SPECIFICATIONS FOR

SITE IMPROVEMENTS TO **WILLOW BEND RED OAK DRIVE** SYLVANIA TOWNSHIP, OHIO AND **OAK TERRACE** 400 BLOCK OF OAK TERRACE BLVD. HOLLAND, OHIO



prepared by



SPECIFICATIONS FOR
SITE IMPROVEMENTS
WILLOW BEND
RED OAK DRIVE
SYLVANIA TOWNSHIP, OHIO
AND
OAK TERRACE
400 BLOCK OF OAK TERRACE BLVD.
HOLLAND, OHIO

April 4, 2022

prepared by:

ROSSI ASSOCIATES, LLC ARCHITECTURE 1821 SPENCER STREET TOLEDO, OHIO 43609

INDEX TO SPECIFICATIONS FOR SITE IMPROVEMENTS WILLOW BEND RED OAK DRIVE SYLVANIA TOWNSHIP, OHIO AND

OAK TERRACE 400 BLOCK OF OAK TERRACE BLVD. HOLLAND, OHIO

Section Number Section Title

00002 INDEX TO SPECIFICATIONS

00003 INDEX TO DRAWINGS

DIVISION 01 - GENERAL REQUIREMENTS

Section Number Section Title

01010 SUMMARY OF WORK

01011 SPECIAL CONDITIONS

01330 SUBMITTAL DATA

01730 REMOVALS, CUTTING, PATCHING AND

REWORKING

01740 CLEAN UP

01780 CONTRACT CLOSEOUT DATA

DIVISION 02 - EXISTING CONDITIONS

Section Number Section Title

024119 SELECTIVE DEMOLITION

DIVISION 03 - CONCRETE

Section Number Section Title

321216 ASPHALT PAVING

321313 CONCRETE PAVING

Site Improvements Willow Bend Sylvania Township, Ohio Oak Terrace Holland, Ohio

INDEX TO DRAWINGS FOR SITE IMPROVEMENTS TO WILLOW BEND RED OAK DRIVE SYLVANIA TOWNSHIP, OHIO AND

OAK TERRACE 400 BLOCK OF OAK TERRACE BLVD. HOLLAND, OHIO

Drawing Number	Drawing Title
	COVER SHEET
SP-1.1	OVERALL SITE PLAN - WILLOW BEND
SP-1.2 SITE	OVERALL SITE PLAN - OAK TERRACE
SP-2.1, A-B	DEMOLITION PLAN AT BUILDINGS 'A' AND 'B' - OAK TERRACE
SP-2.2, C-D	DEMOLITION PLAN AT BUILDING 'C' AND 'D' - OAK TERRACE
SP-2.3, E	DEMOLITION PLAN AT BUILDING 'E' - OAK TERRACE
SP-3.1	6025 - 6023 SITE PLAN - WILLOW BEND
SP-3.2	6017 - 6015 SITE PLAN - WILLOW BEND
SP-3.3	6009 - 6007 SITE PLAN - WILLOW BEND
SP-3.4	6003 - 6001 SITE PLAN - WILLOW BEND
SP-3.5	6001 - 6025 OVERALL GRADING PLAN - WILLOW BEND
SP-3.6, A-B	NEW SITE WORK AT BUILDINGS 'A' AND 'B' - OAK TERRACE
SP-3.7, C-D-E	NEW SITE WORK AT BUILDINGS 'C', 'D' AND 'E' - OAK TERRACE
SP-3.8, A-B	NEW SITE WORK AT BUILDINGS 'A' AND 'B' - OAK TERRACE
SP-3.9, C-D-E	NEW SITE WORK BUILDINGS 'C', 'D' AND 'E' - OAK TERRACE

Site Improvements Willow Bend Holland, Ohio Oak Terrace Sylvania Township, Ohio

Drawing Number	Drawing Title
SP-4.1	NOTES AND DETAILS - WILLOW BEND & OAK TERRACE
SP-5.1	EROSION CONTROL NOTES AND DETAILS - WILLOW BEND & OAK TERRACE

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01010 - SUMMARY OF WORK

1.0 GENERAL CONDITIONS

1.01 GENERAL

The General Conditions for Construction Contracts - Public Housing Programs, Special Conditions and all portions of DIVISION 01 - GENERAL REQUIREMENTS shall govern this work wherein they apply.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

The project consists of the following:

a. Project Locations

6001 - 6025 Red Oak Drive (8 apartments) Sylvania Township, Ohio

400 Block of Oak Terrace Blvd. Holland, Ohio

b. Owner

Lucas Metropolitan Housing Modernization Department 201 Belmont Avenue Toledo, Ohio 43604

c. Contract Documents Prepared by:

Rossi Associates, LLC Architecture 1821 Spencer Street Toledo, Ohio 43609

d. Project Architect

Scot A. Rossi, AIA Rossi Associates, LLC Phone: 419.385.6633 FAX: 419.385.7936 srossi@rossiassociates.com

1.0 GENERAL CONDITIONS (continued)

1.02 WORK COVERED BY CONTRACT DOCUMENTS (continued)

e. Engineering Consultant

Jeff H. Ruch, P. E.
ESA / Engineers, Surveyors & Associates, LLC
5353 Secor Road
Toledo, Ohio 43623
Phone: 419.475.9445
FAX 419.475.9473
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Major items of work will consist of the following:

Willow Bend

- a. Removal of existing damaged concrete sidewalks, concrete stoops and replace with new concrete sidewalks stoops.
- b. Removal of all existing damaged asphalt driveways and replace with new 6" concrete driveway. (Alternate replace asphalt driveways with new asphalt.)

Oak Terrace

- Removal of existing damaged concrete sidewalks and replace with new concrete sidewalks.
- b. Removal of all existing damaged asphalt driveways and replace with new 6" concrete driveway. (Alternate replace asphalt driveways with new asphalt.)

End of Section

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01011 - SPECIAL CONDITIONS

1.0 GENERAL CONDITIONS

1.01 GENERAL

The Specifications and Special Conditions shall have precedence over the General Conditions where and to the extent that any conflict may occur.

1.02 SCOPE OF WORK

The work includes the furnishing of all supervision, labor, materials, equipment, transportation, site layout, verification of existing conditions, etc., as required and shall be in compliance with these Specifications and accompanying Drawings and shall include all concrete work, removals, and all other construction items necessary to complete the project, as herein specified and/or required to complete the work.

1.03 GENERAL PROVISIONS

Reference to any written permission, throughout this Specification, shall mean from the Architect.

Where industry standards and Specifications are referred to in this Specification, the Specifications and standards shall always be of the latest issue. In cases of conflict between the referenced Specifications or standards, the one having the more stringent requirements shall govern.

The Contracting Officer of LMH shall be the only authority that may make changes or alterations to the Contract Drawings or Specifications.

There shall be no burning of trash or other open fires on the site. All trash, debris, etc., shall be removed from the building site.

Reference in the Specifications to any article, device, product, material, fixture, form or type of construction by name or catalog number shall be interpreted as establishing a standard of quality only and shall not be construed as limiting competition and the Contractor in such cases, may at his option, use any article, device, product, material, fixture, form or type of construction which in the judgment of the Architect is equal to that specified. The Base Bid Proposal must be compiled from costs using all standards herein specified.

Each Contractor shall be responsible for all permits, fees, regulations and taxes as required and shall include the costs of same as part of the Base Bid.

Each Contractor shall comply with all local and state codes and regulations, and all federal regulations, particularly Occupational Safety and Health Standards and National Consensus Standards. All Contractors and all construction must conform to the above mentioned regulations as they apply to this project.

1.0 GENERAL CONDITIONS (continued)

1.04 CONTRACTORS' AND SUBCONTRACTORS' INSURANCE

Each Contractor shall obtain and file with the Architect, the certificates of all insurance required by the General Conditions of the Contract in the following amounts.

The Contractors shall not commence work under this Contract until each has obtained all the insurance required hereunder and such insurance has been approved by the Architect, nor shall the Contractors allow any Subcontractor to commence work on his Subcontract until all similar insurance required of the Subcontractor has been so obtained and approved. Approval of the insurance by the Architect shall not relieve or decrease the liability of the Contractors hereunder.

a. Compensation and Employer's Liability Insurance

Each Contractor shall take out and maintain during the life of this Contract, the Statutory Workmen's Compensation and Employer's Liability Insurance for all of his employees to be engaged in work on the project under this Contract, and in case any such work is sublet, the Contractors shall require the Subcontractors similarly to provide Workmen's Compensation and Employer's Liability Insurance for all of the latter's employees to be engaged in such work, in the amount of not less than One Hundred Thousand Dollars (\$100,000.00).

b. Bodily Injury and Property Damage Liability Insurance

Each Contractor shall take out and maintain during the life of this Contract, such Bodily Injury Liability and Property Damage Liability Insurance and Automobile Bodily Injury Liability and Property Damage Liability Insurance as shall protect him and any Subcontractor performing work covered by this Contract from claims for damage for personal injury, including accidental death, as well as from claims for property damage, which may arise from operations under this Contract, whether such operations be by himself or by any Subcontractor or anyone directly or indirectly employed by either of them, and the amounts of such insurance shall not be less than:

- 1. Bodily Injury Liability Insurance, in an amount not less than One Million Dollars (\$1,000,000.00) for injuries, including wrongful death to any one person, and subject to the same limit for each person in an amount not less than One Million Dollars (\$1,000,000.00) on account of one accident.
- 2. Property Damage Liability Insurance in an amount not less than One Million Dollars (\$1,000,000.00) for damages on account of each accident.
- The Owner shall carry the Builders' Risk Insurance for Fire with extended coverage, except that the Contractor shall provide for insurance for full coverage for all theft on this project.
- 4. All insurance policies shall be amended to name the Owner and Architect as additional insured parties thereunder as their interests may appear and as they may act in their capacities as such.

2.0 JOB REQUIREMENTS

2.01 TEMPORARY TOILET FACILITIES

The Contractor shall provide access to toilets with proper enclosures as necessary for the use of all *workmen of all Contractors* if so required. Keep toilets clean and comply with all local and state health requirements and sanitary requirements.

2.02 OWNER-CONTRACTOR RELATIONSHIP

The following definitions shall exist throughout the length of this work:

- a. Where the term "Owner" is used in reference to the legal Owner of the proposed building project, it shall mean Lucas Metropolitan Housing.
- b. The project title shall be known as:

Site Improvements Willow Bend Sylvania Township, Ohio Oak Terrace Holland, Ohio

c. The location of the Willow Bend project is at 6001 -06025 Red Oak Drive in Sylvania Township, Ohio.

The location of the Oak Terrace project is at 400 Block of Oak Terrace Blvd., in Holland, Ohio.

- d. Where the term "Architect" is used, it shall mean the firm of Rossi Associates, LLC, Architects, 1821 Spencer Street, Toledo, Ohio 43609.
- e. Where the term "The Contractor" is used, it shall mean a person, firm or corporation holding a direct Contract with the Owner for the work.
- f. "The Work", as used herein, shall mean work to be performed, including work normally done, at the location of the building.
- g. "The Drawings", as used herein, shall mean the Architectural and Site Drawings on which the work is shown.
- h. "The Specifications" shall mean the Contract Documents and detailed description of the work.

2.03 ROAD LOAD LIMIT

It is the responsibility of the Contractors to obtain and observe all load limits on all roads and highways while engaged in the construction of this project.

2.04 SITE DRAINAGE

It shall be the responsibility of the Contractor to instruct the Excavating Contractor to control the surface drainage at all areas so as to not allow water to spill onto adjacent properties in areas or in amounts other than that which is occasioned by the present natural drainage.

2.05 SIGNED CONTRACT DOCUMENTS

Immediately upon signing the Contract for the construction of the project, each Contractor is required to sign and file with the Contractor, a complete set of Drawings and Specifications, listed by numbers and dates, as evidence of his understanding of the work required. Documents shall include all modifications made before the signing of the Contract.

2.06 CONTRACTORS' RESPONSIBILITIES

Each Contractor shall be responsible for:

- a. The proper laying out of his own work and for any damage which may accrue to the work of any other branch by reason of his inaccuracy.
- b. The safety and good condition of all work and materials embraced in or affected by his Contract, until the completion of his Contract as an entirety.
- c. The accuracy of any layout work which may be done by the Architect shall be verified by the Contractor. In no case shall the Architect assume responsibility as to the accuracy of all work laid out. The Contractors shall be furnished reference lines and an adjacent bench mark, which shall be the responsibility of the Contractor.
- d. All additional lines, measurements and elevations which may be necessary to the proper construction of the work shall be the responsibility of each Contractor.
- e. Each Contractor shall protect his work from damage at all times in a proper manner, or as the Contractor may direct. Erect all necessary barriers, furnish and keep lighted the required danger signals at night, employ watchmen as necessary, and take every precaution to prevent injury to persons or property.
- f. Each Contractor shall be responsible for any damage which may accrue to the property of any other Contractor connected with the work, or to adjacent private or public properties, or to any portion of the structure which in any way results from the acts or neglect of his employees.
- g. Each Contractor shall afford other Contractors reasonable opportunity for the introduction or storage of their materials, and the execution of their work, and shall properly connect and coordinate his work with theirs.
- h. If any part of a Contractor's work is preceded by the work of any other Contractor, he shall inspect such other work and report to the Contractor any defects which render it unsuitable as related to his work. Failure to make such inspection and report shall constitute his acceptance of the other Contractor's work as fit and proper for the reception of his work, except as to defects which may develop in the other Contractor's work at a later date.

2.06 CONTRACTORS' RESPONSIBILITIES (continued)

- i. To insure the proper execution of his subsequent work, each Contractor shall measure work already in place and shall at once report to the Contractor any discrepancy between the executed work and the Drawings.
- j. It shall be the responsibility of each Contractor to protect existing pavements that are not to be removed, from damage of any kind. Where trailers and equipment are parked on existing pavements, wheels and dollies shall be set on plywood pads and blocking large enough to prevent marking or sinking into the pavement. Likewise, material stored on existing pavements shall be placed on blocking and raised adequately so as not to block surface drainage.

2.07 DISCRIMINATION

Contractors shall comply with the state code and agree to the following:

- a. That in the hiring of employees for the performance of work under this Contract or any Subcontract, no Contractor, Subcontractor, or any person acting on his behalf, shall, by reason of race, creed or color, discriminate against any citizen of the state in the employment of labor or worker who is qualified and available to perform the work to which the employment relates.
- b. That no Contractor, Subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intimidate any employee hired for the performance of work under this Contract on account of race, creed or color.

2.08 COORDINATION AND COOPERATION OF CONTRACTORS

The Contractor shall be held responsible for the general supervision and coordination of work.

All Contractors and Subcontractors shall be responsible to cooperate with the Contractor, coordinate and complete their work, so that the entire project will be accomplished according to the progress schedule.

It shall be the duty of each Contractor to notify their Subcontractors when their presence is required on the job, expedite the flow of materials and secure all necessary inspections. Each Contractor shall require that all Subcontractors have a competent supervisor on the site whenever his work is being performed.

Each Contractor shall give reasonable notice to the Contractor when his or the Architect's presence is required for special consultations, examinations or decisions.

It shall be the responsibility of each Contractor to cooperate with the Architect, the Owner and all other Contractors engaged in this project.

Each Contractor shall consult with the Architect and the other Contractors to advise and assist them in checking and verifying measurements, correcting errors and reconciling Working Drawings and Erection Drawings.

2.08 COORDINATION AND COOPERATION OF CONTRACTORS (continued)

Any dispute arising between the Contractors in regard to the sequence in which the various portions of the work are to be erected or the right of the Contractors to the use of the premises and all other questions where the rights of the Contractors appear to conflict shall be referred to the Architect. The decisions shall be accepted by all parties concerned without the right to appeal.

2.09 MATERIALS

Contractors shall place orders for materials and equipment to be employed in the work as soon as possible after the award of the Contracts.

All Contractors shall keep the Architect informed as to the availability of all specified materials and equipment and of such materials and equipment as may not be obtainable for purposes of the Contract, whether due to conditions of the market or other limiting and governing factors.

Each Contractor shall submit to the Contractor each month, on forms furnished by the Contractor, the "material status" for his portion of the project.

All materials delivered to the job in finished condition, installed in finished condition, or installed and finished before completion of the work, shall be protected from damage until acceptance of the work. All finished materials which are damaged either before or after installation shall be replaced with new and perfect material, without cost to the Owner.

2.10 WORKING HOURS

The normal job working hours shall be those established by local standards and/or as directed by the Contractor and the Owner's representative.

During established working hours, it shall be the responsibility of all Contractors, and their Subcontractors, to provide all necessary skilled craftsmen as to cause no delays to any phase of construction work.

2.11 COMPLIANCE WITH LAWS

Each Contractor shall ascertain that all completed installations comply with state laws and local ordinances and regulations relating to the performance of the work and the protection of adjacent property. The maintenance of exits and fences are the responsibility of the Contractor.

2.12 SAFETY REGULATIONS

Contractors shall take all necessary precautions for the safety of employees on the site, and shall comply with all applicable provisions of federal, state and municipal safety laws and building codes to prevent accidents or injury to persons on, about or adjacent to the premises where the work is being performed.

2.12 SAFETY REGULATIONS (continued)

In an emergency affecting the safety of life or of the work or of adjoining property, the Contractor, without special instruction or authorization from the Contracting Officer of LMHA, is hereby permitted to act at his discretion, to prevent such threatened loss or injury, and he shall so act, without appeal.

Protection shall be afforded to all adjacent buildings, roads, walks, and all other adjacent property. Any portion of building or other property injured during construction operations shall be properly and thoroughly repaired and replaced by the party responsible therefore, without cost to the Owner.

Each Contractor, alone, shall be responsible for the safety, efficiency, and adequacy of his plant, appliances, and methods, and for any damage which may result from their failure or their improper construction, maintenance or operation.

It is required that each Contractor furnish his employees with proper safety equipment such as hard hats and necessary protective clothing.

Pneumatic impact breakers, spades and similar equipment must be equipped with approved, manufacture-identified, conductive-type air hose.

2.13 STANDARDS

Reference to recognized Standard Specifications such as Federal, State, Technical Society or Institute, Manufacturers or Trade Organization, shall mean the latest or current edition of such Standard Specifications, including revisions thereof, adopted, published and in effect thirty days prior to the date for receiving Bids, and shall govern the work.

Such Standard Specifications are made a part of these Specifications as referenced and applicable to the work.

Reference to technical society, organization or body is made in the Specifications in accordance with the following abbreviations:

AASHTO American Association of State Highway and Transportation

Officials

ACI American Concrete Institute

ADA The Americans with Disabilities Act

Al Asphalt Institute

AIA The American Institute of Architects

ANSI American National Standards Institute

ASCE American Society of Civil Engineers (ASCE latest edition)

ASTM American Society for Testing Materials

Site Improvements Willow Bend Sylvania Township, Ohio Oak Terrace Holland, Ohio

2.13 STANDARDS (continued)

BOCA Building Officials and Code Administrators International

CRSI Concrete Reinforcing Steel Institute

DOC United States Department of Commerce

DOT Department of Transportation

EPA Environmental Protection Agency

IRI Industrial Risk Insurers

NEC National Electrical Code (by NFPA)

OBC Ohio Building Code

OSHA Occupational Safety Health Administration (U. S. Department of

Labor)

SBCCI Standard Building Code

SCS Soil Conservation Service (U. S. Department of Agriculture)

2.14 **DEFINITIONS**

a. Indicated

The term "indicated" is a cross-reference to details, notes or schedules on the Drawings, to other paragraphs or schedules in the Specifications and to similar means of recording requirements in the Contract Documents. Where terms such as "shown", "noted", "scheduled" and "specified" are used in lieu of "indicated", it is for the purpose of helping the reader locate cross-reference, and no limitation of location is intended except as specifically noted.

b. Directed, Requested, Etc.

Where not otherwise explained, terms such as "directed", "requested", "authorized", "selected", "approved", "required", "accepted" and "permitted" mean "directed by the Architect", "requested by the Architect", etc. However, no such implied meaning will be interpreted to extend the Architect's responsibility into the Contractor's area of construction supervision.

2.14 DEFINITIONS (continued)

c. Approve

Where used in conjunction with the Architect's response to submittals, requests, applications, inquiries, reports and claims by the Contractor, the meaning of the term "approved" will be held to limitations of the Architect's responsibilities and duties as specified in the General Conditions. In no case will "approval" by the Architect be interpreted as a release of the Contractor from responsibilities to fulfill requirements of the Contract Documents.

d. Project Site

The space available to the Contractor for performance of the work, either exclusively or in conjunction with others performing other work as part of the project. The extent of the project site is shown on the Drawings, and may or may not be identical with the description of land upon which the project is to be built.

e. Furnish

Except as otherwise defined in greater detail, the term "furnish" is used to mean supply and deliver to the project site, ready for unloading, unpacking, assembly, installation, etc., as applicable in each instance.

f. Install

The term "install" is used to describe operations at the project site including unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations, as applicable in each instance.

g. Provide

The term "provide" means furnish and install, complete and ready for the intended use, as applicable in each instance.

h. Installer

The entity (person or firm) engaged by the Contractor or his Subcontractor or Sub-Subcontractor for performance of a particular unit of work at the project site, including installation, erection, application and similar required operations. It is a general requirement that such installers be expert in their particular field.

2.15 ENFORCEMENT OF REGULATIONS

It is the responsibility of the Contractor to monitor the enforcement of all local, state and federal regulations, including OSHA. Each Contractor is responsible for the enforcement, etc. Each Contractor must provide proper safety precautions, atmospheres, working conditions, etc., in accordance with all controlling regulations, for all workmen and required inspections by all personnel employed by the Owner, the Architect and inspectors of controlling agencies.

2.16 GUARANTEES AND MANUFACTURER'S WARRANTIES

Guarantee provisions of this Specification do not modify, extend or shorten the guarantee provisions outlined in the Contract between the Contractor and the Owner. All guarantee periods shall start at occupancy or substantial completion. Subcontractors shall note work completed earlier will in effect have longer guarantee periods. It is understood that some manufactured products have more limited guarantees. Work under these Specifications shall carry the longest and least restricted manufacturer's guarantees or warranties available from the accepted manufacturer.

Written guarantees shall be delivered by the Contractor to the Architect on or before completion of the work and prior to final payment. Guarantees shall clearly identify the work guaranteed and shall state the work and all of its components will remain, if normally used and maintained by the Owner as recommended by the Contractor, Subcontractor or manufacturer, in normal operating condition and be free of any defects in material and/or workmanship for a period of at least one year, or longer if so specified, from the date of substantial completion of the total project or occupancy whichever comes first. If an element is defective at substantial completion or occupancy as evidenced by the Punch List, the warrantee of that element shall be extended so that the guarantee period will start on final acceptance of that element.

In the event of failure of any guaranteed work, the Owner will give the Contractor timely notice and the Contractor shall promptly affect the necessary repairs, adjustment or replacements as applicable. Should any adjoining work be damaged by the failure or during repair or replacement of faulty work, the Contractor shall cause it to be restored without cost to the Owner.

2.17 EXECUTION, CORRELATION AND INTENT OF DOCUMENTS

The Contract Specification Sections being general may contain items not required on this project or some inconsistencies in its various sections. However, in general, the Contract Documents are complementary, and what is called for by any one shall be as binding as if called for by all. The intention of the Documents is to include all labor and materials, equipment, transportation and services necessary for the proper execution and completion of the work.

The Drawings shall take precedence over the Contract Specifications. However, if the Drawings and Specifications are at variance with each other, the Contractor shall promptly notify the Architect, in writing, and the Architect shall investigate the circumstances and give appropriate instructions to the Contractor. The Contractor shall not take advantage of any manifestly unintentional error or omission, nor shall he proceed with any work where there is uncertainty.

2.18 COMPLIANCE WITH LAWS

Each Contractor shall ascertain that all complete installations comply with state laws and local ordinances and regulations relating to the performance of the work and the protection of adjacent property.

2.19 SUBSTITUTION OF MATERIALS

No substitution requests will be considered by the Architect unless the data, as described below, is received seven days prior to the bid due date. If any substitutions are approved, an Addendum will be issued prior to the bid due date. Base bid costs shall include the specified materials and equipment. Substitutions will not be considered in awarding the Contract.

If substitutions are proposed by any Contractor, Subcontractor or material supplier, the following data must be submitted, three copies, fully identified for product, material or method being replaced by the substitution, including referenced Specification Sections and Drawings. Include product data, Drawings, performance data, description of methods, samples where applicable, comparison between the specified item and the proposed substitution statement of effect on construction, if applicable, coordination with other trades and a statement as to the cost effect on the proposed substitution, if granted, will have with other trades and Contractors.

Approval of any substitution of materials or equipment items by the Architect shall be deemed to be granted for the convenience of the requesting Contractor, and all costs growing out of the substitutions shall be the responsibility of the Contractor. No extra costs resulting from a substitution proposed by the Contractor shall devolve upon the Owner or the Architect.

2.20 TESTING

All testing called for in the project Specifications will be performed by a testing laboratory acceptable to the Architect. All testing services will be paid for by the Contractor, except as otherwise stated in the project Specifications.

Where material fails to meet specified requirements, the Contractor involved will pay for any additional testing required.

Testing of sewers, pipe lines, etc., will be performed and paid for by the Installing Contractor and witnessed and approved by the Contractor, Architect, responsible public authority and/or others as designated at the time the tests are performed.

2.21 SITE USE

All trailers are to be parked in the areas designated by the Owner's representative or the Architect.

Access to the site by all construction vehicles will be as designated on the Drawings. No other site roads or entrances are to be used except as may be authorized for special situations by the Owner.

All Contractors will be responsible for cleaning up all dirt carried onto permanent roads and streets by their trucks and equipment.

2.22 SNOW REMOVAL

General snow removal on roads and for access into the building will be provided by the Owner. Clearing of snow in work areas will be the responsibility of the affected Contractors.

2.23 PROGRESS MEETINGS

Regularly scheduled meetings will be held with the Contractor to keep everyone informed as to the progress of the construction.

2.24 JOB MEETINGS

The Contractor shall arrange for, duly notify all affected Subcontractors, establish an agenda and conduct job meetings as scheduled during the course of the Contract. Each Contractor and major Trade Subcontractor shall be represented at *every* meeting by a responsible member of his organization.

The job meeting schedule shall be agreed to by mutual consent among the Subcontractors at the first job meeting. Meetings will be held on a regular basis.

The Contractor shall advise all parties concerned, in advance, of any change of day or time from an established date, if such change is required.

The proceeding of these meetings will be recorded by the Contractor, and each Contractor will be furnished one copy of the minutes for his use. The Contractor's conducting of the job meeting and his recording and distributing of the meeting minutes shall not be construed as coordinating or scheduling any Contractor's work in detail.

End of Section

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01230 - ALTERNATES

1.0 GENERAL CONDITIONS

1.01 GENERAL

The General Conditions, Supplementary General Conditions, Special Conditions, Instructions to Bidders and all portions of DIVISION 01 - GENERAL REQUIREMENTS shall govern this work wherein they apply.

1.02 SCOPE OF WORK

This Section describes the limits and outlines the requested "Alternates" to the basic Contract Work. Refer to Item 2.0 - ALTERNATES of this Section for the exact extent of the work of each Alternate.

Each proposer submitting a quotation on an Alternate shall include all labor, materials, tools, equipment, transportation, incidental work and all adjustments necessary to accommodate the work outlined and required. Costs shall include all overhead, profit, all applicable taxes and contemplated expenses. All work shall meet the requirements of the Design Drawings, Specifications and the appropriate details.

Each Alternate proposal shall be submitted as an individual cost for the particular Alternate (not cumulative) and shall be proposed under the premise that no other Alternate will be accepted. Should the work outlined by an Alternate not affect the cost of the work, "No Change" shall be stated.

Any of the Alternates may be accepted by the Owner and may be used in determining the low Bidder. The Owner may modify the proposal by accepting any of the Alternate proposals.

The Lump Sum Base Bid proposal shall not include the costs of any Alternates.

The Contractors and the material suppliers shall "Add" to or "Deduct" from the Lump Sum Base Bid costs for the Alternates outlined. Alternate quotations shall be listed in the Proposal Form in the spaces provided for same.

It shall be the responsibility of all Bidders to review all appropriate Sections of the Specifications wherein they apply to the work outlined by the Alternate.

2.0 ALTERNATES

2.01 ALTERNATE NO. 1 - WILLOW BEND

Replace asphalt driveways with new asphalt.

2.02 ALTERNATE NO. 2 - OAK TERRACE

a. Replace asphalt driveways with new asphalt.

End of Section

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01330 - SUBMITTAL DATA

1.0 GENERAL CONDITIONS

1.01 DESCRIPTION

The following requirements apply to the work specified in all Sections of the Contract Documents. Additional submittal requirements, above what is described herein, may be required by individual Sections in other Divisions of the project Specifications.

1.02 DEFINITION

Submittals include, but are not limited to, such information as letters, selection of samples and colors, Shop Drawings, product data, diagrams, schedules, lists, illustrations, performance charts, brochures, test reports and inspection reports which are prepared by the Contractor or his Subcontractors, illustrating or certifying some part of the work.

2.0 PROCEDURES

2.01 CONTRACTOR'S REVIEW

The Contractor shall review, stamp and submit all submittals at the appropriate times and in proper sequence so as to cause no delay in the performance of the work.

At the time of submittal, the Contractor shall inform the Architect, in writing, of any deviation in the submittals from the Contract Documents.

By sending a submittal, to the Architect, the Contractor certifies that he has reviewed and approved the submittal data for conformance to the Contract Documents.

The Architect's approval of the submittals is not authorization for the Contractor to perform extra work or to change work.

The Contractor shall determine and verify all field measurements, field construction criteria, materials, finishes, fastenings, clearances, sequencing, abutting work, electrical requirements, catalog numbers, availability and the like. He shall check and coordinate each submittal with the requirements of the Contract Documents and the particular needs of the work.

2.02 ARCHITECT'S REVIEW

The submittals listed in each Section of the Contract Documents shall be submitted to the Architect.

The Architect will review submittals only for conformance with the design concept of the project and with the information given in the Contract Documents.

2.0 PROCEDURES (continued)

2.02 ARCHITECT'S REVIEW (continued)

The Architect's review of a separate item shall not indicate approval of an assembly in which the item functions.

The Architect's review of submittals shall not relieve the Contractor of responsibility for any deviation from the requirements of the Contract Documents, unless the Contractor has informed the Architect, in writing, of the deviation.

The Architect's review of submittals shall not relieve the Contractor from responsibility for errors or omissions in the submittals.

The Architect will acknowledge that each submittal has been reviewed and will return the submittal to the Contractor, together with any notes pertaining to the conformance and/or nonconformance of the submittals with the Design Drawings of the project and information given in the Contract Specifications.

2.03 REVIEW, CORRECTIONS AND NOTATIONS

The Contractor shall review the Architect's comments, notations and dimensional changes, make any appropriate corrections and resubmit the corrected and revised submittals until no further submission is requested by the Architect.

Whenever submittals are stamped "Approved as Noted", the Contractor shall resubmit revised submittals with the noted corrections made. In some cases, the resubmittals may be for "Record" purposes only, and in other cases, the resubmittals may be for a second review to confirm that the noted changes have been made.

No portion of the work requiring a submittal shall be commenced until the submittal has been reviewed and approved by the Architect. All such portions of the work shall be constructed in accordance with the approved submittals.

3.0 FORM OF SUBMITTALS

3.01 MATERIAL LIST

A material list shall be submitted within two weeks after award of the Contract, and when accepted by the Architect, shall be considered the list of materials the Contractors will furnish.

Any substitutions for or deviations from the specified products shall have been approved, in writing, by the Architect prior to bidding.

Identify each item on the material list by the manufacturer's trade name and catalog or other identifying number. The term "as specified" will not be accepted.

3.0 FORM OF SUBMITTALS (continued)

3.02 SCHEDULE OF CONTRACTOR FURNISHED MATERIALS

The Contractor shall submit an "Equipment and Material List".

The Contractor shall update the list each month and resubmit same to the Architect. Updates shall include the name of the carrier, purchase order numbers, revised anticipated delivery dates and actual delivery dates.

3.03 COST BREAKDOWN

Within ten days after award of the Contract, the Contractor shall refer to the HUD General Conditions (HUD 5370), a cost breakdown according to the job order numbers for the total amount of the Contract price.

3.04 LETTER SUBMITTALS

Submittals in letter form are specified for certain products and methods for which the name and statements of special qualities is sufficient. Such letters shall originate with, or shall be endorsed by the Contractor.

3.05 SAMPLES

Submit color and finish selection samples in book or kit form for final selection of color, finish, texture and pattern.

Include information with each sample to show generic description, source or product name and manufacturer, limitations and compliance with standards. Samples will be returned by the Architect for comparisons with furnished materials.

Samples shall represent the full range of color and finish, which are or will be available for the specified product at the time the work is to be built.

Samples shall be of a size necessary to adequately represent the product. If there are color or texture ranges in the product, submit extreme samples (not less than three units).

Samples shall have firmly attached labels bearing the following information:

- a. Name of product
- b. Description of product and finish
- c. Name of Contractor
- d. Trade name and number of product
- e. Quality and standards met by product

3.0 FORM OF SUBMITTALS (continued)

3.06 SHOP DRAWINGS

The Contractor shall submit Shop Drawings in the form of pdf or prints. Also refer to DIVISION 01 - GENERAL REQUIREMENTS, SECTION 01780 - CONTRACT CLOSEOUT DATA.

The Architect may make changes or corrections to the Shop Drawings and return markedup copies to the Contractor for corrections and resubmission.

The Contractor shall identify Shop Drawings with the project name and project number, date and edition of submittal and the Contractor's name and address.

The Contractor shall refer to other Sections of this Specification for additional requirements for submittal of Shop Drawings applicable to the various areas of work.

3.07 PRODUCT DATA

Product data, including but not limited to, such items as catalog cuts, code compliance certificates, brochures, performance charts, illustrations, lists and schedules, shall be submitted for approval with copies of each. The Contractor shall include any additional copies required for the Contractor's use, and as may be required by DIVISION 01 - GENERAL REQUIREMENTS, SECTION 01780 - CONTRACT CLOSEOUT DATA.

The Architect will note corrections, make changes and return copies to the Contractor. If major revisions are required, all copies but one will be returned to the Contractor for correction and resubmission.

The Contractor shall identify product data with the project name and number, date and edition of submittal and the Contractor's name and address.

When the manufacturer's standard catalogs and brochures are submitted, *clearly mark* each copy to identify the pertinent data, which applies to this project on the schedules, diagrams, performance charts, models and illustrations.

3.08 MATERIAL SAFETY DATA SHEETS

The Contractor, Subcontractors and Material Suppliers shall submit Material Safety Data Sheets to the Architect for approval by the Owner's representative for any chemicals that are to be brought onto the property of the Owner for the use of any materials installation, cleaning or any other reason herein specified.

This procedure covers all quantities of chemicals, including "samples". No chemicals will be introduced to the property of the Owner unless there is a current Material Safety Data Sheet on file or approved by the Owner.

3.0 FORM OF SUBMITTALS (continued)

3.09 TEST AND INSPECTION REPORTS

Submit two copies of all test and inspection reports and any other verifications of work performed on forms standard with the testing or inspecting laboratories. All forms shall be signed by the testing or inspecting technician.

3.10 PROGRESS SCHEDULE

Upon the execution of the Contracts, the Contractor shall submit an outline Progress Schedule to the Architect. The Schedule shall indicate the proposed starting period and completion and the percent of total Contract.

3.11 CLOSEOUT SUBMITTALS

Refer to individual Sections of the Specifications and to DIVISION 01 - GENERAL REQUIREMENTS, SECTION 01780 - CONTRACT CLOSEOUT DATA for more specific requirements on submittals of closeout information and data.

3.12 MISCELLANEOUS SUBMITTALS

Provide miscellaneous submittals such as property surveys, field measurements, damage surveys, photographs and similar data as may be required.

End of Section

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01730 - REMOVALS, CUTTING, PATCHING AND REWORKING

1.0 GENERAL CONDITIONS

1.01 GENERAL

The General Conditions for Construction Contracts - Public Housing Programs, Special Conditions and all portions of DIVISION 01 - GENERAL REQUIREMENTS shall govern this work wherein they apply.

1.02 SCOPE OF WORK

Provide all labor, materials, tools, services, equipment and transportation necessary to perform all required removals, cutting, patching and reworking of existing construction, as shown on the Drawings and herein specified.

All removals, cutting, patching and reworking shall be done under the supervision of the Contractor's project superintendent. Any unforeseen or questionable structural problems arising shall be cleared with the Architect and the Owner's representative prior to removal of the questionable construction.

1.03 REMOVALS

All removed materials that are obviously not reusable are to be removed from the site by the Contractors removing same.

All questionable items shall be cleared with the Owner's representative as to whether or not they are to be salvaged or removed from the site.

The Contractors removing the existing materials shall have the responsibility of either removing same from the site, storing the items as directed by the Owner's representative or protecting same until reinstalled if to be reused in this project.

1.04 CUTTING AND PATCHING

This Contractor shall do all cutting of all present work as caused by the alterations and installation of new work.

1.05 PROTECTION AND REPAIRING

Any and all existing work and finish materials of the present construction not directly affected by this work shall be properly protected in a manner as approved to insure against undue damage or injury caused by work performed under this Contract. Any and all such existing work that is in any way cut, damaged, disturbed or otherwise interfered with in such manner, as to cause damage thereto during the progress of the work of the various trades, contrary to intent of the foregoing provisions, shall be fully, properly and carefully repaired and made good in a workmanlike manner as herein before stated or removed, replaced and/or refinished with new materials as may be directed.

Work in existing areas shall be carried on only at such times as approved by the Owner's representative. Work shall not interfere with the operation of the Owner and all services are to be maintained.

1.0 GENERAL CONDITIONS (continued)

1.06 TEMPORARY CONSTRUCTION

Provide temporary protection as necessary to partition off working areas required by the Owner's operations.

1.07 SAFETY

This Contractor shall observe and adhere to state and local building codes governing all construction operations during the erection, alterations, repair or removal of buildings or structures.

2.0 EXTENT OF REMOVALS

2.01 GENERAL

The following is a general list and description of the various items that are to be removed, reworked, replaced and/or reinstalled. It shall be understood that this list may not include all the items that must be removed, relocated, patched and/or reworked. It is the intent that all Bidders visit the site and inspect same and review the Drawings and the Specifications in order to determine all the requirements to furnish a complete project.

2.02 EXTERIOR

Sawcut and remove existing asphalt pavement, concrete curbs, concrete pavements and concrete walks, as required by the new construction. The existing surface shall be patched, as required, to match the existing construction after the installation of the site utilities and the new construction.

The existing asphalt pavement, as indicated on the Drawings, shall be resurfaced and sealed with Advanced Formula J-16 pavement sealer, applied cold with a squeegee or other approved means, using one and one-half to two gallons per 100 square feet.

The existing parking stalls and lane markings shall be restriped with a high quality pavement marking paint, equal to Sherwin-Williams. The color and width of lines shall match what is existing.

Remove and replace with new, any existing concrete sidewalks and curbs, which become damaged or broken during the new construction work.

Provide any new topsoil, regrade and seed any existing site lawn areas, which are disrupted and/or damaged by the new construction.

Repair, replace and restore any site areas used for the storage of materials, trailers and construction equipment to their original condition upon completion of the construction work.

Remove all existing bituminous paving within the construction area, for all new underground piping and sewers, all new building foundations, ramps and roadways. All bituminous paving shall be broken out and removed from the site. None of these materials, except for compactible granular materials shall be used for fill materials.

Alterations to existing sprinkler lines shall be made by the Contractor for that work.

End of Section 01730-2

Site Improvements Willow Bend Sylvania Township, Ohio Oak Terrace Holland, Ohio

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01740 - CLEAN UP

1.0 GENERAL CONDITIONS

1.01 GENERAL

The General Conditions for Construction Contracts - Public Housing Programs, Special Conditions and all portions of DIVISION 01 - GENERAL REQUIREMENTS shall govern this work wherein they apply.

1.02 SCOPE OF WORK

a. General

The following requirements shall apply to the work specified in all Sections of the Contract Documents. Additional requirements or more specific information, above what is described herein, may be required by the individual Sections in other Divisions of the project Specifications.

b. Final Clean Up

All work, as specifically mentioned herein and as required to place the facility in a condition for occupancy and ready for its intended use, shall be completed as directed by the Architect.

It is intended that all the work covered in this Section be performed immediately preceding final acceptance of the facility, and is in addition to that specified elsewhere in the Specifications.

c. Construction Clean Up

The Contractor shall provide the following clean-up services during the construction period:

- The necessary labor to keep the work areas in a broom clean condition on a once-a-week basis. High debris creating areas shall be cleaned daily, if necessary, to keep from tracking dirt into other areas of construction or into existing occupied areas.
- Provide all required containers or bins for the deposit of small trash and debris in all areas of construction. The containers shall be emptied weekly. Trash and debris shall be picked up daily by the trade creating same.
- 3. Provide all required on-site, dumpster-type containers for the collection of all trash and debris.

1.03 OPERATION

All facilities, as covered in the other Sections of the Specifications, shall be placed in a satisfactory working condition as determined by the Architect.

2.0 EXECUTION

2.01 CONSTRUCTION CLEAN UP

All "Wet Trade" Subcontractors shall provide all labor and services to perform the required construction clean up. These Contractors shall provide all required containers and dumpsters, in their immediate work areas, to dispose of their own construction debris.

Wet Trade Subcontractors shall be identified as those performing the following work:

a. Concrete

All Contractors and their employees shall perform the following clean up services in all work areas:

- a. Pick up all trash and debris created by them in excess of 2" in any one dimension, and place in small containers located around the construction work site or in the dumpster boxes on a daily basis.
- b. Breakdown all crates, packing cases, boxes, etc. Take out of the building and place in dumpster boxes or otherwise remove from the site.
- c. Keep all trash picked up around containers and dumpster boxes.
- Move material and equipment, as necessary, to permit the broom cleaning of the work areas by others.
- e. Place all food wrappings and containers in the proper containers at the end of each break or lunch period.

2.02 FINAL CLEAN UP

All work shall be cleaned to provide a neat appearing and properly functioning facility acceptable to the Owner and the Architect.

Existing roads and site areas used during the construction period shall be cleaned and repaired as required to restore them to their original condition that existed prior to the start of the construction work.

All staging, storage and parking areas used during the construction period shall be returned to their original condition upon completion of this project.

All exterior wall surfaces, aluminum entrances and framing systems, glass, doors, frames and louvers shall be cleaned of all mud, dirt, dust, labels, markings and protective coverings prior to final acceptance.

All operating utilities such as plumbing lines, drains, piping, sewer lines, manholes and catch basins shall be cleaned of all construction debris and must be in a proper working order.

Once final clean up has been performed in an area, any and all additional clean up required will be performed by the trade that created the condition.

2.0 EXECUTION (continued)

2.03 SITE CLEARANCE

All excess construction materials, trash and other debris resulting from the construction of the facility, shall be removed from the site and disposed of to the satisfaction of the Owner and the Architect.

All construction equipment and other property not a part of the finished facility, nor owned by the Owner shall be removed from the site as directed by the Architect.

Upon completion of this project and before the final acceptance of the project by the Owner, the entire area covered by this project shall be reviewed for any and all construction materials, tools, equipment, debris, etc., which may have been left behind during construction. All items not part of the finished project shall be removed from the areas and disposed of to the satisfaction of the Owner and the Architect.

End of Section

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01780 - CONTRACT CLOSEOUT DATA

1.0 GENERAL CONDITIONS

1.01 GENERAL

The following requirements shall apply to the work specified in all Sections of the Contract Documents. Additional closeout data requirements, above what is described herein, may be required by the individual Sections in other Divisions of the project Specifications.

1.02 GENERAL DATA REQUIREMENTS

- a. Certificates of Approval
- b. Guarantees/Warranties
- c. Record Drawings
- d. Record Shop Drawings
- e. Inspection/Test Reports
- f. Instructions to the Owner's Personnel

2.0 DOCUMENTATION PRESENTATION

2.01 GENERAL

The Contractor shall submit two sets of manuals, containing the data on the items herein described, to the Architect for review prior to the project completion.

Organize the manuals to follow the numbering system of the Sections in the project Specifications. Use separate index tabs for each Section. Assemble the compiled data in a leaf binder with hard coated vinyl covers.

2.02 CERTIFICATES OF APPROVAL

Include Certificates of Approval and Certificates of Substantial Completion.

2.03 GUARANTEES/WARRANTIES

Include all manufacturers' and Contractors' Guarantees/Warranties covering materials, equipment and workmanship for the periods specified. All Guarantees/Warranties shall be dated to correspond with the date of substantial completion of the total project or occupancy, whatever comes first. Refer to DIVISION 01 - GENERAL REQUIREMENTS, SECTION 01011 SPECIAL CONDITIONS, Item 2.16 - GUARANTEES AND MANUFACTURER'S WARRANTIES.

All Guarantees/Warranties shall include the following information:

a. Item of Work

2.0 DOCUMENTATION PRESENTATION (continued)

2.03 GUARANTEES/WARRANTIES (continued)

- b. Manufacturer's/Contractor's Name
- c. Specification Section
- d. Time Periods

2.04 RECORD DRAWINGS

Each Contractor shall keep an accurate record of all deviations from the Contract Drawings and Specifications. He shall neatly and correctly enter in colored pencil any deviations on the Drawings affected and shall keep the Drawings available for inspection. Extra sets of Drawings will be furnished for this purpose.

Record Drawings are to be reviewed monthly by the Architect and the Contractor as a prerequisite for payment to each Contractor.

At the completion of the job and before final acceptance, make any final corrections to the Drawings and certify to the accuracy of each print by the signature thereon and deliver same to the Architect.

Record Drawings shall be legibly marked to record the actual construction data and shall include the following:

- a. Changes in size, depth or position of any building foundations.
- b. Field changes of dimensions and details.
- c. Changes made by Work Order Changes.
- d. Details not shown on the original Contract Drawings.

2.05 RECORD SHOP DRAWINGS

The Contractor and his Subcontractors shall maintain a set of Record Drawings and shall legibly note on the Drawings any record changes that were made after the Architect's review. Submit one set of prints covering the following items of work:

2.06 INSPECTION/TEST REPORTS

Include copies of all inspection reports and test reports covering the following:

- a. Compaction Tests.
- b. Concrete Tests.

2.0 **DOCUMENTATION PRESENTATION** (continued)

2.07 INSTRUCTIONS TO THE OWNER'S PERSONNEL

Provide the services of qualified supervisory personnel to start equipment and instruct the Owner's representatives in the starting, operating, closing down and maintaining all mechanical and electrical systems and equipment. Instruct the operating personnel as to the procedures for lubricating, oiling and adjusting systems and equipment.

End of Section

SECTION 024119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

- 1. Demolition and removal of selected site elements.
- 2. Salvage of existing items to be reused or recycled.

1.3 DEFINITIONS

- A. Remove: Detach items from existing construction and dispose of them off-site unless indicated to be salvaged or reinstalled.
- B. Remove and Salvage: Detach items from existing construction, in a manner to prevent damage, and deliver to Owner ready for reuse.
- C. Remove and Reinstall: Detach items from existing construction, in a manner to prevent damage, prepare for reuse, and reinstall where indicated.
- D. Existing to Remain: Leave existing items that are not to be removed and that are not otherwise indicated to be salvaged or reinstalled.
- E. Dismantle: To remove by disassembling or detaching an item from a surface, using gentle methods and equipment to prevent damage to the item and surfaces; disposing of items unless indicated to be salvaged or reinstalled.

1.4 MATERIALS OWNERSHIP

A. Unless otherwise indicated, demolition waste becomes property of Contractor.

1.5 PREINSTALLATION MEETINGS

- A. Predemolition Conference: Conduct conference at Project site.
 - 1. Inspect and discuss condition of construction to be selectively demolished.
 - 2. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
 - 3. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
 - 4. Review areas where existing construction is to remain and requires protection.

1.6 INFORMATIONAL SUBMITTALS

- A. Schedule of Selective Demolition Activities: Indicate the following:
 - 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's building manager's and other tenants' on-site operations are uninterrupted.
 - 2. Interruption of utility services. Indicate how long utility services will be interrupted.
 - 3. Coordination for shutoff, capping, and continuation of utility services.
 - 4. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.
- B. Predemolition Photographs or Video: Show existing conditions of adjoining construction, including finish surfaces, that might be misconstrued as damage caused by demolition operations.
- C. Warranties: Documentation indicating that existing warranties are still in effect after completion of selective demolition.

1.7 CLOSEOUT SUBMITTALS

A. Inventory: Submit a list of items that have been removed and salvaged.

1.8 FIELD CONDITIONS

- A. Owner will occupy the buildings immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
- B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

- D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
 - 1. If suspected hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.
- E. Storage or sale of removed items or materials on-site is not permitted.
- F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
 - 1. Maintain fire-protection facilities in service during selective demolition operations.

1.9 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials and using approved contractors so as not to void existing warranties. Notify warrantor before proceeding.
- B. Notify warrantor on completion of selective demolition, and obtain documentation verifying that existing system has been inspected and warranty remains in effect. Submit documentation at Project closeout.

1.10 COORDINATION

A. Arrange selective demolition schedule so as not to interfere with Owner's operations and occupancy.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ASSE A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Review Project Record Documents of existing construction or other existing condition and hazardous material information provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in Project Record Documents.
- C. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs or video.
 - 1. Inventory and record the condition of items to be removed and salvaged. Provide photographs or video of conditions that might be misconstrued as damage caused by salvage operations.
 - 2. Before selective demolition or removal of existing building elements that will be reproduced or duplicated in final Work, make permanent record of measurements, materials, and construction details required to make exact reproduction.

3.2 PROTECTION

- A. Temporary Protection: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
 - 1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
 - 2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
 - 3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
 - 4. Cover and protect furniture, furnishings, and equipment that have not been removed.
- B. Temporary Shoring: Design, provide, and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
 - 1. Strengthen or add new supports when required during progress of selective demolition.
- C. Remove temporary barricades and protections where hazards no longer exist.

3.3 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
 - 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
 - 3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 - 4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
 - 5. Maintain fire watch during and after flame-cutting operations.
 - 6. Maintain adequate ventilation when using cutting torches.
 - 7. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
 - 8. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
 - 9. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
- B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- C. Removed and Reinstalled Items:
 - 1. Clean and repair items to functional condition adequate for intended reuse.
 - 2. Pack or crate items after cleaning and repairing. Identify contents of containers.
 - 3. Protect items from damage during transport and storage.
 - 4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
- D. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.4 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

- A. Concrete: Remove to nearest where practical. Demolish in small sections. Using power-driven saw, cut concrete to a depth of at least 3/4 inch (19 mm) at junctures with construction to remain. Dislodge concrete from reinforcement at perimeter of areas being demolished, cut reinforcement, and then remove remainder of concrete. Neatly trim openings to dimensions indicated.
- B. Masonry: Demolish in small sections. Cut masonry at junctures with construction to remain, using power-driven saw, and then remove masonry between saw cuts.
- C. Concrete Sidewalks and Slabs-on-Grade: Remove to nearest joint.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

- A. Remove demolition waste materials from Project site and dispose of them in an EPA-approved construction and demolition waste landfill acceptable to authorities having jurisdiction and recycle.
 - 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 - 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
- B. Burning: Do not burn demolished materials.

3.6 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119

SECTION 321216 - ASPHALT PAVING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Hot-mix asphalt paving.
- B. Related Requirements:
 - . Section 321313 "Concrete Paving" for concrete pavement and for separate concrete curbs, gutters, and driveway aprons.

1.2 ACTION SUBMITTALS

A. Hot-mix asphalt designs.

1.3 INFORMATIONAL SUBMITTALS

- A. Material Certificates: Include statement that mixes containing recycled materials will perform equal to mixes produced from all new materials.
 - 1. Aggregates.
 - 2. Asphalt binder.
 - 3. Tack coat.

1.4 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with materials, workmanship, and other applicable requirements of the State of Ohio Department of Transportation Construction and Material Specifications, January 1, 2019 for asphalt paving work.
 - 1. Measurement and payment provisions and safety program submittals included in standard specifications do not apply to this Section.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Aggregate Base: ODOT Item 304.

Site Improvements
Willow Bend
Sylvania Township, Ohio
Oak Terrace
Holland, Ohio

321216 - 1

- B. Asphalt Concrete Intermediate Course: ODOT Item 448, Type 1 Pg. 64-22.
- C. Asphalt Concrete Surface Course: ODOT Item 448, Type 2 Pg. 4-22.
- D. Reclaimed Asphalt Pavement (RAP): Processed material obtained by milling or full depth removal of existing asphalt concrete pavement.

PART 3 - EXECUTION

3.1 SURFACE PREPARATION

A. Ensure that prepared subgrade is ready to receive paving. Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces.

3.2 HOT-MIX ASPHALT PLACEMENT

- A. Machine place hot-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand in areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section, and thickness when compacted.
 - 1. Place hot-mix asphalt base course in number of lifts and thicknesses indicated.
 - 2. Place hot-mix asphalt surface course in single lift.
 - 3. Spread mix at a minimum temperature of 250 deg F (121 deg C).
 - 4. Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.
- B. Place paving in consecutive strips not less than 10 feet (3 m) wide unless infill edge strips of a lesser width are required.
- C. Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with hot-mix asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

3.3 JOINTS

- A. Construct joints to ensure a continuous bond between adjoining paving sections. Construct joints free of depressions, with same texture and smoothness as other sections of hot-mix asphalt course.
 - 1. Clean contact surfaces and apply tack coat to joints.
 - 2. Offset longitudinal joints, in successive courses, a minimum of 6 inches (150 mm).
 - 3. Offset transverse joints, in successive courses, a minimum of 24 inches (600 mm).
 - 4. Construct transverse joints at each point where paver ends a day's work and resumes work at a subsequent time. Construct these joints using either "bulkhead" or "papered"

Site Improvements Willow Bend Sylvania Township, Ohio Oak Terrace Holland, Ohio method in accordance with AI MS-22, for both "Ending a Lane" and "Resumption of Paving Operations.

3.4 COMPACTION

- A. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot hand tampers or with vibratory-plate compactors in areas inaccessible to rollers.
 - 1. Complete compaction before mix temperature cools to 185 deg F (85 deg C).
- B. Breakdown Rolling: Complete breakdown or initial rolling immediately after rolling joints and outside edge. Examine surface immediately after breakdown rolling for indicated crown, grade, and smoothness. Correct laydown and rolling operations to comply with requirements.
- C. Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling while hot-mix asphalt is still hot enough to achieve specified density. Continue rolling until hot-mix asphalt course has been uniformly compacted to the following density:
 - 1. Average Density, Rice Test Method: 92 percent of reference maximum theoretical density in accordance with ASTM D2041/D2041M, but not less than 90 percent or greater than 96 percent.
- D. Finish Rolling: Finish roll paved surfaces to remove roller marks while hot-mix asphalt is still warm.
- E. Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while asphalt is still hot; compact thoroughly.
- F. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.
- G. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

3.5 INSTALLATION TOLERANCES

- A. Pavement Thickness: Compact each course to produce thickness indicated within the following tolerances:
 - 1. Base Course: Plus or minus 1/2 inch (13 mm).
 - 2. Surface Course: Plus 1/4 inch (6 mm), no minus.
- B. Pavement Surface Smoothness: Compact each course to produce surface smoothness within the following tolerances as determined by using a 10-foot (3-m) straightedge applied transversely or longitudinally to paved areas:

- 1. Base Course: 1/4 inch (6 mm).
- 2. Surface Course: 1/8 inch (3 mm).
- 3. Crowned Surfaces: Test with crowned template centered and at right angle to crown. Maximum allowable variance from template is 1/4 inch (6 mm).

3.6 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.
- B. Replace and compact hot-mix asphalt where core tests were taken.
- C. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements.

END OF SECTION 321216

SECTION 321313 - CONCRETE PAVING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes Concrete Paving. Including the Following:
 - 1. Driveways.
 - 2. Walks.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Design Mixtures: For each concrete paving mixture. Include alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.

1.3 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with materials, workmanship, and other applicable requirements of the State of Ohio Department of Transportation Construction and Material Specifications, January 1, 2019 for concrete paving work.
 - 1. Measurement and payment provisions and safety program submittals included in standard specifications do not apply to this Section.
- B. Ready-Mix-Concrete Manufacturer Qualifications: A firm experienced in manufacturing readymixed concrete products and that complies with ASTM C94/C94M requirements for production facilities and equipment.
 - 1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities" (Quality Control Manual Section 3, "Plant Certification Checklist").

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Aggregate Base: ODOT Item 304.
- B. Concrete Walks: ODOT Item 608.

Site Improvements Willow Bend Sylvania Township, Ohio Oak Terrace Holland, Ohio

2.2 CONCRETE MIX

A. Mix and deliver concrete in accordance with ODOT Specifications.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Proof-roll prepared subbase surface below concrete paving to identify soft pockets and areas of excess yielding.

3.2 PREPARATION

A. Remove loose material from compacted subbase surface immediately before placing concrete.

3.3 EDGE FORMS AND SCREED CONSTRUCTION

- A. Set, brace, and secure edge forms, bulkheads, and intermediate screed guides to required lines, grades, and elevations. Install forms to allow continuous progress of work and so forms can remain in place at least 24 hours after concrete placement.
- B. Clean forms after each use and coat with form-release agent to ensure separation from concrete without damage.

3.4 STEEL REINFORCEMENT INSTALLATION

A. Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.

3.5 JOINTS

- A. General: Form construction, isolation, and contraction joints and tool edges true to line, with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline unless otherwise indicated.
- B. Construction Joints: Set construction joints at side and end terminations of paving and at locations where paving operations are stopped for more than one-half hour unless paving terminates at isolation joints.
- C. Isolation Joints: Form isolation joints of preformed joint-filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, other fixed objects, and where indicated.

- D. Contraction Joints: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of the concrete thickness, to match jointing of existing adjacent concrete paving.
- E. Edging: After initial floating, tool edges of paving, gutters, curbs, and joints in concrete with an edging tool to a 1/4-inch (6-mm) radius. Repeat tooling of edges after applying surface finishes.

3.6 CONCRETE PLACEMENT

- A. Moisten subbase to provide a uniform dampened condition at time concrete is placed. Do not place concrete around manholes or other structures until they are at required finish elevation and alignment.
- B. Comply with ODOT Specifications requirements for measuring, mixing, transporting, and placing concrete.
- C. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.
- D. Screed paving surface with a straightedge and strike off.
- E. Commence initial floating using bull floats or darbies to impart an open-textured and uniform surface plane before excess moisture or bleedwater appears on the surface. Do not further disturb concrete surfaces before beginning finishing operations or spreading surface treatments.

3.7 FLOAT FINISHING

- A. General: Do not add water to concrete surfaces during finishing operations.
- B. Float Finish: Begin the second floating operation when bleedwater sheen has disappeared and concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats or by hand floating if area is small or inaccessible to power units. Finish surfaces to true planes. Cut down high spots and fill low spots. Refloat surface immediately to uniform granular texture

3.8 CONCRETE PROTECTION AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
- B. Comply with ACI 306.1 for cold-weather protection.
- C. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h (1 kg/sq. m x h) before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete but before float finishing.

Site Improvements Willow Bend Sylvania Township, Ohio Oak Terrace Holland, Ohio

- D. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
- E. Curing Methods: Cure concrete by curing and sealing compound per Lucas Metropolitan Housing Authority.

3.9 PAVING TOLERANCES

- A. Comply with tolerances in ACI 117 (ACI 117M) and as follows:
 - 1. Elevation: 3/4 inch (19 mm).
 - 2. Thickness: Plus 3/8 inch (10 mm), minus 1/4 inch (6 mm).
 - 3. Surface: Gap below 10-feet- (3-m-) long; unleveled straightedge not to exceed 1/2 inch (13 mm).
 - 4. Joint Spacing: 3 inches (75 mm).
 - 5. Contraction Joint Depth: Plus 1/4 inch (6 mm), no minus.
 - 6. Joint Width: Plus 1/8 inch (3 mm), no minus.

3.10 REPAIR AND PROTECTION

- A. Remove and replace concrete paving that is broken, damaged, or defective or that does not comply with requirements in this Section. Remove work in complete sections from joint to joint unless otherwise approved by Architect.
- B. Protect concrete paving from damage. Exclude traffic from paving for at least 14 days after placement. When construction traffic is permitted, maintain paving as clean as possible by removing surface stains and spillage of materials as they occur.
- C. Maintain concrete paving free of stains, discoloration, dirt, and other foreign material. Sweep paving not more than two days before date scheduled for Substantial Completion inspections.
- D. Contractor has sole responsibility to protect newly poured concrete from graffiti. Contractor shall coordinate pour times with the Project Manager or A/E, in order to optimize cure time before the new concrete is unattended, and state how they intend to eliminate the risk for graffiti or damage. Should graffiti or damage appear in the concrete within 24 hours after the pour, contract shall replace the area affected at no cost to the Lucas Metropolitan Housing Authority.

END OF SECTION 321313