

- b. Backfill pipes with material that is well tamped under and around pipes and fittings to prevent settlement or lateral movement. Do not roll rocks into trenches and allow them to drop on pipes. Place at least 12" of fine material over pipes before sumping fill in trenches. Compact in 8" inch layers for paved areas. Fill under pipes in rock and sewer and water lines with six inches of crushed stone or crushed and screened gravel.
- c. Do not place gravel or fill on frozen ground.
- d. Do not start fills until all loose material has been cleared.
- e. Compact inaccessible places with mechanical tampers, (jumping jacks), or hand operated pneumatic tampers.
- f. Maintain optimum moisture content in embankment fill and gravel for obtaining required compaction. Moisture content of fill shall be such as to allow placing and traveling thereon with equipment.
- g. Make sure stones in earth fill are well distributed. Do not leave stones over 4 inches in diameter within 12 inches of the finished subgrade.

3.4 Excavating

- a. Keep excavation near sidewalks and trenches properly fenced and guarded. Provide and maintain lights and barricades wherever and whenever necessary.
- b. Do all shoring and bracing necessary to support soil adjoining the excavation for safety of workmen and protection of work.
- c. Make all excavations to the proper depth, with the proper allowances for formwork. In general, make all excavations clean and clear of loose material. Remove any debris or vegetable matter encountered in the excavation.
- d. Make trench excavation for site utilities and for perimeter drains to the width shown on the Drawings and to the depth required or as indicated by the work. Bottom of these trenches shall follow a uniformly pitched slope, as conditions require, with no sudden pitches or changes of grades allowed. Width shall not exceed that shown on the Plans. Refer to Electrical Drawings for location and size of conduit.

3.5 Sanitary, Water and Storm Piping

- a. Prior Inspection - Inspect all pipe, couplings, fittings, and joints before installation. Cracked, spalled, dented, or otherwise damaged pipe, fittings, and accessories will be rejected.
- b. Placement - Carefully lower all pipe, fittings, and accessories into trench using suitable equipment in such a manner as to prevent damage. Under no circumstances shall pipe or accessories be dropped or dumped into the trench.

- c. Properly fit all joints in accordance with the manufacturer's instructions.
- d. Lay and maintain pipe true to line and grade. Make no deviation from line and grade except with the consent of the Architect.
- e. Keep the interior of the pipe clear of dirt and other foreign matter at all times.
- f. When pipe laying is not in progress, keep the open ends of installed pipe closed by an approved means to prevent the entrance of trench water, dirt, or other debris.
- g. No pipe shall be laid in water, or on frozen trench bottom, or when it becomes obvious that the trench conditions or weather are unsuitable for such work.
- h. The water main shall be installed, sanitized, and tested in accordance with the requirements of Portland Water District. Notify the Water District prior to starting construction and provide opportunity for inspection as required by the District.

3.6 Handrail

- a. Pipe handrail shall be fabricated as shown on the Drawings. Weld all joints and grind smooth to match adjacent metal. Handrail shall be placed in concrete base as detailed.
- b. Pipes shall have two coats of paint. Color shall be selected by Architect.

3.7 Concrete Bases

- a. Contractor shall supply and install concrete bases in quantities and locations as shown on the Drawings.

3.8 Timber

- a. Construct timber play structure as detailed on the Drawings and in location as shown. Stain shall be approved by Architect.

3.9 Benches

- a. Benches shall be fabricated on job site as shown on the drawings.

3.10 Cleaning

- a. On completion of work clean up the premises of all wood, stones, cement bags, and all other debris and the whole left in a first-class and satisfactory manner.

SECTION 02800

LANDSCAPING

Part 1: GENERAL

1.1 Related Work Specified Elsewhere

- a. Stockpiling of Loam on the Site - Section 02200 Earthwork
- b. Clearing, Grubbing Selective Clearing - Section 02100, Clearing and Grubbing.

1.2 Tests and Certifications

- a. Tests specified in this Section shall be paid for by the Contractor. Certifications required must be submitted to the Architect for approval before use of materials on the site.
- b. At the time of sowing the lawn seed mixture, true samples shall be submitted to the Seed Testing Laboratory at the nearest State University for testing.

1.3 Certification of Acceptability

- a. Inspection of the work of Lawns and Planting to determine completion of the work under this Section will be made at the conclusion of the Maintenance Period upon written notice requesting such inspection submitted by the Contractor at least five (5) days prior to the anticipated date. The condition of lawns and planting will be noted and determination made by the Architect whether maintenance will continue in any part.

1.4 Guarantee

- a. Guarantee Lawns and Planting for one (1) year after certification of acceptability by the Architect. They shall be alive and in satisfactory growth at the end of the Guarantee Period, except for damage resulting from causes beyond the responsibility of the Contractor.

Part 2: PRODUCTS

2.1 Topsoil

- a. Topsoil shall consist of natural loam topsoil, obtained from naturally well drained areas which have not been stripped. Material shall be of uniform quality, free from hard clods, still clay, hard pan, sods, and undesirable inorganic materials and conform to the following requirements:

Landscaping - 02800

Page 1 of 5

Organic Matter - 5.5% of 7.5% determined by loss on ignition of moisture-free samples dried in accordance with the current method of the Association of Official Agricultural Chemists.

Acidity Range - pH 5.8 to pH 6.0

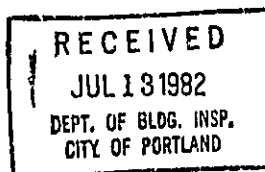
- b. The Architect reserves the right to reject topsoil in which more than sixty percent (60%) of the material passing #100 U.S.S. Mesh Sieve consists of clay as determined by the Buoyous Hydrometer or by the Decantation Method. All percentages are to be based on dry weight of sample.
- c. Approval of samples by the Architect will not constitute final acceptance. The Architect reserves the right to reject, on or after delivery, any material which does not, in his opinion, meet these Specifications.

2.2 Grass Seed

- a. Grass Seed - Fresh, clean, new crop seed dated no earlier than 1978. Seed shall be dealer mixed and have dealer's certification that it conforms to the following requirements: It shall consist of a mixture of 50% Kentucky Bluegrass, 25% Red Fescue, 15% Perennial Rye Grass, and 10% Red Top or other similar mixture suitable to the Owner. Grass seed for retention basin to be swale grass (Environmental Quality Handbook, State of Maine, Site Use Group C)

2.3 Additives

- a. Lime - Commercial ground lime as approved by the Architect.
- b. Commercial Fertilizer - 10-8-6 in unopened bags with manufacturer's analysis printed on the bag.
- c. Humus - Ground or shredded peat that has been stockpiled for at least one (1) year prior to use of commercial bagged peat.
- d. Mulch for Plants - Shredded or chipped bark as approved by the Architect.
- e. Mulch for Grass - New crop dry hay or Silva-Fiber by Meyerhaeuser.
- f. Erosion Control Mesh - Extra heavy jute or plastic mesh equal to that specified by MSCH (now MDOT) Specifications, Section 712.20 (b) and Current Supplements.
- g. Stakes for Supporting Trees - 2" x 2" sound hardwood not less than ten (10) feet in length.
- h. Wire for Guys - No. 12 gauge, soft drawn galvanized iron wire.
- i. Hose to Encase Guy Wire - new 2-ply reinforced 1/2" diameter rubber hose.



Landscaping - 02800

Page 2 of 5

2.5 Plant Materials

- a. Furnish plants shown and specified on the Drawings as listed in the plant materials list. Plants shall be nursery grown unless authorized to be collected; hardy under local climatic conditions, typical of their species or variety and have a normal habit of growth.

Part 3: EXECUTION

2.1 Loaming and Seeding

- a. Conduct planting operations under favorable weather conditions. All areas not required to be developed otherwise shall be planted to grass.
- b. Prior to placing loam, scarify compacted subgrade areas, remove all rocks and debris and set grade stakes as necessary. Place topsoil evenly over all areas to be loamed to a minimum thickness of six (6") inches. Hand rake to remove all clods, lumps, brush, roots, and stones over one (1") inch in diameter. Hand roll to show depressions and uneven areas, regrade as necessary to smooth even grades.

- c. Apply additives as follows:

Lime: 100#/1000 sq.ft.
Fertilizer: 10-3-6 35#/1000 sq.ft.

Apply above additives and harrow into top two (2") inches of the seed bed.


- d. Sow seed specified by use of a mechanical spreader at the rate of 5#/1000 sq.ft. Rake lightly in, roll with 300# roller, and water with a fine spray. Method of seeding may be varied at Contractor's discretion, but a full, even growth in all areas must be guaranteed.
- e. Install erosion control mesh in all run-off ditches. Turn upstream edges four (4") inches into loam and lap not less than six (6") inches with next run. Stake mesh with eight (8") inch long wire staples placed three (3') feet oc. along edges and at third points of each strip. Seed as in 3.1 d above, after mesh is placed.
- f. Apply mulch specified to be ½" to 1" deep over all grassed areas, (approximately 3 tons/acre for dry hay).

3.2 Planting of Trees and Shrubs

- a. Locations must be staked and approved by the Architect before pits are dug. Locations as shown on the Drawings may be varied due to existing conditions. Dig holes for trees two (2') feet larger in diameter than root spread and at least three (3') feet deep and one (1') foot larger in diameter and two (2') feet deep for shrubs.

Landscaping - 02800

Page 3 of 5

- 
- b. Preparation of Soil - Spread manure and peat humus and incorporate with loam in bottoms of the holes as indicated on the typical section of Tree Planting Detail.

3.3 Staking and Guying

- a. Stake trees at the time of planting as shown on the typical section of Tree Planting Detail.

3.4 Pruning and Mulching

- a. Remove all dead wood or suckers and all broken or badly bruised branches shall be removed. In addition, remove one-fourth (1/4) to one-third (1/3) of the wood by thinning out and shortening branches to balance root loss due to transplanting.
- b. Paint cuts over 1" in diameter with an approved tree paint. Paint shall cover all exposed cambium as well as other exposed living tissue.
- c. Immediately after planting operations are completed, cover all tree and shrub pits with three (3") Inch layer of the specified mulch. The limit of this mulch for trees shall be the area of the pit and for shrubs in beds, the entire area of the shrub bed.

3.5 Maintenance

- a. Maintenance shall begin immediately after each portion of lawn and each plant is planted and shall continue in accordance with the following requirements:
 - 1. Lawns - the Contractor shall be held responsible for the maintenance of lawns, including watering, weeding, sowing, cutting, and replanting or reseeding as necessary, for at least sixty (60) days after sowing and as much longer as necessary to establish a uniform stand of the specified grasses and until certification of Acceptability. No bare spots will be allowed. After the grass has started, all areas and parts of area which fail to show a uniform stand of grass, for any reason whatsoever, shall be reseeded repeatedly until all areas are covered with a satisfactory growth of grass. At time of cutting, keep mower blades not less than two and one-half (2½") inches high. The maintenance period shall continue after seeding and until the lawns are certified acceptable by the Architect, which certification shall not be earlier than the date of substantial completion of the entire work of this Contract. Contractor shall cut grass a minimum of twice during the first sixty (60) days.
 - 2. New Planting - protect and maintain new planting until the end of the lawn maintenance period, or, if installed after the lawn maintenance period, until installation of planting is certified acceptable by the Landscape Architect. Maintenance shall include watering, mulching, tightening, and repairing guys, replacement of sick or dead plants, resetting plants to proper grades or upright position, and restoration of the planting saucer, and all other care needed for proper growth of the plants. If planting is done after lawn preparation, proper protection to lawn areas shall be provided and any damage resulting from planting operations shall be repaired promptly.

Landscaping - 02800

Page 4 of 5

- c. Spraying and Dusting - during the maintenance period, and the guarantee period, do all seasonal spraying and/or dusting of trees and shrubs as required.
- d. Protection - planting areas and plants shall be protected against trespassing and damage of any kind. If any plants become damaged or injuries occur, they shall be treated or replaced as directed.
- e. Damage resulting from erosion, gulleys, washouts, or other causes shall be repaired by filling with topsoil, tamping, refertilizing, and sodding, by the Contractor at his own expense if such damage occurs prior to certification of acceptability of lawns and planting by the Architect.
- f. The Contractor's responsibility for maintenance shall cease at the time of certification of acceptability by the Architect. During the guarantee period, the Contractor shall be held responsible for making replacements, but no maintenance will be required, other than spraying and dusting.

3.5 Replacement

- a. At the end of the guarantee period, inspection will be made by the Architect upon written notice requesting such inspection submitted by the Contractor at least ten (10) days before the anticipated date. Any plant required under this Contract that is dead or not in satisfactory growth, as determined by the Architect, shall be removed from the site. These and any plants missing due to the Contractor's negligence shall be replaced as soon as conditions permit but during the normal planting season.

SECTION 04100 MORTAR
SECTION 04200 UNIT MASONRY

Part 1: GENERAL

1.01 Description of Work

- a. The extent of masonry work is as shown on the Drawings and includes areas to be toothed in to match adjacent work on the existing building, as well as patching and masonry repointing work. Some interior patching and toothing may be required in the course of the work.

Part 2: PRODUCTS

2.01 Materials

- a. Portland Cement - to conform to ASTM Standard C-150, Type I or Type II.
- b. Sand - clean, hard, sharp and free from deleterious materials conforming to ASTM Standard C-144.
- c. Water - potable.
- d. Masonry cement for masonry block - Dragon, Atlas, Brixment or Medusa.
- e. Coloring - by Frank B. Davis Co., or approved equal and as selected by the Architect.
- f. Face Brick (used) - Use existing brick removed by demolition insofar as possible. Do not reuse pumpkin or unsound brick.
- g. Concrete Block - Masonry units made from aggregate conforming to ASTM C-33 latest revision.

Part 3: EXECUTION

3.01 Mixes

- a. Mortar for regrouting existing masonry, patchwork and infills as required:
 - 1 Parts - Portland Cement
 - 2 Parts - Lime
 - 7 Parts - Sand
 - Coloring as selected by the Architect

Mortar & Masonry - 04100 & 04200

Page 1 of 2

b. Mortar for masonry block work:

1 Part - Mortar Cement
2 1/2-3 Parts - Sand

3.02 Brickwork

- a. In general, course joints to match those existing. Tool to give a firm, concave joint with a round tool slightly larger than the joint. Do not lay brick or any other unit having a film of frost on its surface in the work and do not build on any frozen work. Such work shall be required to be removed and rebuilt. Do tooling before mortar hardens and with sufficient force to press the mortar tight against the brick on both sides of the joint. Finish joint shall match existing adjacent work.
- b. Build in electrical boxes, sillcocks, flashings, and other work at locations indicated on Drawings. Flashings over and under openings shall extend six (6") inches beyond jamb.

3.03 Repointing Existing Masonry Joints

- a. In areas shown on Drawings and where mortar joints are discovered to be loose or deteriorated to a depth greater than 1/2 inch from the face of the brick - cut out all mortar to a minimum depth of one (1) inch or a minimum depth of 1/2 inch if joint is less than 3/8 inches wide. Loose or rotten mortar beyond the above depths shall be removed to sound mortar.
- b. Wet brick prior to repointing and let dry to a surface dry condition before applying mortar. Use lime mortar specified in Section 04100.

3.04 Concrete Masonry Units

- a. Lay hollow masonry units as may be required at interior of existing building in common running bond.

3.05 Cleaning

- a. On completion of new masonry work, clean all exposed brick thoroughly with a weak solution of muriatic acid and clear water, removing all stains. Clean all masonry work of loose mortar and mortar spots, leaving the whole clean in all parts. Do any pointing of joints as may be necessary, with mortar used for laying units.
- b. Wash regouted brick work using low pressure water and a stiff bristle brush only. Do not use detergents or acids unless specifically approved by the Architect.
- c. Clean down exposed concrete surfaces which have become dirty, spotted with concrete or mortar spatter and leave uniform in color and texture. On completion, leave all parts clean and to the satisfaction of the Architect.

Mortar & Masonry - 04100 & 04200

Page 2 of 2

SECTION 05100 MISCELLANEOUS METALS

Part 1: GENERAL

1.01 Description of Work

- a. The extent of structural steel and miscellaneous metal work is shown on Drawings and includes items fabricated from iron and steel shapes, plates, bars, strips, tubes, pipes and castings which are not a part of structural steel or other metal systems in other sections of these specifications.

1.02 Quality Assurance

- a. Field Measurements - Take field measurements prior to preparation of shop drawings and fabrication, where possible. Do not delay job progress; allow for trimming and fitting wherever taking field measurements before fabrication might delay work.
- b. Inserts and Anchorages - Furnish inserts and anchoring devices which must be set in concrete or built into masonry for installation of miscellaneous metal work. Provide setting drawings, templates, instructions and directions for installation of anchorage devices. Coordinate delivery with other work to avoid delay.

See concrete and masonry sections of these Specifications for installation of inserts and anchorage devices.

1.03 Submittals

- a. Manufacturer's Data - For information only, submit 2 copies of manufacturer's specifications, anchor details and installation instructions for products to be used in the fabrication of miscellaneous metal work, including paint products. Indicate by transmittal that copy of instructions has been distributed to installer.

Misc. Metals & Structural Steel - 05100 & 05500

Page 1 of 4

- b. Shop Drawings - Submit shop drawings for fabrication and erection of miscellaneous metal assemblies. Include plans and elevations at not less than 1" to 1'-0" scale, and include details of sections and connections at not less than 3" to 1'-0" scale. Show anchorage and accessory items. Provide templates for anchor and bolt installation by others.

Part 2: PRODUCTS

2.01 Materials and Components

- a. Metal Surfaces, General - For fabrication of miscellaneous metal work which will be exposed to view, use only materials which are smooth and free of surface blemishes including pitting, seam marks, roller marks, rolled trade names and toughness.
- b. Structural Steel Plates, Shapes and Bars - ASTM A-36.
- c. Concrete Inserts - Threaded or wedge type, galvanized ferrous castings, either malleable iron ASTM A-47 or cast steel ASTM A-27. Provide bolts, washers and shims as required, hot-dip galvanized, ASTM A-153.
- d. Masonry Anchorage Devices - Expansion shields, FS FF-S-325.

2.02 Fasteners

- a. General - Provide hot dip galvanized fasteners for exterior use or where built into exterior walls. Select fasteners for the type, grade and class required.
- b. Bolts and Nuts - Regular hexagon head type, ASTM A-307, Grade A.
- c. Lag Bolts - Square head type, FS FF-S-92.
- d. Wood Screws - Cadmium plated steel, FS FF-S-111.
- e. Plain Washers - Round, carbon steel, FS FF-W-92.
- f. Lock Washers - Helical spring type carbon steel, FS FF-W-84.

Misc. Metals & Structural Steel - 05100 & 05500


- b. Backfill pipes with material that is well tamped under and around pipes and fittings to prevent settlement or lateral movement. Do not roll rocks into trenches and allow them to drop on pipes. Place at least 12" of fine material over pipes before sumping fill in trenches. Compact in 8" inch layers for paved areas. Fill under pipes in rock and sewer and water lines with six inches of crushed stone or crushed and screened gravel.
- c. Do not place gravel or fill on frozen ground.
- d. Do not start fills until all loose material has been cleared.
- e. Compact inaccessible places with mechanical tampers, (jumping jacks), or hand operated pneumatic tampers.
- f. Maintain optimum moisture content in embankment fill and gravel for obtaining required compaction. Moisture content of fill shall be such as to allow placing and traveling thereon with equipment.
- g. Make sure stones in earth fill are well distributed. Do not leave stones over 4 inches in diameter within 12 inches of the finished subgrade.

3.4 Excavating

- a. Keep excavation near sidewalks and trenches properly fenced and guarded. Provide and maintain lights and barricades wherever and whenever necessary.
- b. Do all shoring and bracing necessary to support soil adjoining the excavation for safety of workmen and protection of work.
- c. Make all excavations to the proper depth, with the proper allowances for formwork. In general, make all excavations clean and clear of loose material. Remove any debris or vegetable matter encountered in the excavation.
- d. Make trench excavation for site utilities and for perimeter drains to the width shown on the Drawings and to the depth required or as indicated by the work. Bottom of these trenches shall follow a uniformly pitched slope, as conditions require, with no sudden pitches or changes of slopes allowed. Width shall not exceed that shown on the Plans. Refer to Electrical Drawings for location and size of conduit.

3.5 Sanitary, Water and Storm Piping

- a. Prior Inspection - -Inspect all pipe, couplings, fittings, and joints before installation. Cracked, spalled, dented, or otherwise damaged pipe, fittings, and accessories will be rejected.
- b. Placement - Carefully lower all pipe, fittings, and accessories into trench using suitable equipment in such a manner as to prevent damage. Under no circumstances shall pipe or accessories be dropped or dumped into the trench.

- 
- c. Properly fit all joints in accordance with the manufacturer's instructions.
 - d. Lay and maintain pipe true to line and grade. Make no deviation from line and grade except with the consent of the Architect.
 - e. Keep the interior of the pipe clear of dirt and other foreign matter at all times.
 - f. When pipe laying is not in progress, keep the open ends of installed pipe closed by an approved means to prevent the entrance of trench water, dirt, or other debris.
 - g. No pipe shall be laid in water, or on frozen trench bottom, or when it becomes obvious that the trench conditions or weather are unsuitable for such work.
 - h. The water main shall be installed, sanitized, and tested in accordance with the requirements of Portland Water District. Notify the Water District prior to starting construction and provide opportunity for inspection as required by the District.

3.6 Handrail

- a. Pipe handrail shall be fabricated as shown on the Drawings. Weld all joints and grind smooth to match adjacent metal. Handrail shall be placed in concrete base as detailed.
- b. Pipes shall have two coats of paint. Color shall be selected by Architect.

3.7 Concrete Bases

- a. Contractor shall supply and install concrete bases in quantities and locations as shown on the Drawings.

3.8 Timber

- a. Construct timber play structure as detailed on the Drawings and in location as shown. Stain shall be approved by Architect.

3.9 Benches

- a. Benches shall be fabricated on job site as shown on the drawings.

3.10 Cleaning

- a. On completion of work clean up the premises of all wood, stones, cement bags, and all other debris and the whole left in a first-class and satisfactory manner.

SECTION 02800

LANDSCAPING

Part 1: GENERAL

1.1 Related Work Specified Elsewhere

- a. Stockpiling of Loam on the Site - Section 02200 Earthwork
- b. Clearing, Grubbing Selective Clearing - Section 02100, Clearing and Grubbing.

1.2 Tests and Certifications

- a. Tests specified in this Section shall be paid for by the Contractor. Certifications required must be submitted to the Architect for approval before use of materials on the site.
- b. At the time of sowing the lawn seed mixture, true samples shall be submitted to the Seed Testing Laboratory at the nearest State University for testing.

1.3 Certification of Acceptability

- a. Inspection of the work of Lawns and Planting to determine completion of the work under this Section will be made at the conclusion of the Maintenance Period upon written notice requesting such inspection submitted by the Contractor at least five (5) days prior to the anticipated date. The condition of lawns and planting will be noted and determination made by the Architect whether maintenance will continue in any part.

1.4 Guarantee

- a. Guarantee Lawns and Planting for one (1) year after certification of acceptability by the Architect. They shall be alive and in satisfactory growth at the end of the Guarantee Period, except for damage resulting from causes beyond the responsibility of the Contractor.

Part 2: PRODUCTS

2.1 Topsoil

- a. Topsoil shall consist of natural loam topsoil, obtained from naturally well drained areas which have not been stripped. Material shall be of uniform quality, free from hard clods, stiff clay, hard pan, sods, and undesirable inorganic materials and conform to the following requirements:

Landscaping - 02800

Page 1 of 5

Organic Matter - 5.5% of 7.5% determined by loss on ignition of moisture-free samples dried in accordance with the current method of the Association of Official Agricultural Chemists.

Acidity Range - pH 5.8 to pH 6.0

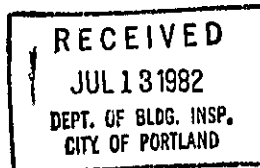
- b. The Architect reserves the right to reject topsoil in which more than sixty percent (60%) of the material passing #100 U.S.S. Mesh Sieve consists of clay as determined by the Buoyous Hydrometer or by the Decantation Method. All percentages are to be based on dry weight of sample.
- c. Approval of samples by the Architect will not constitute final acceptance. The Architect reserves the right to reject, on or after delivery, any material which does not, in his opinion, meet these Specifications.

2.2 Grass Seed

- a. Grass Seed - Fresh, clean, new crop seed dated no earlier than 1978. Seed shall be dealer mixed and have dealers certification that it conforms to the following requirements: It shall consist of a mixture of 50% Kentucky Bluegrass, 25% Red Fescue, 15% Perennial Rye Grass, and 10% Red Top or other similar mixture suitable to the Owner. Grass seed for retention basin to be swale grass (Environmental Quality Handbook, State of Maine, Site Use Group C)

2.3 Adjuncts

- a. Lime - Commercial ground lime as approved by the Architect.
- b. Commercial Fertilizer - 10-8-6 in unopened bags with manufacturer's analysis printed on the bag.
- c. Humus - Ground or shredded peat that has been stockpiled for at least one (1) year prior to use of commercial bagged peat.
- d. Mulch for Plants - Shredded or chipped bark as approved by the Architect.
- e. Mulch for Grass - New crop dry hay or Silva-Fiber by Weyerhaeuser.
- f. Erosion Control Mesh - Extra heavy jute or plastic mesh equal to that specified by MSCH (now MDOT) Specifications, Section 712.20 (b) and Current Supplements.
- g. Stakes for Supporting Trees - 2" x 2" sound hardwood not less than ten (10) feet in length.
- h. Wire for Guys - No. 12 gauge, soft drawn galvanized iron wire.
- i. Hose to Encase Guy Wire - new 2-ply reinforced ½" diameter rubber hose.



Landscaping - 02800

Page 2 of 5

2.5 Plant Materials

- a. Furnish plants shown and specified on the Drawings as listed in the plant materials list. Plants shall be nursery grown unless authorized to be collected; hardy under local climatic conditions, typical of their species or variety and have a normal habit of growth.

Part 3: EXECUTION

2.1 Loaming and Seeding

- a. Conduct planting operations under favorable weather conditions. All areas not required to be developed otherwise shall be planted to grass.
- b. Prior to placing loam, scarify compacted subgrade areas, remove all rocks and debris and set grade stakes as necessary. Place topsoil evenly over all areas to be loamed to a minimum thickness of six (6") inches. Hand rake to remove all clods, lumps, brush, roots, and stones over one (1") inch in diameter. Hand roll to show depressions and uneven areas, regrade as necessary to smooth even grades.

- c. Apply additives as follows:


Lime: 100#/1000 sq.ft.
Fertilizer: 10-3-6 35#/1000 sq.ft.

Apply above additives and harrow into top two (2") inches of the seed bed.

- d. Sow seed specified by use of a mechanical spreader at the rate of 5#/1000 sq.ft. Rake lightly in, roll with 300# roller, and water with a fine spray. Method of seeding may be varied at Contractor's discretion, but a full, even growth in all areas must be guaranteed.
- e. Install erosion control mesh in all run-off ditches. Turn upstream edges four (4") inches into loam and lap not less than six (6") inches with next run. Stake mesh with eight (8") inch long wire staples placed three (3') feet oc. along edges and at third points of each strip. Seed as in 3.1 d above, after mesh is placed.
- f. Apply mulch specified to be ½" to 1" deep over all grassed areas, (approximately 3 tons/acre for dry hay).

3.2 Planting of Trees and Shrubs

- a. Locations must be staked and approved by the Architect before pits are dug. Locations as shown on the Drawings may be varied due to existing conditions. Dig holes for trees two (2') feet larger in diameter than root spread and at least three (3') feet deep and one (1') foot larger in diameter and two (2') feet deep for shrubs.

- 
- b. Preparation of Soil - Spread manure and peat humus and incorporate with loam in bottoms of the holes as indicated on the typical section of Tree Planting Detail.

3.3 Staking and Guying

- a. Stake trees at the time of planting as shown on the typical section of Tree Planting Detail.

3.4 Pruning and Mulching

- a. Remove all dead wood or suckers and all broken or badly bruised branches shall be removed. In addition, remove one-fourth (1/4) to one-third (1/3) of the wood by thinning out and shortening branches to balance root loss due to transplanting.
- b. Paint cuts over 1" in diameter with an approved tree paint. Paint shall cover all exposed cambium as well as other exposed living tissue.
- c. Immediately after planting operations are completed, cover all tree and shrub pits with three (3") inch layer of the specified mulch. The limit of this mulch for trees shall be the area of the pit and for shrubs in beds, the entire area of the shrub bed.

3.5 Maintenance

- a. Maintenance shall begin immediately after each portion of lawn and each plant is planted and shall continue in accordance with the following requirements:
1. Lawns - the Contractor shall be held responsible for the maintenance of lawns, including watering, weeding, sowing, cutting, and replanting or reseeding as necessary, for at least sixty (60) days after sowing and as much longer as necessary to establish a uniform stand of the specified grasses and until certification of Acceptability. No bare spots will be allowed. After the grass has started, all areas and parts of areas which fail to show a uniform stand of grass, for any reason whatsoever, shall be reseeded repeatedly until all areas are covered with a satisfactory growth of grass. At time of cutting, keep mower blades not less than two and one-half (2½) inches high. The maintenance period shall continue after seeding and until the lawns are certified acceptable by the Architect, which certification shall not be earlier than the date of substantial completion of the entire work of this Contract. Contractor shall cut grass a minimum of twice during the first sixty (60) days.
 2. New Planting - protect and maintain new planting until the end of the lawn maintenance period, or, if installed after the lawn maintenance period, until installation of planting is certified acceptable by the Landscape Architect. Maintenance shall include watering, mulching, tightening, and repairing guys, replacement of sick or dead plants, resetting plants to proper grades or upright position, and restoration of the planting saucer, and all other care needed for proper growth of the plants. If planting is done after lawn preparation, proper protection to lawn areas shall be provided and any damage resulting from planting operations shall be repaired promptly.

- c. Spraying and Dusting - during the maintenance period, and the guarantee period, do all seasonal spraying and/or dusting of trees and shrubs as required.
- d. Protection - planting areas and plants shall be protected against trespassing and damage of any kind. If any plants become damaged or injuries occur, they shall be treated or replaced as directed.
- e. Damage resulting from erosion, gulleys, washouts, or other causes shall be repaired by filling with topsoil, tamping, refertilizing, and sodding, by the Contractor at his own expense if such damage occurs prior to certification of acceptability of lawns and planting by the Architect.
- f. The Contractor's responsibility for maintenance shall cease at the time of certification of acceptability by the Architect. During the guarantee period, the Contractor shall be held responsible for making replacements, but no maintenance will be required, other than spraying and dusting.

3.5 Replacement

- a. At the end of the guarantee period, inspection will be made by the Architect upon written notice requesting such inspection submitted by the Contractor at least ten (10) days before the anticipated date. Any plant required under this Contract that is dead or not in satisfactory growth, as determined by the Architect, shall be removed from the site. Those and any plants missing due to the Contractor's negligence shall be replaced as soon as conditions permit but during the normal planting season.

SECTION 04100 MORTAR

SECTION 04200 UNIT MASONRY

Part 1: GENERAL

1.01 Description of Work

- a. The extent of masonry work is as shown on the Drawings and includes areas to be toothed in to match adjacent work on the existing building, as well as patching and masonry repointing work. Some interior patching and toothing may be required in the course of the work.

Part 2: PRODUCTS

2.01 Materials

- a. Portland Cement - to conform to ASTM Standard C-150, Type I or Type II.
- b. Sand - clean, hard, sharp and free from deleterious materials conforming to ASTM Standard C-144.
- c. Water - potable.
- d. Masonry cement for masonry block - Dragon, Atlas, Brixment or Medusa.
- e. Coloring - by Frank D. Davis Co., or approved equal and as selected by the Architect.
- f. Face Brick (used) - Use existing brick removed by demolition insofar as possible. Do not reuse pumpkin or unsound brick.
- g. Concrete Block - Masonry units made from aggregate conforming to ASTM C-33 latest revision.

Part 3: EXECUTION

3.01 Mixes

- a. Mortar for regrouting existing masonry, patchwork and infills as required:
 - 1 Parts - Portland Cement
 - 2 Parts - Lime
 - 7 Parts - Sand
 - Coloring as selected by the Architect

Mortar & Masonry - 04100 & 04200

Page 1 of 2

b. Mortar for masonry block work:

- 1 Part - Mortar Cement
- 2 1/2-3 Parts - Sand

3.02 Brickwork

- a. In general, course joints to match those existing. Tool to give a firm, concave joint with a round tool slightly larger than the joint. Do not lay brick or any other unit having a film of frost on its surface in the work and do not build on any frozen work. Such work shall be required to be removed and rebuilt. Do tooling before mortar hardens and with sufficient force to press the mortar tight against the brick on both sides of the joint. Finish joint shall match existing adjacent work.
- b. Build in electrical boxes, sillcocks, flashings, and other work at locations indicated on Drawings. Flashings over and under openings shall extend six (6") inches beyond jamb.

3.03 Repointing Existing Masonry Joints

- a. In areas shown on Drawings and where mortar joints are discovered to be loose or deteriorated to a depth greater than 1/2 inch from the face of the brick - cut out all mortar to a minimum depth of one (1) inch or a minimum depth of 1/2 inch if joint is less than 3/8 inches wide. Loose or rotten mortar beyond the above depths shall be removed to sound mortar.
- b. Wet brick prior to repointing and let dry to a surface dry condition before applying mortar. Use lime mortar specified in Section 04100.

3.04 Concrete Masonry Units

- a. Lay hollow masonry units as may be required at interior of existing building in common running bond.

3.05 Cleaning

- a. On completion of new masonry work, clean all exposed brick thoroughly with a weak solution of muriatic acid and clear water, removing all stains. Clean all masonry work of loose mortar and mortar spots, leaving the whole clean in all parts. Do any pointing of joints as may be necessary, with mortar used for laying units.
- b. Wash regouted brick work using low pressure water and a stiff bristle brush only. Do not use detergents or acids unless specifically approved by the Architect.
- c. Clean down exposed concrete surfaces which have become dirty, spotted with concrete or mortar spatter and leave uniform in color and texture. On completion, leave all parts clean and to the satisfaction of the Architect.

SECTION 05100 MISCELLANEOUS METALS

Part 1: GENERAL

1.01 Description of Work

- a. The extent of structural steel and miscellaneous metal work is shown on Drawings and includes items fabricated from iron and steel shapes, plates, bars, strips, tubes, pipes and castings which are not a part of structural steel or other metal systems in other sections of these specifications.

1.02 Quality Assurance

- a. Field Measurements - Take field measurements prior to preparation of shop drawings and fabrication, where possible. Do not delay job progress; allow for trimming and fitting wherever taking field measurements before fabrication might delay work.
- b. Inserts and Anchorages - Furnish inserts and anchoring devices which must be set in concrete or built into masonry for installation of miscellaneous metal work. Provide setting drawings, templates, instructions and directions for installation of anchorage devices. Coordinate delivery with other work to avoid delay.


See concrete and masonry sections of these Specifications for installation of inserts and anchorage devices.

1.03 Submittals

- a. Manufacturer's Data - For information only, submit 2 copies of manufacturer's specifications, anchor details and installation instructions for products to be used in the fabrication of miscellaneous metal work, including paint products. Indicate by transmittal that copy of instructions has been distributed to Installer.

Misc. Metals & Structural Steel - 05100 & 05500

Page 1 of 4

- 
- b. Shop Drawings - Submit shop drawings for fabrication and erection of miscellaneous metal assemblies. Include plans and elevations at not less than 1" to 1'-0" scale, and include details of sections and connections at not less than 3" to 1'-0" scale. Show anchorage and accessory items. Provide templates for anchor and bolt installation by others.

Part 2: PRODUCTS

2.01 Materials and Components

- a. Metal Surfaces, General - For fabrication of miscellaneous metal work which will be exposed to view, use only materials which are smooth and free of surface blemishes including pitting, seam marks, roller marks, rolled trade names and toughness.
- b. Structural Steel Plates, Shapes and Bars - ASTM A-36.
- c. Concrete Inserts - Threaded or wedge type, galvanized ferrous castings, either malleable iron ASTM A-47 or cast steel ASTM A-27. Provide bolts, washers and shims as required, hot-dip galvanized, ASTM A-153.
- d. Masonry Anchorage Devices - Expansion shields, FS FF-S-325.

2.02 Fasteners

- a. General - Provide hot dip galvanized fasteners for exterior use or where built into exterior walls. Select fasteners for the type, grade and class required.
- b. Bolts and Nuts - Regular hexagon head type, ASTM A-307, Grade A.
- c. Lag Bolts - Square head type, FS FF-S-92.
- d. Wood Screws - Cadmium plated steel, FS FF-S-111.
- e. Plain Washers - Round, carbon steel, FS FF-W-92.
- f. Lock Washers - Helical spring type carbon steel, FS FF-W-84.

Misc. Metals & Structural Steel - 05100 & 05500

Page 2 of 4

2.03 Miscellaneous Metal Items

- a. Carpenter's Iron Work - Furnish bent or otherwise custom fabricated bolts, plates, anchors, hangers, dowels and other miscellaneous steel and iron shapes as required for framing and supporting woodwork, and for anchoring or securing woodwork to concrete or other structures.
 1. Manufacture or fabricate items of sizes, shapes and dimensions required. Furnish malleable iron washers for heads and nuts which bear on wood structural connections; elsewhere, furnish steel washers.
- b. Loose Bearing Plates - Provide loose bearing plates for steel items bearing on masonry or concrete construction, made flat, free from warps or twists, and of required thickness and bearing area. Drill plates to receive anchors bolts and for grouting as required. Prime paint after fabrication.
- c. Loose Steel Lintels - Provide loose structural steel shape lintels for openings and recesses in masonry walls and partitions as shown. Weld adjoining members together to form a single unit. Provide not less than 8" bearing at each side of openings, unless otherwise shown.
 1. Prime paint loose steel lintels to be installed in exterior walls. Finish paint after installation as required.
- d. Shelf Angles - Provide structural steel shelf angles of sizes shown for attachment to existing masonry. Provide slotted holes to receive 3/4" bolts, spaced not more than 5" from ends and not more than 24" o.c. unless otherwise shown.
 1. Prime paint angles to be installed on existing masonry walls.

Part 3: EXECUTION

3.01 Inspection


- a. Contractor must examine the areas and conditions under which miscellaneous metal items are to be installed. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner consistent with good practice.

3.02 Installation

- a. Fastening to In-Place Construction - Provide anchorage devices and fasteners where necessary for securing miscellaneous metal items to in-place construction; including, threaded fasteners for concrete and masonry inserts, toggle bolts, through-bolts, lag-bolts, wood screws and other connectors as required.

Misc. Metals & Structural Steel - 05100 & 02500

Page 3 of 4

- 
1. Fit exposed connections accurately together to form tight hairline joints. Weld connections which are not to be left as exposed joints, but cannot be shop welded because of shipping size limitations. Grind joints smooth and touch-up shop paint coat. Do not weld, cut or abrade the surfaces of exterior units which have been hot-dip galvanized after fabrication, and are intended for bolted or screwed field connections.
 - c. Field Welding - Comply with AWS Code for procedures of manual shielded metal-arc welding, appearance and quality of welds made, and methods used in correcting welding work.
 - d. Painting - All steel, except steel members to be encased in concrete, shall be given one coat. After the erection of steel has been completed all field bolts, welds and abrasions to the shop coat shall be cleaned and spot painted with the same material as used in the shop coat.
 1. Shop Surface Preparation: Clean to a commercial finish in accordance with SSPC-SP 6-63, NACE #3, (blast cleaning), or modified SSPC-SP 8-63 (pickling).
 2. Shop-Prime and Field: 1 coat Inorganic Zinc as Carbo Zinc 12, or approved equal.
 3. Finish Coat: 1 coat Modified Alkyd-Latex as Carboline 3300, or approved equal;
37% solids by Vol. min.
3.0 mils (dry)
 4. Finish coat color to be selected by the Architect.
 - b. Cutting, fitting, and placement - Perform cutting, drilling and fitting required for installation of miscellaneous metal items. Set work accurately in location, alignment and elevation, plumb level, true and free of rack, measured from established lines and levels. Provide temporary bracing and anchors in formwork for items which are to be built into concrete, masonry or similar construction.

Misc. Metals & Structural Steel - 05100 & 05500

Page 4 of 4

SECTION 06100
ROUGH CARPENTRY

Part 1: GENERAL

1.1 Guidelines

- a. All applicable provisions of General and Supplementary General Conditions, and Description of Work form a part of this section of Specifications.

1.2 Scope

- a. Work included under this Section shall consist of furnishing all labor and materials required to complete all carpentry as shown on the Drawings and/or as herein specified and which is necessary to the proper completion of all buildings and other structures in this contract.
- b. The major part of the rough and miscellaneous carpentry includes:
 1. Aiding the Engineer in establishing all lines and grades for the buildings; erecting all batter boards, etc.
 2. All necessary carpentry for other trades.
 3. Checking to assure proper concrete reinforcement, placing, and maintaining.
 4. Temporary floors, ladders, stairs, barricades, protective fences, jamb guards and doors.
 5. Scaffolding not otherwise specified under other Sections of the Specifications.
 6. Rough lumber, centers, blocking, curbs, wood cants, grounds, furring, nailing strips, nailing inserts, and similar items.
 7. Wood framing and studding, rough bucks, raised wood floors, and other wood framed items indicated.
 8. Rough hardware, nails, bolts, nuts and washers required for work under this Section, except where such items are specified under other Sections of the Specifications.
 9. Building papers and felts, including protective papers for finished floors, except where otherwise specified under other Sections of the Specifications.

Rough Carpentry - 06100

Page 1 of 5

10. Wood preservative treatments and applications.
11. Installation of finish hardware.
12. Correctly locate all door frames, louvers, grilles, in the exterior and interior walls, wood or masonry etc., and maintain these while work progresses.
13. Correctly locate all anchors, plates and bolts and install wood plates, edgeboards.
14. Coordinate the installation of all roofing and wall installations.
15. Correctly locate and build in all miscellaneous steel, iron and metal work; secure aluminum thresholds in bed of caulking to concrete slabs so that they will not loosen and shall be weather-tight.
16. Install toilet accessories.
17. Install all steel, wood and other doors as required.
18. Other usual items and work of normal carpentry indicated on the Drawings or necessary for the proper completion of the job although not specifically mentioned herein.

c. The installation of the millwork and finish carpentry items such as:

1. Wood doors, panels, and trim.
2. Wood cabinets and casework including countertops, shelving, racks, etc.
3. Wood trim, etc.
4. Installation of metal doors, etc.
5. Wood decking and wood benches.

1.3 Related Work

- a. 05200 Finish Carpentry
- b. 07500 Roofing
- c. 09250 Gypsum Drywall
- d. 08700 Hardware

1.4 Submittals

6 square foot siding with finish

1.5 Handling and Storage

All materials shall be kept covered for weather protection until used.

1.6 Guarantee

All work executed under this Section shall be guaranteed for one (1) year as stated in GENERAL CONDITIONS.

Part 2: MATERIALS

2.1 Lumber

- a. Rough lumber shall be dressed, four sides, with a moisture content not to exceed 19%, sound and free from splits, checks and shakes, and wane and shall conform to the following grades:
 1. Structural lumber shall be Eastern Spruce, Hemlock, or Douglas Fir with a fiber stress of not less than 1200 pounds per square inch unless otherwise indicated.
 2. No. 1 common grade Eastern Hemlock or Dimension No. 1 Eastern Spruce may be used for studs, backing, mailers, sills, plates, and other minor framing members where not otherwise designated. Standard grade Douglas Fir may be substituted for above at the Contractor's option.
- b. Work that is to be finished or painted shall be free from defects or blemishes on surfaces exposed to view that will show after the finish coat of paint is applied. Any material which is in any way defective and not up to the specifications for quality and grade or otherwise not in proper condition shall be rejected.

2.2 Rough Hardware

- a. Furnish all hardware not requiring special finish, including nails, screws, anchors, anchor bolts, joist hangers, clip angles, etc., as required to erect and fasten the work.

2.3 Plywood

- a. Plywood for interior and exterior use shall meet the requirements of PS-1-74 for softwood types and be APA grade marked
- b. Floor Deck - 3/4" T&G C-D INT.
- c. Plywood for infill panels - 1/2" M.D.O.

Rough Carpentry - 06100

Page 3 of 5

2.4 Exterior

- a. Trim - Eastern white pine #2 or better
- b. Wood Shingles - White Cedar, grade "clear" in conformance with Maine Commercial Standard.

Part 3: EXECUTION

3.1 Workmanship and Installation

- a. Consult the specifications under other Sections of this Specification and any rough carpentry work or materials which are not specified under these headings and which are necessary or required for the receiving and thorough completion of the work, shall be done under this Section.
- b. Workmanship shall be first-class throughout. None but competent carpenters shall be employed. All framing shall be true and exact, and all work on completion shall present a clean, well-worked appearance.
- c. Framing shall be in accordance with the drawings and shall be closely fitted and accurately set to the required lines. All framing shall be rigidly spiked, bolted, anchored, nailed, and fastened in place in the most secure and permanent manner.
- d. Bridging shall be 1 x 3 diagonal cross members between joists. Metal bridging may be used.
- e. Joists shall be in one piece between bearings, doubled at openings and under partitions. Notch only with approval of the Architect.
- f. Furnish and set all blocking required to erect all exterior and interior finish woodwork or wall materials, plumbing and electric fixtures and other mechanical equipment, wood bricks, rough bucks, and all blocking and furring necessary with roofing work.
- g. All wood members to come in contact with the earth shall be pressure treated with "Wolman" by Koppers, or approved equal. Wood rafters and cants in connection with roofing, wood sills on concrete, and all wood blocking, bucks, etc., in masonry shall be brush treated with green "Cuprinol," "Woodlife," or approved equal, before installation.
- h. All nail heads in finished work shall be sunk 1/16 inch with a nail set.
- i. Panels and siding shall be so secured as to prevent checks or waves. Woodwork shall be properly framed, closely fitted and accurately set to the required lines and levels and shall be rigidly secured in place.

Rough Carpentry - 06100

Page 4 of 5

- j. Doors shall be hung and installed correctly, properly aligned and in good working order.
- k. Plywood applied as flooring to be glued with construction adhesive No. 202 (Continental Chemical & Coatings Corp., Woburn, Mass.) or equal, at every joist as per APA Specification AFG-U1 and nail 12" o.c. with 10d common.
- l. All nails and bolts used in exterior work shall be dip treated galvanized.

3.2 Insulation

- a. Insulation, type, and thickness according to drawings shall be set between framing members.
- b. Vapor barrier between wood studs, joists, and GWB to be 4 mil polyethylene.

3.3 Hardware Installation

- a. Install all hardware in strict accordance with manufacturer's instruction. All pieces shall be true and plumb and centered where implied.
- b. Caulk all exterior installations.

SECTION 06200 FINISH CARPENTRY

SECTION 06400 ARCHITECTURAL WOODWORK

Part 1: GENERAL

1.1 Guidelines

- a. All applicable provisions of General and Supplementary General Conditions, Special Conditions, and Description of Work form a part of this section of Specifications.
- b. Applicable Standards: The Quality Standards of the Architectural Woodwork Institute is hereby made a part of this Specification. Terms of quality and construction are as indicated in the Quality Standards and apply in all cases except where otherwise specified.

1.2 Scope

Furnish all labor and materials required to complete all millwork and architectural woodwork in accordance with the drawings and these specifications.

- a. Wood frames
- b. Wood door frames
- c. Exterior finish woodwork including siding, facias, and soffets and shingles.
- d. Miscellaneous interior finish wood trim
- e. Exterior wood benches
- f. Wood railings
- g. Miscellaneous hardware involved in casework, shelving, etc.

1.3 Related Work

- a. 04200 Unit Masonry
- b. 06100 Rough Carpentry
- c. 08700 Hardware and Specialties
- d. 08800 Glazing
- e. 09900 Painting.

1.4 Submittals

- a. Shop drawings shall be prepared for all millwork. Drawings shall be submitted in triplicate to the Architect, after being checked and coordinated by the General Contractor, for approval prior to fabrication. General Contractor shall so indicate on the shop drawings his approval and/or corrections.

Sections 06200 & 06400

Page 1 of 3

1.5 Handling and Storage

No interior millwork shall be delivered until building has been thoroughly dried. During cold weather, heat and ventilation shall be provided during drying period.

1.6 Guarantee

All work executed under this Section shall be guaranteed for one (1) year as stated in GENERAL CONDITIONS.

Part 2: MATERIALS

2.1 Finish Carpentry

- a. Materials and workmanship shall comply with HUD Minimum Property Standards 4910.1 (1973 edition).

All lumber and plywood shall bear grade and trademarks under whose rules it is produced and a mark of mill identification. All lumber shall be kiln or air dried. Finished lumber shall not exceed 12% moisture. All lumber shall be free of stains, animal life, blemishes, be sound, well manufactured and free of warp within limits of grading rules. All lumber shall be dressed finish.

- b. High pressure laminates shall be of the pattern and color selected by the Architect from samples submitted together with the shop drawings. Laminates shall be "Formica", "Micarta", "Textolite", or approved equal.

Part 3: EXECUTION

3.1 Finish Carpentry

- a. Cabinet work shall be as shown on drawings.
- b. All construction shall be as is in accordance with Custom Grade Standards of the American Woodworking Institute.
- c. In general, all finished carpentry shall be installed according to details, scribed where necessary, fitted, coped, mitered, glued, ... nailed, bolted, screwed and of the best workmanship by skilled carpenters and cabinet makers as approved by the Architect.

RECEIVED
JUL 13 1982
DEPT. OF BLDG. INSP.
CITY OF PORTLAND

Sections 05200 & 06400

Page 2 of 3

3.2 Architectural Woodwork

- a. All edges shall be lightly sanded to avoid sharp edges. Architect to approve typical edge condition before construction.
- b. Finished woodwork shall be dressed and sanded free from machine and tool marks, abrasions, raised grain or other defects on surface exposed to view. Millwork installation shall conform to or exceed the requirements of "Custom Grade" as established by Quality Standards of the American Architectural Woodworking Institute.
- c. Exterior Millwork and trim called for by drawings shall be provided and installed with tight joints, securely nailed. Galvanized siding nails shall be used. Interior trim called for by drawings shall be fastened in place with finishing nails, the heads of which shall be set for putty. Interior woodwork shall be sanded as necessary to remove irregularities and machine marks. All work shall be left free of blemishes and defects.
- d. Joints in all work shall be tight and formed to conceal shrinkage. Joints in exterior work shall be made to exclude water and shall be bedded in white latex caulking. Running trim shall be in long lengths and jointed only where solid fastenings can be made. End joints in built-up members shall be well distributed. Exterior corners and interior corners and/or angles shall be coped. Wherever necessary, woodwork shall be scribed to plaster or other adjacent work.
- e. Stairs shall be placed in accordance with the drawings and shall be true, plumb, secure and left installed and finished in a manner acceptable to the Architect.

SECTION 07100

WATERPROOFING & DAMPPROOFING

Part 1: GENERAL

1.1 Guidelines

- a. All applicable provisions of the General and Supplementary General Conditions and the Description of Work form a part of this section of Specifications.
- b. All work shall be done strictly in accordance with the requirements noted on drawings and in the Description of Work.

1.2 Scope

- a. Gable end vents
- b. Dampproofing.
- c. Continuous vapor barrier in crawl space under 1st floor.

1.3 Related Work

- a. 06100 Rough Carpentry
- b. 07700 Insulation

1.4 Submittals

- a. Contractor shall supply Architect with 36" x 36" sample of vapor barrier rolled and taped seam for approval before installation.

1.5 Handling and Storage

- a. Extreme caution to be taken not to puncture membrane before, during, or after installation.

1.6 Guarantee

- a. All work executed under this Section shall be guaranteed for one (1) year as stated in GENERAL CONDITIONS.

Section 07100

Page 1 of 2

Part 2: MATERIALS

2.1 Vapor Barriers

The vapor barrier shall be either .004 inch polyethylene film or .006 inch polyethylene film as indicated on drawings.

2.2 Vents

a. Gable end vents by Brockway Smith Company or approved equal type and sizes as shown on the drawings

2.3 Dampproofing

a. Dampproof coating for concrete walls above grade shall be Thoroseal plaster mix or foundation coating by Standard Drywall Products or approved equal.

2.4 Waterproofing

a. Waterproof membrane protecting decks under exterior apartment entry foyers shall be Bituthene by W.R.GraceCo. or approved equal.

Part 3: EXECUTION

3.1 Vapor Barriers

a. Care shall be taken not to puncture vapor barriers while installing. Any penetrations shall be promptly sealed in an approved manner.

3.2 Vents

- a. Install gable end vents in strict accordance with manufacturer's instructions.
- b. Louvers and frame for gable vent in existing opening as shown on the drawings to be shop-fabricated before installation.

3.3 Dampproofing

a. Install above and below grade in strict accordance with manufacturer's instructions.

3.4 Waterproofing

a. Install over wood decks where so designated in strict accordance with manufacturers instructions.

SECTION 07200

INSULATION

Part: GENERAL

1.1 Guidelines

- a. All applicable provisions of General and Supplementary General Conditions, Special Conditions and Description of Work form a part of this Section of Specifications.

1.2 Scope

Furnish all labor and materials to complete all insulation indicated on drawings and specified herein.

- a. Insulate all exterior foundation perimeters.
- b. Provide fiberglass bat in walls and ceilings to thickness indicated on drawings.
- c. Install 6" x 1/2" fiberglass sill insulation. Caulk if necessary.

1.3 Related Work

- a. 02200 Site Work
- b. 03300 Cast-in-Place Concrete
- c. 07900 Caulking and Sealants
- d. 06100 Rough Carpentry

1.4 Submittals

Provide Architect with 24" x 24" sample of all insulation for approval before installation.

1.5 Handling and Storage

All insulation shall be carefully handled so as not to damage surface or depress cells.

1.6 Guarantee

All work executed under this Section shall be guaranteed for one (1) year as stated in GENERAL CONDITIONS.

Insulation - 07200

Page 1 of 2

Part 2: MATERIALS

2.1 Wall Insulation

Wall insulation shall be 5½" fiberglass batts (R-19) in existing furred-out wood stud walls and in new studwork at existing masonry walls.

2.2 Sound Attenuating Insulation

3" fiberglass unfaced in all new one hour common walls.

2.3 Ceiling Insulation

Ceiling insulation shall be 5½" batts with 2½" batts above. Entire assembly to achieve R=38.

Part 3: EXECUTION

3.1 Installation of Wall Insulation

a. Friction fit to keep full 5½" or 3" dimension as required for new construction and renovation of existing.

3.2 Installation of Ceiling Insulation

a. 5½" between ceiling furring members. Second 5½" layer to be laid loose on top of first layer.

3.3 Coordination

a. The Contractor shall insure that insulation is properly in place after the completion of work of all trades prior to closing in.

Insulation - 07200

Page 2 of 2

SECTION 07500 ROOFING

SECTION 07600 FLASHING & SHEET METAL

Part 1: GENERAL

1.1 Guidelines

- a. All applicable provisions of the General and Supplementary General Conditions, Special Conditions, and Description of Work form a part of this section of Specifications.
- b. Electrolytic Action: Where two dissimilar metals adjoin or lap each other, (example: galvanized metal ducts and copper cap flashing), an approved separating strip or other insulating material shall be furnished and applied.

1.2 Scope

The extent of work shall be as shown on drawings and called for in the Description of Work. Performance shall meet the requirements of the Specifications.

The work covered by this section of Specifications consists of the following:

- a. Complete installation of roofing as shown on the drawings noted in the Description of Work, or called for in this Specification.
- b. Installation of all flashings as needed to make the roof watertight.
- c. Installation of flashings in connection with work of other trades and flashings furnished by others in connection with roof work.
- d. Installation of fascias, louvres, and ventilators.

1.3 Related Work

- a. 06100 Rough Carpentry
- b. 15400 Plumbing

1.4 Submittals

- a. The Contractor shall submit to the Architect Manufacturer's literature and samples disclosing full description of materials, installation and bondability.

1.5 Shop Drawings

None

Sections 07500 & 07600

Page 1 of 2

1.6 Handling and Storage

Care to be taken not to damage any roofing or sheet metal before or during construction.

1.7 Guarantee

All work executed under this Section shall be guaranteed for two (2) years as stated in GENERAL CONDITIONS.

Part 2: MATERIALS

2.1 Roofing

a. Roof shingles shall be #235 asphalt shingles as manufactured by GAF Corp. or Windseal by Bird Corp.

b. Underlayment - 1st course at eave:

base ply - 55# roofing felt, mopped-in.
2nd ply - 15# roofing felt, mopped-in.

2.2 Metal Flashing

a. Drip edge to be 16 ga. galvanized sheet metal or .050 aluminum set $\frac{1}{2}$ " to weather.

b. Consult Drawings for type and extent of other flashings.

Part 3: EXECUTION

3.1 Roofing

a. Shall be in accordance with manufacturing fabrication specifications.

b. Use 1" galvanized roofing nails, 4 per 3 tab shingle. Machine applied galvanized staples to be substituted at Architect's discretion.

c. Mop on first layer of roofing felt. All other layers shall be installed in accordance with shingle manufacturer's specifications.

SECTION 07900

CAULKING AND SEALANTS

Part 1: GENERAL

1.1 Guidelines

- .. All applicable provisions of General and Supplementary General Conditions, Special Conditions and Description of Work form a part of this Section of Specifications.

1.2 Scope

Furnish all labor and materials to complete all caulking and sealing indicated and herein specified:

- a. Caulk all joints around window and door frames, louvres and other openings in exterior walls.
- b. Cleaning and priming.
- c. Joint packing.
- d. Cleaning.

1.3 Related Work

- a. 03300 Concrete
- b. 07600 Flashing and Sheet Metal
- c. 08100 Metal Doors and Frames
- d. 07200 Insulation
- e. 08628 Aluminum Clad Wood Windows

1.4 Submittals

The Contractor shall submit a sample of all caulking and sealants for approval of color and type to Architect before execution of work.

1.5 Handling and Storage

All caulking and sealants shall arrive at the site in unbroken containers to assure a workable consistency.

1.6 Guarantee

All work executed under this Section shall be guaranteed for one (1) year as stated in GENERAL CONDITIONS.

Part 2: MATERIALS

2.1 Caulking Compound

- a. Metal to metal, metal to brick-acrylic terpolymer type sealant, Tremco's "Mono."
- b. Wood to wood, wood to brick-polysulfide type sealant, DAP or Pecora.

2.2 Primer

Shall be as recommended by manufacturer of sealant.

2.3 Joint Backing

- a. Flexible closed-cell polystyrene rope, 1/8" diameter larger than joint to be backed.

Part 3: EXECUTION

3., 3.2 Caulking and Sealants

- a. Joints and spaces to be sealed shall be clean, dry and free of dust, loose mortar, and other foreign matter. Clean ferrous metals of all rust, mill scale, and coatings by wire brush, grinding or sandblasting. Remove oils and grease with solvent, such as zylo1, toluol, or methyl ethyl ketone. Remove protective coatings from aluminum surfaces against which caulking materials are to be placed.
- b. After joints have been completely filled, they shall be neatly tooled to a slightly concave surface with a soapy finger.
- c. Immediately clean adjacent materials which have been soiled, leave work in a neat, clean condition.
- d. Place no caulking when the temperature is below 40 degrees F.
- e. All caulking shall be done in accordance with the best practices. Start of work shall indicate acceptance of the surfaces by the caulking subcontractor.
- f. Adjacent areas shall be masked if necessary.
- g. Spread a bed of compound 1/8" thick over seat of all door saddles and thresholds. Set saddle or threshold on bed, remove all excess material, and point joints as previously specified.
- h. Surfaces of all materials adjoining caulked joints shall be cleaned of any smears of compound or other soiling due to the caulking application.
- i. Remove all excess material and carefully clean with an approved cleaner as recommended by the manufacturer.

3.3 Primer

Immediately prior to caulking with polysulfide sealant in porous materials, prime sides of joints.

3.4 Joint Packing Material

Pack all recesses or joints to be caulked to within $\frac{1}{2}$ " of surface with one of the specified packing materials. Joints to be caulked shall not be over 1" wide or less than $\frac{1}{32}$ ".

SECTION 08100
HOLLOW METAL DOORS AND FRAMES

Part 1: GENERAL

1.1 Related Work Specified Elsewhere

- a. Wood Doors - Section 08200
- b. Finish Hardware - Section 08700

1.2 Submittals

Submit shop drawings showing in detail all hollow metal work, large scale details of construction, kind and gauge of metal, sizes of members, methods of anchorage, quantities, sizes and locations of items in accordance with Article 4.12 of the General Conditions and Supplements thereto.

Part 2: PRODUCTS

2.1 Doors

- a. Swinging doors shall be flush, 1-3/4" thick of 20 gauge cold rolled steel equal to L-20 by Steelcraft or approved equal by Ceco or Fenestra. Doors shall be reinforced, stiffened, sound deadened, and insulated with impregnated Kraft honeycomb core completely filling the inside of the door and laminated to the inside faces of panels. Provide minimum 14 gauge channels spot welded top and bottom of doors. Bevel strike jambs and provide caulking notches for frames in masonry. Doors requiring closers shall have 12 gauge reinforcement where required for closer attachment. Door preparation for all hardware shall be as per templates submitted by the Hardware Supplier. Filler plates or extra cut-outs will not be permitted. Doors shall be bonderized and have two (2) coats of baked on alkyd enamel of colors selected by the Architect. Provide louvers of sizes shown in locations scheduled. Furnish labelled doors as required by drawings and as indicated on Door Schedule.
- b. Insulated steel doors where so scheduled - Ever-Straight model F-80 by Brockway Smith Co. or approved equal by Peachtree or Thermatru. Door and frame shall be supplied as a unit, pre-hung and complete with integral adjustable weatherstripping and hinges. Furnish with shop primer ready for finish painting.

Section 08100

Page 1 of 2

2.2 Frames

- a. Frames for all locations scheduled for steel frames F-16 by Steelcraft or equal by CeCo or Kewanee. Frames shall be KD construction with reinforced locking corner slip to provide firm interlock at corners. Frames shall be bonderized and have baked on prime coat for masonry openings. Doors in drywall partitions shall be bonderized and have two (2) coats of baked-on alkyd enamel of colors selected by the Architect. Furnish standard 3 sided frames, side light frames and special shapes frames as required by drawings. Furnish A, B, and C, U.L. & ICBO Labeled frames where required by door schedule. Frames shall be prepared and reinforced for 1½ pairs hinges and strike as required by Schedule in Section 08700.

Part 3: EXECUTION

- a. Erect doors and frames plumb and true, with all hardware left in proper working order. Do erection in accordance with door manufacturer's instructions.

Section 08100

Page 2 of 2

SECTION 08200

WOOD DOORS

Part 1: GENERAL

1.1 Related Work Specified Elsewhere

- a. Hollow Metal Doors and Frames - Section 08100
- b. Door Hardware - Section 08700, Finish Hardware

Part 2: PRODUCTS

2.1 Door Types

- a. Wood Panelled Doors - where so scheduled
1-3/8" thick Fir doors with flat panels and ovolo sticking
2 panel design by Brockway Smith Co. or approved equal.
- b. Hollow Core Doors - where so scheduled
1-3/8" thick with flush hardboard veneer by Legacy,
Brockway Smith or approved equal.

2.2 Frame Types

- a. Split-Jamb Frames - preassembled with panelled or hollow-core doors, complete with hinges and #8730 casing by Brockway Smith or approved equal.

Part 3: EXECUTION

3.1 Installation

- a. Pre-fit and pre-mortise doors for hinges and locksets in accordance with the Finish Hardware Schedule and the tolerances acceptable by CB 171-58 by NWMA.
- b. Prior to the final acceptance of the building, examine all doors and other movable parts and adjust as required. Leave all hardware in good working order free from defects.
- c. Supply templates for hardware specified in Section 08700, Finish Hardware to the manufacturer or installer of wood doors.

Wood Doors - 08200

Page 1 of 1

SECTION 08628

ALUMINUM CLAD WOOD WINDOWS

Part 1: GENERAL

1.0 Guidelines

- a. All applicable provisions of General and Supplementary General Conditions, Special Conditions, and Description of Work form a part of this section of Specifications.
- b. All work covered in this section shall be in compliance with the Architectural Woodworking Institute.

1.01 Related Work

- a. 06100 Rough Carpentry
- b. 07920 Sealants and Caulking
- c. 09900 Painting

1.02 Quality Assurance

- a. Qualifications: The installer shall be familiar with clad wood windows products and shall have qualifying experience in installation of windows.
- b. The installer shall conform to the installation instructions set forth in Part 3 of this section and as indicated in 1.03 of this section.

1.03 Submittals

- a. Submit one sample of each color material to be used on project.
- b. Manufacturer's Literature: Two copies of manufacturer's literature for all products furnished.
- c. Certification: List of at least 3 projects of a similar nature by installer which have been installed during the last 3 years, identified with project name, location and date.
- d. Instructions: Weathershield Mfg. installation instruction sheets.
- e. Maintenance Manual: Upon completion of the work required by this section, submit one maintenance manual, identified with project name, location and date; type and size of window installed; and wall type in which installed, including sketches where necessary. Include recommendations for periodic inspections, care and maintenance. Identify common causes of damage with instructions for temporary patching until permanent repair can be made.

Section 08628

1.04 Product Delivery, Storage and Handling

- a. Deliver materials to job site in sealed, undamaged cartons. Protect uncartoned set-up multiple units from rubbing.
- b. Each carton shall be identified with material name, date of manufacture and lot number.
- c. Store up off ground, undercover, protected from weather and construction activities.

1.05 Job Conditions

- a. Install windows in strict accordance with all safety and weather conditions required by manufacturers product literature.
- b. Extra caution must be exercised when temperature drops below 32 degrees F and extreme care below 0 degrees F.
- c. The contractor shall at his expense replace or repair any glass, sash or other window components broken or damaged during the contract period up to final acceptance of the project by the Architect.

Part 2: PRODUCTS

2.01 Casement and Double-Hung Windows

- a. Windows shall be Weathershield casement or double-hung units as manufactured by Weathershield Manufacturing Inc., Medford, Wisconsin. Cladding finish shall be Adobe Aluma Clad on all units.
- b. Glazing
 1. All sash shall be factory glazed with elastic glazing sealant and snap-in rigid vinyl beads.
 2. Glass shall be double or triple-pane insulating glass as indicated on the drawings.
- c. Weatherstripping
 1. All around horizontal weatherstripping shall be a gasket-type vinyl-covered foam.
 2. Vertical weatherstripping shall be polypropylene channels in contact with ribs in jamb liners. All weatherstripping factory applied.
- d. Hardware
 1. One zinc die cast lock shall be recessed and factory installed in all sash.
 2. casement windows shall be provided with one crank and lock.

e. Screens

1. Each window shall be fitted with a full screen including all attaching hardware as supplied by the manufacturer, color to be compatible with the window finish.

g. Sill Stool

All wood pieces shall be machined from clear material approved in NWMA I.S. 2-73 and dried to a moisture content of six (6) to twelve (12) percent.

Part 3: EXECUTION

3.01 Inspection

- a. Before installation is commenced, the opening shall be inspected and surfaces shall be clean and dry.
- b. Wood frame walls shall be dry, clean, sound and well nailed, and/or glued, free of voids and without offsets at joints. Ensure that all nail heads are driven flush with all surfaces in the opening and within 3" of the opening.
- c. Verify that the rough opening is correct. Sill plate should be level.

3.02 Preparation

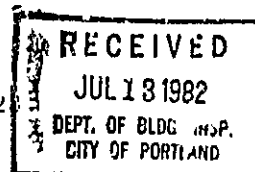
- a. Open carton and remove window. Verify that all parts have been removed and inspect the product before disposing the carton.
- b. Remove protection blocks.
- c. Close and lock all operating sash.
- d. Remove all screens and store in a protected location until prior to final acceptance to avoid damage during construction.

3.03 Installation

- a. Wood frame construction
 1. Center window in opening, rest bottom on sill plate.
 2. Nail one top corner first, then level window unit and nail opposite corner. 1-3/4" roofing nails are recommended. Leave adequate clearance for caulking around entire perimeter between jambs and masonry.
 3. Square the window, check reveal around sash perimeter, and nail remaining two corners. Shim and block as required.
 4. Staple sill windbreak to sheathing.

Section 0862

3 of 4



3.04 Exterior Finishing

- a. Caulk around perimeter of window after exterior finish is applied. Refer to window details on drawings for extent of caulking.
- b. Refer to section 07920 for acceptable caulking practices.

3.05 Interior Finishing

- a. Application of sill stop or stool.
 1. Apply sealant to the mortised areas of the side jambs and sill. Also in the groove of the sill stop.
 2. Position sill stop or stool flush with inside of sill and allow adequate clearance between sash and stop or stool.
 3. Nail with 1" finishing nails through top of stop or stool into sill.

3.06 Cleaning

- a. Clean aluminum finish to remove soil without using abrasive cleaners or solutions containing corrosive solvents.
- b. Remove debris from work site.
- c. Leave window units in closed and locked position.
- d. Reinstall screens and clean all surfaces.
- e. Adjust windows to ensure perfect operation to the satisfaction of the architect. Leave windows in closed and locked position.

SECTION 08700

FINISH HARDWARE

Part 1: GENERAL

1.1 Related Work Specified Elsewhere

- a. Door Weatherstripping - Section 08710

Part 2: PRODUCTS

2.1 Materials

- a. Materials listed herein have been selected from the catalogs of the following manufacturers:

Thresholds
Hinges
Locksets
Exit Devices
Door Closers
Door Stops
Viewer

Zero Manufacturing Co.
Stanley Hardware Division
Schlage Lock Co.
Corbin
Reading Closer Corp.
H. B. Ives Division
H. B. Ives Division

- b. The following hardware set numbers apply:

HW-1: Door 104

Each leaf shall have:

3 - Hinges FBBI79 4½ x 4½ x USP
1 - Lockset A7OPD-PLY-626
1 - Closer 604 Alum

HW-2: Doors 101-107-201-102

Each leaf shall have:

3 - Hinges FBBI79-4½ x 4½ x USP-NRP
1 - Closer 604 Alum.
1 - W/Strip & Threshold (Section 08710)
1 - Lockset A7OPD-PLY-626

FS -- Hardware - 08700

HW-3: Doors 102-105- 203 Each leaf shall have:

- 3 - Hinges F179 4½ x 4½ USP
- 1 - Lockset A70PD-PLY-626
- 1 - Floorstop 438B32D

HW-4: Doors 109-202 :

- 3 - Hinges F179 4½ x 4½ x USP
- 1 - Latch Set A10S-PLY-626
- 1 - Pair flush bolts (202 only)

HW-5: Each Apartment Entry Door shall have:

3 - Hinges as supplied with door

- 1 - Lockset A53PD-PLY-626
- 1 - Viewer 698 - 26D

1 - Stops as required

HW-6: Each Unit Interior, Bath, Bedroom Door Shall Have:

- 2 - Hinges 741 3½ x 3½ x USP
- 1 - Privacy Set F40S-PLY-626
- 1 - Stops as required

HW-7: Each Unit Interior Storage Room Door Shall Have:

- 2 - Hinges 741 3½ x 3½ x USP
- 1 - Passage Set F Series US 26D
- 1 - Stop as required

HW-8: Existing to remain, repair as required.

HW-9: Each Unit Interior Liner Closet, Pantry Door Shall Have:

- 1 - Porcelain knob, 3/4" dia.
- 2 - Hinges 741 3½ x 3½ x USP

Finish Hardware - 08700

2 of 3

- c. Key Cabinet: One (1) Key Cabinet completely set up with keys on hooks with complete typewritten index for the Owner. Capacity as required (150 - 450).
- d. Keying
 - 1) All locks shall be masterkeyed.
 - 2) Provide six (6) masterkeys.
 - 3) Provide four (4) keys for each apartment entrance door.
 - 4) Stamp keys with alpha-numeric key symbol.

Part 3: EXECUTION

3.1 Installation

- a. Install as per manufacturer's instructions employing competent and experienced mechanics.

Part 4: SUBMITTALS

- a. The Contractor shall submit to the Architect a detailed hardware schedule in triplicate for approval before hardware is ordered.
- b. After all corrections have been made on shop drawings, a Final corrected shop drawing shall be submitted to the Architect and another copy sent to the job office where a complete set shall be maintained. These final shop drawings shall be marked Final. No other shop drawings shall be allowed on the job.

Part 5: HANDLING AND STORAGE

- a. All hardware shall arrive to the site in sealed boxes. The Contractor will remain responsible for the protection of all finished surfaces until final inspection.

Finish Hardware - 08700

3 of 3

SECTION 08710
WEATHERSTRIPPING

Part 1: GENERAL

1.1 Guidelines

- a. All applicable provisions of General and Supplementary General Conditions, Special Conditions, and Description of Work form a part of this section of Specifications.

Part 2: PRODUCTS

2.1 Doors

- a. Jamb and Head Weatherstripping for Exterior Hollow Metal Doors - #312 aluminum by Zero or approved equal.
- b. Sill Weatherstripping - #339 by Zero or approved equal.

Part 3: EXECUTION

3.1 Installation

- a. Install sill weatherstripping in doors factory prepared under Section 08100, Hollow Metal Doors and Frames.
- b. Install in accordance with manufacturer's directions using stainless steel screws.

SECTION 09250

GYPSON DRYWALL

Part 1: GENERAL

1.1 Guidelines

- a. All applicable provisions of General and Supplementary General Conditions, and Description of Work form a part of this Section of Specifications.

1.2 Scope

- a. This section includes all labor, material, equipment, and related services necessary to furnish and install work as indicated on the Drawings and/or specified.

1.3 Related Work

- a. 06100 Rough Carpentry
- b. 09900 Painting

1.4 Submittals

None required.

1.5 Handling and Storage

Care shall be taken not to break paper surface or dent edges. Keep all GWB off floors with wooden strips placed so as not to injure edges.

1.6 Guarantee

All work executed under this section shall be guaranteed for one (1) year as stated in GENERAL CONDITIONS.

Part 2: MATERIALS

- 2.1 Screws for attachment of gypsum board shall be 1 1/4" long type S bugle head screws especially made for attaching drywall.
- 2.2 Outside corner beads and trim as required shall be metal, by the gypsum board manufacturer.
- 2.3 Tape joint system shall be as provided by the gypsum board manufacturer.

Gypsum Drywall - 09250

Page 1 of 2

- 2.4 Metal edge trim USG 200-3 shall be used at all edges where wall meets windows
Architect must approve trim and installation technique before work begins.
- 2.5 Resilient channels 2'-0" o.c. by U.S. Gypsum will be used in conjunction with all common walls in new construction and where gypsum board overlayment is indicated in the existing building on the Drawings.
- 2.6 5/8" Firecode type C gypsum wallboard, 1/2" GNB as well as 5/8" type W/R Firecode C and 1/2" water resistant for bathrooms and behind sink shall be provided by U.S. Gypsum or equal.

Part 3: EXECUTION

- 3.1 Workmanship shall comply with applicable part of American Standard Specifications for Gypsum Wallboard Finishes, ASA No. A97-1 or latest updated edition.
- 3.2 Gypsum wall sheathing shall be applied with long dimension at right angles to joists. End joints of sheets shall be supported on bearings and shall be staggered, with alternate courses in line.
- 3.3 Single layer - Install gypsum board specified with bugle head screws.
- 3.4 Attach RC-1 Resilient Channels at right angles to wood studs. Use 1 1/2" type W or type S screw driven through channel attachment flange. Fasten channels to studs at each intersection. Do not use nails to attach channels to studs. Masonry fasteners shall be used when attaching channels to walls in the existing building as shown on Drawings.
- 3.5 Finish joints and screw heads with tape joint system, making not less than three passes and extending joint not less than 6" on each side of meeting edges of boards. Sand lightly between each layer of joint system applied.
- 3.6 Seal around all penetrations in new and existing fire rated walls with tape joint compound to prevent transmission of smoke and fire.

SECTION 09540

CEILING SUSPENSION SYSTEM

Part 1: GENERAL

1.1 Guidelines

All applicable provisions of General and Supplementary General Conditions, and Description of Work form a part of this section of Specifications.

1.2 Scope

Furnish all labor and material to install a ceiling suspension system for gypsum board as herein specified.

Part 2: PRODUCTS

2.1 Materials

- a. Ceiling suspension system for drywall ceilings - 10000 Series "X" Drywall Grid Suspension System by Roblin or approved equal.

Part 3: EXECUTION

3.1 Installation

- a. Install suspension system specified with competent workmen. Uniformly level the entire system and properly place perimeter edge support angles on existing. Layout in community areas and public corridors shall conform to approved reflected ceiling plan. Follow manufacturer's specifications for fire rated installations.

Ceiling Suspension System
Section 09540

Page 1 of 1

SECTION 09650

VINYL ASBESTOS TILE

Part : GENERAL

1.1 Guidelines

All applicable provisions of General and Supplementary General Conditions and Description of Work form a part of this section of Specifications.

1.2 Scope

Furnish and install all resilient flooring indicated on the drawings and/or herein specified:

- a. Vinyl asbestos tile floors.
- b. Vinyl base.
- c. Vinyl stair treads.
- d. Cleaning and waxing.

1.3 Related Work

Section 03300

1.4 Submittals

No work shall be started until samples have been submitted and approved by the Architect. Samples shall be labeled, stating color or shade, location in which they are used, and manufacturer's name.

1.5 Handling and Storage

All materials shall arrive at the site in unbroken cartons or containers and shall not be exposed to extreme climatic conditions.

1.6 Guarantee

All work executed under this Section shall be guaranteed for one (1) year as stated in GENERAL CONDITIONS.

Vinyl Asbestos Tile - 09650

Page 1 of 3

Part 2: MATERIALS

2.1 Vinyl Asbestos Tile

- a. Tile shall be accurately cut to size with true, straight, square edges, flat and uniform thickness. The colors shall match samples as approved and shall be uniform throughout. Tiles shall be strong enough to stand the ordinary wear and tear, cleaning, moving of furniture without damage or denting, and shall be self-healing. Tile shall be odorless and non-slip even when wet.
- b. Tile shall be 12 x 12, 1/8" Armstrong, Imperial Modern, Azrock, Kentile, GAF, or approved equal. For all colors furnish a milled-down sample to demonstrate that color chips penetrate through the tile.

2.2 Cement

Shall be water-resisting cement for the type of tile as recommended by the manufacturer of the tile.

2.3 Primer

Shall be as required by the manufacturer.

2.4 Vinyl Base

Shall be 4" molded vinyl base, Kencove with inside and outside preformed corners as manufactured by Kentile Company or approved equal. Color to match tile to be approved by Architect. Provide cove base for installation with tile, straight base for carpet.

2.5 Metal Edge Strip

Shall be provided as called for on the drawings. It shall be extruded aluminum of appropriate stock profile to allow for the difference of level between types of floor finishes.

Part 3: EXECUTION

- a. Fill all cracks, expansion joints, etc., with "Lev-L-Astic" or other approved joint filler.
- b. Clean subfloor of grease or other dirt before proceeding.
- c. In existing building, determine with Installer and Architect whether new tile can be installed over existing floor finish.
Remove finish if required.

- d. Tile shall be installed in accordance with manufacturer's directions.
- e. Tiles shall be laid so as to insure good contact with close even joints, and with all finished surfaces in a true plane and smooth. Tiles shall be laid square with axis, of room, without borders. Grain shall run in the same direction (see Drawings).
- f. Tiles shall fit neatly into breaks and recesses, against base, around pipes, and under saddles.
- g. Tile shall be cut to and around all obstructions.
- h. At completion, all work shall be cleaned of all cement, dirt, and other foreign substances.
- i. Tile shall be given two coats of water emulsion wax, Hillyard "Super Hil-Brite" or approved equal. Floor shall be buffed after each coat of wax to produce a well-polished finish. Wax shall be nonslip.
- j. Do not permit heavy traffic on finished floors unless they are protected with heavy paper.

3.3 Cement

The cement for tile shall be evenly and thinly troweled on, using not over 1 gallon to 75 square feet of floor and as recommended by the manufacturer.

3.4 Priming

Prime floor according to manufacturer's instruction.

3.5 Vinyl Base Installation

Vinyl base shall be installed with adhesive recommended by manufacturer. Clean all excess mastic from adjoining surfaces.

3.6 Metal Edge Strips Installation

Metal edge strips shall be securely fastened to subfloor according to manufacturer's instructions and will be perpendicular to adjoining walls unless otherwise noted.

3.7 Extra Stock

Furnish Owner with two cases of floor tile.

SECTION 09680

CARPETING

Prt 1: GENERAL

1.1 Scope

Furnish all materials, labor and related items required to complete work shown and/or specified. Refer to Plans and Room Finish Schedule for location of carpeting.

1.2 Submittals

Before ordering materials, submit duplicate samples of each of the various types of materials proposed for use (carpet, pad, and thresholds) and obtain approval of the Architect.

1.3 Environmental Conditions

- a. Surfaces which are to receive work specified herein shall be thoroughly dry and cleaned free of dirt, oil and grease.
- b. Temperature shall be maintained at 60 degrees F minimum for 48 hours before and 48 hours after installation.

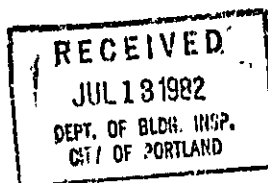
1.4 Protection

- a. Protect all work in approved manner until completion of the building, and then clean all debris and remove all stains.

Part 2: PRODUCTS

2.1 Materials

- a. Unless otherwise called for by the drawings or finish schedule, all flooring colors and/or patterns will be selected by the Architect from the manufacturer's current colors and patterns. All materials shall be packed, stored, and handled carefully so as to prevent any damage.
- b. Carpeting shall be Commercialon 2200H by J & J Industries, Inc. of 24 oz. 100% Herculon 1/10" (270 pitch) primary back 100% polypropylene, jute colors to be selected by Architect. Carpet to meet or exceed FHA requirements under UM-44C, FHA Class I, Type III in apartment units.



Carpeting - 09680

Page 1 of 3

- c. This Contractor shall furnish and install Royal Velvet Deluxe Carpet Cushion as manufactured by E. R. Carpenter Company of Richmond, Virginia, or approved equal. The specified carpet cushion shall be new, clean, and itary. It shall be manufactured from (reinforced) polyether polyurethane and be flat slit to assure conformance to thickness, weight, strength and wear properties. Carpet cushion shall be permanently laminated with polyethylene having a minimum thickness of two mils. Samples must be submitted with bid and shall meet or exceed the following: 3.0 lbs. min. density per cubic foot, and 3/8" thickness. See manufacturer's literature for other requirements.
- d. Floor transitions to be vinyl type 1 1/2" wide, color as selected by Architect.
- e. Adhesive for direct glue down - non toxic waterproof latex base cement recommended by the manufacturer of carpet.
- f. Tackless strip as recommended by manufacturer of carpet.

Part 3: EXECUTION

3.1 Preparation

- a. Floor surfaces shall be clean of debris, completely dry, free from oil, grease, chemicals, detergents or solvents.
- b. All surfaces shall be broom clean before laying operations.
- c. Carpet cushion shall be applied to flooring surface which has been properly prepared and free from moisture or sweating.
- d. Polyethylene laminated cushions to be installed with laminate facing up to the carpet.
- e. Before beginning installation, examine work of other trades insofar as same affects work specified herein. Report in writing to the Architect of all defects found. Commencement of installation shall be construed as an acceptance of such work performed by others.

3.2 Installation

- a. Minor surface defects in concrete, plywood, and existing floor such as depressions, cracks, or rough areas shall be filled with "Lev-L-Astic" as required to make surface true and uniform.
- b. Wall to wall installations, lay carpet cushion right up the the tackless strip and secure by either taping or stapling.
- c. Seaming: To seam polyether polyurethane cushion, butt the edges laying the tape over joint. Be careful to keep it straight and wrinkle free. Extend the tape around edge at each end, allowing an extra inch or two on bottom side. Roller or hand pressure is adequate to bind tape to cushion. DO NOT TAPE CUSHION ON BOTH SIDES.

4. When cushion is installed over inclines or stairs, etc., avoid creeping by spotting cushion to underfloor.

3.3 Guarantee

All work under this Section shall be guaranteed to the Owner IN WRITING for at least a period of one (1) year all in accordance with the GENERAL CONDITIONS and SUPPLEMENTARY GENERAL CONDITIONS.

SECTION 09900

PAINTING

Part 1: GENERAL

1.1 Guidelines

- a. All applicable provisions of General and Supplementary General Conditions, Special Conditions, and Description of Work form a part of this Section of Specifications.
- b. When no specific manufacturers of paint, varnishes, enamels, stains, etc., are specified, such materials shall be the products of the following approved manufacturers and shall be their highest grade of each type of material: Benjamin Moore Company; Pratt & Lambert, Inc.; Martin Senour; Pittsburg Plate Glass Company; Sherwin-Williams Company; Dupont; Samuel Cabot, Inc.; Glidden Paint Company; Olympic Stain Corp.; California Products Corp.
- c. All work shall be done by skilled mechanics in a workmanlike manner. All materials shall be evenly applied, so as to be free from sags, runs, crawls, or other defects. All coats shall be of the proper consistency and well brushed varnish and enamel, which shall be uniformly flowed on. All brushes shall be clean and in good condition. Doors shall be finished on top and bottom edges as well as on faces and side edges.
- d. No work shall be done under conditions that are unsuitable for the production of good results.

1.2 Scope

Furnish all labor and materials to complete all painting and decorating as shown on Room Finish Schedule and/or herein specified.

1. Priming and backpainting.
2. Painting and finishing.
3. Cleaning glass.

1.3 Related Work

- a. 02700 Site Improvements
- b. 06200 Finish Carpentry
- c. 06100 Rough Carpentry

Painting - 09900

Page 1 of 4

1.4 Submittals

Before ordering materials, each manufacturer, and each type of paint and color shall be approved by the Architect.

1.5 Handling and Storage

All materials shall be delivered to the building in the original containers, with labels intact and seals unbroken, with the exception of ready-mixed material, all mixing shall be done on the job site.

1.6 Guarantee

All work executed under this Section shall be guaranteed for one (1) year as stated in GENERAL CONDITIONS.

Part 2: MATERIALS

2.1 Paint - As manufactured by Pratt & Lambert Co. or approved equal.

2.2 Wood Preservative - Shall be Cuprinol (clear), Woodlife, or approved equal.

2.3 Wood Stain - Semi transparent or solid hide penetrating stain as manufactured by Samuel Cabot, Pratt & Lambert or approved equal.

2.4 Varnish - Pratt & Lambert Varmor Polyurethane, satin finish.

2.5 Blemish and Knot Primer - Bin Primer by Zinser or approved equal.

Part 3: EXECUTION

3.1 Coverage Requirements

a. Exterior

1. Metal Louvres, Hoods & Doors

1 coat Noxide Primer
1 coat Effecto Enamel

2. Natural Wood Doors

1 coat 61 Enamel Undercoat
2 coats Effecto Enamel

3. Soffits

1 coat Lyt-All Primer
2 coats Lyt-All Flowing Flat

4. Exterior Wood Siding & Trim

1 coat Permalize Primer
2 coats Permalize House & Trim

5. Cedar Shingles

1 coat Clear Penetrating
Sealer, Ben. Moore or equal

b. Interior

1. Gypsum Board Walls
1 coat Vapex Wall Primer
2 coats Cellu-Tone Satin
 2. Apartment Ceilings
1 coat Vapex Wall Primer
2 coats Lyt-All Flowing Flat
 3. All Kitchen & Bathroom Walls & Bathroom Ceilings
1 coat Vapex Wall Primer
2 coats Vitralite Eggshell
 4. Interior Wood Trim
1 coat 61 Enamel Underbody
2 coats Effecto Enamel
 5. Exposed Piping & Convector
1 coat Noxide Primer
1 coat Effecto Enamel
 6. Wood Railing, Window Stools
1 coat paste woodfiller
(omit on close-grained woods)
1 coat Varmor thinned w/
1 qt. mineral spirits per gal.
finish with 1 coat Varmor undiluted
Sand with #00 sandpaper between coats.
- c. Backprime all exterior wood trim before installation with 1 coat of exterior primer specified.
- d. Consult finish schedule on Drawings before applying finish to any space.

Painting - 09900

Page 3 of 4

3.2 General Preparation

- a. All spaces shall be broom clean before painting is started and all surfaces to be painted shall be dry.
- b. Temperature of spaces in building where painting is being done, or where it is drying, shall be maintained above 50 degrees F and in mill for shop painting, at least 65 degrees F. No exterior painting shall be performed below 50 degrees Fahrenheit.
- c. Before painting, all dust, dirt, plaster, grease, and other extraneous matter which would effect the finished work shall be removed. Foreign matter on surfaces, left by other trades, shall be removed. Finish hardware shall be removed prior to painting and replaced when painting is completed. Access doors shall be opened while painting and left open to dry.
- d. All woodwork shall be sanded lightly with #00 sandpaper between coats.
- e. All exterior woodwork to be painted shall be cleaned, sanded and dusted.
- f. After priming coat has dried, apply primer specified in 2.5 herein to all knots, pitch and sapwood ; and putty all nail holes, cracks, open joints and other defects. Putty for natural finished woodwork shall match finish as closely as possible.

3.3 Finish Painting

- a. All coats shall be thoroughly dry before the succeeding coat is applied. Allow at least 24 hours between coats, unless special paint is used that requires more or less time for drying.
- b. Painting coats as specified are intended to cover surfaces perfectly; if surfaces are not covered, further coats shall be applied.
- c. All finishes shall be uniform as to sheen, color and textures.
- d. All coats shall be applied in strict accordance with the manufacturer's directions.
- e. Clear finish for natural finished woodwork shall be smoothed with sandpaper between coats and after final coat smoothed with very fine steel wood to provide a smooth dull glazed surface.
- f. All access doors shall be opened while painting and closed after final coat is dry.
- g. All closets and interior of all cabinets shall be finished the same as adjoining outside surfaces, unless otherwise specified.
- h. Protect work of others when applying any finish.

SECTION 10800
BATHROOM ACCESSORIES

Part 1: GENERAL

1.1 Related Work Specified Elsewhere

- a. Plumbing Fixtures and Connections to Sinks in Countertops - Section 15400

1.2 Submittals

Submit shop drawings and/or satisfactory cuts and details for all items of this Section as specified in the General Conditions and Supplements thereto.

Part 2: PRODUCTS

2.1 Unit Baths

- a. Medicine Cabinets - Century Series CRP-308A-18 recessed by Miami-Carey or approved equal. Provide metal shelves inside cabinet.
- b. Towel Bars - Round chrome plated type equal to No. 2040 by Brey-Krause. Use 18" where shown on detailed drawings.
- c. Toilet Paper Holder - recessed roll type equal to Miami-Carey #6002
- d. Shower Curtain Rod - 1" diam. S.S. equal to Miami-Carey #8067. Furnish 12 curtain rod slide hooks for each rod.
- e. Robe Hooks - #2030 by Brey-Krause.
- f. Tumbler/Toothbrush Holder - #2020 by Brey-Krause.

Part 3: EXECUTION

3.1 Installation

- a. Install items specified in accordance with manufacturer's directions and recommendations.
- b. Where items are installed on fiberglass bath shower units, set flanges and screws in silicone sealant.
- c. Solid blocking is required for attachment of all items. If none exists, do not install items until blocking is provided by General Contractor.

SECTION 10900
SHELVING AND SHELVING HARDWARE

Part 1: GENERAL

1.1 Related Work

- a. 10800 Accessories
- b. 06200 Finish Carpentry

Part 2: PRODUCTS

2.1 Shelving

- a. Wood Shelves - 3/4" A-B plywood with pine edging on exposed front edge, primed and finish painted. Installed where called for on the drawings.
- b. Metal Shelving - sheetmetal adjustable shelf with integral closet rod, 16" deep: Floataway #2030 or approved equal, widths as required for wardrobes and closets as scheduled on the drawings.

2.2 Shelf Brackets and Standards

- a. KV #255 and 256 by Knape & Voght, bright aluminum finish used in conjunction with wood shelves in 2.1 above.

Part 3: EXECUTION

3.1 Installation

- a. Install shelving units according to specifications and recommendations of the manufacturer.
- b. Install shelf hardware on gypsum board walls as indicated on drawings.

SECTION 11860

WASTE HANDLING EQUIPMENT

Part 1: GENERAL

- 1.1 Owner is to furnish and install ten (10) trash receptacles on the project.

Part 2: PRODUCTS

- 2.1 Galvanized steel thirty (30) gallon trash cans with covers by Wheeling Steel or equal.

Part 3: EXECUTION

- 3.1 Install four (4) cans and six (6) cans respectively in each of the smaller and larger trash enclosures on the west side of the building.

SECTION 11900
POSTAL EQUIPMENT

Part 1: GENERAL

1.1 Submittals

Submit shop drawings or catalog cuts showing details of complete installation in accordance with Article 4.12 of the General Conditions and Supplements thereto.

Part 2: PRODUCTS

- 2.1 a. Mailboxes shall be front-loading rural delivery type equal to Model # 1-1 $\frac{1}{2}$ as manufactured by Steel City. Furnish six (6) units, number five units consecutively 1 thru 5; sixth unit to be house mailbox, numbered or lettered per Owners direction. Provide hardware necessary to attach units to enclosure as shown on the drawings.

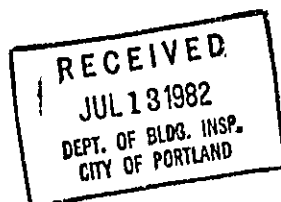
Part 3: EXECUTION

3.1 Installation

- a. Install units in enclosure as shown on the drawings. Remove signal flags on units before installation. Obtain approval from U.S. Post Office before proceeding with the work.

Postal Equipment - 11900

Page 1 of 1



SECTION 12200
DRAPERY RODS, AND SHADES

Part 1: GENERAL

1.1 Guidelines

All applicable provisions of General and Supplementary General Conditions, Special Conditions, and Description of Work form a part of this Section of Specifications.

1.2 Scope

Furnish and install all accessories but not limited to:

- a. Drapery tracks
- b. Draw shades

1.3 Submittals

The Architect shall receive three (3) set of manufacturer's literature on all accessories. No work shall begin before approval is given.

1.4 Handling and Storage

All accessories shall arrive at the site in protected wrapping to prevent damage.

1.5 Guarantee

All work executed under this Section shall be guaranteed for one (1) year as stated in GENERAL CONDITIONS.

Part 2: MATERIALS

2.1 Drapery Tracks

Shall be 3/4" oval steel with white enamel finish "Superfine" by Kirsch or equal.

2.2 Shades

Shall be white 6 gauge vinyl or fabric with cord and plastic pull in conformance with Fed. Spec. # DDD-S-251.

Part 3: EXECUTION

3.1 Drapery tracks shall be neatly mounted with 6" overlap at each side of all window openings in new construction.

3.2 Shades shall be neatly installed between all window jambs. See window details for typical locations.