRENCHING, INSTALLATION OF A PREFABRICATED LENGTH OF PIPE CONTAINING SEVERAL SEGMENTS, AND BACKFILLING, ALL IN ONE DAY.

WORKSPACE RESTRICTIONS

- EXISTING STRUCTURES INCLUDING BUT NOT LIMITED TO; FENCES, SHEDS, SWING-SETS, TRAMPOLINES, SHRUBBERY,
 TREES, GARDENS, FLOWERBEDS, POOLS WILL BE REMOVED FROM THE CWS. LANDOWNERS WILL BE MADE AWARE OF
 WHAT WILL BE RELOCATED DURING NEGOTIATIONS FOR TEMPORARY WORKSPACE AND DAMAGES.
- STRUCTURES WITHIN THE EXISTING PERMANENT EASEMENT AREA WILL BE ALLOWED TO BE RETURNED TO THE EXISTING PERMANENT EASEMENT PROVIDED THEY ARE NOT IN VIOLATION OF NEXUS' EXISTING PERMANENT EASEMENT RIGHTS THAT WILL BE MADE AVAILABLE TO LANDOWNERS UNLESS OTHERWISE AGREED WITH THE LAND OWNER.
- STRUCTURES OUTSIDE OF THE EXISTING PERMANENT EASEMENT; HOWEVER, WITHIN THE CONSTRUCTION WORKSPACE,
 WILL BE REPLACED AS CLOSE TO AS PRACTICABLE TO THEIR PREVIOUS LOCATIONS.
- REMOVAL AND REPLACEMENT RESPONSIBILITIES WILL BE ISSUES THAT ARE NEGOTIATED WITH EACH LANDOWNER.

ANTICIPATED CONSTRUCTION SCHEDULE

- PIPELINE CONSTRUCTION WORK IS TYPICALLY SCHEDULED TO TAKE ADVANTAGE OF DAYLIGHT HOURS, GENERALLY STARTING AT 7:00 A.M. AND COMPLETING AT 6:00 P.M. (6 DAYS A WEEK).
- AFFECTED LANDOWNERS WILL BE NOTIFIED IMMEDIATELY IF CONSTRUCTION WORK EXTENDS BEYOND THESE WORK HOURS.

PUBLIC SAFETY CONSIDERATIONS

- TRAFFIC CONTROL WILL CONSIST OF DEVICES OUTLINED IN STATE AND LOCAL CODES ACCOMPANIED BY LOCAL LAW ENFORCEMENT DETAILS AND QUALIFIED FLAGMEN TO SAFELY COORDINATE TRANSPORT OF PIPELINE CONSTRUCTION PERSONNEL. EQUIPMENT AND MATERIAL.
- SITE SECURITY WILL BE EVALUATED ON A CASE BY CASE BASIS, EMPLOYING DAILY AND/OR 24 HOUR QUALIFIED SECURITY SERVICES AS REQUIRED. NEXUS WILL STAFF A LANDOWNER HOTLINE TO RECEIVE LANDOWNER CONSTRUCTION CONCERNS. THE TOLL-FREE LANDOWNER HOTLINE IS (844) 589-3655. THE LANDOWNER HOTLINE WILL BE STAFFED MONDAY THROUGH FRIDAY FROM 7 A.M. TO 5 P.M. AND ON SATURDAY FROM 7 A.M. TO 12 P.M. BY NEXUS RIGHT OF WAY PERSONNEL. OUTSIDE OF THESE HOURS, A CALL FORWARDING SYSTEM WILL BE AVAILABLE TO RECEIVE CALLS AND PAGE THE COMPLAINT RESOLUTION COORDINATOR. ALL CALLS WILL BE RETURNED WITHIN 24 HOURS OF RECEIPT.

OTHER CONSIDERATIONS

- FUGITIVE DUST WILL RESULT FROM LAND CLEARING, GRADING, EXCAVATION, CONCRETE WORK, AND VEHICLE TRAFFIC
 ON PAVED AND UNPAVED ROADS. THE AMOUNT OF DUST GENERATED WILL BE A FUNCTION OF CONSTRUCTION
 ACTIVITY, SOIL TYPE, SOIL MOISTURE CONTENT, WIND SPEED, PRECIPITATION, VEHICLE TRAFFIC, VEHICLE TYPES, AND
 ROADWAY CHARACTERISTICS. NEXUS WILL EMPLOY PROVEN CONSTRUCTION RELATED PRACTICES TO CONTROL
 FUGITIVE DUST SUCH AS APPLICATION OF WATER OR OTHER COMMERCIALLY AVAILABLE DUST CONTROL AGENTS ON
 UNPAVED AREAS SUBJECT TO FREQUENT VEHICLE TRAFFIC.
- NOISE MITIGATION MEASURES TO BE EMPLOYED DURING CONSTRUCTION INCLUDE USE OF SOUND MUFFLING DEVICES THAT ARE PROVIDED AS STANDARD EQUIPMENT BY THE CONSTRUCTION EQUIPMENT MANUFACTURERS. THE CONTRACTOR WILL KEEP THESE SOUND MUFFLING DEVICES IN GOOD WORKING ORDER DURING CONSTRUCTION.

						TITLE: NEXUS GAS TRANSMISSION PROJECT			
				PROJ. ENG. V	VP	NOTES FOR SITE SPECIFIC RESIDENTIAL DRAWINGS			
				CHECKED BY: DC	OB				
#	0	ISSUED FOR FERC FILING	03NOV15	DRAWN BY: RS	SM	LOC.: N/A			REV.:0
<u>6</u>	REV.#	DESCRIPTION	DATE	SCALE: NTS	DATE	YR.: 2017	W.O.	DWG.NO.	S4NX-P-8036



2015 10:10am Filename: P:\CAD\295_PIPELINE\RESIDENTIAL\IFR\S4NX-P-8036.DWG

MES13858