



*The Town of
Leesburg in Virginia*

DESIGN AND CONSTRUCTION STANDARD

PART 1 - BACKGROUND

Article # X-XXX.X

The purpose of Non-Invasive Demolition (NID) is to provide an alternative to root indiscriminate demolition operations that cause inadvertent damage to tree roots, trunk or crown. The exact location and depth of non-invasive demolition will be determined during the Urban Forester's layout. The NID procedure utilizes standard demolition equipment and labor, however alternative methods are used to minimize root disturbance. NID shall be overseen by an ISA Certified Arborist with proven experience in Tree Preservation Projects which focus primarily on the below ground portion of the trees rather than their canopies.

NID shall follow the following procedures: Superintendent to review all demo locations with project forester prior to mobilization to determine conflicts, issues of access, overhead clearance, stockpile of spoils, need for special equipment, special arboricultural measures, and timing of demo to allow special preservation and arboricultural measures. Superintendent shall notify project forester at least 48 hours before demo begins. Discrepancies between plans and site conditions will be noted. Project forester shall review demo plan and approve appropriate NID procedures.

PART 2 - TOOLS AND MATERIALS

NID utilizes a standard demo machinery such as skid loaders, mini excavators, backhoe loaders, jackhammers, machine mounted breakers, etc. Tree Protection Fence should be erected to prevent unintended damage to surrounding trees.

PART 3 - SAFETY

Establish a safety zone for each demo area to protect pedestrians, vehicles, structures and trees. Initiate the following precautions within each safety zone: safety cones, flagman for pedestrians or vehicles, Root Protection Matting on the ground within 15 feet of the excavation area, a drop-cloth tarp attached to temporary 6-foot chain link fence panels to block airborne debris, and safety cones for hoses crossing pedestrian walkways. Pedestrians or vehicles entering the safety zone with no intervening protection shall result in temporary cessation of airflow by the supersonic air tool operator. Compressed air hose connections shall have safety clips or whip-checks installed to prevent unwanted hose disconnection. The supersonic air tool operator will wear personal safety protection while performing air tool operations including hardhat, ear plugs, safety glasses, face shield or goggles, long sleeve shirt and pants or Tyvek suit, gloves, chain saw chaps and safety toe work boots. Supersonic air tool operations will be performed by or supervised by an ISA Certified Arborist with bonified experience in air excavation around tree roots. The ISA Certified Arborist overseeing the NID is required to have completed three prior projects within the past two years during which time they performed similar special non-invasive demolition operations.

PART 4 - EXECUTION

Traditional demolition equipment is used to carefully break and remove offending pavement, buildings and grade. An observer shall be incorporated to help machine operator to not over excavation areas and cause undue root damage. At times, manual demolition may be required to work around significant tree roots. Once the offending structure is removed, and tree roots are exposed, they shall be preserved without further molestation or disturbance. If roots will be left exposed for more than 1 week, they shall be covered with geotextile fabric or burlap and moistened once per day.

Not To Scale

REVI-				NON-INVASIVE DEMOLITION (NID) SPECIFICATION	DRAWING XX-1 PAGE XXX
NO.	DATE:				