

## **DIVISION 2 - SITE WORK (SUBJECT TO DIVISION 1)**

### **2.A. APPLICABLE DEMOLITION REQUIREMENTS**

1. Safety conditions shall be maintained at all times, and the contractor shall use all precautions necessary, such as suitable guard rails, barriers, and warning lights necessary, especially at excavations, to provide necessary protection for the owner, the public, and inspectors visiting the site.
2. Debris control shall be maintained at all times, and the Contractor shall provide all necessary drop cloths, dust screens, chutes and water sprays necessary to maintain and limit dust to the lowest possible levels practical. Roofing membranes, shingles and other roofing debris shall be prevented from falling or being blown onto adjacent and neighboring properties. All debris shall be removed each day from the streets, adjoining walks and properties.
3. Debris shall be removed from the site in an approved carrier to legal disposal sites in accordance with local ordinances and applicable environmental regulations.
4. Adjacent properties and Owner's property shall be protected from damage at all times. All shrubbery and trees in working areas shall be protected by the use of appropriate barriers and/or guard shields of adequate strength to protect same. Contractor is to restore and correct all damage caused in the performance of his work using materials and workmanship matching the quality and type of the damaged area or item.
5. If possible, demolition is to begin at top levels and work down through the building. All items of demolition materials are to be broken down into appropriate sizes convenient for handling and removal. Demolition is to be executed in such manner as to provide clean substrates for new work, free of any obstructions or damage to work that is to remain. All areas that are involved in demolition shall be secured by a barrier to prevent the spread of debris/dust into other locations.
6. Shoring is to be provided where demolition of existing (partition removal, masonry wall removal, stairs removal, floor removal) or other elements are required. Shoring shall be provided of adequate framing and timbers with loads spread adequately at the base to protect the existing structure from damage. Shoring is to remain in place until defective removed structural items are replaced with new materials.

### **2.B. EXCAVATION**

1. Areas of new concrete (walk, ramp, stairs, basement floor, and grade slabs) are to be excavated to a minimum depth of 4" and uniformly graded to receive gravel base. Install construction forms as needed and provide a compacted sub-base of gravel or crushed stones to a minimum depth of 8", if necessary, before pouring concrete. For concrete, see Division 3.
2. Excavation for areaway steps and window wells shall be to the depth required, and an allowance for 6" below concrete slabs for gravel fill. See Division 3 for concrete work.
3. Excavation (for pier footings, wall footings) shall be to a minimum depth of forty-two inches (42") or to a firm undisturbed soil base. Excavation shall be large enough to allow for the installation of concrete footings using the side of the excavation as the form, if soil is suitable, and allow adequate work room for installation of the work. See Division 3 for concrete masonry piers. If suitable bearing is not found at elevations indicated, contact the Building Department.
4. Excavation for fence posts shall be to a minimum depth of thirty inches (30") and auger

diameter of ten inches (10"). Supporting posts for fence shall be imbedded in concrete a minimum depth of twelve inches (12") with proper post anchors to prevent movement of posts after concrete has set.

5. In the event of over excavation, compacted backfill or a continuous pour of concrete to the required grade shall be used.

#### **2.C. BACKFILL**

1. Only materials free of roots, stumps, wood, cinders, trash, and stones larger than four (4) inches in diameter shall be used.
2. Fill shall be placed in successive layers not exceeding twelve (12) inches loose measure. Each layer shall be adequately and uniformly compacted.
3. All fill shall be thoroughly compacted to avoid damaging settlement to walks, driveways, lawns, and other site improvements.
4. Backfill shall not be placed upon muddy or frozen surfaces which contain frost or ice.
5. Settlement or washing that occurs in backfilled areas within one year of the acceptance of the work shall be repaired and grade re-established to the required elevation.
6. Rough grades shall be established at four (4) inches below the finish grade.

#### **2.D. TOPSOIL**

1. Topsoil shall be used to establish the finish grade except where a dust-free surface is required.
2. The topsoil shall be uniformly distributed on the designated areas and evenly spread to a minimum of four (4) inches for lawn areas to be seeded. Any irregularities in the surface shall be corrected in order to prevent the formation of depressions where water will stand.
3. Topsoil shall be fertile, easily crumbled, natural surface soil obtained from well-drained areas. Topsoil shall be free of subsoil, brush, organic litter, objectionable weeds, clods, shale, large stones, stumps, roots or other materials harmful to plant growth or hindrance to planting or maintenance.

#### **2.E. LIME WASTE**

1. Acceptable local materials, compacted to a depth as specified shall be used. Lime waste shall be free of clay, rock or gravel larger than two (2) inches in any dimension. It shall also be free of debris, waste, frozen materials, vegetable and other deleterious material.

#### **2.F. ROUGH GRADE**

1. Rough grade shall be to within four (4) inches of desired finish grade.
2. Grade shall slope away from building and be compacted.

#### **2.G. SEEDING**

It is the standard policy of the Housing Rehabilitation Office to reseed damaged areas.

1. The seed shall be uniformly distributed over the areas to be seeded at the rate of four (4)

pounds per 1,000 square feet. The seed shall be lightly covered by raking and the surface rolled with equipment weighing 60 to 90 pounds per linear foot of contact surface.

2. All seed shall be new seed labeled in accordance with U.S.D.A. and the Rules and Regulations under the Federal Seed Act as to the manufacturer's guaranteed analysis. The seed shall be 95% pure. The germination rate shall be at least 85%.
3. When an area has been completed, the area shall be thoroughly cleaned. Debris, rubbish, subsoil and waste materials shall be cleaned-up and removed from the property.
4. Commercial fertilizer shall conform to all applicable State Fertilizer Laws. The fertilizer shall be delivered in bags fully labeled with the manufacturer's guaranteed analysis as follows: Nitrogen 12%, Phosphorous 12% and Potassium 12%. The fertilizer shall be evenly distributed at the rate recommended by the manufacturer.
5. The newly planted areas shall be watered to promote seed germination. The watering period shall extend through the contract period to the final inspection. After the final inspection, the homeowner will be responsible for continuing the watering. The ground surface shall be kept moist by sprinkling until a show of green is obtained. Light sprinkling shall be performed in a manner that will not cause seed displacement and surface erosion.

## **2.H. SOD**

It is standard policy of the Housing Rehabilitation Office to reseed damaged areas; however, in some special circumstances it may be necessary to install sod.

1. Sod shall be laid in areas shown on site plans and/or as specified in the Bid Document. Sod shall be rolled compact to assure bond with the topsoil. Sod shall be watered as necessary to maintain a proper moisture condition and assure rooting. Sod failing to become established at the end of one (1) month shall be replaced by the contractor at no expense to this contract or the homeowner. Sod shall be staked solid on slopes.

## **2.I. SHRUBS**

1. **Digging Up, Wrapping and Handling:**  
Plants shall be dug and prepared for storage in a manner that will cause minimal damage to the branches, shape, root system, and future development of the plants after replanting.
2. **Protection Against Drying Out:**  
All plants shall be handled so that roots are adequately protected at all times from drying out and from other injury. They shall be protected with solid or other acceptable material.
3. **Replanting Shrubs:**  
The shape of plant pits shall be circular with vertical sides and convex bottoms. The pit shall be of such a depth that the root system can sit in the center of the pit so that they bear the same relation to the level of the surrounding ground as they bore to the ground from which they were dug.

## **2.J. BITUMINOUS PARKING AND DRIVEWAY SURFACES**

1. Area shall be excavated to depth required. Earth subgrade shall be thoroughly compacted.
2. Four (4) inches of gravel shall be placed as base and compacted to two (2) inches below finish area.
3. A two (2) inch wearing surface of (hot plant mix) bituminous surface shall be placed flush

with grade. Roll to slope ¼" per foot in direction of surface drainage flow as indicated on site plan and/or set out in the Bid Document.

4. **Bituminous Repair:** Bituminous paving is to be repaired by removing all loose material and cleaning area with water or air pressure. Repairs are to be made with an asphalt patch material such as Traffix or approved equal, following manufacturer's instructions for installation.
5. Existing blacktop driveway shall be resurfaced by installing and rolling 1½" of new ID-2 bituminous surfacing over existing sound base prepared as required by asphalt paving standards.
6. The application of prime and tack coats will be permitted only when the moisture content of the surface to be covered is such as to permit satisfactory penetration, and when the atmospheric temperature is above 60° F, except as follows: tack coat may be applied when the temperature is above 50° F and the weather forecast and conditions indicate that precipitation or lower temperatures are not expected before the air temperature rises to 60° F and providing that the surface to be covered is dry and is such as to permit satisfactory penetration.
7. Asphalt surface course shall be constructed only when the air temperature is at least 40° F, when the underlying base is dry, and when the weather is not rainy.
8. The required lines and grades, including crown and cross slope, shall be established and maintained for each course during construction operations.

#### **2.K. PARKING SURFACES - CONCRETE REPAIR**

1. Concrete paving is to be repaired by removing all deteriorated concrete to the nearest control or cut joint and replacing concrete with a mix producing a minimum strength of 4000 P.S.I. after 28 days. Concrete shall be a six bag mix and be reinforced with ½" rebar 2' o.c. installed within 2" of bottom of slab. Surface to match existing.
2. For new concrete surface - see Division 3.

#### **2.L. FENCES AND WALLS**

1. Wall, fence and screen work shall be accomplished as specified in the Bid Document. Before performing such work, the contractor must verify location of property lines. Contractor shall notify the Rehabilitation Specialist of any apparent discrepancies before proceeding with work. Extreme care shall be exercised to protect adjoining property. Owner shall decide on type of fence. All debris from a deteriorated fence shall be hauled away from the premises to an appropriate landfill.
2. All fences shall be installed in accordance with the Iowa City Zoning Ordinance and building code.

#### **2.M. CHAIN LINK FENCE**

1. 11½ gauge, 2" x 2" mesh chain link fencing shall be used. Posts to be 1-5/8" line and 2' corner or end (minimum) O.D. Galvanized iron, set in concrete. Top rail shall be 1-3/8" galvanized iron. All work to be plum and parallel with the surface and in accord with the Zoning Ordinance. Installation includes all accessories, standard gate (2), hardware and hinges, fork-type latch.

2. Contractor shall submit sketch showing fence installation, lot line, posts and number and location of gates, as required and shall have such sketch approved by the Zoning Administrator.

## **2.N. REMOVAL OF TRASH**

1. All trash shall be disposed of in a proper manner. Area shall be left raked or swept clean and level with surrounding grade. Disposal shall be in accordance with the local ordinances.

## **2.O. TRIM TREES OR SHRUBS**

1. All branches either dead or alive that are detrimental to structure as determined by inspection made by the Rehabilitation Specialist shall be trimmed. Contractor shall remove all debris from premises. Wounds to be dressed with standard tree wound dressing compounds, applied according to manufacturer's printed directions.

## **2.P. TREE AND SHRUB REMOVAL**

1. Tree(s) shall be removed as set forth in the Bid Document.
2. Removal shall be by a professional experienced treeman and include stump removal to a minimum of 18 inches below grade. All limbs, branches, roots, leaves, etc. shall be removed from the premises.
3. Topsoil shall be used to fill the void and graded level with surrounding surface. Seed, fertilizer, and watering shall be applied as provided by those sections of this document.

## **2.Q. FILLING AND SEALING CISTERN**

1. Concrete bottom shall be broken, removed or cut. Tap lines leading from the cistern shall be sealed.
2. Cistern shall be filled to within four (4) feet of the surface using appropriate backfill material and methods (sand, lime waste and broken concrete pieces).
3. Top walls shall be broken out and removed from property. Backfill shall be continued to a rough grade, four (4) inches below the surface; filled with topsoil to a finish grade, seeded, fertilized and watered as provided by those sections of this document.

## **2.R. TERMITE TREATMENT**

1. The entire structure shall be treated in strict compliance and in accordance with the specifications of the Termite Control System, which will eliminate the present infestation. Treatment must be carried out by a certified applicator. Structural modifications, soil poisoning, drilling and flooding of masonry voids, which represent the major steps or fundamental principles and operations, shall be made according to the Termite Committee of the National Pest Control Association and approved by the U.S. Department of Agriculture Bureau of Entomology and Plant Quarantine. Treatment for carpenter ants shall be similar. All chemicals used shall be approved by the Environmental Protection Agency (EPA) as indicated.
2. Termite warranty shall be obtained from the qualified applicator, and presented to the Rehabilitation Specialist, along with lien waivers, at the time of final payment.

**2-S. TIMBER RETAINING WALLS**

1. An exact specification or drawing will be provided by the Housing Rehabilitation Office for the site.
2. Timber retaining walls shall be constructed with 6 x 6 southern yellow pine timbers treated to a .06 CCA. In no case shall railroad ties or timbers treated to a lower level be approved.