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PART 1
GENERAL PROVISIONS

§101 Short Title and Repeal. This Ordinance shall be known and may be cited as the “Municipality of Mt. Lebanon Subdivision and Land Development Ordinance.” Chapter XVI of the Mt. Lebanon Code is hereby repealed in its entirety and this Ordinance substituted therefore.

§102 Grant of Power. This Chapter is adopted in accordance with the authority granted to municipalities to regulate subdivision and land development by the Pennsylvania Municipalities Planning Code, Act 247 of 1968, as amended (53 P.S. §10101, et seq.). (“MPC”).

§103 Purpose and Intent. The purpose of this Chapter is to regulate all subdivision, resubdivision, consolidation and land development activities in the Municipality by providing for a uniform method for the submission of preliminary and final plats to ensure: 1) the proper layout or arrangement of land and buildings; 2) the proper design of streets to accommodate projected traffic and facilitate fire protection; 3) the provision of adequate easements or rights-of-way, gutters, storm and sanitary drainage facilities, walkways, stormwater management and other required public facilities; and 4) the proper design of land developments in accordance with the requirements of this Chapter and the Mt. Lebanon Zoning Ordinance.

These Subdivision and Land Development Regulations are made in accordance with the community development objectives set forth in the Mt. Lebanon Zoning Ordinance and the Mt. Lebanon Comprehensive Plan and are intended to achieve the following goals:

103.1 To promote, protect and facilitate one (1) or more of the following: the public health, safety and general welfare; coordinated and practical community development; proper density of population; civil defense; disaster evacuation; the provision of recreation, open space and harmonious design; the provision of adequate light and air, police protection, vehicle parking and loading space, transportation, water, sewerage, schools, public grounds and other public requirements; and

103.2 To prevent one (1) or more of the following: overcrowding of land; blight; danger and congestion in travel and transportation; and loss of health, life or property from fire, panic or other dangers.

§104 Interpretation and Definitions.

104.1 Interpretation. All words used in this Chapter shall carry their customary definitions as provided in the most recent edition of Webster’s Collegiate Dictionary, except where specifically defined herein.
The word “person” includes a corporation, association, partnership or individual.

The words “shall” and “will” are mandatory; the word “may” is permissive.

Words used in the present tense include the future tense.

Words in the masculine gender shall include the feminine gender.

The singular number shall include the plural, and the plural shall include the singular.

104.2 Definitions. As used in this Chapter, the following terms shall have the meanings indicated:

**Accessory Building:** A subordinate building, the use of which is customarily incidental to that of the main building and is used for an accessory use, and is located on the same lot.

**Accessory Use:** A use customarily incidental and subordinate to the principal use and located on the same lot with the principal use.

**Administrator:** The Zoning Officer of Mt. Lebanon.

**Amenities Bond:** Surety, in a form acceptable to the Municipality that includes cash, a certified check, a letter of credit or a corporate performance bond from a Pennsylvania licensed surety company which guarantees the satisfactory completion of those private improvements in a subdivision or land development plan which are required by this Chapter or are voluntarily proposed by the developer.

**Applicant:** A landowner or developer who has filed an application for a subdivision or land development, including his heirs, successors and assigns.

**Application for Development:** Any application, whether preliminary or final, required to be filed and approved prior to the start of construction or development, including, but not limited to, an application for the approval of a subdivision or land development.

**Architect:** A registered professional architect licensed as such by the Commonwealth of Pennsylvania.

**Arterial Street:** See Street, Arterial.

**Base Flood:** The flood that has a one percent (1%) probability of being equaled or exceeded in any given year (also referred to as the one hundred (100) year flood).
Buffer Area: A strip of land which is planted and maintained in shrubs, bushes, trees, grass, or other ground cover material and within which no structure or building shall be authorized except a wall or fence which meets municipal requirements.

Building: Any structure having enclosing walls and a roof and intended for the shelter, housing or enclosure of any individual, animal, process, equipment, goods or material of any kind or nature.

Building Line: See Front Building Line.

Cartway: That portion of the street right-of-way that is surfaced for vehicular use, excluding shoulders and curbs. Please refer to Diagram 1 in Appendix II.

Chapter: All references to “this Chapter” refer to the Municipality of Mt. Lebanon Subdivision and Land Development Ordinance.

Clear Sight Triangle: An area of unobstructed vision at street intersections, defined by lines of sight between points at a given distance from the intersections of center lines of streets. Please refer to Diagram 17 in Appendix II.

Code or the Mt. Lebanon Code: The codified ordinances of the Municipality.

Collector Street: See Street, Collector.


Consolidation: The combination of two (2) or more lots, tracts or parcels of land into one (1) lot, tract or parcel for the purpose of sale, lease or development of a building or lot.

Construction Standards: See Municipal Construction Standards.

County: Allegheny County, Pennsylvania.

County Planning Agency: Allegheny County Department of Economic Development, or its successor department or agency.

Crosswalk: A publicly or privately owned right-of-way for pedestrian use extending from one curb to the opposite curb across a public or private street cartway.

Cul-de-Sac: A street having one (1) end open to traffic and being permanently terminated by a vehicle turnaround, including a court or dead-end street.

Cut: An excavation; the difference in vertical elevation between a point on the surface of the original ground and a point of lower elevation on the finished grade; material removed in excavation.
Developer: Any landowner, agent of such landowner or tenant with the permission of such landowner, who proposes, makes, or causes to be made, a subdivision of land or a land development.

Development Agreement: A written agreement between the Developer and the Municipality setting forth the Developer’s obligations pursuant to applicable Municipal ordinances.

Double Frontage Lot: A lot having two (2) or more of its non-adjoining property lines abutting a street or streets, usually having front and rear street frontage.

Driveway: An impervious surface for vehicular access to a building, garage, parking facility or other vehicular facility, lot or parcel of land.

Driveway, Private: A vehicular access route serving only one parcel or lot which provides access to a public street, but which does not provide access to any other lot or parcel under separate ownership. (See also - Street, Private)

Dwelling: Any building or portion thereof which is designed for and/or occupied in whole or in part as a home or residence for one (1) or more persons; it shall not be deemed to include hotels, boarding or rooming houses, institutional homes or residence clubs.

Dwelling, One Family: A detached building occupied by one (1) family only.

Dwelling, Two Family: A detached building occupied by two (2) families only, independently of each other, including:

  Double House: A detached building containing two (2) dwelling units attached side to side, with separate entrances and separated by an unpierced party wall.

  Duplex: A detached building containing two (2) dwelling units, one above the other, each having a separate entrance.

Dwelling, Multi-Family: A building containing three (3) or more separate dwelling units.

Dwelling, Townhouse: A one (1) family dwelling unit that is part of a townhouse unit and has a separate entrance and a minimum width of twenty (20) feet center to center of party walls.

Dwelling Unit: One (1) or more rooms arranged for the use of one (1) family living together as a single housekeeping unit with cooking, living, sanitary and sleeping facilities.
**Easement:** A public or private right of use over the property of another.

**Engineer:** A registered professional engineer licensed as such by the Commonwealth of Pennsylvania. The use of the word “engineer” shall not exclude the practice of topographic surveying as provided for by the laws of the Commonwealth.

**Escrow Deposit:** A cash deposit or an irrevocable letter of credit, in a form provided by the Municipality or otherwise approved by the Municipal Solicitor, payable to the Municipality from a commercial bank organized under the Pennsylvania Banking Code of 1965 or the National Banking Act, having its principal place of business in the Commonwealth of Pennsylvania and having unimpaired capital and surplus of at least one hundred (100) times the face amount the letter of credit.

**Family:** A single person occupying a dwelling unit and maintaining a household; two (2) or more persons related by blood or marriage or adoption occupying a Dwelling Unit, living together and maintaining a common household, including not more than one (1) boarder, roomer or lodger; or not more than five (5) unrelated persons occupying a Dwelling Unit, living together and maintaining a common household. It shall not include personal care homes or any type of home that is operated for profit.

**Federal:** Of, or referring to, the United States of America.

**Fee:** The required charge, which shall be payable to the Municipality, established from time to time by resolution of the Commission collected to defray the costs of processing an application, reviewing an application or inspecting the installation of improvements.

**FEMA:** Federal Emergency Management Agency.

**Fill:** Any act by which earth, sand, gravel, rock or any other material is placed, dumped, pulled, transported or moved to a new location above the natural surface of the ground or on top of the stripped surface, including the conditions resulting therefrom; the difference in elevation between a point on the original ground and a designated point of higher elevation on the finished grade; the material used to make a fill.

**Final Application:** The written and graphic materials specified by this Chapter to be submitted to the Municipality in order to obtain final approval of a proposed subdivision or land development plan.

**Final Plat:** The map or plan of a proposed subdivision or land development containing all the information required by this Chapter and the Allegheny County Subdivision Regulations for final plat approval and in a form acceptable for recording in the Office of the Allegheny County Recorder of Deeds and the Commission of Mt. Lebanon.

**Flood:** A general but temporary condition of partial or complete inundation of normally dry land areas from the overflow of streams, rivers, or other waters of this Commonwealth.
Flood Insurance Rate Map (FIRM): A map of the municipality on which FEMA has delineated both the special flood hazard areas and the flood risk premium zones applicable to the Municipality.

Floodplain: The lands adjoining a river or stream that have been, or may be expected to be, inundated by floodwaters in a one hundred (100) year frequency flood.

Flood Prone Area: Any land area susceptible to being inundated by floodwater from any source.

Floodway: The channel of a watercourse and portions of the adjoining floodplains which are reasonably required to carry and discharge the one hundred (100) year frequency flood. Unless otherwise specified, the boundary of the floodway is as indicated on maps and flood insurance studies provided by FEMA. In an area where no FEMA maps or studies have defined the boundary of the one hundred (100) year frequency floodway, it is assumed, absent evidence to the contrary, that the floodway extends from the stream to fifty (50) feet from the top of the bank of the stream.

Front Building Line: A line parallel to the front lot line, at a distance measured perpendicular therefrom as prescribed in the Zoning Ordinance for a required yard. Where there is no required yard then the lot line shall be the front building line. See Diagram 1 in Appendix II.

Grade, New or Finished: The resulting level of the ground after final grading where there is a cut, and after normal settlement where there is a fill.

Inspector: The Municipal Engineer or his/her authorized representative assigned by the Commission to make any or all necessary inspections of the work performed and materials furnished by the developer or the contractors selected to install the improvements required by this Chapter.

Land Development: Any of the following activities:

1. The improvement of one (1) lot or two (2) or more contiguous lots, tracts or parcels of land for any purpose involving:
   
   A. A group of two (2) or more residential or non-residential buildings, whether proposed initially or cumulatively; a single non-residential building on a lot or lots regardless of the number of occupants or tenure;

   B. The division or allocation of land or space, whether initially or cumulatively, between or among two (2) or more existing or prospective occupants by means of, or for the purpose of streets, common areas, leaseholds, condominiums, building groups or other features;
2. A subdivision of land.

Land Development Plan: A plan which encompasses a proposed land development, which, in addition to a plat of a subdivision, if required, includes: all covenants relating to the use of the land; the proposed use, location and bulk of buildings and other structures; the intensity of use or density of development; streets, ways and parking facilities; common open space and public facilities, if any. The land development plan shall include all of the written and graphic information required by this Chapter.

Landowner: The legal or beneficial owner or owners of land, including the holder of an option or contract to purchase (whether or not such option or contract is subject to any condition); a lessee, if he or she is authorized under the lease to exercise the rights of the landowner; or other persons having a proprietary interest in the land.

Lot: A designated parcel, tract or area of land established by a plat or otherwise as permitted by law and to be used, developed or built upon as a unit. No part of a lot which is also part of a public street, or way/alley/lane, shall be included in determining the area of that lot. A lot shall front on a public street dedicated for public use and improved to municipal standards.

Lot Area: That area measured on a horizontal plane bounded by the front, side and rear lot lines, excluding any portion of the lot within a street right-of-way.

Lot Area per Dwelling Unit: The quotient obtained by dividing the total lot area by the total number of dwelling units to be located on such lot calculated to the nearest whole number.

Lot, Buildable Area of: The portion of a lot bounded by required yards as set forth in Diagram 1 of Appendix II.

Lot, Corner: A lot abutting upon two (2) or more adjacent streets; or a lot with two (2) or more connected sides which abut upon a street or streets.

Lot Depth: The horizontal distance between the front lot line and the rear lot line measured along the median between said lines.

Lot, Double Frontage: See Double Frontage Lot.

Lot Frontage: The portion of the lot which abuts the street measured along the front lot line.

Lot Line, Front: The lot line abutting the street; in case of lots abutting more than one (1) street in R-1, R-2 and R-3 Districts only, a choice of either street is optional with the owner. Before a lot can be considered to abut a street, it must have at least fifteen (15) feet of frontage on said street as set forth in Diagram 1 of Appendix II.
Lot Line, Rear: A lot line which is opposite and most distant from the front lot line or, a line at least twenty (20) feet in length within the lot, parallel to and at a maximum distance from the front lot line. See Diagram 1 of Appendix II.

Lot Line, Side: Any lot boundary line which is not a front lot line or a rear lot line. See Diagram 1 of Appendix II.

Lot Width: The horizontal distance between side lot lines as set forth in Diagrams 1 and 2 of Appendix II.

Major Subdivision: Any subdivision not classified as a minor subdivision.

Mediation: A voluntary negotiating process in which parties in a dispute mutually select a neutral mediator to assist them in jointly exploring and settling their differences, culminating in a written agreement which the parties themselves create and consider acceptable.

Minor Subdivision: A subdivision containing not more than three (3) lots, proposed either for the construction of one (1) family dwellings or two (2) family dwellings or for the transfer of property between lots which contain existing one (1) family dwellings or two (2) family dwellings, all of which have frontage on an improved public street, and which subdivision does not involve the construction or improvement of any public street, sewer line or water line and which does not adversely affect the future development of the remainder of the parcel or any adjoining property.

Mobile Home: A transportable, single family dwelling intended for permanent occupancy, contained in one (1) unit, or in two (2) or more units designed to be joined into one (1) integral unit capable of again being separated for repeated towing, which arrives at a site complete and ready for occupancy except for minor and incidental unpacking and assembly operations, and constructed so that it may be used without a permanent foundation.

Mobile Home Lot: A parcel of land in a mobile home park, improved with the necessary utility connections and other appurtenances necessary for the erection thereon of a single-family mobile home.

Mobile Home Park: A parcel or contiguous parcels of land which have been so designated and improved that they contain two (2) or more mobile homes and/or mobile home lots for the placement thereon of mobile homes.

Municipal / Municipality: Of or referring to Mt. Lebanon, PA.

Municipal Construction Standards: A document entitled Municipality of Mt. Lebanon Construction Standards (Private Improvements) prepared by the municipal engineer, adopted and amended from time to time by resolution of the Commission upon recommendation of the municipal engineer, copies of which are on file in the office of the municipal manager.
Municipal Engineer: A registered professional engineer licensed as such in the Commonwealth of Pennsylvania, with training and experience in civil engineering, duly appointed by the Commission to serve as the engineer for the Municipality.

Municipal Manager: The individual appointed by the Commission to serve as chief administrative officer of the Municipality.

Municipal Solicitor: The attorney appointed by the Commission to serve as legal counsel for the Municipality.

Municipal Planner: The designated official appointed by the municipal manager whose duty it shall be to administer this Chapter.

Parcel: A tract of land which is recorded in a plan of subdivision or any other tract of land described in a deed or legal instrument pursuant to the laws of the Commonwealth which is intended to be used as a unit for development or transfer of ownership.


Petition for Construction of Public Improvements: A written request from a developer to the Commission requesting the Municipality to grade, pave and install curbs on public streets and install storm and sanitary sewers and any other public improvements required in an approved subdivision or land development.

Planning Board: Municipality of Mt. Lebanon Planning Board.

Plat: A map or plan, either preliminary or final, indicating the subdivision, consolidation or redivision of land or a land development.

Preliminary Application: The written and graphic materials specified by this Chapter to be submitted to the Municipality in order to obtain preliminary approval of a proposed subdivision or land development.

Preliminary Plat: The map or plan of a proposed subdivision or land development which contains all of the information required by this Chapter for approval of a preliminary plat.

Principal Building: The building or portion thereof having the principal use of the land.

Principal Use: The principal or dominant use of a lot.

Private Driveway: See Driveway, Private.

Private Improvements: All roads, streets, walkways, gutters, stormwater management facilities, curbs, sewers, landscaping and other facilities to be owned, maintained or
operated by a private entity such as an individual, partnership, corporation or homeowners’ association and constructed in accordance with this Chapter and the Municipal Construction Standards.

**Private Street:** See Street, Private.

**Public Hearing:** A formal meeting held pursuant to public notice by the Commission or the Planning Board, intended to inform and obtain public comment, prior to taking action in accordance with this Chapter.

**Property:** The land, building, all improvements thereon, and all easements, rights and appurtenances belonging thereto, which are subject to the provisions of this Chapter.

**Public Improvements:** All roads, streets, walkways, gutters, stormwater management facilities, curbs, sewers, landscaping and other facilities to be dedicated to or maintained by the Municipality for which plans, specifications and construction shall comply with this Chapter and the Municipal Construction Standards.

**Public Meeting:** A forum held pursuant to notice under the Act of July 3, 1986 (P.L. 388, No. 84), known as the “Sunshine Act.”

**Public Notice:** Notice published once each week for two (2) successive weeks in a newspaper of general circulation in the Municipality. Such notice shall state the time and place of the public hearing and the particular nature of the matter to be considered at the public hearing. The first publication shall be not more than thirty (30) days and the second notice shall not be fewer than seven (7) days from the date of the public hearing.

**Recorded Instrument:** A plat, declaration or other instrument duly recorded in the Office of the Recorder of Deeds of Allegheny County in accordance with the provisions of this Chapter.

**Recorder:** The Recorder of Deeds of Allegheny County.

**Right-of-Way:** An easement for public or private use, usually granting the right to cross over the land of another and/or to install utilities such as sewer or water lines or communication systems.

**Right-of-Way, Street:** The total extent of land reserved or dedicated as a street, for public or private purposes. See Diagram 1 of Appendix II.

**Site:** One (1) or more lots, tracts or parcels which are under single ownership and control and are proposed as a unit for development purposes.

**Slope:** The percent of rise or descent of the land surface calculated by dividing the number of feet of vertical rise/descent in elevation by the number of feet of horizontal
distance, expressed as a percentage. Slope shall be calculated between contour intervals used to prepare the existing site topographic plan but in no case shall the vertical interval exceed four (4) feet. The percent of slope is determined from on-site topographic surveys prepared with a two (2) foot contour interval or topography taken from controlled aerial photography at two (2) foot intervals. The slope of the land shall be shown on a plan of the property based on the following six categories:

<table>
<thead>
<tr>
<th>Slope Category</th>
<th>Percentage Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gentle slopes</td>
<td>0% – 14%</td>
</tr>
<tr>
<td>Minimally steep slopes</td>
<td>15% - 19%</td>
</tr>
<tr>
<td>Somewhat steep slopes</td>
<td>20% - 25%</td>
</tr>
<tr>
<td>Moderately steep slopes</td>
<td>26% - 30%</td>
</tr>
<tr>
<td>Significantly steep slopes</td>
<td>31% - 40%</td>
</tr>
<tr>
<td>Exceedingly steep slopes</td>
<td>Greater than 40%</td>
</tr>
</tbody>
</table>

**Special Flood Hazard Area (SFHA):** An area subject to inundation by the base flood, designated zones A, A1 – 30, AE, AH, AO, V, V1 – 30, or VE on the Flood Insurance Rate Map.

**State:** The Commonwealth of Pennsylvania.

**Street:** Includes street, avenue, boulevard, road, highway, freeway, parkway, lane, alley, viaduct and any other ways or strips of land used or intended to be used by vehicular traffic or pedestrians whether public or private and including the entire street right-of-way.

**Street, Arterial:** A public street intended for high volume traffic use. Arterial streets carry both regional through traffic and local traffic and collects/distributes traffic primarily from other arterial and collector streets. Arterial streets typically carry Average Weekday Daily Traffic (AWDT) volumes of greater than eight thousand (8,000) vehicles per day.

**Street, Collector:** A public street designed to provide access from local streets, as well as abutting lots, for distribution of traffic to arterial streets and other collector streets. Collector streets are intended to provide access for lower speed traffic and lower traffic volumes and typically carry AWDT volumes in the range of three thousand (3,000) to seven thousand nine hundred ninety-nine (7,999) vehicles per day.

**Street, Local:** A public street designed to provide low speed traffic access to abutting lots, with connections to collector streets and other local streets. Through traffic is discouraged. AWDT volumes are typically less than three thousand (3,000) vehicles per day.

**Street, Private:** A street, including the entire private right-of-way, which is privately owned and maintained. A private street provides access to several lots or parcels which do not have access to a public street and which require access to a public street through the private street. (See also Driveway, Private.)
Street, Public: A street including the entire public right-of-way, which has been dedicated to and accepted by the Municipality, the County or the Commonwealth for public use.

Street, Service: A short street or alley, whether public or private, designed only to provide secondary access to a structure or group of structures or to parking and loading facilities accessory to the structures and which is not intended for general traffic circulation.

Structure: Any man-made object having an ascertainable stationary location on or in land or water, whether or not affixed to the land.

Subdivision: The division or redivision of a lot, tract or parcel of land by any means into two (2) or more lots, tracts, parcels or other divisions of land including changes in existing lot lines for the purpose, whether immediate or future, of lease, partition by the court for distribution to heirs or devisees, transfer of ownership or building or lot development; provided, however, that the subdivision by lease of land for agricultural purposes into parcels of more than ten (10) acres, not involving any new street or easement of access or any residential dwelling, shall be exempted.

Subdivision, Major: See Major Subdivision.

Subdivision, Minor: See Minor Subdivision.

Surveyor: A registered professional land surveyor licensed as such by the Commonwealth of Pennsylvania.

Swale: A low-lying stretch of land which gathers, or carries, surface water runoff.

Watercourse: A permanent stream, intermittent stream, river, brook, creek, channel or ditch which carries water, whether natural or man-made.

Zoning Ordinance: Chapter XX of the Codified Ordinances of the Municipality of Mt. Lebanon, also known as Chapter XX, Mt. Lebanon Code, Ordinance 2636 as amended.
PART 2
APPLICABILITY OF REGULATIONS

§201 Approval Required. Approval in accordance with this Chapter shall be required for:

201.1 Any land development, as defined by this Chapter.

201.2 Any subdivision, as defined by this Chapter.

§202 Compliance Required. No lot in a subdivision or land development may be leased, transferred or sold and no permit to erect, alter, repair or occupy any building or use any land in any subdivision or land development may be issued unless and until such subdivision or land development shall have been approved and properly recorded and until such public and/or private improvements as required by this Chapter shall have been constructed or guaranteed, as provided for by this Chapter.

The description by metes and bounds in an instrument of transfer or other documents used for selling or transferring property shall not exempt the seller or transferor from complying with the requirements of this Chapter.

§203 Compliance with Other Codes and Regulations.

203.1 In addition to complying with the provisions of this Chapter, all subdivisions and land developments within the Municipality shall comply with all applicable municipal ordinances as amended or adopted from time to time including without limitation the Zoning Ordinance.

203.2 Compliance with applicable Municipal, County, State and Federal ordinances and regulations shall be a requirement for any approval under the provisions of this Chapter.

203.3 Any violation of applicable Municipal, County, State and Federal ordinances, statutes regulations or permits shall be deemed a violation of this Chapter and shall be subject to enforcement procedures authorized by this Chapter.
PART 3
PROCEDURE FOR REVIEW OF MINOR SUBDIVISIONS

§301 **Applicability.** This Part shall apply only to minor subdivisions as defined herein.

§302 **Pre-Application Conference.** Prior to filing an application for preliminary approval of a minor subdivision, the applicant or his representative, may meet with the municipal planner and other representatives of the Municipality, including the economic development officer, zoning inspector and municipal engineer, as warranted, to obtain application forms and to discuss application procedures and applicable ordinance requirements.

In addition, the developer may request a pre-application conference with the municipal staff to discuss the conceptual design for the development of the property and the feasibility and timing of the application. The applicant shall contact the municipal planner at least fourteen (14) calendar days prior to the regular meeting of the Planning Board to request a pre-application conference with the municipal staff.

The pre-application conference is voluntary and no formal application or fee is required. This opportunity is afforded to the applicant or his representative to obtain information and guidance before entering into binding commitments or incurring substantial expenses for plan preparation.

A pre-application conference shall not constitute formal filing of any application for approval of a subdivision, shall not bind the Planning Board to approve any concept presented in the pre-application conference and shall not protect the application from any subsequent changes in ordinance provisions which may affect the proposed development.

§303 **Preliminary and Final Application Submission.** The applicant shall file ten (10) copies of an application for preliminary and final approval of a minor subdivision (required by §304 of this Chapter) to the Municipality at least twenty-eight (28) calendar days prior to the regular meeting of the Planning Board. If the twenty-eighth (28th) day falls on a holiday, the application shall be filed by the close of business on the immediately preceding working day.

The preliminary application shall not be considered to be complete and properly filed unless and until all items required by §304 of this Chapter, including the application fee, have been received.

Immediately upon receipt, the Municipality shall stamp the application with the date of receipt and one (1) copy of the application shall be distributed to the municipal engineer and one (1) copy to the municipal planner for review. Additionally, the municipal planner shall submit one (1) copy of the complete and properly filed application to the Allegheny County Department of Economic Development for review and comment which shall be subject to payment of the prevailing County review fee by...
the developer. Additional copies may be requested from the applicant for referral to any other appropriate review agency at the discretion of the municipal planner.

During the review period between the date of the receipt of the application for preliminary and final approval of a minor subdivision by the Municipality and the next regular meeting of the Planning Board, the municipal engineer may provide a written review of the application to the municipal planner. Based on the written review, if any, the municipal engineer and the municipal planner shall determine whether the application is ready to be scheduled on the Planning Board agenda. The municipal planner shall notify the applicant whether the application will be scheduled on the next Planning Board meeting agenda and shall provide a copy of the municipal engineer’s written review, if any, to the applicant.

§304 Preliminary and Final Application Content for Minor Subdivisions. All applications for preliminary and final approval of a minor subdivision shall be submitted in accordance with §303 of this Chapter and shall include the following information:

304.1 Ten (10) copies of the completed application form supplied by the Municipality.

304.2 Application filing fee, as required by §1301 of this Chapter.

304.3 Evidence of ownership or proprietary interest.

304.4 A location map showing the plan name and location; major existing thoroughfares related to the site, including the distance therefrom; title, scale and north point.

304.5 Written evidence of compliance with all other Municipal, County, State and Federal permits required for the plan, if any.

304.6 A copy of any existing or proposed covenants or deed restrictions applicable to the property.

304.7 Evidence of any zoning variances granted which are applicable to the property. The application shall not be considered for final approval until the Zoning Hearing Board has granted any necessary zoning variances or until the plat is revised to conform to the zoning requirements at issue.

304.8 If applicable, special flood hazard area boundaries.

304.9 A statement requesting any waivers or modifications to the requirements of this Chapter in accordance with Part 12, if applicable.

304.10 Ten (10) copies of a final plat, all drawings on sheets not exceeding thirty-four inches by forty-four inches (34” x 44”) accurately drawn to a scale of not less
than one inch equals one hundred feet (1"=100') certified by a surveyor as to existing features, design features and boundaries. The final plat shall contain the following information:

304.10.1 Date of preparation. All revisions shall be noted and dated.

304.10.2 Title of development; north arrow; scale; county assessment lot and block number; the name and address of the record owner; the name and address of the applicant; the name and address, license number and seal of the person preparing the subdivision. If the owner of the premises is a corporation, the name and address of the president and secretary shall be submitted on the application.

304.10.3 All distances shall be in feet and decimals of a foot and all bearings shall be given to the nearest ten (10) seconds.

304.10.4 The names of all adjoining subdivisions showing the location of the nearest streets in such plats.

304.10.5 Survey data showing boundaries of the property, building or setback lines and lines of existing and proposed streets and rights-of-way, lots, reservations, easements and areas dedicated to public use, including grants, restrictions and rights-of-way, to be prepared by a surveyor. The name, address, signature and seal of the surveyor shall be indicated.

304.10.6 Location of existing buildings and all other structures, including walls, fences, culverts and bridges, with spot elevations of such buildings and structures. Structures to be removed shall be indicated by dashed lines; structures to remain shall be indicated by solid lines.

304.10.7 Acreage, to the nearest thousandth (.001) of an acre of the tract to be subdivided and the area, in square feet, of all lots.

304.10.8 Plans of proposed sanitary and stormwater systems showing feasible connections to existing or any proposed utility systems. Pipe sizes, grades and direction of flow, locations and inlets, manholes or other appurtenances and appropriate invert and other elevations shall be indicated.

304.10.9 Identification of the company or authority that will provide water, sewer, gas, electric and other utility services.

304.10.10 If applicable, a notation on the plat that access to a State highway shall only be authorized by a highway occupancy permit issued
by the Pennsylvania Department of Transportation under Section 420 of the State Highway Law (P.L. 1242, No. 428 of June 1, 1945).

304.10.11 Spaces for the signature of the Chairman and Secretary of the Planning Board; the President and Secretary of the Commission; the municipal engineer; and dates of approval.

304.10.12 Executed certification clauses as required by the Allegheny County Subdivision and Land Development Ordinance. (See Appendix I)

304.10.13 If the subdivision represents the resubdivision, replatting or consolidation of lots of record in a previously recorded plat, reference shall be made in the title to the recorded plat which is being revised.

§305 Review of Preliminary and Final Application for a Minor Subdivision.

305.1 Planning Board Recommendation. The municipal engineer may present a written report to the Planning Board that states whether an application complies with the requirements of this Chapter and that report, if any, shall be included in the minutes of the Planning Board meeting.

The Planning Board shall make a written recommendation to the Commission for approval, approval with conditions or disapproval of the preliminary and final application. The recommendation of the Planning Board shall provide reasons for the recommendation and, in the case of a recommendation for disapproval, shall cite the specific requirements of this Chapter which have not been met.

305.2 Commission Action. Eight (8) copies of the final plat, as recommended by the Planning Board, and one (1) reproducible mylar with the required certifications and signature clauses shall be submitted to the municipal manager at least twelve (12) calendar days prior to the regular meeting of the Commission at which the application is to be considered for approval.

The Commission shall approve, approve with conditions or disapprove the preliminary and final application at a public meeting. The Commission shall not act until the review has been received from the Allegheny County Department of Economic Development or until thirty (30) days has passed since the date that the application was submitted to the County for review. The recommendation of the Planning Board and the report of the municipal engineer, if any, may be made a part of the record at that meeting.

A letter indicating approval, approval with conditions or disapproval shall be sent to the applicant by regular mail within fifteen (15) days of the date of the
If the preliminary and final application is not approved, the Commission shall specify the defects found in the preliminary and final application and cite the requirements of this Chapter that have not been met.

305.3 Conditional Approval. If the Commission determines that certain conditions are warranted to be attached to preliminary and final approval to protect the public interest and guarantee compliance with the requirements of this Chapter or other Chapters of the Code, the conditions of approval shall be specified, in writing, in the notice of conditional approval required by §305.2 of this Chapter. The applicant shall accept or reject the conditions attached to preliminary and final approval by giving written notice to the municipal manager within thirty (30) days of the date of the meeting of the Commission at which preliminary and final approval is granted. If the applicant fails to give written notice to the Municipality regarding acceptance or rejection of the conditions attached to preliminary and final approval within the required thirty (30) days, preliminary and final approval shall automatically be rescinded without written notice to the applicant.

§306 Mediation Option. The municipality may offer mediation as an aid in completing the proceedings authorized by this Article in accordance with the requirements of §409 of this Chapter.

§307 Recording of Final Plat. Upon approval of a final plat by the Commission, the developer shall, within ninety (90) days of such final approval or the date the approval of the Commission is noted on the plat, whichever is later, record such plat in the Office of the Allegheny County Recorder of Deeds.

307.1 All plats or plans shall be drawn on mylar. Sepias, vellums, and reverse-print mylars will not be accepted. For recording purposes, the best quality mylars are wash-off or fixed line mylars.

307.2 Standard size sheets of drafting material shall be used. The actual reproducible area of drawing on a sheet shall not be smaller than seventeen (17) inches by twenty-two (22) inches and shall not be larger than twenty-two (22) inches by thirty-four (34) inches.

307.3 All plats or plans shall be drawn or plotted with black drafting or plotter ink.

307.4 All dedications, acknowledgements, certifications and approvals shall be made with black drafting or plotter ink, or a varityping process that will enable legible reproduction.

307.5 All signatures and dates shall be made with permanent black ink using a felt tipped pen or drafting pen.
All plans shall be drawn to a scale no smaller than one hundred feet (100) feet to the inch.

All condominium floor plans shall be drawn to a scale no smaller than one-eighth (⅛) inch to the foot.

All plats and plans shall be of sufficient size, within the parameters set forth in §307.2 of this Chapter, to clearly show all dimensions, notations and other printed matter with sufficient legibility and clarity to permit legible reproduction.

§308 Reinstatement of Approval. In the event that the plat has not been recorded within the required ninety (90) days, the municipal manager is authorized to reinstate the signatures of the proper officers of the Municipality indicating approval, provided there are no changes in the minor subdivision previously granted approval and all the requirements of this Chapter regarding posting of an escrow deposit or amenities bond and execution of a development agreement, if applicable, have been met and, further provided the plan is submitted for reinstatement of approval within one hundred eighty (180) days following the date of preliminary and final approval by the Commission.

Any request for reinstatement of preliminary and final approval that is submitted after one hundred eighty (180) days from the date of the original granting of preliminary and final approval by the Commission shall require resubmission of an application for preliminary and final approval in conformance with the requirements of this Chapter.

§309 Filing of Copies. Upon recording of the final plat in the Office of the County Recorder of Deeds, the applicant shall deliver to the municipal manager, one (1) reproducible mylar and one copy in electronic format on a three-and-a-half (3½) inch diskette as a DXF or DWG file of the final plat as recorded, containing all required signatures and dates of approval. The following layers shall be created on the disk: property lines, right-of-way lines, centerline of streets, easements, lot numbers, street names, pavement, buildings, text general (title block, notes, clauses, etc.), metes and bounds, utilities (storm and sanitary on separate layers), drainage (creeks and streams), monuments and markers, building setbacks, adjoining property lines, contours, elevation spots, walls.
PART 4
PROCEDURES FOR REVIEW OF MAJOR SUBDIVISIONS

§401 Applicability. This Part shall apply to all major subdivisions.

§402 Pre-Application Conference. Prior to filing an application for preliminary approval, the applicant or his representative may meet with the municipal planner and other representatives of the Municipality, including the economic development officer, zoning inspector and municipal engineer, as warranted, to obtain application forms and to discuss application procedures and applicable ordinance requirements.

In addition, the developer may request a pre-application conference with the Planning Board to discuss the conceptual design for the development of the property and the feasibility and timing of the application. The applicant shall contact the municipal planner at least fourteen (14) calendar days prior to the regular meeting of the Planning Board to request a pre-application conference with the Planning Board.

The pre-application conference with the Planning Board is voluntary and no formal application or fee is required. This opportunity is afforded to the developer to obtain information and guidance before entering into binding commitments or incurring substantial expenses for plan preparation.

A pre-application conference shall not constitute formal filing of any application for approval of a subdivision, shall not bind the Planning Board to approve any concept presented in the pre-application conference and shall not protect the application from any subsequent changes in ordinance provisions which may affect the proposed development between the pre-application conference and the filing of an application for preliminary approval of a major subdivision under the terms of this Chapter.

§403 Preliminary Application Submission. The applicant shall file ten (10) copies of an application for preliminary approval required by §404 of this Chapter to the Municipality at least twenty-eight (28) calendar days prior to the regular meeting of the Planning Board. If the twenty-eighth (28th) day falls on a holiday, the application shall be filed by the close of business on the immediately preceding working day.

The preliminary application shall not be considered to be complete and properly filed unless and until all items required by §404 of this Chapter, including the application fee, have been received.

Immediately upon receipt, the Municipality shall stamp the application with the date of receipt and one (1) copy of the application shall be distributed to the municipal engineer and one (1) copy to the municipal planner for review.

Additionally, the municipal planner shall submit one (1) copy of the complete and properly filed preliminary application to the Allegheny County Department of Economic Development for review and comment that shall be subject to payment of the
prevailing County review fee by the developer. Additional copies may be requested from the applicant for referral to any other appropriate review agency at the discretion of the municipal planner.

§404 Preliminary Application Content. All applications for preliminary approval of a major subdivision shall include the following:

404.1 Ten (10) copies of the completed application form supplied to the Municipality;

404.2 Application filing fee, as required by §1301 of this Chapter;

404.3 Evidence of ownership or proprietary interest:

404.4 Ten (10) copies of a preliminary plat, drawn at a scale of not less than one hundred feet to one inch (100':1"), all drawings on sheets not exceeding thirty-four inches by forty-four inches (34'' x 44''), containing the following information:

404.4.1 A boundary and topographical survey by a surveyor of the total proposed subdivision. If the developer intends to develop a tract of land in phases, the preliminary plat shall include the total tract.

404.4.2 The proposed name of the subdivision.

404.4.3 The name, address, certification and seal of the registered engineer or registered surveyor who prepared the plat and the registered surveyor who did the survey shown on the plat.

404.4.4 The name and address of the developer and, if the developer is not the landowner, the name and address of the landowner.

404.4.5 A location map showing the plan name and location; major existing thoroughfares related to the site, including the distance therefrom, title, scale and north point.

404.4.6 A graphic scale, north point and date.

404.4.7 A legend and notes.

404.4.8 Date of preparation. All revisions shall be noted and dated.

404.4.9 The existing platting of land adjacent to the site, including the names of adjoining owners, and all existing sewers, water mains, culverts, petroleum or gas lines and fire hydrants on the site or within one hundred (100) feet of the site shall be shown.
404.4.10 The names of all adjoining subdivisions.

404.4.11 Existing watercourses, wetlands, tree masses and other significant natural features.

404.4.12 Location of existing buildings and all other structures, including walls, fences, culverts and bridges, with spot elevations of such buildings and structures. Structures to be removed shall be indicated by dashed lines; structures to remain shall be indicated by solid lines.

404.4.13 Areas subject to periodic flooding, if any, as identified on the current Federal Emergency Management Agency Maps.

404.4.14 Identification of any wetlands on the site and the design techniques proposed to accommodate them.

404.4.15 Contours at intervals of elevation of not more than five (5) feet where the slope is twenty percent (20%) or greater and at intervals of not more than two (2) feet where the slope is less than twenty percent (20%). Regardless of slope, contours within area of disturbance shall be plotted at two (2) foot intervals.

404.4.16 Existing streets and rights-of-way on or adjoining the site, including dedicated widths, roadway widths, approximate gradients, types and widths of pavements, curbs, sidewalks and other pertinent data.

404.4.17 Existing and proposed easements, locations, widths and purposes.

404.4.18 Cross sections including location, width and approximate grade of all proposed streets, and the cuts or fills on said streets at fifty (50) foot intervals.

404.4.19 The layout of lots (showing scaled dimensions), lot numbers and the area of lots in square feet.

404.4.20 Front building lines.

404.4.21 Parcels of land proposed to be reserved for schools, parks, playgrounds or other public, semi-public or community purposes, if any. Parcels shall be lettered A, B, C, etc. and the area of each parcel in acres shall be shown.
404.4.22 Tabulation of site data, including total acreage of land to be subdivided, the number of residential lots, typical lot size, the acreage in the subdivision and the acreage in any proposed recreation or other public areas.

404.4.23 The location of all existing sewer lines, culverts, or other underground structures, with pipe sizes and types, together with a preliminary layout of necessary extensions of, or additional, sewer lines, or other proposed underground utilities, and indicating easements for public utilities, sewage and drainage.

404.4.24 Proposals for disposition of stormwater and sanitary waste consistent with the requirements of this Chapter.

404.4.25 If applicable, a notation on the plat that access to a State highway shall only be authorized by a Highway Occupancy Permit issued by the Pennsylvania Department of Transportation under Section 420 of the State Highway Law. (P.L. 1242, No. 428 of June 1, 1945).

404.4.26 If applicable, a notation on the plat that access to a county owned road shall only be authorized by a highway occupancy permit issued by the Allegheny County Department of Public Works.

404.5 A complete traffic impact study prepared, signed and sealed by a professional traffic engineer identifying the impact of the proposed land development on existing traffic and circulation patterns and proposing solutions to problems that may arise as a consequence of said proposed development.

404.6 Traffic Impact Study. These regulations represent the minimum requirements and standards for preparation of a traffic impact study for any land development, subdivision, expansion or change in use within the Municipality. Also specified are the traffic level of service standards and minimum requirements that must be satisfied for future development impacts.

404.6.1 Traffic Impact Study Requirements.

404.6.1.1 Any land development, subdivision, expansion, or change in use, which will generate, on the average, seventy-five (75) or more additional trips during the adjacent roadways’ peak hours shall be required to have a traffic impact study completed as part of the development. The estimated number of trips shall be determined by an analysis of similar uses through data collected by the Institute of Transportation Engineers or through studies of
similar uses acceptable to the Municipality. When a traffic study is prepared for a subdivision that does not propose development of the lots, the traffic study must be updated at the time of land development to address the specific type and size of development.

404.6.1.2 Mt. Lebanon may require a traffic study for developments or changes in use generating fewer than seventy-five (75) additional trips during peak hours in cases where known traffic deficiencies exist in the area of the proposed development or change in use.

404.6.1.3 The Municipality may waive the traffic impact study requirement for an individual subdivision or development or change in use. This is provided that the development or change in use was incorporated as a part of any previous traffic impact study or studies completed by the Municipality or other government agencies.

404.6.2 Traffic Impact Study Contents and Scope.

404.6.2.1 Mt. Lebanon will provide a scope of study specifying the study area, intersections and any special requirements. Prior to initiation of the study, a meeting shall be held to review the scope of work. PennDOT may be invited to the meeting when appropriate. The study shall include the following:

404.6.2.1.1 Description of the proposed project in terms of land use and magnitude.

404.6.2.1.2 An inventory and analysis of existing roadway and traffic conditions in the site environs including:

404.6.2.1.2.1 Roadway network and traffic control;

404.6.2.1.2.2 Existing traffic volumes in terms of peak hours and average daily traffic (ADT), where specifically requested;
404.6.2.1.2.3 Planned roadway improvements by others;

404.6.2.1.2.4 Intersection levels of service;

404.6.2.1.2.5 Roadway levels of service (where requested);

404.6.2.1.2.6 Other measures of roadway adequacy; i.e.: lane-widths, traffic signal warrants and vehicle delay studies.

404.6.2.2 Projected site-generated traffic volumes in terms of:

404.6.2.2.1 Peak hours and ADT (by phase if required);

404.6.2.2.2 Approach/departure distribution including method of determination. This must be approved prior to performing future traffic analyses;

404.6.2.2.3 Site traffic volumes in roadway.

404.6.2.3 An analysis of future traffic conditions, with and without the proposed development, including:

404.6.2.3.1 Future design year, or years with phasing, combined traffic volumes (site traffic plus future roadway traffic). If the study is required for PennDOT review, the future design year shall be consistent with PennDOT requirements.

404.6.2.3.2 Intersection levels of service;

404.6.2.3.3 Roadway levels of service (where appropriate);

404.6.2.3.4 A pavement analysis of roadways that are projected to experience significant increases in ADT volumes (where appropriate);
404.6.2.3.5 Other measures of roadway adequacy, i.e.: lane-width; traffic signal warrants and vehicle delay studies.

404.6.2.4 A description of future levels of service and their compliance with standards for traffic capacity of streets, intersections and driveways.

404.6.2.5 A description and analysis of the proposed access plan and site plan.

404.6.2.5.1 On-site circulation plan showing parking locations and dimension, loading access, circulation plan showing parking locations and dimension, loading access, circulation roadway and traffic control;

404.6.2.5.2 Driveway access plan showing location of driveways and new intersections including geometric conditions and traffic control.

404.6.2.6 A qualitative analysis of transportation demand management measures including transit, pedestrian and bicycles, as well as telecommuting, flextime, ridesharing, and similar elements of demand.

404.6.3 Standards for traffic capacity and access.

404.6.3.1 New or modified streets and intersections shall be designed for traffic capacity defined as follows, unless otherwise approved by the municipal engineer. All references to levels of service (LOS) shall be as defined in the Highway Capacity Manual, Special Report 209, published by the Transportation Research Board.

404.6.3.1.1 Traffic capacity LOS shall be based upon a future design year that coincides with completion of the development and PennDOT requirements;
404.6.3.1.2 New unsignalized intersections or driveways which intersect streets shall be designed for LOS C or better for each traffic movement;

404.6.3.1.3 New or modified (additional approach created) signalized intersections shall be designed for LOS C or better;

404.6.3.1.4 Existing intersections impacted by development traffic shall maintain a minimum LOS D;

404.6.3.1.5 Streets shall be designed for a minimum LOS C;

404.6.3.1.6 Sight distance at driveways and new intersections shall meet standards specified by PennDOT regulations.

404.7 Proof of compliance with Chapter VI (Grading, Excavating and the Development of Slopes) of the Mt. Lebanon Code as determined by the Administrator.

404.8 A statement requesting any waivers or modifications to the requirement of this Chapter in accordance with §1202, if applicable.

§405 Preliminary Application Review of a Major Subdivision.

405.1 Planning Board Action. The municipal engineer may present a written report to the Planning Board that states whether an application complies with the requirements of this Chapter and that report, if any, shall be included in the minutes at the Planning Board meeting.

The Planning Board shall approve, approve with conditions or disapprove the preliminary application at a public meeting. The action of the Planning Board shall provide reasons for the decision, and, in the case of a disapproval, shall cite the specific requirements of this Chapter which have not been met.

The Planning Board shall not act until the review has been received from the Allegheny County Department of Economic Development or until thirty (30) days has passed since the date that the application was submitted to the County for review. The report of the municipal engineer, if any, shall be made a part of the record at that meeting.
A letter indicating approval, approval with conditions or disapproval shall be mailed to the applicant within fifteen (15) days of the date of the decision. If the preliminary application is not approved, the Planning Board shall specify the defects found in the preliminary application and cite the specific requirements of this Chapter that have not been met.

405.2 **Conditional Approval.** If the Planning Board determines that certain conditions are warranted to be attached to preliminary approval to protect the public interest and guarantee compliance with the requirements of this Chapter or other Chapters of the Code, the conditions of approval shall be specified, in writing, in the notice of conditional approval required by §405.1 of this Chapter. If the applicant fails to give written notice to the Municipality regarding acceptance or rejection of the conditions attached to preliminary approval within the required thirty (30) days, preliminary approval shall automatically be rescinded without written notice to the applicant.

405.3 **Expiration of Preliminary Approval.** Preliminary approval shall expire one (1) year from the date of the grant of preliminary approval by the Planning Board, unless a written extension is submitted by the applicant and approved by the Planning Board. Any request for extension shall be submitted to the Planning Board at least thirty (30) days prior to the prevailing expiration date. Extensions may be granted for one (1) or more six (6) month period(s) upon a finding by the Planning Board that such extension is warranted for reasonable cause and not due to the applicant’s own negligence or inaction.

In the case of a phased development, calling for the installation of improvements beyond the five (5) year period, a schedule shall be filed by the applicant with the preliminary application delineating all proposed phases, as well as time deadlines by which applications for final plat approval of each phase are intended to be filed. The applicant shall update the schedule on or before the anniversary of preliminary approval until final plat approval of the final phase has been granted. Any modification in the aforesaid schedule shall be subject to approval by the Planning Board in its sole discretion.

§406 **Final Application Submission for a Major Subdivision.** After the Planning Board has approved a preliminary application for a major subdivision, the developer may proceed by filing an application for final approval of a major subdivision. The final application may be submitted for the entire development granted preliminary approval or may be submitted in phases in accordance with §408.4 of this Chapter.

If the major subdivision proposes any variances from the provisions of the Zoning Ordinance, the decision of the Zoning Hearing Board shall be issued prior to submission of the application for final approval. If the zoning variances are denied, the final plat shall be revised to show compliance with the zoning requirements at issue. If the final plat is not revised to show compliance with the zoning requirements that are at issue, a new preliminary application shall be required.
In either case, the applicant shall submit ten (10) copies of the final application required by §407 of this Chapter to the Municipality at least twenty-eight (28) calendar days prior to the regular meeting of the Planning Board. If the twenty-eighth (28th) day falls on a holiday, the application shall be filed by the close of business on the immediately preceding working day.

Immediately upon receipt, the Municipality shall stamp the application with the date of receipt and one (1) copy of the application shall be distributed to the municipal engineer and one (1) copy to the municipal planner for review.

The final application shall not be considered to be complete and properly filed unless and until all items required by §407 of this Chapter, including the application fee, have been received.

During the review period between the date of receipt of the application for final approval of a major subdivision by the municipality and the next regular meeting of the Planning Board, the municipal engineer may provide a written review of the application to the municipal planner. Based on the written review, if any, the municipal engineer and municipal planner shall determine whether the application is ready to be scheduled on the Planning Board agenda. The municipal planner shall notify the applicant, whether the application will be scheduled on the next Planning Board meeting agenda and shall provide a copy of the municipal engineer’s written review, if any, to the applicant.

In the event that the applicant submits ten (10) copies of a revised application that addresses the municipal engineer’s written review at least fourteen (14) calendar days prior to the regular monthly meeting of the Planning Board, the revised application will be considered at the Planning Board meeting. Revised plans which are submitted less than fourteen (14) calendar days prior to the Planning Board meeting will be scheduled for consideration on the subsequent month’s Planning Board meeting agenda.

§407 Final Application Content. All applications for final approval of a major subdivision shall include the following:

407.1 Ten (10) copies of the completed application form supplied by the Municipality;

407.2 Application filing fee, as required by §1301 of this Chapter;

407.3 One (1) copy of the approved preliminary plat;

407.4 Evidence that an amenities bond, if required, will be submitted at the time of execution of the development agreement;

407.5 Final covenants and restrictions applicable to the plan, if any;
407.6 Written evidence of compliance with all other applicable Municipal, County, State and Federal regulations or permits;

407.7 Written evidence of the decision of the Zoning Hearing Board regarding zoning variances requested, if any; and

407.8 Ten (10) copies of the final plat in accurate and final form for recording drawn to a scale not less than one inch equals one hundred feet (1" = 100') on sheets not exceeding thirty-four inches by forty-four inches (34" x 44") which clearly delineates the following:

407.8.1 The name of the subdivision.

407.8.2 The name and address of the developer, and, if the developer is not the landowner, the name and address of the landowner.

407.8.3 The name, address, certification and seal of the surveyor who prepared the plat.

407.8.4 The north point, graphic scale and date.

407.8.5 Accurate boundary lines, with dimensions and bearings. The boundary of the tract shall be determined by an accurate survey in the field which must be balanced and closed and certified to be correct by a registered land surveyor.

407.8.6 Accurate locations of all existing and recorded streets intersecting the boundaries of the tract of land described in the final plat.

407.8.7 Lot numbers and dimensions. All lots shall be numbered consecutively.

407.8.8 All dimensions shall be shown to the nearest one one-hundredth (0.01) of a foot, United States Standard measure.

407.8.9 Final building lines.

407.8.10 The location and dimensions of all easements for public improvements and any limitations on such easements.

407.8.11 Dimensions and bearings of any property to be reserved for public, semi-public or community use.

407.8.12 Location of existing buildings and all other structures, including walls, fences, culverts and bridges, with spot elevations of such
buildings and structures. Structures to be removed shall be indicated by dashed lines; structures to remain shall be indicated by solid lines.

407.8.13 Street names, which shall not duplicate or sound like an existing street name in the 9-1-1 emergency service area;

407.8.14 Complete curve data for all curves included in the final plat, including radius, arc length, chord bearing and chord distance. Lines which join these curves that are non-radial or non-tangential should be so noted.

407.8.15 Street lines with accurate dimensions in feet and hundredths of feet.

407.8.16 A tentative street profile plan for all streets within the subdivision and for a distance of two hundred (200) feet beyond the boundaries of the subdivision.

407.8.17 Refined contours and sufficient elevations to show proposed grading, which demonstrates compliance with Chapter VI of the Mt. Lebanon Code, entitled “Grading and Excavating and Development of Steep Slopes.”

407.8.18 If applicable, a notation on the plat that access to a State highway shall only be authorized by a highway occupancy permit issued by the Pennsylvania Department of Transportation under Section 420 of the State Highway Law (P.L. 1242, No. 428 of June 1, 1945).

407.8.19 If applicable, a notation on the plat that access to a county owned road shall be authorized by a highway occupancy permit issued by the Allegheny County Department of Public Works.

407.8.20 Location, type and size of all monuments and lot markers in accordance with the standards and requirements of §701 of this Chapter and the County Planning Agency and an indication of whether they were found or set.

407.8.21 Where applicable, evidence of approvals from the Allegheny County Works Department, Allegheny County Soil Conservation District, Pennsylvania Department of Environmental Protection and the U.S. Army Corps of Engineers.

407.8.22 Spaces for the signatures of the Chairman and Secretary of the Planning Board; the President and Secretary of the Commission; the municipal engineer; and dates of approval.
407.8.23 Executed certification clauses required by the Allegheny County Subdivision and Land Development Regulations.

407.8.24 Executed development agreement in a form approved by the municipality.

407.8.25 Delivery of the amenities bond and cash deposit pursuant to §413 of this Chapter.

§408 Review of a Final Application for a Major Subdivision.

408.1 Planning Board Recommendation. The municipal engineer may present a written report to the Planning Board that states whether the application complies with the requirements of this Chapter and that report, if any, shall be included in the minutes of the Planning Board meeting.

The Planning Board shall make a recommendation, in writing, to the Commission for approval, approval with conditions or disapproval of the final application. The recommendation of the Planning Board shall provide reasons for the recommendation and, in the case of a recommendation for disapproval, shall cite the specific requirements of this Chapter which have not been met.

408.2 Commission Action. Eight (8) copies of the final plat, as recommended by the Planning Board, and one (1) reproducible mylar with the required certifications and signature clauses shall be submitted to the municipal manager at least twelve (12) calendar days prior to the regular meeting of the Commission at which the application is to be considered for approval.

The Commission shall approve, approve with conditions or disapprove the final application at a public meeting. The Planning Board’s written recommendation and the report of the municipal engineer, if any, shall be made a part of the record at that meeting.

A letter indicating approval, approval with conditions or disapproval shall be mailed to the applicant within fifteen (15) days of the date of the decision. If the final application is not approved, the Commission shall specify the defects found in the final application and cite the requirements of this Chapter that have not been met.

408.3 Conditional Approval. If the Commission determines that certain conditions are warranted to be attached to final approval to protect the public interest and guarantee compliance with the requirements of this Chapter or other Chapters of the Code, the conditions of approval shall be specified, in writing, in the notice of conditional approval required by §408.2 of this Chapter. The applicant shall accept or reject the conditions attached to final approval either by giving written notice to the municipal manager or by executing the
development agreement required by §411 of this Chapter within ninety (90) days of the date of the meeting of the Commission at which final approval is granted. If the applicant fails to give written notice to the Municipality regarding acceptance or rejection of the conditions attached to final approval or execute the development agreement within the required thirty (30) days, final approval shall automatically be rescinded without written notice to the applicant.

408.4 **Phased Approval.** In the case where development of a major subdivision is projected over a period of years, the Municipality authorizes submission of final applications by sections or phases of development, subject to such requirements or guarantees for public improvements in future sections or phases of the development which are essential for the protection of the public welfare and any existing or proposed section or phase of the plan.

All sections or phases shall conform to the preliminary application as previously approved by the Municipality. Any phase that contains substantive changes in the number of lots or buildings proposed or in the layout of the lots, buildings or streets previously approved in the preliminary application shall require complete resubmission of the preliminary application in accordance with this Chapter.

§409 **Mediation Option.** The Municipality may offer the mediation option as an aid in reaching decisions on applications for approval of subdivisions or land developments and as an alternative to appeals from such decisions. Mediation shall supplement, not replace, those procedures once they have been formally initiated. Nothing in this section shall be interpreted as expanding or limiting the Municipality’s police powers or as modifying any principle of substantive law.

Participation in mediation shall be wholly voluntary. The appropriateness of mediation shall be determined by the particulars of each case and the willingness of the parties to negotiate. The Commission shall assure that, in each case, the mediating parties, assisted by the mediator, as appropriate, develop terms and conditions for:

409.1 **Funding mediation.**

409.2 **Selecting a mediator who, at a minimum, shall have a working knowledge of municipal zoning and subdivision and land development procedures and demonstrated skills in mediation.**

409.3 **Completing mediation, including time limits for such completion.**

409.4 **Suspending time limits otherwise authorized in this Chapter, provided there is written consent by the mediating parties, or by the Commission if either is not a party to the mediation.**
Identifying all parties and affording them the opportunity to participate.

Subject to legal restraints, determining whether some or all of the mediation sessions shall be open or closed to the public.

Assuring that mediated solutions are in writing and signed by the parties, and become subject to review and approval by the Commission pursuant to the procedures for approval contained in this Chapter.

No offers or statements made in the mediation sessions, excluding the final written mediated agreement, shall be admissible as evidence in any subsequent judicial or administrative proceedings.

Any person aggrieved by a decision of the Commission concerning and application for approval of a subdivision or land development may appeal the decision in accordance with the procedures specified in Article X-A of the MPC.

§410 Indication of Approval. When requested by applicant, in order to facilitate financing, the Commission shall furnish the developer with a signed copy of a resolution, indicating approval of the final plat contingent upon the developer obtaining financial security pursuant to this Chapter, executing the development agreement and meeting all of its obligations. The plat shall not be signed by the Commission nor recorded until the development agreement is executed and the cash deposit or irrevocable letter of credit and amenities bond, if required, are submitted. The resolution shall expire and be deemed revoked if the development agreement and financial security as set forth herein are not executed and received by Mt. Lebanon within ninety (90) days of the date of the resolution, unless a written extension is granted by the Commission.

§411 Development Agreement.

Prior to the Commission’s action granting final approval of a subdivision or land development, the applicant shall execute a development agreement. The development agreement shall include the following:

1. Petition for construction of public improvements: §412.1 of this Chapter.
2. Submission of cash deposit or an irrevocable letter of credit: §412.2 of this Chapter.
3. Indemnification: §412.3 of this Chapter.
4. Submission of an amenities bond, if required: §413 of this Chapter.
411.1.5 Any other provisions or conditions that may be required by the Municipality.

411.2 The development agreement shall be in a form acceptable to the municipal solicitor and in addition to the above shall contain any conditions attached to the final approval of the subdivision as well as include the submission of the estimated sum required by the municipal engineer to initiate pre-bid procedures, to prepare engineering designs and specifications and to perform related activities for the bidding and construction of public improvements.

411.3 A development agreement (form) may be obtained from the municipal manager.

§412 Petition for Construction of Public Improvements, Submission of Cash Deposit or an Irrevocable Letter of Credit and Release of Damages.

412.1 Petition for Construction of Public Improvements. The petition for construction of public improvements shall be part of the development agreement. When streets and/or other public improvements in a proposed subdivision have not been constructed or were not originally constructed to Municipal Construction Standards the petition shall request the Municipality to grade, pave and curb the streets and install storm sewers and sanitary sewers, street and traffic control signage and other public improvements required in the proposed subdivision.

412.2 Submission of Cash Deposit or Irrevocable Letter of Credit. As a part of the development agreement and prior to the opening of bids for construction of public improvements, the applicant shall submit a cash deposit or irrevocable letter of credit as defined by this Chapter, to the Municipality. The cash deposit or irrevocable letter of credit shall be based upon a written estimate of the cost of completion of the required improvements, prepared by the municipal engineer and certified by such engineer to be a fair and reasonable estimate of such and shall be in an amount equal to one hundred and ten percent (110%) of the cost of completion, engineering and inspection of the public improvements.

412.2.1 Cash Deposit. The cash deposit shall be submitted to the Municipality.

412.2.2 Irrevocable Letter of Credit. The irrevocable letter of credit shall be payable to the Municipality and shall be issued by a commercial bank organized under the Pennsylvania Banking Code of 1965 or the National Banking Act, having its principal place of business in the Commonwealth of Pennsylvania, and having unimpaired capital and surplus of at least one hundred (100) times the face amount of the letter of credit.
Use of Cash Deposit or Irrevocable Letter of Credit. Mt. Lebanon shall hold the cash deposit or the irrevocable letter of credit until applied to the payment of costs of the improvements or returned to the applicant in the manner hereinafter provided.

When and as the improvements shall have been constructed and the total cost thereof has been ascertained, or any partial or progress payment has become due or payable, as determined by Mt. Lebanon’s Engineer, the cash deposit or irrevocable letter of credit or an appropriate portion thereof shall be applied by Mt. Lebanon to the payment of the cost of the improvements in such a manner and order as Mt. Lebanon shall determine.

After the completion of the improvements and the payment of entire cost thereof, if any excess remains in the cash deposit the same shall be refunded by Mt. Lebanon to the applicant. If, however, any deficiency exists between the amount of said cash deposit or irrevocable letter of credit and the actual total cost of the improvements after the application of said cash deposit or irrevocable letter of credit as aforesaid, Mt. Lebanon shall send to the applicant a written statement showing the manner of the application of said cash deposit or irrevocable letter of credit and the amount of such deficiency, whereupon the applicant shall promptly pay to Mt. Lebanon the amount of such deficiency, as shown on said statements.

Any portion of such deficiency that is not paid by the applicant within thirty (30) days from the sending of said written notice may at Mt. Lebanon’s discretion, be assessed against the abutting properties of the subdivision in accordance with the applicable law. The improvements shall be constructed and the assessment therefore made against abutting properties, at Mt. Lebanon’s discretion, in accordance with the Home Rule Charter and Optional Plans Law, 53 Pa.C.S. 2901, and Section 2060 of the First Class Township Code, 53 P.S. §57060, as amended, Section 2408 of the First Class Township Code, 53 P.S. §57408 enacted May 27, 1949, as amended or other applicable law. The total cost of the improvements will be assessed on the abutting properties without deduction for non-assessable property, street intersections, or for any equitable adjustments.

Additional Remedies to Effect Completion of Improvements. In the event that any improvements that may be required have not been installed as provided in this Chapter or in accord with the approved final plat, the Municipality may enforce any corporate bond, or other security by appropriate legal and equitable
remedies. If proceeds of such bond, or other security, are insufficient to pay the cost of installing or making repairs or corrections to all of the improvements covered by that security, the Municipality may, at its option, install such improvements in all or part of the subdivision or land development and may institute appropriate legal or equitable action to recover the moneys necessary to complete the remainder of improvements. All of the proceeds, whether resulting from the security or from any legal or equitable action brought against the developer, or both, shall be used solely for the installation of the improvements covered by such security, and not for any other municipal purpose.

412.2.5 Bids for Public Improvements. Upon the recording of the subdivision plan and/or land development plan and the completion of the engineering design, specifications and bidding documents by the municipal engineer the construction of public improvements shall be bid. If after the receipt of bids for the public improvements, the applicant requests Mt. Lebanon not to award contracts on the basis of the responsible low bid received due to the improvement costs being greater than the owner anticipated, the Commission shall reject all bids, retain the sum required for the municipal engineer and re-bid the construction of the public improvements.

If the applicant again requests Mt. Lebanon not award the contracts on the basis of the responsible low bid, the Commission can again reject the bids and retain the sum required for the municipal engineer and return the cash deposit or the irrevocable letter of credit.

If the bids are rejected there shall be no grading of any type in the subdivision, no construction of public improvements and no structures placed on or within the subdivision. Until the contract for the public improvements shall have been awarded, no building permits shall be issued for any lot or parcel of ground in the subdivision.

412.3 Indemnification. The development agreement shall contain the statement that the applicant has released, discharged, indemnified and held harmless forever, and does hereby release, discharge, indemnify and hold harmless forever Mt. Lebanon, its officials, employees, successors, and assigns, of and from any and all loss, claims, demands, manner of action, or causes of action for damage to the respective properties of applicant.
The development agreement shall also contain a release of damages by the applicant, releasing the Municipality from claims for damages arising from construction of the street improvements and the installation of storm sewers and sanitary sewers and other public improvements.

§413 Posting of Amenities Bond and Cash Deposit. As a condition for final approval of a subdivision or a land development plan, the applicant shall submit an amenities bond as defined by this Chapter, in favor of the Municipality, in an amount equal to one hundred percent (100%) and a cash deposit of ten percent (10%) of the cost for completion of private improvements. All private improvements shall be constructed in accordance with the standards set forth in Appendix IV and the municipal construction standards. Until the amenities bond and cash deposit are submitted and the final plat is approved by the Commission there shall be no grading of any type in the subdivision or land development, no construction of private improvements and no structures placed on or within the subdivision or land development. The process for estimating the cost for completion of private improvements shall be as follows.

413.1 Determination of Cost of Completion. In all subdivisions and land developments where private improvements are required by Mt. Lebanon or voluntarily provided by the Applicant, an Amenities Bond and Cash Deposit shall be required. The estimate of the cost of the completion of the required private improvements shall be prepared by the Applicant’s engineer and shall be certified by such engineer to be a fair and reasonable estimate of such costs.

The Municipality, upon the recommendation of the Municipal Engineer, may refuse to accept such estimate for good cause shown. If the applicant and the municipality are unable to agree upon an estimate, the estimate shall be recalculated and re-certified by another engineer chosen mutually by the Municipality and the applicant. The estimate certified by the third engineer shall be presumed fair and reasonable, and shall be the final estimate. In the event that the third engineer is chosen, fees for the services of the said engineer shall be paid equally by the applicant and Mt. Lebanon.

413.2 Time for Completion of Improvements. If more than one (1) year from the date of posting of the amenities bond and cash deposit is required to complete the necessary improvements, the amount of the amenities bond shall be increased by an additional ten percent (10%) for a one (1) year period beyond the first anniversary date from posting the amenities bond or to an amount not exceeding one hundred ten percent (110%) of the cost of completing the required private improvements as reestablished on or about the expiration of the preceding one (1) year period by using the above procedure, whichever is the greater amount.

413.3 Completion by Mt. Lebanon. If the private improvements are not completed within two (2) years of the posting of the amenities bond and cash deposit Mt.
Lebanon shall use the cash deposit to complete the private improvements. If the cash deposit is not sufficient to complete the private improvements the Municipality of Mt. Lebanon shall take the necessary actions to enforce the amenities bond by appropriate legal and equitable remedies provided by the Laws of the Commonwealth of Pennsylvania.

413.4 **Date of Completion.** A written and agreed to determination shall be made to establish a reasonable date when the private improvements should be completed after the municipal improvements are completed.

§414 **Recording of Final Plat.** Upon approval of a final subdivision or land development plat by the Municipality, the developer shall, within ninety (90) days of such final approval or the date the approval of the Commission is noted on the plat, whichever is later, record such plat in the Office of the Allegheny County Recorder of Deeds.

414.1 All plats or plans shall be drawn on mylar. Sepias, vellums, and reverse-print mylars will not be accepted. For recording purposes, the best quality mylars are wash-off or fixed line mylars.

414.2 Standard size sheets of drafting material shall be used. The actual reproducible area of drawing on a sheet shall not be smaller than seventeen (17) inches by twenty-two (22) inches and shall not be larger than twenty-two (22) inches by thirty-four (34) inches.

414.3 All plats or plans shall be drawn or plotted with black drafting or plotter ink.

414.4 All dedications, acknowledgements, certifications and approvals shall be made with black drafting or plotter ink, or a varityping process which will enable legible reproduction.

414.5 All signatures and dates shall be made with permanent black ink using a felt tipped pen or drafting pen.

414.6 All plans shall be drawn to a scale no smaller than one hundred feet (100) feet to the inch.

414.7 All condominium floor plans shall be drawn to a scale no smaller than one-eighth (1/8) inch to the foot.

414.8 All plats and plans shall be of sufficient size, within the parameters set forth in §414.2 of this Chapter, to clearly show all dimensions, notations and other printed matter with sufficient legibility and clarity to permit legible reproduction.

§415 **Reinstatement of Approval.** In the event that the plat has not been recorded within the required ninety (90) days, the Municipal Manager is authorized to reinstate the
signatures of the proper officers of the Municipality indicating approval, provided there are no changes in the Subdivision previously granted approval and all the requirements of this Chapter regarding posting of and execution of an Escrow Deposit or Amenities Bond and execution of a Development Agreement have been met and, further, provided the plan is submitted for reinstatement of approval within one hundred eighty (180) days following the date of Final Approval by the Commission. Any request for reinstatement of Final Approval which is submitted after one hundred eighty (180) days from the date of the original granting of Final Approval by the Commission shall be required to resubmit an application for Final Approval in conformance with the requirements this Chapter.

§416 Filing of Copies. Upon recording of the Final Plat in the Office of the County Recorder of Deeds, the applicant shall deliver to the Municipal Manager, one (1) reproducible mylar and one copy in electronic format on a three-and-a-half (3½) inch diskette as a DXF or DWG file of the Final Plat as recorded, containing all required signatures and dates of approval. The following layers shall be created on the disk: property lines, right of way lines, centerline of streets, easements, lot numbers, street names, pavement, buildings, text general (title block, notes, clauses, etc.), metes and bounds, utilities (storm and sanitary on separate layers), drainage (creeks and streams), monuments and markers, building setbacks, adjoining property lines, contours, elevation spots, walls.
PART 5
REVIEW PROCEDURE FOR LAND DEVELOPMENTS

§501 Pre-Application Conference. Prior to filing an application for Preliminary Approval of a Land Development, the applicant or his representative may meet with the Municipal Planner and other representatives of the Municipality, including the Economic Development Officer, Zoning Inspector and Municipal Engineer, as warranted, to obtain application forms and to discuss application procedures and applicable ordinance requirements.

In addition, the developer may request a pre-application conference with the Planning Board to discuss the conceptual design for the development of the property and the feasibility and timing of the application. The applicant shall contact the Municipal Planner at least fourteen (14) calendar days prior to the regular meeting of the Planning Board to request a pre-application conference with the Planning Board.

The pre-application conference with the Planning Board is voluntary and no formal application or fee is required. This opportunity is afforded to the developer to obtain information and guidance before entering into binding commitments or incurring substantial expenses for plan preparation.

A pre-application conference shall not constitute formal filing of any application for approval of a land development, shall not bind the Planning Board to approve any concept presented in the pre-application conference and shall not protect the application from any subsequent changes in ordinance provisions which may affect the proposed development between the date of the pre-application conference and the date of filing of an application for Preliminary Approval of a Land Development under the terms of this Chapter.

§502 Preliminary Application Submission. The applicant shall file ten (10) copies of an application for Preliminary Application Review of a Land Development required by §504 of this Chapter to the Municipality at least twenty-eight (28) calendar days prior to the regular meeting of the Planning Board. If the twenty-eighth (28th) day falls on a holiday, the application shall be filed by the close of business on the immediately preceding working day.

The Preliminary Application shall not be considered to be complete and properly filed unless and until all items required by §503 of this Chapter, including the Application Fee, have been received.

Immediately upon receipt, the Municipality shall stamp the application with the date of receipt and one (1) copy of the application shall be distributed to the municipal engineer and one (1) copy to the municipal planner for review.

Additionally, the municipal planner shall submit one (1) copy of the complete and properly filed preliminary application to the Allegheny County Department of...
Economic Development for review and comment that shall be subject to payment of the prevailing County review fee by the developer. Additional copies may be requested from the applicant for referral to any other appropriate review agency at the discretion of the municipal planner.

During the review period between the date of receipt of the application for preliminary approval of a land development plan by the Municipality and the next regular meeting of the Planning Board, the municipal engineer may provide a written review of the application to the municipal planner. Based on the written review, if any, the municipal engineer and municipal planner shall determine whether the application is ready to be scheduled on the Planning Board agenda. The municipal planner shall notify the applicant whether the application will be scheduled on the next Planning Board meeting agenda and shall provide a copy of the municipal engineer’s written review, if any, to the applicant.

§503 Preliminary Application Content. The application for preliminary review of a land development shall include the following information:

503.1 Ten (10) copies of the completed application form supplied by the Municipality.

503.2 Application filing fee, as required by §1301 of this Chapter.

503.3 Evidence of ownership or proprietary interest.

503.4 Evidence of compliance with the requirements of §§404.5 and 404.6 of this Chapter.

503.5 Evidence of compliance with Chapter VI (Grading and Excavating and Development of Slopes) of the Mt. Lebanon Code.

503.6 Ten (10) copies of a preliminary plat, prepared in accordance with the specifications shown in the applicable diagrams in Appendix II accurately drawn to a scale of not less than one inch equals fifty feet (1"=50') certified by a Pennsylvania Registered Land Surveyor as to existing features, design features and boundaries. The preliminary plat shall include or be accompanied by the following information:

503.6.1 Date of preparation. All revisions shall be noted and dated.

503.6.2 A location map showing the location of the tract with reference to the surrounding properties, existing streets and streams within one thousand (1,000) feet of the land development.

503.6.3 Name of the development, including the words “preliminary land development plan;” north arrow; graphic scale; map and parcel
number; the name and address of the record owner; the name and address of the applicant; the name and address, license number and seal and signature of the person preparing the survey. If the owner of the premises is a corporation, the name and business address of the president and secretary shall be submitted on the application.

503.6.4 All distances shall be in feet and one hundredths (0.01) of a foot and all bearings shall be given to the nearest ten (10) seconds.

503.6.5 A copy of the zoning district map in which the parcel is located, together with the zoning classification of properties within two hundred (200) feet of the boundaries of the property for which the application is made shall be illustrated on a map.

503.6.6 A boundary and topographical survey by a surveyor of the total proposed land development. If the developer intends to develop a tract of land in phases, the preliminary plat shall include the total tract.

503.6.7 A copy of any existing or proposed covenants, deed restrictions, which are applicable to the property.

503.6.8 A statement requesting any waivers or modifications to the requirements of this Chapter in accordance with §1202, if applicable.

503.6.9 A statement identifying any zoning variances that have been granted to the property by the Zoning Hearing Board.

503.6.10 The distance, measured along the right-of-way lines of existing streets abutting the property, to the nearest intersections with other public streets within two hundred (200) feet of the site boundaries.

503.6.11 The location and dimensions of proposed buildings and structures, all accessory structures and fences, if any, including front, side and rear yard setbacks, height of buildings, first floor elevations of all structures and floor plans of buildings.

503.6.12 Location of existing buildings and all other structures, including walls, fences, culverts and bridges, with spot elevations of such buildings and structures. Structures to be removed shall be indicated by dashed lines; structures to remain shall be indicated by solid lines.
If applicable, special flood hazard area boundaries. If any proposed construction or development is located within or adjacent to, any identified flood-prone area, the following information shall be submitted:

503.6.13.1 A plan which accurately delineates the area which is subject to flooding, the location of the proposed construction, the location of any other flood-prone development or structures, and the location of any existing or proposed stream improvements or protective works, information concerning the one hundred (100) year flood elevations, descriptions of uplift forces, associated with the one hundred (100) year flood, size of structures, location and elevations of streets, water supply and sanitary sewage facilities, soil types and flood-proofing measures.

503.6.13.2 A document certified by a registered professional engineer or architect that the proposed construction has been adequately designed against flood damage and that the plans for the development of the site adhere to the regulations set forth in Chapter II, Part 2, of the Mt. Lebanon Code entitled Flood Plain Regulations. Such statement shall include a description of the type and extent of flood-proofing measures that have been incorporated into the design of the structure.

503.6.14 Existing and proposed contours, referred to as United States Coast and Geodetic Survey datum, now known as National Vertical Geodetic Datum (NVGD) 1929, with a contour interval of two (2) feet for slopes of less than twenty percent (20%) and an interval of five (5) feet for slopes of twenty percent (20%) or more. Regardless of slope, contours within areas of disturbance shall be plotted at two (2) foot intervals. Dashed lines shall be used to indicate existing contours and solid lines shall be used to indicate proposed contours.

503.6.15 Location of existing rock outcrops, high points, watercourses, depressions, ponds, marshes, wooded areas and other significant existing features, including previous flood elevations of watercourses, ponds and marsh areas as determined by survey.

503.6.16 Identification of any wetlands on the site and the design techniques proposed to accommodate them.
503.6.17 Any and all existing streets related to the proposed development; including the names, cartway widths, approximate gradients and sidewalk widths.

503.6.18 If any new streets are proposed, profiles, indicating grading; cross sections showing the width and design of roadways and sidewalks.

503.6.19 Acreage, to the nearest hundredth of an acre of the site to be developed for non-residential purposes and/or the area, in square feet, of each lot to be developed for residential purposes.

503.6.20 Plans of proposed stormwater systems showing feasible connections to existing or any proposed utility systems. Pipe sizes, grades and direction of flow, locations and inlets, manholes or other appurtenances and appropriate invert and other elevations shall be indicated. All stormwater facility plans shall be accompanied by a separate sketch showing all existing drainage within five hundred (500) feet of any boundary, and all areas and any other surface area contributing to the calculations, and showing methods used in the drainage calculations.

503.6.21 Stormwater management plans, if required by §809 of this Chapter.

503.6.22 The location and size of all existing and proposed sanitary sewers.

503.6.23 The location and size of all existing and proposed waterlines, valves and hydrants.

503.6.24 The location, width and purpose of all existing and proposed easements and rights-of-way.

503.6.25 The location, type and approximate size of existing utilities to serve the development.

503.6.26 Tree masses and all individual specimen trees having a caliper of four (4) inches or greater.

503.6.27 A soil erosion and sedimentation control plan prepared by a person trained and experienced in control methods and techniques which conforms to the requirements of the Pennsylvania Clean Streams Law and Chapter 102 of the Rules and Regulations of the Pennsylvania Department of Environmental Protection governing Erosion Control, or any successor regulations thereto.
503.6.28  The number and density of dwelling units (if residential).

503.6.29  All means of vehicular access for ingress and egress to and from the site onto public streets, showing the size and location of internal streets or driveways and curb cuts including the organization of traffic channels, acceleration and deceleration lanes, additional width and any other improvements on the site or along the site’s street frontage necessary to prevent a difficult traffic situation. All pedestrian walkways and provisions for handicapped facilities in compliance with the requirements of the Americans with Disabilities Act (ADA) for an accessible site shall also be shown. In addition, the land development plan shall show the existing road system, located outside the development within two hundred (200) feet of the development or the next nearest intersection.

503.6.30  Computation of the number of parking spaces to be provided, the location and design of off-street parking areas and loading areas showing size and location of bays, aisles and barriers and the proposed direction of movement.

503.6.31  Tabulation of site data, indicating zoning requirements applicable to the site and whether the proposed site development features comply.

503.6.32  Proposed screening and landscaping, including a preliminary planting plan.

503.6.33  The methods, placement and screening of solid waste disposal and storage facilities.

503.6.34  If applicable, a detailed proposal, including covenants, agreements, or other specific documents showing the ownership and method of assuring perpetual maintenance to be applied to those areas which are to be used for private streets, sewers, recreational or other common purposes.

503.6.35  If the plan is to be completed in phases, the proposed sequence of development with projected time schedule for completion of each of the several phases.

503.6.36  If applicable, a notation on the plat that access to a State highway shall only be authorized by a highway occupancy permit issued by the Pennsylvania Department of Transportation under Section 420 of the State Highway Law (P.L. 1242, No. 428 of June 1, 1945).
503.6.37 If applicable, a notation on the plat that access to a county owned road shall be authorized by a highway occupancy permit issued by the Allegheny County Department of Public Works.

503.6.38 Spaces for the signature of the Chairman and Secretary of the Planning Board; the President and Secretary of the Commission; the Municipal Engineer; and dates of approval.

§504 Preliminary Application Review of a Land Development.

504.1 **Planning Board Action.** The municipal engineer may present a written report to the Planning Board that states whether an application complies with the requirements of this Chapter and that report, if any, shall be included in the minutes at the Planning Board meeting.

The Planning Board shall approve, approve with conditions or disapprove the preliminary application at a public meeting. The action of the Planning Board shall provide reasons for the decision and, in the case of disapproval, shall cite the specific requirements of this Chapter that have not been met.

The Planning Board shall not act until the review has been received from the Allegheny County Department of Economic Development or until thirty (30) days has passed since the date that the application was submitted to the County for review. The report of the municipal engineer, if any, shall be made a part of the record at that meeting.

A letter indicating approval, approval with conditions or disapproval shall be sent to the applicant by regular mail within fifteen (15) days of the date of the decision. If the preliminary application is not approved, the Planning Board shall specify the defects found in the preliminary application and cite the requirements of this Chapter that have not been met.

504.2 **Conditional Approval.** If the Planning Board determines that certain conditions are warranted to be attached to the preliminary approval to protect the public interest and guarantee compliance with the requirements of this Chapter, or other Chapters of the Code, the conditions of approval shall be specified, in writing, in the notice of conditional approval required by §504.1 of this Chapter. If the applicant fails to give written notice to the Municipality regarding acceptance or rejection of the conditions attached to preliminary approval within the required thirty (30) days, preliminary approval shall automatically be rescinded without written notice to the applicant.

504.3 **Expiration of Preliminary Approval.** If an application for final approval of a land development, or in the case of a phased development, an application for the first phase of the land development is not submitted within one (1) year from the date of the grant of preliminary approval by the Commission,
preliminary approval shall expire, unless a written request for an extension is submitted by the applicant and approved by the Commission. Any request for extension shall be submitted to the Commission at least thirty (30) days prior to the prevailing expiration date. Extensions may be granted for one (1) or more six (6) month period upon a finding by the Commission that such extension is warranted for reasonable cause and not due to the applicant’s own negligence or inaction.

504.4 In the case of a phased development, calling for the installation of improvements beyond a five (5) year period, a schedule shall be filed by the applicant with the preliminary application delineating all proposed phases, as well as time deadlines by which applications for final plat approval of each phase are intended to be filed. The applicant shall update the schedule annually on or before the anniversary of preliminary approval until final plat approval of the final phase has been granted. Any modification in the aforesaid schedule shall be subject to approval by the Commission in its sole discretion.

§505 Final Application Submission for a Land Development. The applicant shall submit ten (10) copies of the application for final approval required by §506 of this Chapter to the Municipality at least twenty-eight (28) calendar days prior to the regular meeting of the Planning Board. If the twenty-eighth (28th) day falls on a holiday, the application shall be filed by the close of business on the immediately preceding working day.

The final application shall not be considered to be complete and properly filed unless and until all items required by §506 of this Chapter, including the application fee, have been received.

Immediately upon receipt, the Municipality shall stamp the application with the date of receipt and one (1) copy of the application shall be distributed to the municipal engineer, one (1) copy to the economic development officer and one (1) copy to the municipal planner for review.

In the event that the Planning Board has granted a waiver under §1202 of this Chapter to allow submission of a single application for combined preliminary and final approval, the municipal planner shall submit one (1) copy of the complete and properly filed combined preliminary and final application to the Allegheny County Department of Economic Development for review and comment which shall be subject to payment of the prevailing County review fee by the developer. Additional copies may be requested for referral to any other appropriate review agency at the discretion of the municipal engineer.

During the review period between the date of receipt of the application for final approval of a land development plan by the Municipality and the next regular meeting of the Planning Board, the municipal engineer may provide a written review of the application to the municipal planner. Based on the written review, if any, the municipal
engineer and municipal planner shall determine whether the application is ready to be scheduled on the Planning Board agenda. The municipal planner shall notify the applicant whether the application will be scheduled on the next Planning Board meeting agenda and shall provide a copy of the municipal engineer’s written review, if any, to the applicant.

In the event that the applicant submits ten (10) copies of a revised application that addresses the municipal engineer’s written review at least fourteen (14) calendar days prior to the regular monthly meeting of the Planning Board, the revised application will be considered at the Planning Board meeting. Revised plans that are submitted less than fourteen (14) calendar days prior to the Planning Board meeting will be scheduled for consideration on the subsequent month’s Planning Board meeting agenda.

§506 **Final Application Content.** All applications for final approval of a land development shall include the following:

506.1 Ten (10) copies of the completed application form supplied by the Municipality;

506.2 Application filing fee, as required by §1301 of this Chapter;

506.3 Evidence of ownership or proprietary interest;

506.4 One (1) copy of the approved preliminary plat, unless the application is for combined preliminary and final approval authorized in this Chapter;

506.5 Ten (10) copies of a final plat drawn in accordance with the specifications shown in the applicable diagrams in Appendix II at a scale of not less than one inch equals one hundred feet (1”=100’). The final plat shall show or be accompanied by the following information:

506.5.1 Date, name and location of the land development, the name of the owner, graphic scale and the words “final land development plan.”

506.5.2 Tract boundary lines, right-of-way lines of streets, street names, easements and other rights-of-way, land reserved or dedicated to public use, all lot lines and other boundary lines; with accurate dimensions, bearing or deflection angles, and radii, arcs and central angles of curves; and the area of each lot.

506.5.3 The names, exact location and widths of all existing and recorded streets intersecting or paralleling the plot boundaries within a distance of two hundred (200) feet or the next nearest intersection.
506.5.4 The purpose location and dimensions of any easement or land reserved or dedicated to public use shall be designated.

506.5.5 Lot and block numbers assigned to the property by the County Assessment Office, including lot and block numbers of immediately abutting property.

506.5.6 Certification by the applicant’s surveyor as to accuracy of details of plat. The error of closure shall not be more than one (1) in ten thousand (10,000).

506.5.7 Dates of preparation and dates of all revisions to the plan.

506.5.8 Name and business address of the registered architect, landscape architect or professional engineer who prepared the plan.

506.5.9 Evidence of required permits from applicable Federal, State and County agencies.

506.5.10 Certification of service from all applicable utility companies.

506.5.11 A design view of the front, side and rear elevations of the proposed structures. Design view elevations are also to be shown where proposed additions or alterations affect such elevations.

506.5.12 Location, height and use of all existing and proposed structures on the property, indicating structures to be removed, if any, and the distances between proposed structures or additions to existing structures and adjacent property lines.

506.5.13 A site lighting plan showing details of all exterior lighting fixtures and supports, the location of exterior lighting fixtures proposed to light the buildings, parking areas, sidewalks and any other areas proposed for public use; documentation that proposed lighting will be shielded and reflect away from adjacent streets and residential properties; a photometric plan.

506.5.14 Layout and design of proposed parking and loading areas, including the gradient of proposed driveways and parking facilities and the proposed pattern of traffic circulation on the site, including pavement markings, islands, curbs, bumper guards and similar facilities.

506.5.15 Sidewalks or walkways, if any, proposed for pedestrian circulation on the site.
506.5.16 The type of paving material to be used for all sidewalks, walkways, driveways and parking facilities.

506.5.17 A final landscaping plan showing the type, size and location of any plant material proposed, a planting schedule, all areas proposed to be seeded, and the parties responsible for future maintenance.

506.5.18 Construction materials of all fences, walls or screens.

506.5.19 A final grading plan, as required by Chapter VI (Grading and Excavating and Development of Slopes), including erosion and sedimentation control measures, as required by §804.1 of this Chapter.

506.5.20 If applicable, a notation on the plat that access to a State highway shall only be authorized by a highway occupancy permit issued by the Pennsylvania Department of Transportation under Section 420 of the State Highway Law (P.L. 1242, No. 428 of June 1, 1945).

506.5.21 If applicable, a notation on the plat that access to a County owned road shall only be authorized by a highway occupancy permit issued by the Allegheny County Department of Public Works.

506.5.22 If applicable, an N.P.D.E.S. Permit.

506.5.23 If applicable, final stormwater management calculations and construction drawings for stormwater management facilities as required by §809 of this Chapter.

506.5.24 Storm drainage plan, including location, size, slope, direction of flow, capacity and material of all storm sewers and connections to existing systems; location of all catch basins, manholes, culverts and other appurtenances; location and width of all storm drainage easements; and location of surface swales, if any.

506.5.25 Written evidence that an amenities bond for private improvements, as required by §510 of this Chapter, will be submitted at the time of execution of the development agreement.

506.5.26 An executed development agreement in a form approved by the municipality.
506.5.26.1 Petition for improvements. When street and other improvements have not been made previously in accordance with Municipal specifications, including any streets which were not built originally to Municipal specifications, there shall be submitted to the manager, at the time the final plat is submitted to him for approval, the following executed documents:

506.5.26.1.1 A petition from the developer to the Commission requesting the Municipality to grade, pave, curb and storm sewer the streets in the proposed subdivision or land development and to install the necessary sanitary sewers required in the proposed subdivision or land development.

506.5.26.1.2 A release of damages by the developer, releasing the Municipality from claims for damages arising from street improvements and the installation of sanitary sewers and storm sewers.

506.5.26.1.3 An agreement between the developer and the Municipality providing either (a) a cash deposit with the Municipality or (b) an irrevocable letter of credit payable to the Municipality, from a commercial bank organized under the Pennsylvania Banking Code of 1965 or the National Banking Act, having its principal place of business in the Commonwealth of Pennsylvania, and having unimpaired capital and surplus of at least one hundred (100) times the face amount of the letter of credit. The cash deposit or letter of credit shall be in an amount as determined by the municipal engineer, equal to one hundred ten percent (110%) of the engineering installation of the improvements in accordance with the standards and specification of the Municipality.
506.5.26.2 Forms for the petition, release of damages, and agreement (including the letter of credit, if used) shall be obtained from the manager.

506.5.27 Spaces for signatures of the President and Secretary of the Commission; the Chairman and Secretary of the Planning Board; the Municipal Engineer; and dates of approval.

§507 Final Application Review of a Land Development.

507.1 Planning Board Recommendation. The municipal engineer may present a written report to the Planning Board that states whether the application complies with the requirements of this Chapter and that report, if any, shall be included in the minutes of the Planning Board meeting.

The Planning Board shall make a recommendation, in writing, to the Commission for approval, approval with conditions or disapproval of the final application. The recommendation of the Planning Board shall provide reasons for the recommendation and, in the case of a recommendation for disapproval, shall cite the specific requirements of this Chapter which have not been met.

507.2 Commission Action. Eight (8) copies of the final plan, as recommended by the Planning Board, and one (1) reproducible mylar with the required signature clauses shall be submitted to the municipal manager at least twelve (12) calendar days prior to the regular meeting of the Commission at which the application is to be considered for approval.

The Commission shall approve, approve with conditions or disapprove the final application at a public meeting. The Planning Board’s written recommendation and the report of the municipal engineer, if any, shall be made a part of the record at that meeting.

A letter indicating approval, approval with conditions or disapproval shall be mailed to the applicant within fifteen (15) days of the date of the decision. If the final application is not approved, the Commission shall specify the defects found in the final application and cite the requirements of this Chapter that have not been met.

507.3 Conditional Approval. If the Commission determines that certain conditions are warranted to be attached to final approval to protect the public interest and guarantee compliance with the requirements of this Chapter, or other Chapters of the Code, the conditions of approval shall be specified, in writing, in the notice of conditional approval required by §507.2 of this Chapter. The applicant shall accept or reject the conditions attached to final approval either by giving written notice to the municipal manager or by executing the development agreement required by §411 of this Chapter within thirty (30)
days of the date of the meeting of the Commission at which final approval is granted. If the applicant fails to give written notice to the Municipality regarding acceptance or rejection of the conditions attached to final approval or execute the development agreement within the required thirty (30) days, final approval shall automatically be rescinded without written notice to the applicant.

507.4 Phased Approval. In the case where a land development is projected over a period of years, the Municipality authorizes submission of final applications by sections or phases of development, subject to such requirements or guarantees for improvements in future sections or phases of the development which are essential for the protection of the public welfare and any existing or proposed section or phase of the plan.

507.5 All sections or phases shall conform to the preliminary application as previously approved by the Municipality. Any phase that contains substantive changes in the number of lots or buildings proposed or in the layout of the lots, buildings or streets previously approved in the preliminary application shall require complete resubmission of the preliminary application in accordance with this Chapter.

§508 Mediation Option. The Municipality may offer the mediation option as an aid in completing the proceedings authorized by this Article in accordance with the requirements of Part 12 of this Chapter.

§509 Development Agreement. All land developments shall be further subject to the requirements for a development agreement as specified in §411 of this Chapter.

§510 Amenities Bond and Cash Deposit. All land developments shall be further subject to the requirement for an amenities bond and cash deposit as specified in §413 of this Chapter.

§511 Land Developments that Propose the Extension or Installation of Any Public Improvements. Land developments which propose the extension or installation of any public improvements, as defined by this Chapter, shall be further subject to §412 of this Chapter governing a petition for construction of public improvements, posting of a cash deposit or irrevocable letter of credit, the use of such funds and bids for public improvements to guarantee their proper installation and execution of a development agreement.

§512 Recording. A land development plan shall not be required to be recorded in the County Recorder of Deeds Office, if the land development is proposed on a lot or lots of record, unless a declaration plan is required to be recorded pursuant to applicable state law for a condominium.
Any land development plan which involves the subdivision, resubdivision or consolidation of property or the dedication of easements or rights-of-way for public improvements shall present a final plat for recording purposes with the application for final approval of the land development. The final plat for recording shall be prepared in accordance with the requirements of §407 of this Chapter for a major subdivision.

§513 Filing of Copies. Whether or not the land development is required to be recorded, the applicant shall deliver to the Municipality, one (1) reproducible mylar and one (1) copy in electronic format on a three-and-a-half (3½) inch diskette as a DXF or DWG file of the final plat, containing all required signatures and dates of approval. The following layers shall be created on the disk: property lines, right of way lines, centerline of streets, easements, lot numbers, street names, pavement, buildings, text general (title block, notes, clauses, etc.), metes and bounds, utilities (storm and sanitary on separate layers), drainage (creeks and streams), monuments and markers, building setbacks, adjoining property lines, contours, elevation spots, walls.

§514 Expiration of Final Approval of a Land Development Plan for Failure to Initiate and Pursue Development.

514.1 If construction of a land development which has been granted final approval, and for which a development agreement and/or amenities bond and cash deposit have been submitted, is not initiated and diligently pursued within one (1) year of the date of final approval, final approval shall expire immediately; provided, however, that the Commission may grant a reasonable extension, if the developer presents satisfactory evidence that difficulties have prevented the work from being initiated and/or diligently pursued and the request for an extension is submitted, in writing, prior to the date of expiration of the approval. Any construction that occurs after expiration of final approval shall constitute a violation of this Chapter and shall be subject to the enforcement remedies of §1305 of this Chapter.
PART 6
INSPECTION AND ACCEPTANCE OF IMPROVEMENTS

§601  Pre-Construction Meeting.

601.1  Private Improvements. Following final approval and the posting of the amenities bond and cash deposit, the developer shall meet with the municipal engineer, the inspectors and any other representative of the Municipality which may be warranted prior to initiating construction of private improvements in order to review the requirements for progress inspections, notice of completion, certificate of completion and release of amenities bond, to establish necessary emergency notification procedures and to review specifications for installation of the private improvements in the approved plan.

§602  Progress Inspections.

602.1  Private Improvements. At least seventy-two (72) hours prior to initiating work to install the private improvements in an approved land development plan, the developer shall notify the Mt. Lebanon Inspection Office and the municipal engineer. Inspections shall be performed as frequently as is necessary to determine compliance with the terms of the approved land development plan. The cost of the inspections shall be charged to the developer in accordance with §1301 of this Chapter.

At a minimum, the following inspections shall be performed:

602.1.1  Rough Grading: when all rough grading has been completed.

602.1.2  Drainage Facilities: when drainage facilities are being installed and before such facilities are backfilled.

602.1.3  Sanitary Facilities: sanitary facilities are being installed and before such facilities are backfilled.

602.1.4  Special Structures: when excavations are completed for retaining and crib walls and when reinforcing steel is in place and before concrete is poured.

602.1.5  Roadways: when roadways and parking areas are rough graded and before final paving.

602.1.6  Additional Inspection: when in the opinion of the Municipality other inspections are necessary.

602.1.7  Final Inspection: when all work, including the installation of all drainage, landscaping and other structures has been completed.
The developer shall request the foregoing inspections by the Municipality at least twenty-four (24) hours in advance.

§603 Notice of Completion

603.1 Private Improvements. When the developer has completed the required private improvements in an approved land development plan, the developer shall make a request, in writing, to the Inspection Office for a final inspection as a prerequisite to the certificate of completion required by §607 of this Chapter.

§604 Filing of As-Built Plans. Upon completion of the private improvements in a plan, “as-built” plans and profiles of the private improvements, as constructed, shall be filed with the Municipality by the developer within ten (10) days of the mailing of the notice of completion. One print of each “as-built” drawing shall be submitted. “As-built” plans and profiles shall be marked “as-built” and shall contain the final grade of all private sanitary and storm sewers and appurtenances.

§605 Remedies to Effect Completion of Private Improvements

605.1 Remedies to Complete Private Improvements. In the event that the private improvements required to be installed by the provisions of this Chapter are not installed in accordance with the requirements of this Chapter or the approved final plan prior to the expiration of the amenities bond and cash deposit, the Commission shall have the power to enforce the amenities bond by appropriate legal and equitable remedies provided by the laws of the Commonwealth of Pennsylvania. If proceeds from the amenities bond are insufficient to pay the cost of installing or making repairs or corrections to all the improvements guaranteed by such amenities bond, the Commission may, at its option, install part of such improvements in all or part of the approved final plan and may institute appropriate legal or equitable action to recover the monies necessary to complete the remainder of the improvements. All of the proceeds, whether resulting from the amenities bond or from any legal or equitable action brought against the developer, or both, shall be used solely for the installation of the improvements guaranteed by such amenities bond and not for any other municipal purpose.

§606 Final Inspection of Private Improvements. Within thirty (30) days of receiving a written notice of completion from the developer, and the as-built plans required by §604 of this Chapter, the Inspection Office and the municipal engineer shall perform a final inspection of the private improvements to determine compliance with the design standards of Part 8 of this Chapter and all applicable requirements of Chapter XX, Zoning. The municipal engineer and the zoning inspector shall each sign the certificate of completion required by §607 of this Chapter, only if all features of the approved plan have been constructed and the required as-built plans have been received.
If deficiencies are found, the Inspection Office shall issue a written notice to the developer, including written comments from the municipal engineer, if any. The developer shall proceed to make the required corrections or additions and, upon completion shall follow the same procedure of notification, inspection and approval outlined in §§603, 606 and 607 of this Chapter.

§607 Certificate of Completion of Private Improvements. If, upon final inspection of the site by the municipal engineer and the zoning inspector, the installation of all private improvements has been satisfactorily completed in accordance with the provisions of this Chapter, all applicable provisions of Chapter XX, Zoning, and the terms of the approved plan, the Inspection Office shall issue a certificate of completion which bears the signatures of the municipal engineer and the zoning inspector. The certificate of completion shall be prerequisite to the issuance of the permanent certificate of use and occupancy required by Chapter XX, Zoning.

§608 Release of Amenities Bond. Issuance of the certificate of completion of private improvements required by §607 of this Chapter shall indicate approval by the Municipality of private improvements for which an amenities bond has been posted. Final release of the amenities bond shall not occur until the certificate of completion is issued and shall only indicate compliance with the specifications shown on the approved plan. Such approval and release of the amenities bond shall not imply approval by the Municipality of the method of construction or the structural integrity of the private improvements, nor shall there be any liability associated with or responsibility for maintenance of those private improvements by the Municipality.

§609 Modifications to Approved Land Development Plans During Construction. If, during construction of an approved land development plan, field changes are requested by the developer, the municipal engineer, municipal planner, and municipal manager shall meet to determine whether or not the requested field changes constitute substantive changes to the approved plan which warrant review by the Planning Board and the Commission. Any change which is not clearly defined in §§609.1 and 609.2 of this Chapter shall be referred to the Planning Board for its review and recommendation to the Commission.

609.1 Substantive Changes. Substantive changes that require review by the Planning Board and Commission include:

609.1.1 Any change that violates or modifies a condition attached to final approval.

609.1.2 Any increase in the total gross floor area of the approved main building or buildings that exceeds five percent (5%) or any increase in the total number of approved dwelling units.
609.1.3 Any change in ingress, egress, interior traffic circulation or any change in the number or layout of parking spaces involving more than five (5) spaces.

609.1.4 Any change that requires a zoning variance or a modification to any requirement of this Chapter.

609.1.5 Any change in location of a main building or buildings resulting in a reduction of the distance between the building and a property line of more than five (5) feet or ten percent (10%) of the approved distance, whichever is less.

609.1.6 Any change that substantially increases the traffic impact of the proposed development.

609.2 Changes Which May be Approved by Staff. Field changes that may be approved by mutual concurrence of the municipal engineer, municipal planner, and municipal manager shall include:

609.2.1 Any reduction in the gross floor area of the approved main building or buildings or any reduction in the total number of approved dwelling units.

609.2.2 Any change in the layout of parking spaces that does not affect ingress, egress or interior traffic circulation.

609.2.3 Any reduction of total parking spaces which does not violate Chapter XX of the Mt. Lebanon Code or any increase in the total number of parking spaces by five (5) or fewer spaces.

609.2.4 Any change in the landscaping plan that substitutes one (1) or more plant materials on the approved list for plant materials shown on the approved plan which have similar characteristics.

609.2.5 Any change in location of a main building or buildings resulting in a reduction of the distance between the building and a property line of less than five (5) feet or ten percent (10%) of the approved distance, whichever is less.

609.2.6 Any relocation of a main building or buildings which increases all building setback distances from property lines and complies with all setbacks required by Chapter XX of the Mt. Lebanon Code.

609.2.7 Changes mandated by other agency permits.
609.2.8 Changes in engineering specifications that comply with this Chapter and do not change the approved design of the improvements.

609.2.9 Addition or relocation of an accessory structure that complies with Chapter XX of the Mt. Lebanon Code.

609.2.10 Signs that comply with Chapter XX of the Mt. Lebanon Code.

Staff approval or denial shall be communicated to the developer, in writing, by the municipal planner. Changes that are approved by staff shall be reflected in the as-built plans required by §604 of this Chapter. All changes that are approved, or denied, by the staff shall be forwarded to the Planning Board, in writing, by the municipal planner.

§610 Maintenance of Private Improvements After Completion. Following issuance of the certificate of completion and release of the amenities bond, the landowner shall be responsible for maintaining all private improvements in good condition and repair to the satisfaction of the Municipality. All private improvements shown on the approved land development plan shall be maintained in the location shown on the approved plan and in conformance with the specifications shown on the approved plan, unless a revised plan is subsequently approved by the Municipality. Failure to continue to maintain private improvements in an approved plan or any deviation from the terms of the approved plan without prior approval of the Municipality shall constitute a violation of this Chapter and, if requirements of Chapter XX of the Code, are involved, a violation of Chapter XX, as well, and shall be subject to the applicable enforcement provisions.
SECTION 7
REQUIRED IMPROVEMENTS

§701 Survey Monuments and Bench Marks. In all subdivisions, permanent concrete monuments thirty (30) inches deep by a minimum six (6) inches in diameter shall be set at all boundary corners, angle points of boundary and such intermediate points as may be required by the Municipality.

In minor subdivisions, the Commission, upon recommendation of the municipal engineer, may waive the requirement for the number of monuments.

The installation and certification shall be made by the developer’s surveyor prior to final approval of the subdivision.

The location and tie-in dimensions of all monuments shall be shown on the plan for recording.

§702 Utilities. Each lot and land development shall be served by a public water supply and the developer shall be responsible for obtaining all necessary approvals and entering into an agreement with the water company servicing the area or its assigns to provide such facilities in accordance with its rules and regulations.

The developer shall be responsible for contracting with private utility companies and for providing any easements required by those utility companies to guarantee that each lot and land development shall be served by telephone, gas and/or electricity and cable TV.

All telephone, gas, electric and cable TV lines shall be installed underground in any subdivision or land development which consists of two (2) or more new lots, in any multi-family development which contains three (3) or more dwelling units and in any non-residential land development in excess of one (1) acre. The design standards for such lines shall be in accordance with the specifications of the applicable regulatory agency.

The location and type of fire hydrants shall be subject to the review and approval by the Mt. Lebanon Fire Chief.

Each Lot in a subdivision and every land development shall have direct access to a municipal sanitary sewer and every dwelling unit in a multi-family development shall be served by a municipal sanitary sewer, storm sewers and drainage facilities shall be provided in accordance with the design standards of Part 8 of this chapter and the municipal construction standards.

§703 Streets. Each lot in a subdivision shall have frontage on a public street, as defined by this Chapter, which is constructed in accordance with the design standards of Part 8 of this Chapter and the Municipal Construction Standards.
§704 Sidewalks.

704.1 In all subdivisions and land developments, sidewalks shall be installed along the portions of the property abutting a street.

704.2 Within a land development plan proposed to be developed for more than three (3) multi-family dwelling units and/or proposed to be developed for office or commercial use sidewalks shall be required to accommodate pedestrian circulation between and among buildings and parking areas and other common facilities.

704.3 In addition to the sidewalks required by §§704.1 and 704.2 of this Chapter, the Municipality may require pedestrian walkways within a land development to provide access to community facilities or to provide a connection between the development and adjacent recreational areas or other public uses. If walkways are required, they shall be located to maximize pedestrian safety and convenience and to minimize contacts with vehicular traffic and minimize the number of street crossings. Pedestrian walkways shall not be authorized in lieu of the required sidewalks, unless a modification to the requirement to install sidewalks is granted in accordance with the requirements of Part 12 of this Chapter.

Sidewalks shall be installed in accordance with the design standards of Part 8 of this Chapter and the municipal construction standards.

§705 Street Lights. The developer shall prepare a street lighting plan for submission. For the safety and convenience of the public there shall be furnished and installed street lights on all public and private streets at the developer’s cost on poles prescribed by the Municipality. The lighting plan must be approved by the Municipality.

§706 Street Signs. The Municipality shall install street name signs and traffic control signs at all street intersections. The cost of these street and traffic control signs and posts shall be the responsibility of the developer and shall be included in the cash deposit or irrevocable letter of credit provided by the developer. Street signs shall be installed and maintained by the Municipality.

§707 Shade Trees. In all subdivisions and land developments after the improvements are completed:

707.1 Shade trees shall be planted within the public right-of-way and along all public streets within the plan at intervals of approximately forty (40) feet.

707.2 There shall be at least one (1) shade tree in front of each lot.

707.3 The size and species of said shade trees shall conform to the plant list in Appendix III.
707.4 Shade trees shall be located so as not to interfere with the maintenance of utilities, required sight distances, and visibility of street and traffic signs.

707.5 The cost of the tree and its planting shall be the responsibility of the developer or the adjacent lot owner as specified in the developers agreement, or by the Mt. Lebanon Inspection Department at the time of application for a building permit.
PART 8
DESIGN STANDARDS

§801 Applicability. All subdivisions and land developments shall conform to the standards set forth in Part 8. The standards specified in Part 8 are minimum design requirements.

§802 Exclusion of Certain Land Developments. The following types of land developments are hereby excluded from the provisions of this Chapter governing land developments, as defined herein:

802.1 The conversion of an existing single-family detached dwelling of single-family semi-detached dwelling into not more than three (3) residential dwelling units, unless such units are intended to be a condominium;

802.2 The addition of any accessory building, including farm buildings, on a lot or lots subordinate to an existing principal building; or

802.3 Any change of use, addition to structural enlargement of a non-residential structure which results in either:

802.3.1 An increase in the gross floor area of the principal building of less than one thousand (1,000) square feet;

802.3.2 An increase in the paved area of the lot of less than one thousand (1,000) square feet;

802.3.3 An increase in the gross floor area of the principal building and the paved area of the lot which, in combination, total less than one thousand (1,000) square feet.

§803 Review by Municipal Engineer. In reviewing any application for approval of a subdivision or land development, the Planning Board and the Commission shall refer the application for development to the municipal engineer for a recommendation concerning technical compliance with these design standards, this Chapter and the municipal construction standards.

§804 Site Development.

804.1 Grading, Filling, Removal of Topsoil, Erosion and Sedimentation Control. All grading, filling, removal of topsoil and erosion and sedimentation control shall be performed in accordance with the requirements of Chapter VI (Grading, Excavating and Development of Slopes) of the Mt. Lebanon Code and the requirements of the Pennsylvania Clean Streams Law and Chapter 102 of the Rules and Regulations of the Pennsylvania Department of Environmental Protection governing erosion control, or their successor regulations.
804.2 **Planting and Cutting of Trees; Removal of Debris.** Large trees shall be adequately protected from injury and preserved to the extent practical.

During construction, the developer shall remove and dispose of all uprooted trees, stumps, brush, rubbish, unused building materials and debris promptly in the interest of public safety and shall maintain the site in a condition which complies with Chapter VII of the Mt. Lebanon Code.

804.3 **Flood Prone Areas.** Land identified as flood prone on maps issued by the Federal Insurance Administration shall be subject to the regulations of the National Flood Insurance Program and shall comply with the provisions of Chapter II, Part 2 of the Mt. Lebanon Code, entitled “Flood Plain Regulations.”

§805 **Streets.**

805.1 **Layout.** Streets shall be planned to conform with the layout of existing and planned streets and so located as to allow proper development of surrounding properties. Local streets shall be laid out so as to discourage through traffic. Collector streets should be designed to provide adequate flow of traffic from local streets to major community facilities and to arterial streets.

805.2 **Topography.** Proposed streets shall be planned to conform to the contour of the land, to the fullest extent possible to provide buildable lots, to have a suitable alignment and grade and to allow proper drainage.

805.3 **Street Grades.** Minimum and maximum grades shall be provided on all streets in accordance with the design standards specified in Appendix V. Grades shall be measured along the centerline of the street. Vertical curves shall be used in changes of grade exceeding one percent (1%) and shall be designed in accordance with the design standards specified in Appendix V. Intersections shall be approached on all sides by leveling grades for a distance of twenty-five (25) feet within which no grades shall exceed the design standards specified in Appendix V. The grade of actual intersections shall not exceed six percent (6%) in any direction.

805.4 **Right-Of-Way and Paving Widths.** Minimum widths of rights-of-way and minimum widths of paving shall be provided in accordance with the design standards specified in Appendix V. All streets shall be paved in accordance with the “Municipality of Mt. Lebanon Construction Standards.”

805.5 **Cul-De-Sacs.** A cul-de-sac shall not be approved when a through street is practical and shall not be more than twelve hundred (1,200) feet in length, unless a modification or exception to the maximum twelve hundred (1,200) foot length of cul-de-sac is granted in accordance with the requirements of Part 12 of this Chapter. A cul-de-sac shall have a minimum right-of-way.
radius and an outer minimum paving radius as specified in the design standards in Appendix V.

805.6 **Temporary Turnarounds.** A temporary turnaround may be required where a street is constructed to an adjoining property line or where the terminus of a road adjoins property in a future phase of the plan. The temporary turnaround shall be paved in accordance with the municipal construction standards. The temporary right-of-way radius required for a temporary turnaround shall be a minimum of fifty (50) feet and the outer paving radius of the temporary turnaround shall be forty (40) feet.

805.7 **Visibility.** No fence, hedges, shrubbery, walls, earth slopes, planting (other than trees and grass) or similar obstructions shall be located within the right-of-way and no such obstruction shall obscure visibility at any intersection. The location of fences and walls shall be further subject to the requirements of Chapter XX, (Zoning) of the Mt. Lebanon Code.

A clear sight triangle, as defined by this Chapter, shall be maintained free of any obstructions at intersections so that there shall be a minimum clear sight triangle measured along the centerline from the points of intersection in accordance with the requirements specified in Appendix II.

805.8 **Street Names.** All new street names shall be approved by the Municipality and the Post Office. Names of new streets shall be sufficiently different in pronunciation and spelling from existing names of streets in the Municipality or in the 9-1-1 service area so as not to cause confusion. All streets, planned as a continuation of an existing street, shall bear the same name. Street signs shall be provided in accordance with §706 of this Chapter.

805.9 **Sidewalks.** The width of sidewalks shall conform to the standards specified in Appendix II. Sidewalks shall be located in line with existing sidewalks on adjacent lots or, where none exists, shall be located a minimum of six (6) feet from the edge of any curb or paving where practical and constructed to municipal standards.

805.10 **Crosswalks.** Crosswalks shall be required wherever necessary to facilitate pedestrian circulation and to give access to community facilities such as parks, playgrounds, schools or public buildings.

805.11 **Structures.** No Structures shall be erected within Streets rights-of-way except as follows: (1) public transportation or public utility structures and (2) individual mail boxes for One-Family or Two-Family Dwellings at which door delivery of mail is unavailable pursuant to postal regulations, ruling or other authority.
§806  **Service Streets.** Service streets, as defined by this Chapter, may be permitted in residential, commercial and industrial land developments where needed for loading, unloading or secondary access. Service streets shall be constructed in accordance with the municipal construction standards and shall meet the minimum design standards shown in Appendix V for local streets, except that the minimum right-of-way width may be reduced to thirty (30) feet and the minimum cartway width may be reduced to twenty (20) feet.

§807  **Easements.** Easements required by the Municipality shall have a minimum width of twenty (20) feet.

§808  **Lots.** The following standards shall apply to all lots proposed to be subdivided or developed in accordance with this Chapter.

   808.1  **Area.** Minimum lot areas shall conform to the requirements of Chapter XX of the Mt. Lebanon Code, entitled “Zoning.”

   808.2  **Frontage.** All lots created by a subdivision shall have frontage along the right of way of a public street and the width of the frontage shall conform to the requirements of Chapter XX of the Mt. Lebanon Code, entitled “Zoning.”

   808.3  **Double Frontage.** Double frontage lots shall be avoided; however, where a double frontage lot is the only practical alternative, vehicular access shall be limited to only one (1) street and that street shall be the street with the lower volume of traffic, if physically feasible. The final plan shall contain a notation restricting vehicular access to one (1) street frontage.

   808.4  **Side Lines.** Whenever practical, the side lines of a lot shall be at right angles to a straight street right-of-way and radial where the street right-of-way line is curved.

   808.5  **Front Building Lines.** Front building lines of lots shall conform to the minimum requirements of Chapter XX of the Mt. Lebanon Code entitled “Zoning” and shall be shown on the Final Plat.

   808.6  **Grading and Drainage.** Lots shall be graded to provide drainage away from buildings and water shall be drained to the street, rather than to adjoining property, if possible. The developer shall be required to provide drains or other drainage facilities, as approved by the municipal engineer, to drain off surface water within the development.

   808.7  **Driveways.** Driveways shall extend from the right-of-way line of the street to the cartway of the street, but shall not change the grade or contour of the street right-of-way, nor shall any person cut into, fill, or in any way alter any gutter, curbing, drainage ditch or storm sewer, within the right-of-way of a street or easement for the purpose of extending a driveway; or for any other purpose.
without first obtaining a permit therefore from the Municipality. All curb cuts shall conform to Municipal specifications. Paved driveways shall have a joint at the public street right of way. Driveways shall not be constructed in such a way that creates a drainage problem on adjoining property. No driveway shall be placed where an existing catch basin will obstruct said driveway.

Driveways intersecting Municipal streets shall be constructed in accordance with Municipal specifications. Driveways intersecting State or County roads shall be constructed in accordance with the Pennsylvania Department of Transportation Design Manual, Part 2, Chapter 18.

808.8 **Accessibility.** Every lot, building and structure shall be accessible to emergency and public safety vehicles.

808.9 **House Numbers.** House numbers shall be assigned by the Municipality and U. S. Postal Service, and shall be posted at each house so as to be easily visible and readable from the street.

§809 **Stormwater Conveyance and Management.**

809.1 **Conveyance of Stormwater.** Storm sewers, stream enclosures, bridges, culverts and channel changes shall be designed and constructed in conformity with standard engineering practices. Where regulated waters of the Commonwealth are involved, a permit shall be obtained from the Pennsylvania Department of Environmental Protection in conformity with Chapter 105 of its Regulations, as amended.

809.2 **Design and Construction Criteria.** All construction, alteration, enlargement, repair or removal of the facilities noted in §809.1 of this Chapter shall be in accordance with the following criteria:

809.2.1 The facility shall not create or constitute a hazard to life or property.

809.2.2 The facility shall not materially alter the natural regimen of a stream.

809.2.3 The facility shall not cause an increase in velocity of direct flow so as to cause erosion of a stream bed or banks.

809.2.4 The facility shall pass flood flows without loss of stability.

809.2.5 The facility shall include adequate entrance and outfall appurtenances for efficient flow characteristics.
809.2.6 The design capacity of the facility shall be based on the degree of development of the tributary watershed throughout the lifetime of the facility.

809.2.7 The determination of flows for design shall be made with consideration of the run-off characteristics based on Mt. Lebanon Standards. Specific hydraulic design criteria shall fit the conditions at the site.

809.2.8 Adequate means of access shall be provided for maintenance of the facility.

809.3 Report and Analysis. The design of the facility shall be prepared by an engineer in conformity with the Mt. Lebanon Construction Standards. The report and analysis shall include:

809.3.1 The location, type, size and height of the proposed structure;

809.3.2 A profile of the stream for a reasonable distance above and below the proposed site, showing slopes of bed, normal water surface and flood water surface;

809.3.3 Estimates of flood frequencies and flood flows at the site of the proposed facility, including such information as can be reasonably obtained regarding actual rainfall and flood flow records of the stream;

809.3.4 An analysis of the hydraulic capacity of the proposed facility;

809.3.5 A description of the purposes of the proposed facility;

809.3.6 A listing and description of all other enclosures and all culverts, bridges, dams and other water obstructions located within one-half (½) mile upstream and downstream of the proposed facility;

809.3.7 Such other information as the municipal engineer may require.

809.3.8 Storm sewer facilities shall be designed to pass the stormwater runoff from the following design storms. Where stormwater runoff may exceed the capacity of the storm sewer facilities but will not cause the flooding of private property (twenty-five (25) year storm). Where stormwater runoff may cause the flooding of private property (one hundred (100) year storm).
809.4 Stormwater Management

809.4.1 Where the development of any tract or parcel of land will cause increased peak flow of stormwater run-off, the effects of such increased run-off shall be analyzed through the downstream portions of the storm sewer facilities or watercourse system. In considering such effects, the reasonable ultimate development of the total tributary area shall be considered.

809.4.2 On-site stormwater detention shall be required as a stormwater management technique when detrimental effects by increased peak runoff flow may be caused downstream.

809.4.3 The analysis shall be prepared by an engineer and shall indicate by hydrographs and other evaluations the effects of the increased peak flows and retained flows at critical points on the downstream system.

809.4.4 In designing the storm drainage system the developer shall use as his guide the publication “Urban Hydrology for Small Watersheds,” Technical Release No. 55, U.S. Department of Agriculture, Soil Conservation Service, June 1986, and as amended.

809.4.5 The pre-development condition of the parcel to be developed shall consider the state of the land surface on the date that the developer entered into an agreement to purchase the property. The developer may pass through stormwater originating upstream of his property, but if he elects to control it, by-pass devices he installs shall be capable of handling the one hundred (100) year storm, and he may trade off, as compensation for such installations, control measures that would normally be required on his property, provided the total control system results in equal or better protection for downstream properties.

809.4.6 The stormwater drainage plan of a subdivision or land development plan shall be designed to assure that after development, stormwater does not leave the property at a greater velocity or volume per second than before development commenced.

809.4.6.1 Volumes of runoff from the drainage area(s) must be calculated to determine the sizing of temporary and permanent facilities to control stormwater and erosion. For the purpose of this Chapter, storm events are based on the amount of runoff during a period of twenty-four (24) hours as follows:
<table>
<thead>
<tr>
<th>Storm Frequency</th>
<th>Inches of Rainfall</th>
</tr>
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<tbody>
<tr>
<td>2 Year</td>
<td>2.3</td>
</tr>
<tr>
<td>5 Year</td>
<td>3.3</td>
</tr>
<tr>
<td>10 Year</td>
<td>3.9</td>
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<tr>
<td>25 Year</td>
<td>4.4</td>
</tr>
<tr>
<td>100 Year</td>
<td>5.2</td>
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809.4.6.2 Storm sewer system within a development shall be designed to handle the peak rate of runoff from a twenty-five (25) year storm. Where the provisions of Federal and State laws impose a greater design frequency, particularly in areas where drainage systems cross highways, they shall prevail.

809.4.6.3 All stormwater retention/detention facilities shall be designed to handle the peak rate runoff from a twenty-five (25) year storm. All designs shall provide emergency overflow facilities for the one hundred (100) year storm, unless positive measures are installed to control the inflow so as not to exceed the safe capacity of the retention/detention facility.

809.4.6.4 The minimum retention/detention volume required shall be that necessary to handle runoff of a twenty-five (25) year storm.

809.4.6.5 The peak release rate of stormwater from all retention/detention facilities for any storm event shall be that which was experienced prior to development for the twenty-four (24) hour duration of the same storm event up to and including the twenty-five (25) year storm (one hundred percent (100%) of pre-development).

809.4.6.6 Storm sewers shall be designed utilizing the rational method with a PennDOT twenty-five (25) year storm from their Intensity Duration Charts.

809.4.7 Detention areas, where required to impede run-off, shall be designed to meet or exceed the Mt. Lebanon Construction Standards:

809.4.7.1 Except where a permanent pond is approved by the Municipality detention areas shall be designed to drain completely.
809.4.7.2 The area to be occupied by the dam shall be cleared of all topsoil and organic materials prior to construction. The dam shall be built up in layers not to exceed six (6) inches in depth with equipment providing ninety-five percent (95%) compaction at optimum moisture conditions. The top of the dam shall be constructed ten percent (10%) higher than its designed height to allow for settlement.

809.4.7.3 The settled elevation of the top of the dam at its lowest point shall be not less than one (1) foot above the maximum water level to be impounded behind the dam and not less than two (2) feet above the elevation of the emergency spillway.

809.4.7.4 The surfaces of the dam shall be planted in a mixture of perennial quick-catching grasses as identified on the required plant list. See Appendix III.

809.4.7.5 The faces of the dam shall not slope on either face more than one (1) foot vertical rise for each two (2) feet above the elevation of the emergency spillway.

809.4.7.6 The horizontal drainpipe passing through the dam shall be smooth steel, schedule forty (40) or heavier or reinforced concrete pipe with equivalent strength and hydraulic characteristics. Anti-seepage collars shall be placed less than twenty-eight (28) feet apart along the length of the pipe. Each collar shall be fabricated of not less than one quarter (¼) inch steel plate, shall extend not less than two (2) feet in all directions at right angles from the outer face of the pipe, shall be welded in place all around, and shall be completely enclosed within the dam fill.

809.4.7.7 The emergency spillway shall be capable of passing the flow created by one hundred (100) year storm. It shall be located at an elevation of a minimum of one (1) foot above the twenty-five (25) year storm water level.

809.4.7.8 The low edge of a parking area, curbed or not, may serve the purpose of an emergency spillway to pass the overflow from a stormwater detention area, provided the embankment below the edge is well
stabilized with planting materials and the angle of the slope will not encourage erosion, in the opinion of the Municipality and other reviewing agencies. The maximum depth of water in a parking area used for stormwater management purposes shall not exceed eight (8) inches.

§810 Storm Sewers and Drainage Facilities.

810.1 **Size and Grade of Storm Sewers.** Storm sewers shall be of adequate size and capacity for the anticipated run-off when the area is fully developed. The minimum diameter of storm sewers shall be fifteen (15) inches, and the minimum grade shall be one percent (1%), unless recommended by the municipal engineer and approved by the Commission in accordance with the modification procedure specified in Part 12 of this Chapter.

810.2 **Manholes.** For pipe sizes of thirty-six (36) inches or less, manholes shall be spaced at a maximum of three hundred (300) feet and for larger pipe sizes, the maximum distances between manholes shall be five hundred (500) feet. In addition, manholes shall be installed at all points of changes in horizontal alignment greater than fifteen (15) degrees and vertical grade greater than ten percent (10%). Inlets may be substituted for manholes when approved by the Municipal Engineer.

810.3 **Inlets.** Inlets of the type shown in the municipal construction standards shall be installed. Inlets at street intersections shall be placed on the tangent and not on the curved portions.

810.4 **Castings.** Manholes and inlet castings shall be as indicated in the municipal construction standards.

810.5 **Stormwater Roof Drains.** All pipe from roof drains shall be a minimum four (4”) inch Schedule 40 ABS, PVC or SDR 35 pipe. Four (4) inch Schedule 40 PVC or ABS pipe is required for a distance of five (5) feet from the foundation of the structure. All pipe shall be installed in accordance with the requirements of the Allegheny County Plumbing Code.

810.6 **Water Courses.** Open water courses shall not be permitted within the rights of way of streets. The stopping, filling up, confining or other interference with, or changing the course of, drains, ditches, streams and water courses in the Municipality shall not be permitted unless approval in writing is obtained from the Commission. A permit must be obtained from the Department of Environmental Protection (DEP) of the Commonwealth of Pennsylvania for construction or changes in a water course subject to the regulations of the Pennsylvania Department of Environmental Protection.
810.7 **Bridges and Culverts.** All bridges and culverts shall be designed to support the superimposed loads for the type of use and to carry stormwater runoff design peak flows and shall also be designed to meet current standards of the Pennsylvania Department of Transportation. Bridges and culverts shall be subject to all permits required by the Pennsylvania Department of Environmental Protection, Bureau of Dams and Encroachments.

810.8 **Rear Yard Storm Sewers.** Land developments shall have roof down spouts and other extraneous drainage structures collected and extended to the storm sewer system.

Residential developments shall have down spouts and driveway drains collected and conveyed to the storm sewer system. Where possible laterals shall be extended from the storm sewer system in the street to provide individual connections for lots created. Lots created with low side drainage that cannot be conveyed to the street system shall include a separate storm sewer system in the rear with lateral connections. All systems outside the street right of way shall include appropriate easements for access and maintenance.

§811 **Sanitary Sewers.**

811.1 **Installation.** Installation of sanitary sewers and appurtenances shall be in accordance with the regulations of the PADEP and the Allegheny County Plumbing Department, subject to the approval of the Municipal Engineer.

811.2 **Minimum Size and Grade.** The minimum diameter of sanitary sewers shall be eight (8) inches and the minimum grade shall be one percent (1%).

811.3 **Service Lines.** Wyes shall be installed in the public sanitary sewer to serve each parcel of land and/or structure.

§812 **Additional Standards for Private Improvements in Land Development Plans.** In addition to the standards set forth in Appendix IV and the municipal construction standards, the following design standards shall apply to private improvements proposed in a land development.

812.1 **Grading.**

812.1.1 All grading shall conform to the requirements of Chapter VI (Grading Excavating and Development of Steep Slopes) of the Mt. Lebanon Code.

812.1.2 Slopes with a ratio of one-to-three (1:3) are preferred since they can be maintained as lawn.
812.1.3 Interception and diversion facilities shall be designed to accommodate stormwater surface runoff from above and below cut areas during and after construction. The roll at the top and bottom of slopes shall be designed with vertical curves to blend with existing grades.

812.1.4 The top of bottom edge of final cut and fill slopes shall be set back at least five (5) feet from adjacent property lines or street right-of-way lines in order to permit the normal rounding of the edge without encroaching on the abutting property or street right-of-way and to allow for the location of proper drainage facilities and protective devices unless otherwise permitted under this Chapter.

812.2 Storm and Sanitary Sewers. Storm and sanitary sewers shall be designed in accordance with the municipal construction standards. Storm sewer systems shall be designed and constructed consistent with standard engineering practices.

812.2.1 Storm sewer systems shall be designed and constructed consistent with standard engineering practices.

812.2.2 Sanitary sewer systems shall be designed and constructed consistent with standard engineering practices.

812.2.3 Sewers shall be designed where practical to traverse under seeded and planted areas. Sewers constructed within ten (10) feet of road paving, walks or other surfaced areas shall have a maximum compaction of backfill to prevent settlement.

812.2.4 Sewers shall be installed after excavating and filling in the area to be traversed is completed, unless the sewer is installed in the original ground with a minimum of three (3) foot cover and/or adequate protection during the fill construction.

812.2.5 Sewers shall be designed with anchors when gradient exceeds twenty percent (20%); and with special backfill requirements when traversing under a paved area.

812.2.6 Sewer pipe, trenching, bedding and backfilling requirements shall conform to the requirements of the municipal construction standards, and to applicable requirements of the Pennsylvania Department of Transportation Specifications, Form 408, with all revisions.
812.2.7 Storm inlets and structures shall be designed to accommodate expected stormwater peak flow and shall be consistent with the municipal construction standards.

812.2.8 Top of manholes shall be at finished grade and conform to the slope of finished grade.

812.2.9 Endwalls or discharge points shall be located to discharge into existing streams or watercourses. Endwalls shall be of a design approved by Mt. Lebanon. All necessary precautions, including legal counseling, shall be taken with respect to discharge where private property may be violated.

812.2.10 Where stream encroachments are to be made, the developer shall review said project with the Pennsylvania Department of Environmental Protection and have its approval (where applicable) and shall submit a certified copy of said Department’s approval to the Municipality before final approval by the Municipality.

812.3 Driveways. Driveways shall be designed in accordance with the municipal construction standards.

812.3.1 Driveways shall be located and designed in accordance with Diagrams 3 and 4 in Appendix II.

812.3.2 The gradient of driveways shall be a minimum of one percent in accordance with Diagram 5 in Appendix II.

812.3.3 At the junction with the edge of a public street for a new entry or exit driveway exceeding five percent (5%) gradient, a vertical curve shall provide a suitable transition and leveling-out area in accordance with Diagram 5 in Appendix II.

812.3.4 The width of a two (2) way driveway shall be a minimum of twenty-two (22) feet. Width of a one (1) way driveway shall be a minimum of fifteen (15) feet. If parking on a driveway is authorized, eight (8) feet additional width shall be provided to allow for parallel parking in accordance with Diagram 16 in Appendix II.

812.3.5 The minimum crown on all driveways shall be one-quarter (¼) inch per foot. Super-elevated driveways shall have a minimum cross slope of one percent (1%) and maximum cross slope of twelve percent (12%).
812.3.6 Design of bituminous driveways shall conform to current recommendations of the Asphalt Institute and the municipal construction standards. Design of concrete driveways shall conform to current recommendations of the Portland Cement Association and the municipal construction standards.

812.3.7 Design of driveways shall include provisions for positive subsurface and sub-base drainage under and at the outside edges of the driveway paving. In major cut or potentially wet areas, underdrains shall be installed under edges of driveways and connected to the storm drainage system.

812.3.8 Curbs shall be installed on sides of driveways to contain vehicular traffic, control stormwater runoff, protect pedestrians and reduce maintenance of adjacent seeded or planted areas.

812.3.9 Centerline markings on roads and drives shall be installed to guide and control traffic flow. Line marking to define and control parallel parking on roads and drives shall be installed.

812.3.10 Traffic direction and control signs shall be provided.

812.3.11 All streets in the C and C-1 zoning districts shall have sidewalks with a minimum width of five (5) feet in accordance with Diagram 3 in Appendix II.

812.3.12 Interior circulation, access and traffic control in commercial districts and for commercial uses in all districts and transitional areas shall be in accordance with regulations set forth in Chapter XX of the Mt. Lebanon Code, entitled “Zoning.”

812.3.13 Driveways to individual townhouse dwellings in a townhouse unit abutting a street having traffic volumes of three hundred (300) vehicles or more per hour in one direction of flow during peak hours shall not be accessed directly from the street. Driveways to individual townhouse dwellings in a townhouse unit abutting a street having traffic volumes of less than three hundred (300) vehicles per hour in one direction of flow during peak hours shall be permitted access directly from the street provided the driveways are separated a minimum of twenty (20) feet measured from the edge of the driveway paving to the edge of the nearest driveway paving. The space between the driveways shall be landscaped in accordance with Diagram 4 in Appendix II.
812.4 Parking Areas.

812.4.1 Parking areas shall be located and designed in accordance with Diagrams 6 through 14 in Appendix II.

812.4.2 Nine (9) foot minimum wide stalls for cars shall be provided.

812.4.3 Curbs for each stall shall be provided in accordance with Diagrams 8 through 13 in Appendix II.

812.4.4 Line markings shall be provided to separate parking stalls. Double loaded stalls shall include three (3) inch wide lines separated by twelve (12) to fifteen (15) inches and placed in accordance with Diagrams 8 through 13 in Appendix II.

812.4.5 Permissible parking lot gradients shall be maximum five percent (5%) cross slope and maximum seven percent (7%) longitudinal slope in accordance with Diagram 14 in Appendix II.

812.4.6 The following face of stall to face of stall width requirements shall apply to parking areas:

812.4.6.1 Perpendicular or Ninety (90) Degree Double-Loaded Parking. In accordance with Diagrams 8 and 9 in Appendix II, vehicles shall be free to overhang the face of the stall; width from the face of stall to face of stall shall be fifty-six (56) feet minimum. The area behind face of stall shall be clear of structures, earth mounding or slopes, trees or hedges for a minimum distance of four (4) feet.

812.4.6.2 Sixty (60) Degree Double-Loaded Parking. In accordance with Diagrams 10 and 11 in Appendix II, vehicles shall be free to overhang face of stall; width face of stall to face of stall shall be fifty-three (53) feet minimum, allowing seventeen (17) feet six (6) inches for motor vehicle bays and eighteen (18) feet minimum for one-way access lane. The area behind face of stall shall be clear of structures, earth mounding, slopes, trees or hedges for a minimum distance of four (4) feet.

812.4.6.3 Forty-Five (45) Degree Double-Loaded Parking. In accordance with Diagrams 12 and 13 in Appendix II, vehicles shall be free to overhang face of stall; width face of stall to face of stall shall be fifty (50)
feet minimum, allowing eighteen (18) feet six (6) inches for motor vehicle bays and thirteen (13) feet minimum for one (1) way access lane. The area behind face of stall shall be clear of structures, earth mounding, slopes, trees or hedges for a minimum distance of four (4) feet.

812.4.6.4 Parallel Parking. In accordance with Diagram 15 in Appendix II, the stall length shall be twenty-three (23) feet in length and eight (8) feet in width.

812.4.7 Interior circulation, access and traffic control in commercial districts and for commercial uses in all districts and transitional areas shall be in accordance with regulations set forth in Chapter XX of the Mt. Lebanon Code, entitled “Zoning.”

812.4.8 If the area within the parking limit line exceeds three thousand five hundred (3,500) square feet, two (2) trees shall be provided for each three thousand (3,000) square feet of parking area in the parking area in accordance with Diagrams 6 and 7 in Appendix II.

812.5 Walks and Paving.

812.5.1 Where walks are not required to meet accessibility standards they must meet the following requirements:

812.5.1.1 Where the walk is perpendicular to the building at entrances, a ramp shall be provided with one percent (1%) minimum, five percent (5%) maximum, gradient for first ten (10) feet. Beyond the ten (10) foot line, entrance walks shall not exceed twelve percent (12%) gradient. The surface of entrance paving shall be non-slip.

812.5.1.2 Where the walk is parallel and adjacent to the building, one percent (1%) minimum longitudinal gradient or one percent (1%) minimum cross-slope to outside edge shall be provided.

812.5.1.3 Where the walk is separated from the building by five (5) feet or more, one percent (1%) minimum longitudinal gradient shall be provided. Crown or cross-slope walks shall have a longitudinal slope of one percent (1%) minimum and a maximum of twelve percent (12%).
812.5.2 Accessibility ramp gradient, walk gradient, requirements of railings, and treatment of pavement surfacing shall comply with applicable requirements of the Pennsylvania Department of Labor and Industry and the Uniform Federal Accessibility Standards of the Americans with Disabilities Act.

812.6 Lawn Areas (Seeded or Sodded).

812.6.1 The minimum slope shall be one percent (1%).

812.6.2 The maximum slope shall be one (1) unit of vertical distance on three (3) units of horizontal distance.

812.6.3 Cut areas treated as lawn shall have rock covered with twelve (12) inches minimum of suitable subsoil below topsoil.

812.6.4 The depth of topsoil shall be a minimum of four (4) inches. The maximum depth shall be twelve (12) inches, placed in a uniform depth to prevent uneven settlement.

812.6.5 Topsoil shall not be stripped, placed or worked while frozen or wet.

812.6.6 The finished grade of topsoil shall be one-half (½) inch to three-fourths (¾) inch below top of walks and curbs to provide positive drainage off walks.

812.6.7 Lawn or ground cover areas shall be designed as a plane or convex surface.

812.6.8 A swale for surface drainage in lawn or paved areas shall be a shallow-dished section with a uniform longitudinal fall (one percent (1%) minimum, four percent (4%) maximum), and shall be used to provide a drainage system that can be easily maintained and traversed.

812.7 Ground Cover Areas.

812.7.1 All surfaces shall have a minimum slope of one percent (1%) and a maximum slope of fifty percent (50%) (two (2) horizontal to one (1) vertical).

812.7.2 Slopes steeper than two (2) horizontal to one (1) vertical may receive all approved types of ground cover except lawn or sod.
812.8 **Other Plantings.**

812.8.1 All plantings shall conform to the requirements of Appendix III.

812.9 **Walls, Fences and Screens.**

812.9.1 Planting screens or hedges shall not exceed three (3) feet in height where location is such that sight lines are necessary for vehicular movement across pedestrian ways in accordance with Diagrams 6 and 7 in Appendix II.

812.9.2 Parking facilities shall be suitably screened through the use of a fence or wall at least four (4) feet in height or a planting screen of a four (4) foot minimum width and height. The fence, wall or screen planting shall be installed in accordance with Chapter XX of the Mt. Lebanon Code entitled “Zoning.”

812.9.3 Any portion of a parking facility which is effectively screened by a cut slope or structure shall not be required to be screened by a fence, wall or screen planting.

812.9.4 Any parking facility abutting a fill slope exceeding one (1) on three (3) shall be enclosed on the slope side by a guardrail or fence of a strength sufficient to prevent vehicles using the parking facility from going over the slope.

812.10 **Signs.** All signs shall conform to §823 of Chapter XX of the Mt. Lebanon Code, entitled “Zoning.”

812.11 **Lighting.**

812.11.1 All pedestrian ways and walks, steps or change of grade of walks shall be lighted at all times. Details of proposed lighting fixtures and supports and the locations thereof shall be submitted as part of the land development plan.

812.11.2 Parking and pedestrian areas on the property shall be lighted to create a level of not less than one (1) foot-candle when measured three (3) feet above the pavement throughout the paved areas on the property. Such lighting may be from freestanding lampposts within the parking areas, from nearby streetlights or from lights mounted on buildings. Lighting shall be shielded or aimed so as not to create glare conditions on adjacent streets or properties. Light standards in parking areas shall be protected from accidental damage by vehicles.
812.11.3 Lighting devices which produce objectionable direct or reflected glare on adjoining properties or thoroughfares shall not be permitted. No light in excess of one-half (½) foot-candles shall be emitted on adjoining property for a distance of more than twenty-five (25) feet from the property line of the property on which the source of the light is located.

812.11.4 All lighting devices located within one hundred (100) feet of any property line adjoining a residential use or zoning classification shall be designed with shields, reflectors or refractor panels which direct and cut off the light at an angle that is less than ninety (90) degrees. “Cutoff angle” is defined as the angle formed by a line drawn from the direction of the light rays at the light source and a line perpendicular to the ground from the light source above which no light is emitted.

812.11.5 Additional requirements for lighting are set forth in Chapter XX of the Mt. Lebanon Code, entitled “Zoning.”

812.12 Required Plant List. Plant types and sizes required in landscaping plans for land developments are specified in Appendix III. Plantings other than those that appear on the list in Appendix III shall be subject to approval by the Commission in accordance with the procedures specified in Part 12 of this Chapter for granting modifications.

812.13 Required Materials. Materials required for use to construct private improvements in land developments appear in Appendix IV. Materials other than those on the list in Appendix IV shall be subject to approval by the Commission in accordance with the procedures specified in Part 12 of this Chapter for granting modifications.

§813 Handicapped Accessibility. All subdivision and land development plans shall be designed to meet the current standards of the Commonwealth and Federal law with respect to handicapped accessibility.

§814 Public Sites and Open Spaces.

814.1 Reservation of Recreation Land.

814.1.1 Any land proposed development in excess of five (5) acres shall provide one-hundredth (0.01) of an acre of land for each dwelling unit to be developed as recreation space.

814.1.2 The land that is to be reserved for recreational purposes shall be developed to serve the needs of the residents in the immediate area.
814.1.3 For planned residential developments, the minimum area requirement for recreational space shall be twenty percent (20%) of the total site area. For sites of five acres or more, the minimum area requirement for recreation space shall be twenty-five percent (25%) of the total site area.

814.2 Dedication of Public Recreation Sites.

814.2.1 Where a proposed park, playground, open space or other neighborhood recreation site shown in comprehensive plan is located in whole or in part in the proposed subdivision, the Commission may require the dedication of all or a portion of such a site in accordance with the following standards.

814.2.2 The amount of land so dedicated for this purpose shall equal or exceed two hundredths (0.02) of an acre of land for each dwelling unit.

814.2.3 Any land to be dedicated as a requirement of this section shall be reasonably adaptable for use for active and passive parks and recreation purposes and shall be at a location accessible to the people to be served. Factors used in evaluating the adequacy of the proposed park and/or recreational area shall include size and shape, topography, geology, tree cover, access and location.

814.2.4 Public access to the dedicated land shall be provided either by adjoining street frontages or public easement to the dedicated parcel. The easement shall be sufficiently wide so that maintenance equipment will have reasonably convenient access to the land.

814.3 Fee in Lieu of Required Dedication.

814.3.1 In the event that the Commission, upon the advice of the Planning Board, shall determine that the application of the standards set forth in §814.2 of this Chapter would result in an open space or public recreation site too small to be usable, or if the comprehensive plan indicates that such public recreation site should be located elsewhere, or if a suitable public recreation site cannot be properly located in the proposed subdivision, the payment of a fee in lieu of the dedication of such land shall be required in accordance with the following procedure, provided that the public recreation site on which the fee is to be expended shall be accessible to the proposed subdivision:
814.3.2 The amount of the fee shall be substantially equal to the value of the land that would be set aside if the standards specified above were to be applied.

814.3.3 The fee shall be paid to the municipality prior to the approval of the final Plat.

814.3.4 All fees paid to the Municipality under this provision shall be deposited in an interest-bearing account clearly identifying the specific recreation facilities for which the fee was received. Interest earned on such accounts shall become funds of that account.

814.3.5 Funds from such accounts shall be expended only in properly allocable portions of the cost incurred to construct the specific recreation facilities for which the funds were collected.

814.3.6 Park or recreational fees shall be retained in recreational fee accounts for a period of three (3) years from the date such fees were paid. Within twelve (12) months after the expiration of the three (3) year period, and upon the request of the applicant, the Municipality shall refund such portion of such fee as has not been utilized, plus interest accumulated thereon from the date of payment. Any such refund shall be paid within (60) days of such request. If such request is not made within the twelve (12) month period, such funds shall inure to the Municipality and shall become part of the Municipality’s general fund. If the total amount of funds expended on a specific park or recreational facility exceeds the total amount of funds collected for that facility, then in no event shall funds be returned to the parties paying a recreational fee.

814.4 Further Provisions for the Reservation and Dedication of Open Space. In the event that the Commission, upon the advice of the Planning Board, shall determine that the proposed subdivision design preserves natural topography, trees and geologic features because the developer agrees that the eighty percent (80%) or more of the Lots shall have a lot area exceeding one hundred twenty five percent (125%) of the minimum lot area authorized for the zoning district in which the subdivision is located, the Commission may eliminate the required reservation as set forth in §814.1 of this Chapter and the required dedication as set forth in §814.2 of this Chapter.

§815 Testing – Private Improvements. All private sanitary manholes shall be vacuum tested and all private sanitary sewer lines shall be lamped and air tested by the developer in the presence of the Municipal Engineer or Inspector. Air tests shall be conducted in accordance with current standard engineering practices.
If required by the municipal engineer, all construction materials used in sewers, streets, sidewalks and other required private improvements shall be tested by a qualified testing laboratory. The cost for such tests shall be borne by the developer.

Copies of the test reports shall be provided to the municipal engineer and to the developer.
PART 9
MOBILE HOME PARK REGULATIONS

§901   Applicability.

901.1 Mobile home park developments shall comply with all applicable
requirements of the Mt. Lebanon Code, including without limitation this
Chapter XVI, Allegheny County, and the Commonwealth of Pennsylvania.
Where there is a conflict between the requirements of Part 9 and other Parts of
this Chapter, the more restrictive requirements shall govern.

901.2 Any private improvements shall be constructed in accordance with this
Chapter XVI and the municipal construction standards.

§902   General Requirements.

902.1 A mobile home park shall have a minimum lot area of fifteen (15) acres.

902.2 A mobile home park shall have a minimum buffer area, in its natural state, of
fifty (50) feet established around the entire perimeter of the property.

902.3 Mobile home parks shall provide a six (6) foot screen planting of trees,
evergreens, hedges or shrubs along the side and rear property lines.

902.4 All mobile homes shall be required to have skirting installed.

902.5 No part of any mobile home park shall be used for nonresidential purposes,
except uses required for the management and maintenance of the park.

902.6 No central toilet or washroom facilities shall be constructed in any mobile
home park.

902.7 The ground surface in a mobile home park shall be graded in accordance with
Chapter VI (Grading, Excavating and the Development of Slopes) of the Mt.
Lebanon Code in order to drain all surface water in a safe and efficient
manner.

902.8 The drainage of all surface water shall be in compliance with §§809 and 810
of this Chapter establishing requirements for stormwater management.

§903   Preliminary Plan.

903.1 The mobile home park developer shall meet with the municipal staff, prior to
formal application, to discuss the plans and shall prepare a suitable sketch
plan that is sufficient to give a general understanding of the proposed project.
The municipal staff shall inform the developer as to the general suitability of
the plans and of any modifications required by these regulations.
The developer shall prepare and submit a preliminary plan and supplementary material, in accordance with the requirements of this Chapter.

The Planning Board shall review the plans, as submitted, and take action as required by this Chapter.

§904 Final Plan.

Upon completion of any modifications required by the Planning Board and/or upon completion of required improvements or the posting of an acceptable surety, the developer may apply for final approval of the plans.

The Planning Board shall review the final plan for conformance with the approved preliminary plans and all requirements of this Chapter. If the developer has satisfied the conditions listed in the preliminary approval decision and the requirements of this Chapter, the Board shall provide a recommendation to the Commission in accordance with the requirements of this Chapter.

The Commission shall review and provide a decision on the plan in accordance with the requirements of this Chapter.

Following approval by the Commission, the developer shall record the plan in accordance with the requirements of this Chapter.

§905 Design Requirements.

Individual Lots. The planning and location of individual lots shall be guided by the following requirements:

Each mobile home lot shall be improved to the specifications in the Municipality’s building code.

Each lot shall be directly accessible from a public street or private street improved to municipal construction standards.

Each mobile home lot shall have a minimum lot width of fifty (50) feet.

Each mobile home lot shall have a minimum of five thousand (5,000) square feet in area.

There shall be a minimum distance of thirty (30) feet between an individual mobile home or other structure and any lot line.

The setback from any street shall be thirty-five (35) feet.
905.1.7 Each lot shall have a number placed on the lot in the form of a sign (that is in compliance with the requirements of Chapter XX, Zoning, of the Mt. Lebanon Code) or directly on the mobile home. It shall be arranged in such a way so that it is visible from the street on which the mobile home or lot is fronting.

905.2 **Mobile Home Stands.**

905.2.1 Mobile home stands shall be either concrete pads or piers. The piers shall be set at least thirty-six (36) inches deep.

905.2.2 The location of each mobile home stand shall be at such elevation, distance and angle in relation to the access street so that the removal of the mobile home is practical.

905.2.3 The size of each mobile home stand shall be sufficient to accommodate the dimensions of the mobile home and any appurtenant structures or appendages.

905.2.4 A one percent (1%) to five percent (5%) gradient longitudinal crown or cross gradient for surface drainage shall be provided.

905.2.5 Anchors, tie downs, such as cast-in-place concrete “dead men,” eyelets embedded in concrete, screw augers or arrowheads anchors shall be placed at least at each corner of the mobile home stand, and each device shall be able to sustain a minimum load of four thousand eight hundred (4,800) pounds.

905.3 **Parking Spaces.**

905.3.1 Automobile parking spaces, at a minimum size of ten (10) by twenty (20) feet, shall be provided as to not interfere with normal movement of traffic.

905.3.2 At least two (2) parking spaces shall be provided for each mobile home and/or mobile home lot.

905.4 **Recreation.**

905.4.1 For each proposed mobile home park, at least five percent (5%) of the land within the mobile home park shall be reserved or dedicated for recreational purposes with appropriate location, dimensions and topographic characteristics that, in the judgment of the Commission, lend themselves to recreational uses.
905.5 Other Requirements.

905.5.1 All electrical facilities shall be installed and inspected according to the standards set forth in the latest edition of the National Electric Code and the local power company regulations.
PART 10
COMMON OWNERSHIP PROPERTY REGULATIONS
GENERAL PROVISIONS

§1001 Purpose. Part 10 and Part 11 is enacted to establish requirements for access to and
maintenance of common areas and facilities of property and buildings subject to
common ownership, as defined herein, so as to conform with community development
objectives set forth in the Comprehensive Plan, the Zoning Ordinance (Chapter XX),
and the Subdivision and Land Development Regulations (Part 1 through 9 of this
Chapter).

§1002 Scope. Part 10 and Part 11 shall apply to the division or assignment of property into
units and common areas whether pursuant to the Pennsylvania Uniform Condominium
Act or by means of another form of ownership resulting in five (5) or more units within
a building. All such divisions or assignments of property into units shall require the
filing of the documents provided for in Part 10 and Part 11.

§1003 Definitions. For the purposes of Part 10 and Part 11, terms and words are defined as
follows:

Administrator: The Zoning Officer of Mt. Lebanon.

Applicant: Any landowner or any agent of a landowner who proposes to sell directly or
indirectly one or more units or other interests within an existing or proposed building
subject to the provisions of Part 10 and Part 11 where such sale has not been previously
approved pursuant to Part 10 and Part 11 or the Unit Property Regulations.

Architect: A registered professional architect licensed as such by the Commonwealth of
Pennsylvania.

Association: An association or unit owners’ association as defined in the Pennsylvania
Uniform Condominium Act.

Building: Any existing or proposed multi-unit structure consisting of five (5) or more
units, whether in vertical or horizontal arrangement, as well as other improvements
comprising a part of the property and used or intended for use for residential or
commercial purposes or for any combination of such uses.

Bylaws: Such governing provisions as are adopted for the regulation and management
of the property, including such amendments as may be adopted from time to time.

Common Areas: All portions of a property, other than the units, intended in whole or in
part for the common use of the unit owners.

Condominium: A building or real estate, portions of which are designated for separate
ownership and the remainder of which is designated for common ownership solely by
the owners of those portions, with the undivided interests in the portions of the real estate designated for common ownership being vested in the unit owners.

Declaration: An instrument by which a landowner creates a planned community, and any amendment to that instrument, including a condominium pursuant to the Pennsylvania Uniform Condominium Act.

Declaration Plan: A plat or plan, prepared in accordance with the requirements of the Pennsylvania Uniform Condominium Act, which describes the unit boundaries and the common elements of the condominium or property.

Deed: The document by which it is intended that a unit and an interest in the common areas will be conveyed.

Easement: A public or private right of use over the property of another.

Engineer: A registered professional engineer licensed as such by the Commonwealth of Pennsylvania. The use of the word “engineer” shall not exclude the practice of topographic surveying as provided for by the laws of the Commonwealth.

Landowner: The legal or beneficial owner or owners of land, including the holder of an option or contract to purchase (whether or not such option or contract is subject to any condition); a lessee, if he or she is authorized under the lease to exercise the rights of the landowner; or other persons having a proprietary interest in the land.

Offering Statement: An offer, offering, or public offering statement as defined by, or described in, the Pennsylvania Uniform Condominium Act, and prepared in accordance therewith.


Planning Board: Municipality of Mt. Lebanon Planning Board.

Property: The land, building, all improvements thereon, and all easements, rights and appurtenances belonging thereto, which are subject to the provisions of Part 10 and Part 11.

Recorded Instrument: A plat, declaration or other instrument duly recorded in the Office of the Recorder of Deeds of Allegheny County in accordance with the provisions of this Chapter.


Right-of-Way: An easement for public or private use, usually granting the right to cross over the land of another and/or to install utilities such as sewer or water lines or communication systems.
Subdivision: The division or redivision of a lot, tract or parcel of land by any means into two (2) or more lots, tracts, parcels or other divisions of land including changes in existing lot lines for the purpose, whether immediate or future, of lease, partition by the court for distribution to heirs or devisees, transfer of ownership or building or lot development; provided, however, that the subdivision by lease of land for agricultural purposes into parcels of more than ten (10) acres, not involving any new street or easement of access or any residential dwelling, shall be exempted.

Subdivision Regulations: Parts 1 through 9 of this Chapter.

Unit: A part of a condominium designated for separate ownership or occupancy on the declaration or declaration plan; or where a condominium is not to be created, that part of a building allocated or assigned to the exclusive use of fewer than all of the legal or beneficial owners of the building.

Unit Designation: The number, letter or combination thereof designating a unit in the declaration, declaration plan or other document.

Unit Owner: The person or persons owning a unit in fee simple or having a unit allocated or designated thereto.

Unit Property Ordinance or Regulations: Formerly Part 2 of Chapter XVI of the Mt. Lebanon Code.

Zoning Ordinance: Chapter XX of the Codified Ordinances of the Municipality of Mt. Lebanon, also known as Chapter XX, Mt. Lebanon Code, Ordinance 2636 as amended.
PART 11
COMMON OWNERSHIP PROPERTY REGULATIONS
PROCEDURES AND REQUIREMENTS

§1101 Submission to Administrator. The applicant shall submit eight (8) copies of each of the documents referenced in §§1102 and 1103 of Part 11 (depending upon which section shall be applicable).

§1102 Contents of Submission of Condominium. If the form of proposed common ownership is that of a condominium, then the applicant shall submit to the administrator the proposed declaration, declaration plan, bylaws, offering statement, form of deed, and any and all other documents which the applicant intends to file of record with respect to said condominium not previously submitted by the applicant to the administrator. In addition to the information required to be included therein by the provisions of the Pennsylvania Uniform Condominium Act, there shall be included in the declaration:

1102.1 A covenant or other form of recital assuring to each unit owner adequate and uninterrupted access to and maintenance of common areas including but not limited to gas, water, electric and telephone lines; heating, ventilating and air conditioning facilities; walls; steps; interior and exterior lights; storm and sanitary sewers; roof drains; drainage swales; cable television antenna; parking facilities or areas related to main structures; elevator; pedestrian ways; parking and pedestrian access; driveways; porches; patios; railings; common utility rooms; hallways; laundry facilities; garbage disposal facilities; recreational areas; and the like; and

1102.2 A recital releasing and absolving the Municipality from responsibility for maintaining any item specified in §1102.1 and insuring access to all units and common areas for police and fire protection. For purposes of complying with the requirement of §1102.1 as it relates to maintenance of common areas, it shall be satisfactory for the landowner to create an association, trusteeship, or other similar entity; provided that the maintenance of the common areas is guaranteed by such entity and provided further that failing the establishment of an association, trusteeship, or other similar entity through which the maintenance of common areas is guaranteed, the landowner shall guarantee the maintenance of such common areas.

1102.3 Without limitation of any of the foregoing requirements, the declaration plan shall bear the verified statement of an architect or engineer certifying that the declaration plan fully and accurately shows the property, the location of the building thereon, the building and the layout of the floors of the building including the units and common areas and sets forth the name by which the property will be known and the unit designation for each unit therein.

§1103 Contents of a Submission Other Than a Condominium. If the form of the proposed common ownership is other than that of a condominium, then that applicant shall submit to the administrator all proposed documents by which such common ownership
and the units have been or will be created and transferred to unit owners. Such proposed documents in addition shall contain the following provisions:

1103.1 A covenant or other form of recital which shall be binding upon the landowner and the landowner’s successors and assigns assuring to each unit owner adequate and uninterrupted access to and maintenance of common areas including but not limited to gas, water, electric and telephone lines; heating, ventilating and air conditioning facilities; walls; steps; interior and exterior lights; storm and sanitary sewers; roof drains; drainage swales; cable television antenna; parking facilities or areas related to main structures; elevator; pedestrian ways; parking and pedestrian access; driveways; porches; patios; railings; common utility rooms; hallways; laundry facilities; garbage disposal facilities; recreational areas; and the like; and

1103.2 A recital releasing and absolving the Municipality from responsibility for maintaining any item specified in §1103.1 and insuring access to all units and common areas for police and fire protection. In addition to the foregoing, the applicant shall submit a declaration plan of the property and the building complying with the requirements for declaration plans pursuant to Part 11.

§1104 Review by Administrator. The administrator shall review all documents referred to in §§1102 and 1103 and if he finds them to be in compliance with the provisions of Part 11 shall so certify his approval on the original copy of each required submission.

§1105 Approval of Commission. After the review and recommendation by the administrator and the Planning Board, all documents submitted by the applicant shall be considered for final approval by the Commission at a public meeting thereof. If the Commission shall find the documents submitted to be in compliance with the provisions of Part 11 of this Chapter, its approval shall be so certified on the declaration plan.

§1106 Recording. If the proposed declaration or declaration plan, bylaws, offering statement, and deed with respect to a proposed condominium are approved by the Commission, the declaration or declaration plan and bylaws shall be filed of record with the Recorder within one (1) year following the date of approval thereof by the Commission. If a form of common ownership other than a condominium is proposed and approval by the Commission of the documents as submitted is obtained, then such documents shall be recorded if directed by the administrator within one (1) year following the date of approval by the Commission. All documents as submitted by the applicant and approved by the Commission shall be filed in the office of the municipal manager. No unit of property or any interest representing directly or indirectly a unit of property shall be conveyed, assigned or leased until the approved documents have been duly recorded as required by this §1106.

§1107 Fees. At the time of application the applicant shall submit an application filing fee as required by §1301 of this Chapter.
§1108  **Administration.**

1108.1  **Appointment of Administrator: Duties.** The zoning officer of the Municipality is hereby appointed administrator, and in such capacity, shall administer Part 11 and amendments hereto, in accordance with its literal terms.

§1109  **Penalties and Remedies.**

1109.1  **Acts in Violation of Regulations are Void.** Any act or transaction in violation of the provisions of Part 11 shall be void and of no force or effect.

1109.2  **Other Remedies.** In addition to the remedies set forth in this Chapter and the penalties provided for violation of the Mt. Lebanon Code or otherwise authorized or provided by law, the Municipality, with or without the joiner of any or all other affected persons, may enter suit, in any court of competent jurisdiction, to compel compliance with the provisions of Part 11 or to enjoin actual or threatened conduct in violation of the provisions of Part 11 of this Chapter.
PART 12
ADMINISTRATION
WAIVERS AND MODIFICATIONS

§1201 Waiver of Application Requirements for Certain Applications.

1201.1 Small Subdivisions. In subdivisions which exceed the number of lots specified in the definition of minor subdivision (not more than three (3) Lots), but which meet all other aspects of the definition of minor subdivision, and where all adjoining property is recorded in a plan of subdivision, the Planning Board may exempt the applicant from complying with some of the requirements of §304 of this Chapter regarding application content. Applicants desiring to obtain a waiver of certain application requirements under the provisions of this Section shall submit a written request when submitting an application for preliminary approval.

The Planning Board may grant a waiver to any of the application requirements of §304 of this Chapter, if warranted, provided that such waiver is not contrary to the public interest and such waiver is not in conflict with the requirements of any other applicable County or State law or regulation.

1201.2 Land Developments. In the case of a land development which proposes the change of use of an existing building, an addition to an existing building or the construction of a single non-residential building on a lot on which new construction is less than one thousand (1,000) square feet of gross floor area, the requirement to submit separate applications for preliminary and final approval may be waived by the Planning Board, provided all of the applicable information required by §§504 and 507 of this Chapter is provided in the application for approval of the land development. If such waiver is granted, the procedure for granting combined preliminary and final approval of the land development shall follow the procedure for granting final approval of a land development specified in §§506 through 514 of this Chapter.

§1202 Modifications and Waivers.

1202.1 The Commission may grant a modification or a waiver of the requirements of one or more provisions of this Chapter if literal enforcement will exact undue hardship because of peculiar conditions pertaining to the land in question, provided that such modifications or waiver will not be contrary to the public interest and that the purpose and intent of this Chapter is observed.

1202.2 All requests for modifications or waivers shall be in writing and shall accompany and be a part of the application. The requests shall state in full the grounds and facts of unreasonableness or hardship on which the request is based, the provision or provisions of this Chapter involved and the minimum modification necessary.
1202.3 The Commission shall keep a written record of all actions on requests for modifications or waiver.

§1203 Modifications to Allow Equal or Better Standards for Private Improvements. When equal or better specifications are available to comply with the design standards of this Chapter, the Commission may make such reasonable modifications to such requirements of this Chapter to allow the use of equal or better specifications, upon recommendation of the municipal engineer, provided such modification will not be contrary to the public interest. In approving such modifications, the Commission may attach any reasonable conditions that may be necessary to assure adequate improvements and protect the public safety.

§1204 Procedure for Authorizing Modifications. Any request for a modification to any requirement of the Chapter authorized by this Article shall be submitted in writing by the applicant as part of the application for approval of a preliminary or final application, stating the specific requirements of this Chapter that are to be modified and the reasons and justification for the request.

Requests for modifications to this Chapter shall be considered at a regularly scheduled Commission meeting. If warranted, the Commission may hold a public hearing pursuant to public notice prior to making a decision on the request for a modification.

If the Planning Board has not made a recommendation on the request for modification, the Commission shall refer the request to the Planning Board for a recommendation. In all cases, the Planning Board recommendation shall be entered into the official record of the meeting.

The reasons relied upon by the Commission in approving or disapproving the request also shall be entered into the minutes of the meeting and any resolution or ordinance adopted governing an application which contains a request for a modification shall include specific reference to the modification and the reasons for approval or disapproval.

If the Commission grants a modification, a notation shall be placed on the final subdivision plat for recording or the land development plan granted final approval that indicates the nature of the modification granted and the date of the approval of the modification by the Commission.
PART 13
ADMINISTRATION AND ENFORCEMENT

§1301 Application Review and Inspection Fees.

1301.1 Application Filing Fees. Application filing fees shall be established, from time to time, by resolution of the Commission. The application filing fees shall cover the administrative costs associated with processing an application for approval of a subdivision or land development and shall be payable to the Municipality at the time of submission of the application.

1301.2 Application Review Fees. An escrow deposit for review of an application, in an amount established from time to time by resolution of the Commission, shall be payable at the time of submission of the application to guarantee payment of the estimated application review fees required by this Section. The actual amount of the review fees in excess of the escrow deposit shall be payable within ten (10) days of billing by the Municipality. If any monies remain in the escrow account after all review fees have been paid, they shall be returned to the applicant.

Failure to pay the required escrow deposit required by this Section shall make the application incomplete. The Planning Board or the Commission will not schedule the application for consideration until such escrow deposit, and additional fees, if any, are paid.

Application review fees shall include reasonable and necessary charges by the municipality’s professional consultants and/or the municipal engineer for review of and report on the application to the Municipality.

1301.3 Private Improvement Inspection Fees. The applicant shall reimburse the Municipality for the reasonable and necessary expenses incurred for the inspection of the private improvements. Such reimbursement shall be based upon a schedule established from time to time by resolution of the Commission.

1301.4 To guarantee payment of the estimated inspection fees required by this Section, an inspection fee escrow deposit shall be payable at the time of the submission of an amenities bond and cash deposit required by §413 of this Chapter. The actual amount of the inspection fees in excess of the escrow deposit shall be payable within ten (10) days of billing by the Municipality. If any monies remain in the escrow account after all inspection fees have been paid, they shall be returned to the applicant.

1301.5 Failure to pay any additional inspection fees required by this Section shall cause the Municipality to defer the applicant’s request for a site completion certificate until such time as the required fees are paid in full.
§1302 Procedure for Amendments. The Commission may, from time to time, amend this Chapter in accordance with the following provisions.

1302.1 Planning Board Review. In the case of amendments other than those prepared by the Planning Board, the Commission shall submit the proposed amendment to the Planning Board for review and recommendations at least thirty (30) days prior to the date fixed for the public hearing on the proposed amendment.

1302.2 County Planning Agency Review. The proposed amendment shall be submitted to the Allegheny County Department of Economic Development for review and recommendations at least thirty (30) days prior to the Commission’s public hearing on the amendment.

1302.3 Public Hearing. Amendments to this Chapter shall become effective only after a public hearing is conducted by the Commission held pursuant to public notice, as defined herein. A brief summary setting forth the principal provisions of the proposed amendment and a reference to the place within the municipality where copies of the proposed amendment may be secured or examined shall be incorporated in the public notice.

1302.4 Publication, Advertisement and Availability of Ordinance. Proposed amendments shall not be enacted unless public notice of the proposed enactment is given, including the time and place of the meeting at which passage will be considered and a reference to a place within the Municipality where copies of the proposed amendment may be examined without charge or obtained for a charge not greater than the cost thereof.

The Commission shall give the public notice by publishing the proposed amendment once in one (1) newspaper of general circulation in the Municipality not more than sixty (60) days nor fewer than seven (7) days prior to passage. Publication of the proposed amendment shall include either the full text thereof or the title and a brief summary prepared by the municipal solicitor setting forth all the provisions in reasonable detail. If the full text is not included:

1302.4.1 A copy thereof shall be supplied to the newspaper at the same time the public notice is published.

1302.4.2 An attested copy of the proposed amendment shall be filed in the County Law Library or other County office designated by the County Commissioners.

1302.4.3 In the event substantial changes are made in the proposed amendment, before voting upon enactment, the Commission shall, at least ten (10) days prior to enactment, re-advertise in one (1) newspaper of general circulation in the Municipality, a brief summary setting forth all the provisions in reasonable detail together with a summary of the amendments.
1302.5 **Filing After Enactment.** Within thirty (30) days after adoption, the Commission shall forward a certified copy of the amendment to the Allegheny County Department of Economic Development.

§1303 **Appeals.** Any party aggrieved by the decision of the Commission regarding a subdivision or land development plan may appeal such decision within thirty (30) days of the date of entry of the decision of the Commission to the Allegheny County Court of Common Pleas in accordance with the procedures and requirements set forth in Article X-A of the MPC.

§1304 **Preventive Remedies.**

1304.1 In addition to other remedies, the Municipality may institute and maintain appropriate actions by law or in equity to restrain, correct or abate violations, to prevent unlawful construction, to recover damages and to prevent illegal occupancy of a building, structure or premises.

1304.2 The description by metes and bounds in the instrument of transfer or other documents used in the process of selling or transferring shall not exempt the seller or transferor from such penalties or from the remedies herein provided.

1304.3 The Municipality may refuse to issue any permit or grant any approval necessary to further improve or develop any real property which has been developed or which has resulted from a subdivision of real property or land development in violation of this Chapter. The authority to deny such a permit or approval shall apply to any of the following applicants:

1304.3.1 The owner of record at the time of such violation.

1304.3.2 The vendee or lessee of the owner of record at the time of such violation without regard as to whether such vendee or lessee had actual or constructive knowledge of the violation.

1304.3.3 The current owner of record who acquired the property subsequent to the time of violation without regard as to whether such current owner had actual or constructive knowledge of the violation.

1304.3.4 The vendee or lessee of the current owner of record who acquired the property subsequent to the time of violation without regard as to whether such vendee or lessee had actual or constructive knowledge of the violation.

1304.3.5 As an additional condition for issuance of a permit or the granting of an approval to any such owner, current owner, vendee or lessee for the development of any such real property,
the Municipality may require compliance with the conditions that would have been applicable to the property at the time the applicant acquired an interest in such real property.

§1305 Enforcement Remedies.

1305.1 Any person, partnership or corporation who or which has violated the provisions of this Chapter shall, upon being found liable therefore in a civil enforcement proceeding commenced by the Municipality, pay a judgment of not more than five hundred dollars ($500) plus all court costs, including reasonable attorney fees incurred by the Municipality as a result thereof. No judgment shall commence or be imposed, levied or be payable until the date of the determination of a violation by the District Justice. If the defendant neither pays nor timely appeals the judgment, the Municipality may enforce the judgment pursuant to the applicable rules of civil procedure. Each day that a violation continues shall constitute a separate violation, unless the District Justice determining that there has been a violation further determines that there was a good faith basis for the person, partnership or corporation violating this Chapter to have believed that there was no such violation, in which event there shall be deemed to have been only one (1) such violation until the fifth day following the date of the determination of a violation by the District Justice and thereafter each day that a violation continues shall constitute a separate violation.

1305.2 The Court of Common Pleas, upon petition, may grant an order of stay, upon cause shown, tolling the per diem judgment pending a final adjudication of the violation and judgment.

1305.3 Nothing contained in this Section shall be construed or interpreted to grant to any person or entity other than the Municipality the right to commence any action for enforcement pursuant to this Section.

§1306 Conflicts of Laws. Whenever there is a conflict between a minimum standard or dimension specified in this Chapter and those contained in another official regulation, resolution or ordinance of the Municipality or any other restriction or covenant, the most restrictive standard shall apply. If a question of conflict arises between various portions of this Chapter, the most restrictive term shall apply.

§1307 Severability. If any provision of this Chapter, or the application of any provision thereof to particular circumstances, is held invalid, the remainder of this Chapter, or the application of such provision to other circumstances, shall not be affected.

§1308 Effective Date. This Chapter shall become effective immediately upon enactment by the Commission of the Municipality of Mt. Lebanon.
The certifications shown below must be placed on the plan for recording.

1. **OWNER’S ADOPTION AND DEDICATION.** Slightly different forms are required for individual owners, partnerships, and corporations. If an individual with power of attorney signs on behalf of the owner, the volume and page number in which the power of attorney is recorded must be shown. Signatures must be witnessed.

   A. To be used for individual owner or owner(s)* of the land shown on the (NAME OF THE PLAN), hereby adopt this plan as (MY/OUR) (PLAN OF LOTS OR LAND DEVELOPMENT) and irrevocably dedicate all streets and other property identified for dedication on the plan to the (MUNICIPALITY). This adoption and dedication shall be binding upon (MY/OUR) heirs executors, and assigns.

   IN WITNESS OF WHICH, to this (I/WE) set (MY/OUR) hand and seal this
   ___________________________ day of __________________________, 20_______.

   ATTEST:

   ___________________________ Signature of Owner(s)

   ___________________________
   Notary Public

   B. To be used for partnerships. A general partner must sign.

   The (NAME OF PARTNERSHIP), (OWNER OR BENEFICIAL OWNER)* of the land shown on the (NAME OF PLAN) hereby adopts this plan as its (PLAN OF LOTS OR LAND DEVELOPMENT) and irrevocably dedicates all streets and other property identified for dedication on the plan to the (municipality). This adoption and dedication shall be binding upon the partnership and upon its heirs, executors, and assigns.

   IN WITNESS OF WHICH, to this (I/WE) set (MY/OUR) hand and seal this
   ___________________________ day of __________________________, 20_______.

   ATTEST:

   ___________________________ Signature of Owner(s)

   ___________________________
   Notary Public

   C. To be used for Corporations. A corporate officer must sign, and another officer must witness. The corporate seal must be affixed.

   ___________________________ Signature of Owner(s)

   ___________________________
   Notary Public
By a resolution approved on the _____ day of _______________, 20____, the Board of Directors of the (NAME OF CORPORATION), incorporated in the state of (NAME OF STATE), (OWNER OR BENEFICIAL OWNER®) of the land shown on the (NAME OF PLAN) adopted this plan as its (PLAN OF LOTS OR LAND DEVELOPMENT) and irrevocably dedicated all streets and other property identified for dedication on the plan to the (MUNICIPALITY). This adoption and dedication shall be binding upon the corporation and upon its successors and assigns.

(SEAL)

________________________
Name of Corporation

________________________
Signature and Title of Officer
Witnessing

________________________
Signature and Title of Authorized Officer

________________________
Date

2. **ACKNOWLEDGEMENT OF NOTARY PUBLIC.** The owner’s adoption and dedication must be acknowledged by a notary public. The black notary stamp must be affixed. The following certifications indicate the slightly different language that may be used to acknowledge individual, partnership, and corporate adoptions and dedications.

A. **Acknowledgment of individual owner’s adoption and dedication.** Before me, the undersigned Notary Public in and for the Commonwealth of Pennsylvania and County of Allegheny, personally appeared the above named (NAME OF OWNER(S)), and acknowledged the foregoing adoption and dedication to be (HIS, HER, THEIR) act.

Witness my hand and notarial seal this ________ day of ____________________, 20______.

My commission expires the __________ day of ____________________, 20______.

(SEAL)

________________________
Notary Public

B. **Acknowledgment of partnership adoption and dedication.** Before me, the undersigned Notary Public in and for the Commonwealth of Pennsylvania and the County of Allegheny, personally appeared the above named (NAME OF GENERAL PARTNER), a partner in the firm of (NAME OF THE FIRM), and acknowledged the foregoing adoption and dedication to be the act of the partnership.
Witness my hand and notarial seal this __________ day of ________________, 20_____.

My commission expires the ______ day of __________________________, 20_____.

(SEAL) ________________________________
Notary Public

C. Acknowledgment of corporate adoption and dedication. Before me the undersigned Notary Public in and for he Commonwealth of Pennsylvania and County of Allegheny, personally appeared (NAME AND TITLE OF OFFICER) of the (NAME OF CORPORATION), who stated that (HE/SHE) is authorized to execute the above adoption and dedication on behalf of the corporation and was present at the meeting at which the action of the corporation was taken to adopt the plan and dedicate public property contained herein to the Municipality of Mt. Lebanon, PA.

Witness my hand and notarial seal this ______day of ________________, 20_____.

My commission expires the ______day of __________________________, 20_____.

(SEAL) ________________________________
Notary Public

3. CERTIFICATION OF TITLE AND CONCURRENCE OF MORTGAGE WHERE APPLICABLE. The deed book volume and page numbers in which the title to all of the property contained in the plan is recorded must be noted on the plan for recording and certified by the signature of the owner. If there is no a mortgage or encumbrance against the property, a statement to that effect is included. If there is a mortgage or encumbrance, the mortgagee must consent to the recording of the plan. Signatures must be witnessed.

A. Certification of title and no mortgage. (I/WE) hereby certify that the title to the property contained in the (NAME OF SUBDIVISION OR LAND DEVELOPMENT) is in the name of ____________________ and is recorded in deed book volume _______, page _______. (I/WE_ further certify that there is no mortgage, lien, or other encumbrance against the property.

______________________________
Witness

______________________________
Owner

XVI – Appendix 1
B. **Certification of title with mortgage and consent of mortgagee.** (I/WE) hereby certify that the title to the property contained in the (NAME OF SUBDIVISION OR LAND DEVELOPMENT) is in the name of __________________ and is recorded in deed book volume _____, page _____.

_________________________________________  __________________________________________
Witness  Owner

(NAME OF MORTGAGEE), mortgagee of the property contained in the (NAME OF SUBDIVISION AND LAND DEVELOPMENT) consents to the recording of said plan and to the dedications and all other matters appearing in the plan.

_________________________________________  __________________________________________
Witness  Name, title, and mortgagee

4. **SURVEYOR’S CERTIFICATION.** Every plan for recording must be prepared by or under the supervision of a registered surveyor, who must certify the accuracy of the survey and affix his seal.

I certify that, to the best of my information, knowledge and belief the survey and plan shown hereon are correct and accurate to the standards required.

_________________________________________  __________________________________________
Date  Name

(SEAL)

Registration number

Where further certification by a registered professional is required, in addition to the surveyor’s certification, the certification shall state the portion of the plan for which the signatory is responsible.

5. **MUNICIPAL ENGINEER’S CERTIFICATION.** The Municipal Engineer must certify that the plan meets the engineering and design requirements of all applicable municipal or other ordinances.
I certify that this plan meets all engineering and design requirements of the applicable ordinances of the Municipality of Mt. Lebanon, except as departures have been authorized by the appropriate officials of the Municipality.

__________________________________________  _____________________________
Date                                                                 Name

(SEAL)                                                                                           _____________________________
Registration number

6.  MUNICIPAL DECLARATIONS.

A.  No acceptance of dedication. A declaration must be placed on any plan that shows dedication of streets or other property to the Municipality that the dedication imposes no responsibility upon the Municipality for acceptance of the dedication, or for the improvement or maintenance of any dedicated facility until the dedication is accepted by ordinance.

The Commission of Mt. Lebanon, PA gives notice that, in approving this plan for recording, the Municipality assumes no obligation to accept the dedication of any streets, land or public facilities and has no obligation to improve or maintain such streets, land or facilities.

__________________________________________  _____________________________
Secretary / Manager                                                                 President of the Commission

B.  No building permits without approved sewage facilities. Although sewage facilities should be approved by the time of recording, this declaration clarifies that buildings may not be constructed without approval of sewage facilities. The municipal secretary or manager may sign this declaration.

The (NAME OF MUNICIPALITY) agrees not to issue building permits until the “Planning Module for Land Development” has been approved in accordance with the regulations of the Pennsylvania Department of Environmental Protection.

__________________________________________  _____________________________
Date                                                                 Authorized municipal official
7. **OTHER REQUIRED STATEMENTS.**

A. For plans requiring access to state highways. Section 508(6) of the Municipalities Planning Code requires that no plat requiring access to a highway under the jurisdiction of the department of Transportation shall be finally approved unless the plat contains the following statement:

“A highway occupancy permit is required pursuant to Section 420 of the act June 1, 1945 (P.L. 1242, No 428) known as the “State Highway Law” before driveway access to a State highway is permitted.”

8. **REQUIRED MUNICIPAL AND COUNTY REVIEW AND APPROVAL STATEMENTS.**

Reviewed by the Mt. Lebanon Planning Board this ___ day of ______________, 20___.

_________________________ ________________________________
Secretary Chairperson

Approved by the Mt. Lebanon Commission, this ______ day of ________________, 20___.

Signed and noted as approved this _______ day of ___________________, 20____.

_________________________ ________________________________
Secretary President of the Commission

(SEAL)

Reviewed by the Allegheny County Department of Economic Development on this ______ day of __________________, 20______.

(SEAL)

_______________________________
Director
9. **PROOF OF RECORDING.** The plan must include a signature space for the recorder of deeds as follows:

Recorded in the office of the Recorder of Deeds of the County of Allegheny, Commonwealth of Pennsylvania, in Plan Book Volume _____________, Page(s) __________.

Given under my hand and seal this _________ day of ___________________, 20_______.

(SEAL)

__________________________________________

Recorder of Deeds
APPENDIX II

LAND DEVELOPMENT PLAN DIAGRAMS
LOT WIDTH MEASUREMENT

Front or side yard line in R-1, R-2, R-3. Side yard line in all other zones.

In R-1, R-2, & R-3 zones. The line abutting either street can be considered the front lot line. In all other zones, only the line abutting the major street can be considered a front lot line.

Front or side yard line in R-1, R-2, R-3. Front yard line in all other zones.

Diagram: 2
SEE DIAGRAM FOR ENTRANCE LAYOUT

20' MIN. BETWEEN PROPOSED AND EXISTING DRIVES

NO ADJUSTMENT OF DRIVEWAYS BEYOND PROPERTY LINE

STREET

4' MIN.

HIGHWAY LINE

BUILDING

PROPERTY LINE

CURB

10' MINIMUM

15' MINIMUM

5' minimum width with building adjacent to right-of-way line

Provide walk on one side of drive:
5' minimum, including curb

Scale:
No Scale

Relationship of drive to property line and/or building:
C & C-1 districts

Diagram:
3
SEE DIAGRAM FOR ENTRANCE LAYOUT

30' MINIMUM

RIGHT-OF-WAY LINE

20' MIN.

RELATION OF DRIVE TO INTERSECTION

SCALE: NO SCALE

DIAGRAM: 4
SECTION A
ENTRANCE & EXIT DRIVES
REAR YARD LINE, PARKING LIMIT LINE

10' MIN.

SIDE YARD LINE, PARKING LIMIT LINE

WALL, FENCE, OR SCREEN PLANTING ON FRONT YARD LINE

FRONT YARD LINE
PARKING LIMIT LINE

10' MIN.

FENCE, WALL OR SCREEN PLANTING SHALL BE PLACED ON THE SIDE OR REAR YARD LINES WHEN THE PROPERTY LINES ABUT RESIDENTIAL ZONING DISTRICTS.

SIDE YARD LINE, PARKING LIMIT LINE

STREET RIGHT-OF-WAY

CURB

STREET

PARKING AREA LIMITS
C AND C-1 PLANNED MIXED DEVELOPMENT DISTRICTS

DIAGRAM: 7
90 DEGREE PARKING
ALL DISTRICTS
SECTION

PLAN

FACE OF STALL

CURBS

STALL  AISLE  STALL  STALL  AISLE  STALL

18' MIN.  20' MIN.  18' MIN.  18' MIN.  20' MIN.  18' MIN.

9' MIN.

4'

PARKING LIMIT LINE

PARKING LIMIT LINE

* FOR PAINT LINES SEE DIAGRAM 10

90 DEGREE PARKING
DOUBLE LOADED - ALL DISTRICTS

1/20 SCALE

DIAGRAM 9
PARKING LIMIT LINE

CURBS

PARKING LIMIT LINE

STALL

AILSE

STALL

FACE OF STALL

18' MIN.

2'

17'-6" MIN.

2'

* FOR PAINT LINES SEE DIAGRAM 10

SCALE:
NO SCALE

60 DEGREE PARKING
ALL DISTRICTS

DIAGRAM:
10
SECTION

PLAN

* FOR PAINT LINES SEE DIAGRAM 10

60 DEGREE PARKING
DOUBLE LOADED - ALL DISTRICTS

DIAGRAM: 11
SECTION

PLAN

* FOR PAINT LINES SEE DIAGRAM 10

SCALE: NO SCALE

45 DEGREE PARKING
ALL DISTRICTS

DIAGRAM: 12
45 DEGREE PARKING
DOUBLE LOADED - ALL DISTRICTS

DIAGRAM: 13
5% MAXIMUM CROSS SLOPE PERMITTED

7% MAXIMUM LONGITUDINAL SLOPE PERMITTED
FOR SECTION A SEE DIAGRAM 20

DEPRESSED CURB → STREET

SEE ACCESSIBILITY STANDARDS DIAGRAM 27
RIGHT-OF-WAY LINE
CONCRETE WALK
TAPERED CURB
6" REINFORCED CONCRETE

13' ONE LANE - ONE WAY
22' TWO LANE - ONE OR TWO WAY
35' THREE LANE - ONE OR TWO WAY

CONDITIONAL USE IN ZONING DISTRICTS R-1, R-2, R-3.
ALL USES IN ZONING DISTRICT R-4.

FOR SECTION A SEE DIAGRAM 20

STREET

SEE ACCESSIBILITY STANDARDS DIAGRAM 27
RIGHT-OF-WAY LINE
6" REVEAL

15' ONE LANE - ONE WAY
22' TWO LANE - ONE OR TWO WAY
35' THREE LANE - ONE OR TWO WAY

ALL OTHER DISTRICTS

ENTRANCES & EXITS

DIAGRAM: 16
CLEAR SIGHT TRIANGLE

DISTANCES ALONG STREETS OR DRIVEWAYS

<table>
<thead>
<tr>
<th>TYPE</th>
<th>A-B</th>
<th>B-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNCONTROLLED</td>
<td>90'</td>
<td>160'</td>
</tr>
<tr>
<td>CONTROLLED</td>
<td>30'</td>
<td>250'</td>
</tr>
</tbody>
</table>

SCALE: NO SCALE

DIAGRAM: 17
APPENDIX III

REQUIRED PLANT LIST
The following list specifies plant types and sizes that are required for use in landscaping plans proposed for land developments in the Municipality.

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Large Deciduous Trees</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acer platanoides</td>
<td>Norway Maple</td>
<td>2-3&quot; caliper</td>
</tr>
<tr>
<td>Gleditsia triancanthos inermis</td>
<td>Thornless Honey Locust</td>
<td>2-3&quot; caliper</td>
</tr>
<tr>
<td>Liquidambar styraciflua</td>
<td>American Sweetgum</td>
<td>2-3&quot; caliper</td>
</tr>
<tr>
<td>Quercus borealis (rubra)</td>
<td>Red Oak</td>
<td>2-3&quot; caliper</td>
</tr>
<tr>
<td>Quercus coccinea</td>
<td>Scarlet Oak</td>
<td>2-3&quot; caliper</td>
</tr>
<tr>
<td>Quercus palustris</td>
<td>Pin Oak</td>
<td>2-3&quot; caliper</td>
</tr>
<tr>
<td>Tilia cordata</td>
<td>Littleleaf Linden</td>
<td>2-3&quot; caliper</td>
</tr>
<tr>
<td>Tilia cordata</td>
<td>Greenspore Linden</td>
<td>2-3&quot; caliper</td>
</tr>
<tr>
<td><strong>Medium Deciduous Trees</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malus purpurea eleyi</td>
<td>Eley Purple Crabapple</td>
<td>6-8' height</td>
</tr>
<tr>
<td>Phellodendron amurense</td>
<td>Amur Corktree</td>
<td>2-3&quot; caliper</td>
</tr>
<tr>
<td><strong>Small Deciduous Trees</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acer ginnala</td>
<td>Amut zmsplr</td>
<td>6-8' height</td>
</tr>
<tr>
<td>Cornus mas</td>
<td>Cornelian cherry Dogwood</td>
<td>6-8' height</td>
</tr>
<tr>
<td>Crataegus crus-galli</td>
<td>Cockspur Hawthorn</td>
<td>6-8' height</td>
</tr>
<tr>
<td>Crataegus mollis</td>
<td>Downy Hawthorn</td>
<td>6-8' height</td>
</tr>
<tr>
<td>Crataegus oxyacantha</td>
<td>English Hawthorn</td>
<td>6-8' height</td>
</tr>
<tr>
<td>Crataegus phaenopyrum</td>
<td>Washington Hawthorn</td>
<td>6-8' height</td>
</tr>
<tr>
<td>Magnolia virginiana</td>
<td>Sweetbay Magnolia</td>
<td>6-8' height</td>
</tr>
<tr>
<td>Malus arnoldiana</td>
<td>Arnold Crabapple</td>
<td>6-8' height</td>
</tr>
<tr>
<td>Malus astrosanguinea</td>
<td>Carmine Crabapple</td>
<td>6-8' height</td>
</tr>
<tr>
<td>Malus coronarius</td>
<td>Wild Sweet Crabapple</td>
<td>6-8' height</td>
</tr>
<tr>
<td>Malus floribunda</td>
<td>Japanese Flowering Crabapple</td>
<td>6-8' height</td>
</tr>
<tr>
<td>Malus halliana parkmani</td>
<td>Parkman Crabapple</td>
<td>6-8' height</td>
</tr>
<tr>
<td>Malus ionesis plena</td>
<td>Bechtel Crabapple</td>
<td>6-8' height</td>
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<tr>
<td>Malus sargenti</td>
<td>Sargent Crabapple</td>
<td>6-8' height</td>
</tr>
<tr>
<td>Malus scheideckeri</td>
<td>Scheidecker Crabapple</td>
<td>6-8' height</td>
</tr>
<tr>
<td>Malus zumi calocarpa</td>
<td>Redbud Crabapple</td>
<td>6-8' height</td>
</tr>
<tr>
<td>Pyrus caileryana</td>
<td>Cleveland Select Pear</td>
<td>1 1/4”–2” diam.</td>
</tr>
<tr>
<td>Pyrus valzam</td>
<td>Valzam Pear</td>
<td>1 1/4”–2” diam.</td>
</tr>
<tr>
<td><strong>Scientific Name</strong></td>
<td><strong>Common Name</strong></td>
<td><strong>Size</strong></td>
</tr>
<tr>
<td>--------------------</td>
<td>----------------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Large Deciduous Shrubs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cotoneaster acutifolia</td>
<td>Peking Cotoneaster</td>
<td>3-4' height</td>
</tr>
<tr>
<td>Hamamelis virginiana</td>
<td>Common Witch Hazel</td>
<td>5-6' height</td>
</tr>
<tr>
<td>Hibiscus syriacus</td>
<td>Shrub Althea</td>
<td>5-6' height</td>
</tr>
<tr>
<td>Philadelphus coronarius</td>
<td>Sweet Mock orange</td>
<td>5-6' height</td>
</tr>
<tr>
<td>Rhamnus cathartica</td>
<td>Common Buckthorn</td>
<td>5-6' height</td>
</tr>
<tr>
<td>Rhamnus frangula</td>
<td>Glossy Buckthorn</td>
<td>5-6' height</td>
</tr>
<tr>
<td>Rhamnus frangula columnaris</td>
<td>Tallhedge Buckthorn</td>
<td>5-6' height</td>
</tr>
<tr>
<td>Syringa vulgaris</td>
<td>Common and Hybrid Lilac</td>
<td>5-6' height</td>
</tr>
<tr>
<td>Viburnum dentatum</td>
<td>Arrowwood Viburnum</td>
<td>4-5' height</td>
</tr>
<tr>
<td>Viburnum lantana</td>
<td>Wayfaringtree Viburnum</td>
<td>4-5' height</td>
</tr>
<tr>
<td>Viburnum dentatum</td>
<td>Nannyberry Viburnum</td>
<td>4-5' height</td>
</tr>
<tr>
<td>Viburnum opulus</td>
<td>European Cranberrybush Viburnum</td>
<td>4-5' height</td>
</tr>
<tr>
<td>Viburnum prunifolium</td>
<td>Blackhaw Viburnum</td>
<td>4-5' height</td>
</tr>
<tr>
<td>Viburnum tomentosum</td>
<td>Doublefile Viburnum</td>
<td>4-5' height</td>
</tr>
<tr>
<td>Viburnum triloburn</td>
<td>American Cranberrybush Viburnum</td>
<td>4-5' height</td>
</tr>
<tr>
<td><strong>Medium Deciduous Shrubs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acanthopanax sieboldianus</td>
<td>Fiveleaf Acanthopanax</td>
<td>2-2½' height</td>
</tr>
<tr>
<td>Aronia arbutifolia</td>
<td>Red chokeberry</td>
<td>4-5' height</td>
</tr>
<tr>
<td>Chaenomeles lagenaria</td>
<td>Flowering Quince</td>
<td>3-4' height</td>
</tr>
<tr>
<td>Cornus racemosa</td>
<td>Gray Dogwood</td>
<td>5-6' height</td>
</tr>
<tr>
<td>Cornus sanguinea</td>
<td>Bloodtwig Dogwood</td>
<td>5-6' height</td>
</tr>
<tr>
<td>Euonymus alatus</td>
<td>Winged Euonymus</td>
<td>4-5' height</td>
</tr>
<tr>
<td>Euonymus alatus compactus</td>
<td>Dwarf Winged Euonymus</td>
<td>2-2½' height</td>
</tr>
<tr>
<td>Forsythia intermediapectabilis</td>
<td>Showy Border Forsythia</td>
<td>4-5' height</td>
</tr>
<tr>
<td>Forsythia suspensa</td>
<td>Weeping Forsythia</td>
<td>4-5' height</td>
</tr>
<tr>
<td>Forsythia suspensa fortunei</td>
<td>Fortune Weeping Forsythia</td>
<td>4-5' height</td>
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<tr>
<td>Hamamelis vernalis</td>
<td>Vernalis Witch Hazel</td>
<td>5-6' height</td>
</tr>
<tr>
<td>Ligustrum Amurensis</td>
<td>Amur Privet</td>
<td>2-2½' height</td>
</tr>
<tr>
<td>Ligustrum obtusifolium regelianum</td>
<td>Regels Border Privet</td>
<td>2-2½' height</td>
</tr>
<tr>
<td>Ligustrum ilicium</td>
<td>Ibolium Privet</td>
<td>2-2½' height</td>
</tr>
<tr>
<td>Lonicera fragrantissima</td>
<td>Fragrant Honeysuckle</td>
<td>4-5' height</td>
</tr>
<tr>
<td>Rhodotypos scandens</td>
<td>Jetbead</td>
<td>4-5' height</td>
</tr>
<tr>
<td>Rhus aromatic</td>
<td>Fragrant Sumac</td>
<td>4-5' height</td>
</tr>
<tr>
<td>Rosa multiflora</td>
<td>Japanese Rose</td>
<td>4-5' height</td>
</tr>
<tr>
<td>Viburnum burkwoodi</td>
<td>Rubkwood Viburnum</td>
<td>4-5' height</td>
</tr>
<tr>
<td>Viburnum carlesii</td>
<td>Koreanspice Viburnum</td>
<td>4-5' height</td>
</tr>
<tr>
<td><strong>Small Deciduous Shrubs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kerria japonica</td>
<td>Japanese Kerria</td>
<td>2-3' height</td>
</tr>
<tr>
<td>Rosa rugosa</td>
<td>Rugosa Rose</td>
<td>1-1½' height</td>
</tr>
<tr>
<td>Scientific Name</td>
<td>Common Name</td>
<td>Size</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>---------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td><strong>Large Evergreen Trees</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abies concolor</td>
<td>White Fir</td>
<td>6'-8' height</td>
</tr>
<tr>
<td>Abies homolepsis</td>
<td>Nikko Fir</td>
<td>6'-8' height</td>
</tr>
<tr>
<td>Picea pungens</td>
<td>Colorado Spruce</td>
<td>6'-8' height</td>
</tr>
<tr>
<td>Picea omorika</td>
<td>Serbian Spruce</td>
<td>6'-8' height</td>
</tr>
<tr>
<td>Pinus nigra</td>
<td>Austrian Pine</td>
<td>6'-8' height</td>
</tr>
<tr>
<td>Pinus strobus</td>
<td>White Pine</td>
<td>6'-8' height</td>
</tr>
<tr>
<td>Tsuga canadensis</td>
<td>Canadian Hemlock</td>
<td>6'-8' height</td>
</tr>
<tr>
<td><strong>Large Evergreen Shrubs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Juniperus chinensis pfitzeriana</td>
<td>Pfitzer Chinese Juniper</td>
<td>2½'-3' spread</td>
</tr>
<tr>
<td>Taxus cuspidata nana</td>
<td>Dwarf Japanese Yew</td>
<td>1-1½’ spread</td>
</tr>
<tr>
<td>Taxus intermedia</td>
<td>Hybrid Yew</td>
<td>2½'-3’ spread</td>
</tr>
<tr>
<td>Taxus media hicksi</td>
<td>Hicks Yew</td>
<td>2½'-3' height</td>
</tr>
<tr>
<td><strong>Ground Cover</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Euonymus fortunei</td>
<td>Wintercreeper Euonymus</td>
<td>1-2' spread</td>
</tr>
<tr>
<td>Lonicera japonica halliana</td>
<td>Hall’s Japanese Honeysuckle</td>
<td>2 year</td>
</tr>
<tr>
<td>Vinca minor</td>
<td>Myrtle</td>
<td>2 year</td>
</tr>
</tbody>
</table>
APPENDIX IV

REQUIRED MATERIALS FOR PRIVATE IMPROVEMENTS IN LAND DEVELOPMENT PLANS
The following materials, in order of preference for each item, are required for private improvements in land development plans. For specific Details and Specifications refer to the Municipal Construction Standards.

Curbs:
- Concrete - deck, roll or straight curb
- Stone
- Bituminous

Private Streets:
- Bituminous, Full Depth
- Bituminous surface, Coarse Aggregate Base
- Concrete

Edging Curbs for Planting Strips:
- Concrete
- Brick
- Stone
- Wood
- Poly vinyl Chloride (PVC), or equal
- Metal

Stop Bar:
- Precast concrete
- Polyvinyl chloride (PVC), or equal
- Wood
- Metal

Fences and Screens:
- Wood, picket, panel, post and rail
- Polyvinyl Chloride (PVC), picket, panel, post and rail
- Metal – chainlink (fabric of aluminum, steel or plastic coated, bent selvage on tip), panel; post and aluminum or steel wire, picket
- Concrete - panel (not including solid concrete or concrete block)

Walls - Free-Standing:
- Stone - natural, block stone or rubblestone
- Brick - plain or glazed
- Concrete - plain or textured
- Concrete block - patterned or glaze
- Tile
Walls - Retaining:

Stone masonry
Brick
Concrete
Cribbing - concrete or metal
Sheet piling

Walkways, Private:

Concrete - colored or uncolored, textured finish
Terrazzo - textured surface only
Brick
Precast blocks
Flagstone
Rubblestone
Blockstone

Driveways Intersecting Public Street within the Street Right-of-Way:

Six (6) inches reinforced concrete as per Municipal Construction Standards

Driveways

Bituminous
Concrete
Stone
Paving block

Barriers

Stone
Concrete
Fence
Metal
Post and chain
Post and cable
APPENDIX V

MINIMUM STREET DESIGN STANDARDS
<table>
<thead>
<tr>
<th>TYPE OF STREET *</th>
<th>Arterial Street</th>
<th>Collector Street</th>
<th>Local Street</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right-of-Way Widths</td>
<td>80’</td>
<td>60’</td>
<td>50’</td>
</tr>
<tr>
<td>Cul de Sac Right-of-Way Radius</td>
<td>NA**</td>
<td>NA**</td>
<td>55’</td>
</tr>
<tr>
<td>Angle of Street Intersection</td>
<td>90°</td>
<td>75°-90°</td>
<td>60°-90°</td>
</tr>
<tr>
<td>Cartway Paving Width (Back of Curb to Back of Curb)</td>
<td>37’</td>
<td>30’</td>
<td>26’</td>
</tr>
<tr>
<td>Cul de Sac (outside) Paving Radius</td>
<td>NA**</td>
<td>NA**</td>
<td>47’</td>
</tr>
<tr>
<td>Minimum Street Grade</td>
<td>1.0%</td>
<td>1.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Maximum Street Grade</td>
<td>6.0%</td>
<td>10.0%</td>
<td>12.0%</td>
</tr>
<tr>
<td>Maximum Leveling Grade, (connecting streets) (For 25’ before nearest right-of-way of street being intersected)</td>
<td>6.0%</td>
<td>6.0%</td>
<td>6.0%</td>
</tr>
<tr>
<td>Curb Return Radius</td>
<td>50’</td>
<td>40’</td>
<td>35’</td>
</tr>
<tr>
<td>Clear Sight Triangle (Controlled) Main to Side Street (see Diagram 28)</td>
<td>500’/30’</td>
<td>300’/25’</td>
<td>200’/25’</td>
</tr>
<tr>
<td>Clear Sight Triangle (Uncontrolled) Main to Side Street (see Diagram 28)</td>
<td>500’/90’</td>
<td>300’/80’</td>
<td>200’/75’</td>
</tr>
<tr>
<td>Horizontal Curves Minimum Center Line Radius</td>
<td>500’</td>
<td>200’</td>
<td>125’</td>
</tr>
<tr>
<td>Vertical Curves</td>
<td>***</td>
<td>Must provide 200’ sight distance</td>
<td></td>
</tr>
<tr>
<td>Sidewalk Width (where provided)</td>
<td>5’</td>
<td>5’</td>
<td>4’</td>
</tr>
<tr>
<td>Curb Width, Roll</td>
<td>2.0’</td>
<td>2.0’</td>
<td>2.0’</td>
</tr>
<tr>
<td>Curb Width, Straight</td>
<td>0.75’</td>
<td>0.75’</td>
<td>0.75’</td>
</tr>
<tr>
<td>Residential Subdivision</td>
<td>1600’ maximum distance between street intersections 250’ minimum distance between street intersections</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* See definitions of street types in §104.2 of this Chapter.

** NA = Not Applicable

*** At stop intersections, can be reduced by modification in accordance with the requirements of Article IX of this Chapter.
STANDARD STREET IMPROVEMENT SECTION

- Proposed Surface
- Existing Surface
- Curb
- Sidewalk
- Pavement
- Centerline of Right of Way
- Street Right of Way - 50 foot minimum
- 2 to 1 slope
FULL DEPTH BITUMINOUS PAVEMENT DETAIL

12" WIDE BITUMINOUS SEAL

CROWN: 11'-12" 2.5'
15' 15'
15' 4'

12" ROLL CURB 13'
12" ECONOMIC CUBER 13'

ASHFALT STONE OR GRAVEL CURB OR STRIP
STANDARD CONCRETE ROLL CURB

NOTE: SEE PAVING DETAIL FOR CONCRETE PAVEMENT FOR DEFORMED TIE BAR PLACEMENT AND SPACING WHEN CONSTRUCTING CONCRETE ROADWAY.
CONTRACTION JOINTS @ 10' C/C

CUL-DE-SAC INNER CURB

6" OR 7" AS SPECIFIED

#4 BARS

PAVEMENT

AGGREGATE

AASHTO #57 STONE OR GRAVEL

2 PLY TAR PAPER

4" DIAM. ADS SLOTTED DRAIN TUBING

9" STRAIGHT CONCRETE CURB DETAIL

SCALE:

NOT TO SCALE

CONCRETE STRAIGHT CURB DETAIL
CONCRETE CURB AND GUTTER DETAIL

CONFORM TO EXISTING CURB
12" TO 24"

APPLY HOT BITUMINOUS SEAL TO BITUMINOUS PAVEMENT (12" WIDE)

6" TO 8" ±

1.0" 6"

CONCRETE

4" DIA. ADS SLOTTED DRAIN TUBING

AASHTO #57 STONE OR GRAVEL DRAIN

2 PLY TAR PAPER

12" AGGREGATE

13"

PAVEMENT

19"

13"

25"

CONTRACTION JOINTS @ 10' C/C
CONCRETE SIDEWALK

CONCRETE DRIVEWAY

BITUMINOUS DRIVEWAY
NOTE:
PRECAST CONCRETE STORM INLETS WILL BE PERMITTED IF INSIDE DIMENSIONS ARE SAME AS SHOP DRAWINGS MUST BE SUBMITTED FOR APPROVAL.
BACKFILL STORM INLETS WITH AASHTO #57 STONE OR GRAVEL AGGREGATE COMPACTED IN 6" LAYERS.

NOTE:
ALLEGHENY FOUNDRY NO. 84 STEPS SHALL BE INSTALLED @ 12" SPACING, IN ALL STORM INLETS OVER 4" IN DEPTH.
CASTING: PENN D.O.T. TYPE 4" SPECIAL

4' & 6' SPECIAL INLET
WITH C.I. HOOD

SCALE:
NOT TO SCALE

4' & 6' STORM INLET
WITH C.I. HOOD DETAIL
CASTING: ALLEGHENY FOUNDRY FRAME NO. 69, GRATING NO. 68 OR EQUAL

CASTINGS TO BE SET IN A FULL BED OF MORTAR

4½” COAT OF CEMENT MORTAR

SOLID CONCRETE OR BRICK. ALL JOINTS ARE TO BE STRUCK.

CLASS "A" CONCRETE

NOTES:
1) ALLEGHENY FOUNDRY NO. 64 STEPS SHALL BE INSTALLED 8 12" SPACINGS. IN ALL STORM INLETS OVER 4" IN DEPTH.
2) PRECAST CONCRETE STORM INLETS WILL BE PERMITTED IF INSIDE DIMENSIONS ARE SAME AS ABOVE. SHOP DRAWINGS MUST BE SUBMITTED FOR APPROVAL.
3) BACKFILL STORM INLETS WITH AASHTO #57 STONE OR GRAVEL AGGREGATE COMPACTED IN 6" LAYERS.

4' BASKET INLET DETAIL
MANHOLE DETAIL

3/4" DIA. ANCHOR BOLTS 4 EA. REQUIRED WHEN WATER TIGHT CASTINGS ARE SPECIFIED.

SANITARY MANHOLE
LINE TOP OF MANHOLE, ADJUSTING COURSE AND CASTING WITH RAPID SEAL. SEE TECHNICAL SPECIFICATIONS.

1/2" COAT OF CEMENT MORTAR

STORM MANHOLE
ALLEHENY FOUNDRY CASTING:
FRAME #26 COVER #26 STEPS #64 (FACTORY INSTALLED)
SANITARY MANHOLE
ALLEHENY FOUNDRY CASTING:
FRAME #299 COVER #110 SEAL PLATE #300 OR LATEST REVISION.

MANHOLE SECTIONS SHALL BE A.S.T.M. C478 PIPE, OR LATEST REVISION.

LENGTHS MAY BE VARIED TO OBTAIN DESIRED DEPTH.

MANHOLE SECTIONS AND CASTINGS TO BE COVERED WITH BITUMINOUS MATERIAL OR CEMENT GROUT.
SANITARY MANHOLE JOINTS SHALL BE RUBBER TYPE GASKETS A.S.T.M. C443 OR LATEST REVISIONS.

SANITARY MANHOLE SHALL HAVE FLANGED PRECAST CONCRETE BASES.
SANITARY MANHOLE SHALL HAVE FLEXIBLE COUPLINGS TO FORM A WATER TIGHT CONNECTION BETWEEN THE MANHOLE AND PIPE.
PRECAST BASES SHALL BE PLACED ON 8" AASHTO #57 STONE OR GRAVEL.
CLASS "A" CONCRETE FOR STORM MANHOLE

12" MAXIMUM ADJUSTMENT TO GRADE WITH SOLID CONCRETE BRICK AND CEMENT MORTAR.

2 COATS OF APPROVED BITUMINOUS MATERIAL (SEE TECHNICAL SPEC.)

#4 BARS VERT. 12" c/c
#4 BARS HORIZ. 18" c/c
8" MIN. COVER

CONCRETE

TYPICAL DROP MANHOLE

MANHOLE DETAIL
CRITICAL SETTLEMENT AREAS
UNDER PAVEMENT, WITHIN THE AREA FROM BACK OF CURB AND 8 FEET BEYOND BACK OF CURB, SIDEWALK AREAS, DRIVEWAY AREAS, FUTURE WALKS OR DRIVES TRENCH BACKFILL SHALL BE FINE AGGREGATE (PADDOCK) TO 95% OF DRY WEIGHT DENSITY IN 8 INCH HORIZONTAL LAYERS FROM 12 INCHES ABOVE PIPE TO TOP OF SEWER TRENCH.

NON-CRITICAL SETTLEMENT AREAS
IN AREAS NOT LISTED UNDER CRITICAL SETTLEMENT AREAS SHALL BE BACKFILLED FROM 12 INCHES ABOVE PIPE BELL TO 30 INCHES ABOVE TOP OF PIPE BELL WITH SUITABLE MATERIAL IN 8 INCH LAYERS, COMPACTED TO 95% DRY WEIGHT DENSITY. BACKFILL FROM 30 INCHES ABOVE PIPE BELL TO TOP OF TRENCH SHALL BE OF SUITABLE MATERIAL IN 12 INCH LAYERS, COMPACTED TO 95% OF DRY WEIGHT DENSITY.

NON-CRITICAL SETTLEMENT AREAS WITHIN STREET R.O.W. SHALL BE BACKFILLED WITH SUITABLE MATERIAL IN 8 INCH HORIZONTAL LAYERS, COMPACTED TO 95% DRY WEIGHT DENSITY.

FINE AGGREGATE THOROUGHLY COMPACTED TO AT LEAST 95% OF DETERMINED DRY WEIGHT DENSITY IN 8 INCH HORIZONTAL LAYERS.

WHERE ROCK, HARD SHALE, OR UNYIELDING MATERIAL IS NOT ENCOUNTERED, A FINE AGGREGATE BEDDING NOT LESS THAN 6 INCHES THICK FROM PIPE BOTTOM OR PIPE BELL TO THE DITCH BOTTOM.

WHERE ROCK, HARD SHALE, OR UNYIELDING MATERIAL IS ENCOUNTERED, A FINE AGGREGATE BEDDING NOT LESS THAN 12 INCHES THICK FROM PIPE BOTTOM OR PIPE BELL TO DITCH BOTTOM.

FINE AGGREGATE SHALL BE NATURAL, MANUFACTURED OR ARTIFICIAL SAND, UNLESS OTHERWISE DETAILED.

SUITABLE MATERIAL SHALL BE SELECTED MATERIAL FREE OF STONE AND FOREIGN MATERIAL. IF WATER IS ENCOUNTERED IN THE DITCH THE ENGINEER MAY ORDER AT THE REQUEST OF THE CONTRACTOR, OR AT HIS DISCRETION, THE USE OF PIPE BEDDING OF A COURSE AGGREGATE MATERIAL (ASHST #57 OR #6) STONE OR GRAVEL, PREFERABLY GRAVEL TO ACT AS A DRAIN.

UNDERGROUND WARNING TAPE SHALL BE INSTALLED WITH THE INSTALLATION OF THE STORM AND SANITARY SEWERS. THE WARNING TAPE SHALL BE INSTALLED 2 FEET ABOVE THE TOP AND DIRECTLY OVER THE PIPE.

SEE SECTION 104.5.8.1 OF THE TECH. SPECIFICATIONS.
EXTEND ANCHOR 5' BELOW GROUND WHEN DIRECTED ON STEEP GRADES TO PREVENT TRENCH EROSION.

1'-0" 3/4" BARS

CLASS "A" CONCRETE

SECTION

5'

TRENCH

ELEVATION

1'-6"

1'-6"

1'-6"

1'-6"

3/4" BARS

BARS

PLACED AS NOTED ON PLANS

PIPE ENCASEMENT DETAIL

CONCRETE ANCHOR DETAIL

PROVIDE: NO ANCHORS ON GRADES LESS THAN 20%
ANCHORS 36" C/C ON GRADES BETWEEN 20% AN 34%
ANCHORS 24" C/C ON GRADES BETWEEN 34% AND 50%
ANCHORS 15" C/C ON GRADES BETWEEN 50% AND 70%

#2 BARS@18" C/C

#4 BARS@8" C/C

4" CLEAR COVER ON REINFORCEMENT

VARIEABLE

VARIEABLE

PIECE ANCHOR AND ENCASEMENT DETAILS
DETAIL OF WYE INSTALLATION IN EXISTING SANITARY SEWER
CROSS DRAIN DETAIL

NOT TO SCALE

ROAD BED STABILIZING FABRIC 36" WIDTH
AASHTO #57 STONE OR GRAVEL AGGREGATE
4" DIAM. ADS SLOTTED DRAIN TUBING

DRAIN DETAIL FOR EXISTING CURBS

NOT TO SCALE

ROAD BED STABILIZING FABRIC 6' WIDE
AGGREGATE SUBBASE
AASHTO #57 STONE OR GRAVEL
4" OR 6" ADS SLOTTED DRAIN TUBING
THE ASSEMBLED DOWEL SHALL WITHSTAND A MINIMUM LOAD OF 15000 POUNDS. THE 5" LEG OF THE DOWEL WILL EXTEND INTO THE SUBGRADE FOR ALL PAVEMENT DEPTHS. THE DOWEL SHIELD SHALL STOP 6" TO 8" EACH SIDE OF ALL TRANSVERSE JOINTS. THE REMOVABLE DOWEL SHIELD EITHER STEEL OR IRON NOT THINNER THAN 16 GAUGE U.S. STD. SHALL BE SECURELY WIRE TO THE STEEL FORMS. HOLES IN THE FORMS SHALL BE PUNCHED SO AS TO PERMIT THE PLACING OF THE HOOK - BOLT DOWELS IN THE SHIELD AT THE REQUIRED SPACING. TWO (2) HOLES SHALL BE PROVIDED IN THE ROAD FORMS 2 1/2" APART VERTICALLY, FOR WIRING THE DOWEL BAR SHIELD IN THE SLAB WITH A MAXIMUM HORIZONTAL SPACING OF 3FT. BETWEEN SETS OF HOLES.

- HOOK - BOLT DOWEL & REMOVABLE DOWEL SHIELD FOR CONSTRUCTION OF ONE LANE AT A TIME -
CROSS DRAIN & CONTRACTION JOINT DETAIL

CONSTRUCTION - CONTRACTION JOINT DETAIL

EXPANSION JOINTS @ PC'S, PT'S, & INTERSECTIONS

EXPANSION JOINT DETAIL

SCALE:

NOT TO SCALE
SECTION A-A

SECTION B-B

NOTE: WHERE SIDEWALK, CURBS, AND PAVEMENT NOW EXIST THE CURB RAMP INSTALLATION MAY NOT MEET FEDERAL ACCESSIBILITY STANDARDS.

CURB RAMP DETAIL 19
SECTION A-A

COARSE BROOM FINISH

SLOPE 1:4 TO 1:8 IF POSSIBLE, OTHERWISE
LEAST POSSIBLE SLOPE.

6" REINFORCED CONCRETE RAMP
REINFORCED WITH WELDED WIRE FABRIC 66-44

6' AASHTO #57 AGGREGATE

NOTE: WHERE SIDEWALK, CURBS, AND PAVEMENT
NOW EXIST THE CURB RAMP INSTALLATION
MAY NOT MEET FEDERAL ACCESSIBILITY
STANDARDS.

SECTION B-B

CURB RAMP ON
CURVED-RADIUS DETAIL

SCALE: NOT TO SCALE

DETAIL: 20
APPENDIX VI

MUNICIPALITY OF MT. LEBANON

CONSTRUCTION STANDARDS

FOR

PRIVATE IMPROVEMENTS

ENACTED
APRIL 23, 2001
BY RESOLUTION NO. 08-01
CHAPTER XVI
APPENDIX 6
CONSTRUCTION STANDARDS

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§102 General Purpose
§103 Enforcement

PART 2
CONSTRUCTION OF PRIVATE IMPROVEMENTS

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§202 Control of Construction of Private Improvements
§203 Supervision and Superintendence
§204 Site Appearance
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§208 Violation and Penalties
§209 Procedure for Approval of Private Improvements

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§301 Definitions

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§417  Incidental Construction
PART 1
GENERAL PROVISIONS

§101 Title. These standards shall be known as the “Municipality of Mt. Lebanon Construction Standards.”

§102 General Purpose. The purpose of these regulations is to:

102.1 Establish Construction Standards and Specifications governing the construction of all Private Improvements in the Municipality.

102.2 Control the construction and installation of all Private Improvements in the Municipality by Applicants and Public Utility Companies.

102.3 Control the satisfactory completion of all Private Improvements.

§103 Enforcement. The Administrator shall be responsible for the administration, enforcement and interpretation of these Standards.
PART 2
CONSTRUCTION OF PRIVATE IMPROVEMENTS

§201 Requirements. Private Improvements constructed by any person or entity shall be in accordance with Part 4 and these Standards. If there is any conflict between these standards and the standards of the Mt. Lebanon Code or other applicable law or standards, the more restrictive shall apply.

§202 Control of Construction of Private Improvements. Construction of Private Improvements in the Municipality shall be conducted in accordance with the following:

202.1 The Applicant shall file with the Municipality a Notice of Commencement not less than two days prior to start of work in order that the Municipality may provide proper inspection and emergency services during construction, and shall also submit the following:

202.1.1 Name, address and telephone number of the resident superintendent, applicant and subapplicants and all other responsible persons to be contacted in case of emergencies.

202.1.2 A detailed schedule of construction which is to be updated during construction if changes are made.

§203 Supervision and Superintendence.

203.1 The Applicant shall supervise and direct the work and be solely responsible to see that the work is done in accordance with the Construction Standards.

203.2 The Applicant shall keep on the site at all times while construction is continuing a competent resident superintendent, who shall not be replaced without written notice to the Municipality. The superintendent will be the Applicant’s representative at the site and shall have authority to act on behalf of the Applicant. All communications given to the superintendent shall be as binding as if given to the Applicant.

203.3 The Applicant shall be fully responsible for the acts and omissions of the applicants, subapplicants, persons and organizations directly or indirectly in his employ.

§204 Site Appearance. The Applicant shall keep the site free from accumulation of waste materials, rubbish and other debris resulting from the work. At the completion of the work, the Applicant shall remove all waste materials, rubbish and debris from and about the site as well as all tools, construction equipment and machinery, and surplus materials and shall leave the site clean.
§205  **On-Site Parking.** The Applicant shall provide mud-free, dust-free areas on the worksite and all construction vehicles, equipment, materials and supplies shall be parked or stored in these areas when not in use. No construction vehicles, vehicles of construction employees, equipment, materials or supplies shall encroach onto a public right of way.

§206  **Hours of Construction.** The operation of heavy construction or excavation machinery, including but not limited to bulldozers, high-lifts, backhoes, trucks, power shovels, pumps and jack hammers, and the operation of equipment such as saws and drills or any other type of machinery in conjunction with the construction of Private Improvements, which causes noise sufficient to disturb the peace and general tranquility of the general public shall be prohibited between the hours of 7:00 PM and 7:00 AM, Monday through Saturday, all day Sunday and on Federally designated legal holidays.

§207  **Responsibility for Compliance.** The Applicant shall have the sole responsibility to comply with all Federal, State and Local Laws. The Municipality disclaims any duty to enforce any violation of such laws or inform the Applicant of non-compliance.

§208  **Violation and Penalties.**

208.1  It shall be unlawful for any Applicant or Public Utility Company to construct Public Utilities or Private Improvements regulated by these standards or cause the same to be done in conflict with, or in violation of, any provisions of these standards.

208.2  The Administrator shall serve a notice of violation to the Applicant or Public Utility Company responsible for the violation of the provisions of these standards or of the plans approved thereunder. Such notice shall direct the discontinuance of the violation and abate said violation.

§209  **Procedure for Approval of Private Improvements.** In the event that an Applicant has completed all of the necessary and appropriate Private Improvements for a Land Development, the Municipality must approve the Private Improvements before a Use Permit will be issued. The following procedure shall be followed:

209.1  **Notification by Applicant, Submittal of As-Built Plans** – In the event the Applicant has completed all of the Private Improvements adequately and wishes to apply for Occupancy and Use, the Applicant shall notify the Municipality in writing by Certified or Registered Mail, of the completion of the Private Improvements. The notification shall be accompanied by a reproducible and two (2) prints of the As-Built Plans.

209.2  **Municipal Authorization for Inspection** – The Administrator shall, within ten (10) days after receipt of such notice, direct and authorize the Engineer or Inspection Department to inspect the aforesaid improvements.
209.3 Inspection and Report – The Inspection Department shall thereupon file a report, in writing to the Administrator and shall promptly mail a copy of the same to the Applicant by Certified or Registered Mail. The report shall be made and mailed within thirty (30) days after receipt by the Inspection Department of the aforesaid authorization; and said report shall be detailed and shall indicate approval or rejection of said improvements, either in whole or in part, and if said improvements, or any portion thereof, shall not be approved or shall be rejected, said report shall contain a statement of the reasons for such non-approval or rejection.

209.4 Payment of Inspection Fees – After favorable and final inspection has been reported, the Applicant shall pay the Municipality all fees for the inspection of construction of the Private Improvements and plan review.

209.5 Notification to Applicant – The Administrator shall notify the Applicant by letter that the Private Improvements have been approved.

209.6 Failure of Municipality to Act – If the Municipality fails to act within 45 days from the receipt of the Applicant’s notification of completion, all Improvements will be deemed to have been approved and the Applicant shall be released from all liability, pursuant to its performance guarantee bond or other security agreement.

209.7 Completion of Rejected Private Improvements – If the Municipality shall not approve any portion of the said Improvements, the Applicant shall proceed to complete the same and upon completion the same procedure of notification as outlined herein shall be followed.

209.8 The letter issued by the Municipality under Section 209.5 approving the Private Improvements shall be made a part of the application for Approval for Occupancy and Use, and such letter is a condition precedent to the granting of Approval for Occupancy and Use.

209.9 Fees for Private Improvements – Before Private Improvements which have been constructed by an Applicant are approved or granted approval for occupancy and Use; the Applicant shall pay to the Municipality the fees as required.
§301 Definitions.

**Administrator**  The Zoning Officer of Mt. Lebanon,

**As-Built Plan:**  A drawing showing the final as-built location, elevation and/or depth, size and materials of all completed Private Improvements as well as all easements.

**Applicant:**  Any Applicant employed by the Applicant to construct the Private Improvements for the Land Development.

**Applicant** Any Landowner, agent of such Landowner, or tenant with the permission of such Landowner, who makes or causes to be made, a Subdivision of land or a land development.

**Engineer:**  A registered professional engineer licensed as such by the Commonwealth of Pennsylvania. The use of the word “engineer” shall not exclude the practice of topographic surveying as provided for by the laws of the Commonwealth.

**Geotechnical Engineer:**  A Registered Professional Engineer with training and experience in geology, civil engineering, soil mechanics, the physical properties of soil and behavior of soil masses subject to various types of forces and conditions.

**Municipal Engineer:**  A Registered Professional Engineer licensed as such in the Commonwealth of Pennsylvania, with training and experience in civil engineering, duly appointed by the Commission to serve as the engineer for the Municipality.

**Landowner:**  The legal or beneficial owner or owners of a parcel of land, including the holder of an option or Contract to purchase (whether or not such option or contract is subject to any condition), a lessee if he is authorized under the lease to exercise the rights of the Landowner or other persons having a proprietary interest in the parcel of land.

**Municipal/Municipality:**  Of or referring to Mt. Lebanon, PA.

**Municipal Construction Standards.**  A document entitled Municipality of Mt. Lebanon Construction Standards (Private Improvements) prepared by the Municipal Engineer, adopted and amended from time to time by Resolution of the Commission upon recommendation of the Municipal Engineer, copies of which are on file in the office of the Municipal Manager.
Parcel: A tract of land which is recorded in a plan of subdivision or any other tract of land described in a deed or legal instrument pursuant to the laws of the Commonwealth which is intended to be used as a unit for development or transfer or ownership.

Private: Of or pertaining to any Building, Structure, Use or activity owned or operated by a non-Public entity.

Private Improvement: A road, street, sidewalk, walkway, gutter, stormwater management facilities, curb, sewers, landscaping, and other related facilities to be owned, maintained or operated by a private entity, such as an individual, partnership, corporation of homeowners’ association and constructed in accordance with the Municipal Subdivision and Land Development Ordinance and the Municipal Construction Standards.

Public Utility Company: Any company subject to the jurisdiction of and control by the Pennsylvania Public Utility Commission or a franchised cable television company.
PART 4  
TECHNICAL SPECIFICATIONS

§401  General. The following technical specifications are intended to define the methods of construction required and materials to be furnished for the satisfactory completion of all items of work to be done in connection with the improvements.

It shall be understood that all materials to be used on and/or incorporated into the work to be done shall be new, of the best quality and shall conform to the requirements of the latest additions of ASTM Specifications, AASHP Specifications and/or PENN DOT Form 408 Specifications, unless otherwise specifically stated in the plans, detail drawings and/or other contract documents.

It shall be further understood that all items of work embraced under these standards shall meet the requirements of the latest PENN DOT Form 408 Specifications, latest edition, unless otherwise specifically stated or shown on the plans, detail drawings, technical specifications and/or documents.

The applicant shall take all the necessary precautions to protect existing trees, shrubbery and grass in the vicinity of the work and on adjacent private property and shall be responsible for replacing in size and/or kind any trees, shrubbery and grass that he damages at his own cost.

The applicant shall be responsible for disposal of all material removed from the project unless otherwise specifically stated or shown on the plans, detail drawings, technical specifications and/or other documents. He shall secure written consent of the Owner of the property upon which the material is to be placed.

§402  Public and/or Private Structures and/or Utilities.

402.1 All active utility lines shall be adequately protected from damage and only removed or relocated as required.

402.2 The applicant shall support, shore and protect all utility lines encountered under this work. He shall immediately notify the proper officials and allow them the time and opportunity to take additional measures, as they deem necessary to properly protect them.

402.3 Inactive or abandoned utilities encountered shall be removed, plugged or capped.

§403  Responsibility of the Applicant. The Applicant shall be responsible for the following:

403.1 To take every precaution against injuries to persons or damage to property.
403.2 To store his apparatus, materials, supplies and equipment in such orderly fashion at the site of the work as will not interfere unduly with the progress of his work or the work of any other applicant.

403.3 To place upon the work or any part thereof only such loads as are consistent with the safety of that portion of the work.

403.4 To clean up frequently all refuse, rubbish, scrap materials and debris caused by his operations, to the end that at all time the site of the work shall present a neat, orderly and workmanlike appearance.

403.5 To remove all surplus material, falsework, temporary structures, including foundations thereof, plants of any description and debris of every nature resulting from his operations and to put the site in a neat, orderly fashion and condition.

§404 Conditions of Work.

404.1 The applicant shall acquaint himself, by personal examination of the location of the proposed work, and shall inform himself of the actual conditions and requirements of the work, including risks, means of the access, character of the soil and subsoil, restrictions and regulations.

404.2 The applicant shall be responsible to meet all the requirements of the Soil Erosion and Sedimentation Control Manual of the Pennsylvania Department of Environmental Protection (latest edition) and any other governmental regulations pertaining to on-site erosion and sedimentation control.

§405 Clearing and Grubbing.

405.1 Scope of Work - The work under this section consists of furnishing all labor, materials, equipment and services necessary in performing all operations in connection with these specifications and as shown on the applicable details, plans and drawings.

405.2 Demolition as Part of Clearing

405.2.1 Before any work is started approval for demolition must be secured from the municipal building inspector by the applicant. Complete demolition, barricades, lights, warning signs and other features required by the municipal regulations shall be provided by the applicant.

405.2.2 The applicant shall notify all corporations, companies, individuals or local authorities owning conduits, wires or pipes servicing the property and arrange for the removal and shutting
off of service. The applicant shall cap all pipes and sewers according to the requirements of the utility companies and the municipality.

405.2.3 All rubbish and debris shall be removed from the site at the end of the working day. Said rubbish and debris shall not be permitted to remain on the site overnight.

405.3 Within the limit of clearing and grubbing for the performance of the work included as indicated on the plans all trees, shrubs, other vegetation, debris and rubbish shall be removed in their entirety. The removal of the trees, shrubs and other vegetation shall include their complete root system to a depth of at least two (2) feet below the existing surface.

405.4 No burning of the resulting trash, timber, stumps and other vegetation shall be done on the site.

405.5 The applicant shall be responsible for the disposal, off-site, of all material removed in the process of clearing and grubbing.

405.6 The applicant shall not damage trees or other vegetation beyond the clearing and grubbing limits.

§406 Excavation and Earthwork.

406.1 Scope of Work.

406.1.1 Work covered under this section consists of furnishing all labor, materials, equipment and services necessary in performing all operations in accordance with these specifications and the applicable drawings. Without intending to limit and/or restrict the amount of work required under this section, the work generally consists of the following:

406.1.1.1 Protection of trees and plants to remain. Trees not to be removed shall be kept free of guy lines and cables.

406.1.1.2 Removal of plants.

406.1.1.3 Stripping and stockpiling topsoil.

406.1.1.4 All excavation, filling and rough grading for site work required by the applicable drawings and specifications.
406.1.1.5 Rough grading to subgrade for topsoil in seeded, sodded or ground cover areas.

406.1.1.6 Rough grading to subgrade for pavement, curb, walks, structures, buildings, etc.

406.1.1.7 All dewatering required by the work.

406.1.1.8 All shoring, bracing and sheet piping as required.

406.1.1.9 Dust and mud control.

406.1.1.10 Other miscellaneous work required to accomplish 407.1.1.1 through 407.1.1.10.

406.2 General.

406.2.1 The applicant shall employ a Registered Professional Engineer or Registered Surveyor to stake out the proposed work and establish its elevations and do all other work required. Offsets shall be placed so that during construction they will not be disturbed until the work for the specific offsets are complete.

The applicant shall be responsible for placing all the facilities in their proper locations both horizontally and vertically. An As-built Plan of the storm and sanitary sewers, curb and pavement showing the location both horizontally and vertically shall be submitted to the Municipality.

406.2.2 The applicant shall be required to remove all materials encountered, regardless of their composition, hardness and stability.

406.2.3 All barricades, fences, red lights, torches and enclosures necessary to protect construction personnel and the public from injury shall be erected, maintained as required, and removed when the need for them no longer exists. All work shall be in accordance with the requirements of the Federal, State and Local governmental departments having jurisdiction.

406.3 Stripping and Site Preparation - All topsoil in the area of new work shall be stripped to its full depth (minimum 6”). The topsoil shall be reused and the topsoil pile shall be protected in such a manner as to prevent erosion.
406.4 Excavation.

406.4.1 All excavation shall be in accordance with the Mt. Lebanon Grading Ordinance Chapter VI of the Mt. Lebanon Code.

406.4.2 All materials removed from all classes of excavation embraced in this specification, which are suitable, shall be used in the formation of embankments and fills, also for refilling or other uses as indicated on the applicable drawings. Excavated material, which will be suitable when dry, shall be taken from the excavation, allowed to dry out and then placed in the embankment, if so required. All materials removed from the classes of excavation embraced in the applicable specifications, which are considered unsuitable, and any surplus excavated material which is not required for the formation of embankments, fills, filing and other uses, which shall be known as spoil, shall be disposed of by the applicant, outside the limits of the project. Before such materials, however, shall be stored or permanently placed upon other property, a proper Erosion and Sedimentation Control Plan must be prepared and approved for the property to be used for the spoil. Written consent of the Owner or Owners of said property shall be secured by the applicant and a certified copy or copies thereof shall be filed with Mt. Lebanon. In no case shall surplus materials be disposed of in a stream channel.

406.5 Dewatering.

406.5.1 In no case shall footings or other concrete work be poured in standing water.

406.5.2 The applicant shall provide and operate all pumps and other necessary equipment to drain and keep all excavations, pits and trenches free from all water.

406.5.3 The applicant shall shape all cuts and fills so as to provide surface runoff at all times.

406.5.4 The applicant shall construct all permanent swales as soon as possible and maintain them during the life of the project.

406.5.5 The applicant shall construct and remove temporary swales and drainage ditches as necessary to protect adjacent properties, fill and cut slopes and the general area during the life of the project.
406.6 **Disposition of Utilities.**

406.6.1 All active utility lines shall be adequately protected from damage and only removed or relocated as specified.

406.6.2 The applicant shall support, shore and protect all utility lines encountered under this work. He shall immediately notify the proper officials and allow them the time and opportunity to take additional measures, as they deem necessary to properly protect them.

406.6.3 Inactive or abandoned utilities encountered shall be removed, plugged or capped.

406.7 **Shoring and Bracing.**

406.7.1 The applicant shall do all shoring and bracing in accordance with recognized safety standards that is necessary to support adjacent structures and retain earth banks and prevent cave-ins. He shall furnish and install all necessary timbers, cribbing, piling and other material as required for this purpose.

406.7.2 All excavations requiring bracing for safety and/or legal considerations shall have a factor of safety of at least 1.5.

406.8 **Backfilling.**

406.8.1 The applicant shall not backfill against walls, foundations, curbs, platforms, etc., until concrete forms have been removed and authorization has been given by the Municipality. Any freestanding concrete or masonry structure shall not be backfilled until the work has been in place for a minimum of two weeks. All debris, etc., shall be removed from top to bottom of all excavations prior to all backfilling operations.

406.8.2 Backfilling shall be as noted on the details. In lawn or ground cover areas, backfilling shall be done with clean earth placed in six (6) inch compacted layers, unless otherwise specified.

406.8.3 When fill is required on both sides of a wall, it shall be carried up uniformly on both sides.
406.9 **Embankments and Fills.**

406.9.1 All placement of Embankment and Fills shall be in accordance with the Mt. Lebanon Grading Ordinance (Chapter VI of the Mt. Lebanon Code).

406.9.2 All required fills shall be compacted and built of materials selected from general excavation if satisfactory for use as fill. Use of large rocks or frozen material shall not be permitted.

406.9.3 Benches and/or steps in the original ground surface shall be made and toe drains installed as fills are placed in order to secure maximum bonding. All benches shall be sloped for drainage.

406.9.4 After benches are approved by the Engineer and with notice to the Municipality, the applicant shall proceed to make the fill. The lowest elevations shall be filled first in eight (8) inch horizontal layers and sloped to outer edge of embankment. As each layer is spread it shall be thoroughly compacted with proper rollers (sheepfoot and steel wheel). Rounding’s shall be provided at the top and bottom of all finished embankments.

406.9.5 When required by a Geotechnical Engineer, after the inspection of the cleared and grubbed areas where fill is to be placed, a key-way shall be excavated and the proper material placed.

406.10 **Low Areas on the Site.**

406.10.1 All low areas on the site shall be dewatered and graded so as to have positive drainage and the area allowed to dry.

All wet earth shall be removed from low areas and spread to dry. Unsuitable material shall be removed and disposed of off the site unless otherwise permitted. Before fill is placed in the low areas the area must be proof rolled with an adequately sized roller (minimum 20 ton).

406.11 **Compaction Specifications – Granular Material**

406.11.1 All granular fill placed at the site should be spread in one-foot lifts and each lift compacted to seventy-five (75%) percent relative density as defined by:
\[
Dd = \frac{E[1] - En}{E[1] - Ed}
\]

Where:
- \(Dd\) = relative density in percent
- \(E[1]\) = void ratio of the granular soil in its loosest state [1] (minimum dry density)
- \(Ed\) = void ratio of the granular soil in its densest state [1] (maximum dry density)
- \(En\) = void ratio of the soil in its natural state [2] (natural dry density)

406.11.11 All granular fill shall be clean, non-expansive, free of trash, rubble, debris, frozen and other foreign material.

406.11.12 For uniformity, a minimum of five (5) passes of a 10-ton vibratory roller or its equivalent shall be required on each lift of fill.

406.11.2 Relative Density of Cohesionless Soils:

406.11.2.1 For minimum density use ASTM Designation D2049-69.

406.11.2.2 For maximum density use a Modified Proctor mold with 50 blows per layer being applied to 10 layers with a 10-pound rammer falling 18 inches on a confining top plate, ½” thick and four (4) inches in diameter, placed over each layer of soil as it is compacted.

406.11.3 Density of Soil in Place by the Rubber-Balloon Method: ASTM Designation D2167-66

406.12 Compaction Specifications – Cohesive Material. All cohesive fill placed at the site shall be spread uniformly in six (6) to eight (8) inch lifts (loose measure) and compacted to at least 95 percent of the maximum dry density obtained by the Modified Proctor Method. Upon placement and compaction of a lift of cohesive material, the surface shall be scarified to a depth of two (2) inches prior to the placement of a subsequent lift. Cohesive earth embankment material shall be compacted at a water content of between one (1) and two (2) percent above optimum water content as determined by the Modified Proctor Method.
All cohesive fill shall be free of trash, rubble, debris, roots, organic, frozen and other foreign material. Fill shall not be placed on subgrade that is under water, muddy, frozen or contains frost.

406.12.1 Test for Moisture-Density Relations of Soil Using 10-Pound Rammer and 18-inch drop, ASTM Designation D 1557-63T, Method A.

406.13 Preparation of Site Before Filling. The area to be filled shall be stripped of all topsoil and organic material prior to filling. All materials to be used in the structural backfill shall be approved by a Geotechnical Engineer. Large stones, clods, refuse, expansive materials, topsoil or other debris shall not be included in the back-fill. Prior to the placement of any fill the areas shall be proof-rolled with five passes of a heavy roller in the 20 to 30 ton class. The fill shall then be placed in accordance with the appropriate Compaction Specifications. Placement of non-resistant rock shall be in accordance with the specifications for cohesive materials. Resistant rock fill materials shall not be used in proposed building or street areas.

406.14 Finished Site Grading.

406.14.1 All disturbed areas not otherwise surfaced or indicated to receive ground cover, shall be treated as seeded area.

406.14.2 All filling, backfilling and grading required to bring outside areas to the following subgrades shall be performed.

406.14.2.1 For surfaced areas – to the underside of the base as established by details and finished grades.

406.14.2.2 For seeded areas – to an elevation that allows for the proper thickness of topsoil.

406.15 Accuracy of Completed Grade.

406.15.1 All finished grades, shall be within one (1) inch of the proposed grading as shown on the plans.

406.16 Temporary Easements. If required, the applicant shall obtain written consent from adjoining property owners regarding need for temporary easements or any other manner of physical encroachment.

406.17 Blasting.

406.17.1 All applications for blasting shall be submitted to and be under the jurisdiction of the Mt. Lebanon Fire Department. All
blasting which is conducted in the Municipality shall be in conformity with state requirements and shall be in compliance with the Act of July 10, 1957, P.L. 685, 73 P.S. §§ 164 through 168, as amended, and the Department of Labor and Industry Rules and Regulations and the current adopted edition of the BOCA Fire Prevention Code.

406.18 Excavation Variations.

406.18.1 Additional Excavation: When the nature of the soil appears unsatisfactory for adequate bearing at prescribed levels, the applicant’s Geotechnical Engineer shall be so advised by the applicant that additional excavation may be necessary to a point where satisfactory bearing is available. The Soils Engineer shall make a recommendation to the Applicant and the Municipality shall be advised of the change recommended by the Soils Engineer.

406.19 Retaining a Geotechnical Engineer.

406.19.1 The applicant must employ a Geotechnical Engineer that will be responsible for determining that the applicant meets all of the requirements of the specifications, plans and drawings and applicable regulations, laws and ordinances. He shall determine what excavated material can be used in the fill and where the material can be placed, he shall determine if the foundations for the fill meet the proper compaction densities and determine if all the work specified in Section 406 is being properly performed and completed.

406.20 Applicant’s Responsibility.

406.20.1 It is the intent of these specifications to produce satisfactory stable cut and fill embankments, and these specifications shall be considered minimum requirements which shall be supplemented by the applicant with additional work if necessary in order to secure stable cut and fill embankments.

406.20.2 In addition to satisfying and complying with all other requirements, conditions, and provisions contained in the documents, the applicant shall be responsible to reconstruct all cut and fill embankments that are displaced by any reason or cause whatsoever during their construction or thereafter.
406.21 Codes and Regulations.

406.21.1 The following codes and regulations of the Commonwealth of Pennsylvania, Department of Labor and Industry, form a part of this specification:


406.22 Testing Laboratory.

406.22.1 The applicant shall coordinate all engineered compacted fill work with their Geotechnical Engineer. Their Geotechnical Engineer shall perform sampling, testing and inspecting of materials used in the placing of compacted controlled fill, backfill, finish grading materials and other services as required for quality control.

406.23 Test Requirements.

406.23.1 The applicant’s Geotechnical Engineer shall perform in-place density tests on controlled fill within the paved areas, engineered fill slopes, berms, keyways, benches or other excavations, including trenches, ditches and other such locations. Tests shall be performed on a full-time basis in locations and in quantities as selected by the Geotechnical Engineer; however, at least one test per each lift must be performed.

406.23.2 The applicant shall make all areas available for testing.

406.24 On-Site Materials.

406.24.1 The applicant’s Geotechnical Engineer shall approve the condition of on-site subsoil.

406.24.1.1 Materials shall be clean and unfrozen, free from substances subject to rot, corrosion, termite attack, or from metallic scrap or other deleterious material. Subsoil more than 3 percent above the optimum moisture per ASTM D1557 shall be dried before use.
406.24.1.2 A sample of select on-site subsoil shall be submitted for the Geotechnical Engineer’s review, before the material is approved for fill or backfill. In addition, a modified proctor test and a sieve analysis report are required. On-site subsoil shall be inert (non-organic and non-carbonaceous). Slag will not be accepted as backfill material. It is expected that moisture conditioning will be required in order to bring the on-site soil within the moisture parameters required for the specified compaction and pavement subgrade stability. Material shall be dried to within three (3) percent of optimum moisture content and compacted as specified.

406.24.1.3 Rocks utilized for fill shall not exceed 8 inches in any dimension in fill lifts compacted with large compaction equipment, and 4 inches in any dimension in fill lifts compacted with mechanical tampers.

406.25 Off-Site Fill Material.

406.25.1 Additional material for filling and backfilling required in excess of acceptable material from excavations on the site, to raise or change the subgrade to the required elevations shown on the drawings, shall be provided by the applicant from a source approved by his Soils Engineer.

406.25.1.1 The applicant’s Geotechnical Engineer shall approve off-site subsoil.

406.25.1.1.1 Off-site fill shall consist of inorganic well-graded soil with not more than 80 percent of particles finer than the No. 4 mesh sieve, 35 percent of particles finer than the No. 200 mesh sieve, free of rock fragments greater than 3 inches in any dimension, and with liquid limits not exceeding 40 or plasticity indices exceeding 15.

406.25.1.2 A sample of select off-site subsoil shall be submitted for the Geotechnical Engineer’s review,
before material is delivered to the jobsite. In addition, a modified proctor test and a sieve analysis report are required. Off-site subsoil shall be inert (non-organic and non-carbonaceous). Slag will not be accepted as backfill material.

406.26 Top Soil.

406.26.1 Top Soil shall be natural clay loam soil possessing the characteristics of representative soils in the vicinity that produce heavy growth of crops, grass and other vegetation and shall be obtained from naturally well-drained areas. Topsoil shall be without a mixture of sub-soil, refuse or any foreign material, reasonably free from hard dirt, brush, weeds or clods, and from clay lumps, stumps, roots, stones larger than two (2) inches in diameter, toxic substance, and any other material or substance which may be harmful to plant growth or be a hindrance to planting and maintenance operations.

406.27 Filling and Grading – Paved Areas.

406.27.1 After the subgrade has been shaped to the line, grade and cross section, it shall be thoroughly compacted by power rollers. All rough graded areas of areas to be paved shall be proof-rolled with a minimum ten-ton (static weight) self-propelled vibratory roller similar to a Raygo 400A prior to the placing of controlled fill. If any soft, unstable, and/or wet areas are evident during the proof-rolling, they shall be removed and those areas refilled with compacted specified material. Any low spots that develop during the rolling shall be brought to grade with additional material and rolled. Any spots inaccessible to the roller shall be thoroughly compacted with mechanical tampers in a manner and to a degree satisfactory to the Geotechnical Engineer.

406.27.2 Density Requirements.

406.27.2.1 Compact subgrade to not less than 95% of the determined maximum modified proctor dry-weight density. Dry-weight density for material in place in the field will be determined, in accordance with ASTM Test Designation: D1557-91. In-place density or compaction will be determined in accordance with ASTM Test Designation: D2922-
96. When material is too coarse (more than 20% retained on the ¾” sieve) to use these methods, compaction will be determined based on non-movement of materials under compaction equipment specified above.

406.27.2.2 At the time of compaction, maintain the subgrade material’s moisture content not more than 3 percentage points above or below optimum moisture of that material. However, on subgrade displaying pronounced elasticity or deformation under rolling, maintain a moisture content not greater than optimum at the time of compaction or at the time of placing the overlying construction. When the specified stability cannot be obtained, excavate material in the area to a depth that, when replaced and recomputed at a moisture content not exceeding optimum, the subgrade will have required stability.

406.28 Defective Material and/or Workmanship.

406.28.1 Earthwork which is not properly performed or which fails to meet specified in place density tests, shows poor workmanship, or contains foreign substances or materials, shall be deemed to be defective and the Applicant shall remove this work from the site as directed by the Geotechnical Engineer, replacing same with new materials complying with the specifications and meeting the approval of the Geotechnical Engineer.

406.28.2 The applicant shall pay all costs of correcting rejected work, including all additional testing costs as well as the Soils Engineer’s additional services thereby made necessary.

406.29 Maintenance.

406.29.1 Protection of Graded Areas: Protect newly graded areas from traffic and erosion. Keep free of trash and debris.

406.29.2 Repair and re-establish grades in settled, eroded, and rutted areas to specified tolerances.

406.29.3 Reconditioning Compacted Areas: Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, re-shape and compact to required density prior to further construction.
§407  **Sewers – Sanitary and Storm.**

407.1  **General.**

407.1.1  All sewer work shall be in strict accordance with the requirements of all Federal, State, Local and Insurance authorities.

407.1.2  All sewers to be accepted by the Municipality shall be constructed under the inspection of the Municipal Engineer in accordance with these and all applicable governmental specifications.

407.2  **Scope of Work.** The work consists, essentially, and more specifically in the furnishing of all materials, tools, equipment, labor and other such items required for the installation of the sewer and all necessary sewer appurtenances: the work to include the providing of adequate protection prior to starting excavation and other work, for all lawns, trees, shrubs, landscape work, fences, hydrants, sidewalks, driveways and other such work and facilities; the removal and safe storage of all landscaping where required, and immediate replanting in other areas if approved, or replanting following completion of the work in the respective areas; the removal of such pavement, sidewalks, driveways, rip-rap, landscaping, barrier posts, fences and other obstructions as required for the installation of the work; all excavation including excavation below the bottom of the pipe and fittings, at all bell holes where joints are to be made, below the bottom of the pipe where rock is encountered and elsewhere as stipulated or indicated in order to allow placing of proper materials for bedding of the pipe; pumping, bailing or draining of all water as required to permit proper execution of the work; construction and maintenance of all bridges required for traffic control; all sheeting, bracing, shoring and supporting of adjacent ground where necessary; all fencing, lighting and protection of the site; all provisions necessary to maintain and protect existing structures, the unloading, hauling, distribution, laying and testing of the sewer pipe and fittings and appurtenances; the construction of the manholes, encasement of pipe where required, miscellaneous concrete work and such other work as required; the rearrangement of other conduits, ducts, gas lines or pipes where necessary; replacement of all damaged drains, sewers and other structures; backfilling and tamping of all trenches and excavated work; repairing and re-paving of all rip-rap, walls, streets, walks, driveways and roadways; the repair, replacement or replanting of all landscaping, plants, trees and sod removed during the course of the work; the testing of the sewer line; the removal of all surplus excavated material and rubbish; cleaning of the sites or the work; maintenance of the streets and other surfaces over the trenches; and the proper completion and installation of all work and appurtenances in accordance with the plans, specifications and other construction documents.
The applicant shall not unnecessarily disturb or uproot trees and vegetation along a stream bank and in the vicinity of the stream, dump soil and debris into streams and/or on banks of streams, leave cofferdams in streams, leave temporary stream crossings for equipment, operation equipment in the stream, or pumping silt-laden water into the stream.

All work shall conform during its progress or on its completion truly to the line, levels and grades established, and shall be built in a thoroughly substantial and workmanlike manner, in accordance with the plans and subject to such modifications and additions as shall be deemed necessary by the Engineer during its execution.

407.3 Manholes.

407.3.1 General - Manholes shall be constructed of brick and/or precast concrete, as specified in the construction documents, with cast iron frames and covers and shall be in accordance with the drawings. The floor of manholes outside the channels shall be smooth and shall slope toward channels, not less than one (1) inch per foot, nor more than two (2) inches per foot. Manholes shall be provided with steps built into and thoroughly anchored in walls. Steps shall be copolymer polypropylene steel reinforced steps by M.A. Industries, Inc., or equal.

407.3.2 Precast Concrete Manholes - Precast concrete manholes shall be as manufactured by United States Concrete Pipe Company, American-Marietta Company, or equal and constructed as per detail.

Manhole connections lift holes and pipes which protrude through the walls of the manhole shall be completely grouted with a cement grout that contains “Antihydro”, or other additives, to insure water tightness. Cement grout shall contain two parts cement to one part sand and the additive in accordance with manufacturer’s recommendations. Grout shall be applied to the bottom 1/3 of the opening before the pipe is inserted.

The joints of manhole sections shall be made watertight, using O-rings or preformed mastic material.

The top grade of the precast concrete corbel section shall be set sufficiently below finished grade to permit a maximum of four (4) and a minimum of two (2) courses of brick to be used as risers to adjust the grade of casting. Manhole frames shall be set on a grout pad.
The entire exterior surface of all sanitary manholes, including the mortar coating on the brick risers, shall be coated with two (2) coats of an approved bitumastic material to produce a dry film thickness of 0.07 inches (7 mils) per coat.

407.3.3 **Backfill** - Backfill material around manholes shall be 2B or 2A modified stone or gravel aggregate and shall be placed in six (6) inch layers and thoroughly compacted using approved mechanical compaction equipment. In areas where minor settlement is not critical, as determined by the Municipal Engineer, suitable material compacted in eight (8) inch layers may be used.

407.3.4 **Castings** - All castings shall be set in a one (1) inch thick full bed of mortar. For sanitary manholes the castings shall be bolted to the precast concrete manhole. For further requirements see Section 407.

407.3.5 **Connections** - The pipes in manholes shall be flush with the inside face of the structure.

407.3.6 **Brickwork** - All brick work on manholes shall be coated with mortar on both the inside and outside to a thickness of at least one half (1/2) inch over the brick surface as shown on the details and coated on the outside with a bituminous waterproof coating.

407.3.7 **Joint Between Casting and Manhole Structure** - For sanitary manholes the joints between the casting and the manhole structure shall be sealed on the outside with at least an 18” wide closure of “WRAPID SEAL” or equal in accordance with the installation guide for said material. The width of the closure shall depend on the number of courses of the brick risers.

407.4 **New Storm Inlets.**

407.4.1 **General** - Inlets shall be constructed of brick, precast concrete or reinforced concrete with cast iron frames and covers and shall be in accordance with the drawings. The floor of inlets outside the channels shall be smooth and shall slope toward channels not less than one (1) inch per foot nor more than two (2) inches per foot. Inlets over four (4) feet deep shall be provided with steps built into and thoroughly anchored in the walls. Steps shall be copolymer polypropylene steel reinforced steps by M. A. Industries, Inc., or equal.
407.4.2 Backfill - Backfill material around inlets shall be 2B or 2A modified stone or gravel aggregate and shall be placed in six (6) inch layers and thoroughly compacted using mechanical compaction as approved.

407.4.3 Castings - All castings shall be set in a one (1) inch thick full bed of mortar.

407.4.4 Weep Holes - During the construction of inlets, weep holes shall be placed at appropriate elevations to completely drain the grade and subgrade.

407.4.5 Connections - The pipes in inlets shall be flush with the inside face of the structure.

407.4.6 Brick Work - All brickwork on inlets shall be coated with mortar on both the inside and outside to a thickness of at least one half (1/2) inch over the brick surface.

407.5 Construction Requirements for Sewers.

407.5.1 Trench and Bed for Rigid and Flexible Pipe - For pipe not exceeding 48 inches inside diameter, the trench shall have a maximum width of the outside diameter of the pipe at the bell or band, plus 2.0 feet; for pipe exceeding 48 inches inside diameter, the trench shall have a maximum width of the outside diameter of the pipe at bell or band, plus 2.5 feet with a minimum distance of twelve (12) inches between the pipe bell and side of trench.

The trench shall be excavated through natural ground or, where pipe structures are to be placed under an embankment, the applicant shall complete the construction of the embankment to a minimum of three (3) feet above the top of pipe before placing the pipe as indicated on the drawings. Shallow installations, with less than three (3) feet of cover over the top of the pipe, shall be constructed after all heavy hauling is completed over the pipe location. Where running water is encountered and cannot be diverted, a temporary pipe or structure shall be placed prior to construction of the embankment.

When rock, hard shale or any unyielding material is encountered in the trench, it shall be excavated of the full width of the trench and twelve (12) inches below the proposed elevations of the bottom of the pipe. The trench below the bottom of the pipe shall be backfilled with selected fine compressible material and
lightly compacted to a satisfactory density, and the bed shaped as specified.

407.5.2 Sanitary Sewer Bedding - Where rock, hard shale, unyielding material or unstable material is not encountered a fine aggregate bedding not less than six (6) inches thick from grade line of the outside bottom of pipe, or the bottom of the pipe bell on pipe with a bell, shall be placed on the ditch bottom and accurately shaped by means of a template to provide a uniform contact under the pipe. Fine aggregate shall be natural, manufactured or artificial sand, unless otherwise detailed. If water is encountered in the ditch the use for pipe bedding of a coarse aggregate material (1B or 2B) stone or gravel, preferably gravel, shall be used to act as a drain. The gravel must be crushed with angular surfaces and not pea gravel.

407.5.3 Storm Sewer Bedding.

407.5.3.1 For Concrete Pipe - The pipe shall be bedded with care in a suitable material foundation shaped to fit the pipe exterior to a depth of fifteen (15) percent of the outside diameter, unless otherwise detailed.

407.5.3.2 For all Other Pipe - The pipe shall be bedded with care in a minimum six (6) inch fine aggregate as per ASTM D2321 specification and properly compacted.

407.5.4 Backfilling of Sewer Trench.

407.5.4.1 General - All backfill shall be thoroughly compacted with mechanical tampers or other approved methods to a density of at least ninety-five (95%) percent of determined dry weight density. The backfilling of trenches shall be done in horizontal layers, not exceeding eight (8) inches in thickness, each layer thoroughly consolidated and compressed. After which the next layer of eight (8) inches shall be spread and treated in like manner. No backfill shall be placed until the pipe laid has been inspected by the Municipality and approved as meeting all requirements for such work.

407.5.4.2 Critical Settlement Areas - Under pavement, within the area from back of curb and eight (8) feet beyond back of curb, sidewalk areas, driveway areas, future
walks or drives the trench for the pipe must be backfilled for the entire depth of the trench with fine aggregate in twelve (12) inch layers, compacted as specified in 408.5.4.1. The backfill shall be carefully placed from the bedding to the pipe spring line with fine aggregate and thoroughly compacted then fine aggregate backfill shall be placed in 8-inch layers and thoroughly compacted to 12 inches above the top of pipe.

In the street right of way and where settlement of backfill is critical the trench for concrete pipe must be backfilled for the entire depth of the trench with suitable material in eight (8) inch layers, compacted as specified in 408.5.4.1. The areas where backfill settlement is critical will be determined by the Municipality. For all other pipe the backfill shall be carefully placed from the bedding to the spring line with fine aggregate and thoroughly compacted then fine aggregate backfill shall be placed in 8-inch layers and thoroughly compacted to 12 inches above the top of pipe. The remainder of the trench backfill shall be placed as required for concrete pipe.

407.5.4.3 Non-Critical Settlement Areas - Other than areas specified in 408.5.4.2 the trench for concrete pipe must be backfilled from top of pipe bell to thirty (30) inches above top of pipe bell with suitable material in eight (8) inch layers, compacted as specified in 408.5.4.1; from thirty (30) inches above top of pipe bell to top of trench with suitable material in twelve (12) inch compacted layers. For all other pipe the backfill shall proceed as specified in 408.5.4.2 except from 30 inches above the top of pipe to top of trench it may be backfilled with suitable material in twelve (12) inch compacted layers.

407.5.4.4 Sanitary Sewers - Sanitary Sewers shall be backfilled as specified for all other pipe in 408.5.4.2.
407.6 Sanitary Sewers

407.6.1 The sanitary sewers to be constructed under these specifications shall be installed as indicated on the construction drawings, including the necessary excavation, backfilling, aggregate, pipe, fittings, etc.

407.6.2 The applicant shall make connections to existing and new manholes, construct sanitary sewer laterals and extend the sanitary sewers as indicated on drawings.

407.7 Storm Sewers

407.7.1 The storm sewers to be constructed under these specifications shall be installed as indicated on the construction drawings, including the necessary excavation, backfilling, pipe, fittings, suitable material, etc.

407.7.2 The applicant shall make connections to existing and new manholes, storm inlets and to all storm drain piping from building and surface drains and shall extend the storm sewers as indicated on the construction drawings.

407.8 Marking of Pipe Location

407.8.1 Underground warning tape shall be installed with the installation of all storm and sanitary sewers. The tape shall be six (6) inches wide made of polyethylene and be 0.004 inches thick. The tape shall be green in color and marked at regular intervals as follows: “Caution Sewer Line Buried Below”. The warning tape shall be installed two (2) feet above the top and directly over the pipe.

407.9 Materials

407.9.1 Approval of Materials - The applicant shall submit to the Engineer the necessary information and a sample of pipefittings, precast manholes or any castings for approval.

407.9.2 Sanitary Sewers

407.9.2.1 All Sanitary Sewer Pipe Shall Be As Follows

Ductile Iron Pipe in accordance AWWA specifications C150 and C151, latest revisions with joints being the push-on type with a single rubber gasket. Fittings shall be furnished with mechanical
Joints in accordance with AWWA Specifications C111.

Vitrified Clay Pipe shall be manufactured in accordance with ASTM Specification C700 with full internal diameter and with flexible compression joints conforming in all respects to ASTM Specification C 425, latest revised edition. The pipe shall be Logan with Logan type “O” joints or equal. The fittings shall be compatible with the pipe.

Polyvinyl Chloride Pipe shall be SDR 35 gasketed pipe that meets or exceeds ASTM Specification D 3034. The minimum pipe stiffness shall be 46 according to ASTM test D 2412. The pipe shall be properly stored on site so that the pipe barrel is evenly supported and protected from sunlight. The pipe joints shall conform to ASTM designations F-477 and D 3212. The fittings shall be compatible with the pipe.

Defective Pipe shall be any pipe which does not meet all requirements of these Construction Standards or which is found to be defective in any way, shall be immediately removed and replaced with new material and proper construction.

407.9.2.2 Wyes - All sanitary sewer wyes shall be fitted with proper size discs and sealed with a compression joint meeting the requirements of the current ASTM Specification.

407.9.3 Storm Sewers

407.9.3.1 All Storm Sewer Pipe Shall Be As Follows

Reinforced Concrete Pipe meeting the requirements of the current ASTM Specification C76. Minimum class shall be III. The joints shall be sealed with a preformed mastic compound or a trowel applied mastic compound and wiped both inside and outside the pipe to give a smooth and completely sealed joint. If other methods of joint sealing of concrete pipe are to be used it must be so noted.

Smooth flow High Density Polyethylene pipe (ADS “N-12 Pro Link” or Hancor “HI-Q Sure-Lok” or Uponor “Ultra-Rib” or
equal) conforming to the requirements of ASTM Designation F667 (and/or AASHTO Designation M-294). Installation shall be in accordance with ASTM Designation D-2321. Fittings shall be compatible with the pipe.

Defective Pipe shall be any pipe which does not meet all requirements or which is found to be defective in any way, shall be immediately removed and replaced with new material and proper construction.

407.9.4 Brick - Common brick conforming to the requirements of ASTM Specification C-32, Grade MA, laid in mortar, shall be used in the construction of brick structures where detailed except as otherwise specified.

407.9.5 Suitable Material - Suitable material shall be selected material free from stone and foreign material.

407.9.6 Fine Aggregate - Fine aggregate shall be natural, manufactured or artificial sand.

407.9.7 Mortar - Mortar for jointing and plastering shall consist of one (1) part Portland Cement and two (2) parts fine sand. For brickwork, lime may be added to mortar in the amount of not more than ten (10) percent of the volume of cement. All joints shall be completely filled and shall be smooth and free from surplus mortar on the inside of structures.

407.9.8 Castings - Cast iron frames and grates or covers shall conform to the drawings and these Construction Standards in all essentials. Standard castings differing in non-essential details and approved by the Municipality will be acceptable. Letter, “san” or “storm”, at least two (2) inches high, shall be stamped or cast into applicable covers so as to be plainly visible. Frames and covers shall be so set that the top of the cover will be flush with and sloping to conform with the finished grade. Weight, shape, size and water-way openings for grates and storm inlets shall be as manufactured by the Allegheny Foundry, Pittsburgh, Pennsylvania, or approved equal. Castings shall receive one coat of black coal-tar varnish.

407.9.9 Concrete for Sewers - The dry weight mixture for concrete shall be as follows:

<table>
<thead>
<tr>
<th>Material</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cement</td>
<td>588-lbs/cu yd type C non-air entraining</td>
</tr>
<tr>
<td>Fine Aggregate</td>
<td>1220 lbs/cu yd type A aggregate</td>
</tr>
<tr>
<td>Coarse Aggregate</td>
<td>1530 lbs/cu yd 2B, type A</td>
</tr>
<tr>
<td>Water</td>
<td>33-gal/cu yd</td>
</tr>
</tbody>
</table>

Slump shall be one (1) inch to three (3) inches: coarse aggregate shall be slag, crushed gravel or crushed rock. Curing operations shall commence as soon as possible after the finishing is completed and in no case more than two (2)
hours thereafter. The applicant shall cover the concrete with a plastic or paper cover with the edges securely weighted down to form a closed joint. The cover shall remain in place for a period of 72 hours.

407.10 Tests

407.10.1 General Test Requirements - All sewer lines shall be thoroughly flushed with water to obtain free flow through the lines. All obstructions shall be removed and all defects corrected prior to testing. The sewer lines shall be given the following tests:

407.10.1.1 Lamping of Storm Sewers - A flashlight or similar lighting device shall be projected into the end of each pipe entering each manhole. A visual observation shall be made from the next adjacent manhole. The pipe after laid and complete shall not be accepted unless a full circle of light from the lamp is visible from manhole to manhole. Observations of less than a full pipe circle may be accepted provided the deflection is not in a vertical plane. Any deviation from perfect alignment shall be noted on the test report.

407.10.1.2 Air Testing of Sanitary Sewers - All gravity sanitary sewers shall be subject to a low-pressure air test. The applicant shall furnish all the necessary labor, equipment and material to perform the test. After flushing and removal of all obstructions, the sections of sewer line shall be tested from manhole to manhole. All openings, laterals, stubs, branches, wyes, tees and pipe ends shall be securely capped or plugged and adequately braced.

The air shall be slowly supplied to the plugged pipe until the internal pressure reaches 4.0 p.s.i.

Two minutes shall be allowed for a stabilization period before proceeding further.

When the pressure is stabilized at 4.0 p.s.i. the air hose from the control panel to the air supply shall be shut off or disconnected. The continuous monitoring pressure gauge shall then be observed while the pressure is decreased to no less than 3.5 p.s.i. At a reading of 3.5 p.s.i., or any convenient
observed pressure reading between 3.5 p.s.i. and 4.0 p.s.i. timing shall commence.

Additional pressures shall be applied to the above values to compensate for groundwater pressures on the pipe at the rate of 0.5 psi per foot of water over the pipe.

The acceptance of the line shall then be determined by measuring the time required in minutes for the internal pressure to decrease 1.0 psi. The time interval for this one-pound loss of air must not be less than the following:

<table>
<thead>
<tr>
<th>Pipe Diameter (Inches)</th>
<th>Minimum Time (Min. &amp; Sec.)</th>
<th>Pipe Length for Minimum Time</th>
<th>Time for Longer Lengths (Sec.)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>1:53</td>
<td>597</td>
<td>.190 L</td>
</tr>
<tr>
<td>6</td>
<td>2:50</td>
<td>398</td>
<td>.427 L</td>
</tr>
<tr>
<td>8</td>
<td>3:47</td>
<td>298</td>
<td>.760 L</td>
</tr>
<tr>
<td>10</td>
<td>4:43</td>
<td>239</td>
<td>1.187 L</td>
</tr>
<tr>
<td>12</td>
<td>5:40</td>
<td>199</td>
<td>1.709 L</td>
</tr>
<tr>
<td>15</td>
<td>7:05</td>
<td>159</td>
<td>2.671 L</td>
</tr>
<tr>
<td>18</td>
<td>8:30</td>
<td>133</td>
<td>3.846 L</td>
</tr>
<tr>
<td>21</td>
<td>9:55</td>
<td>114</td>
<td>5.235 L</td>
</tr>
<tr>
<td>24</td>
<td>11:20</td>
<td>99</td>
<td>6.837 L</td>
</tr>
<tr>
<td>27</td>
<td>12:45</td>
<td>88</td>
<td>8.653 L</td>
</tr>
<tr>
<td>30</td>
<td>14:10</td>
<td>80</td>
<td>10.683 L</td>
</tr>
<tr>
<td>33</td>
<td>14:35</td>
<td>72</td>
<td>12.926 L</td>
</tr>
<tr>
<td>36</td>
<td>17:00</td>
<td>66</td>
<td>15.384 L</td>
</tr>
<tr>
<td>42</td>
<td>19:50</td>
<td>57</td>
<td>20.939 L</td>
</tr>
</tbody>
</table>

*Where L = length of Pipe being tested.

If the time shown above for the designated pipe size elapses before the air pressure drops 1.0 psi the section undergoing the test shall have passed. The test may be discontinued once the prescribed time has elapsed even though the 1.0 psi drop has not occurred. If the section fails to meet these requirements, the applicant shall repair or replace the sewer line. The completed pipe installation shall then be re-tested until the requirements of this test are met.

407.10.1.3 Deflection Tests – After installation and final backfill all pipelines constructed of flexible
materials shall be measured for vertical ring deflection by passing a test ball or “go no go” gauge through them to demonstrate that the deflection is less than 3½% of the diameter of the pipe.

407.10.1.4 Manhole Vacuum Test - After installation, and preferably before backfill, manholes shall be tested for leakage by the air vacuum method. All lift holes shall be properly sealed. The pipes entering the manhole shall be plugged, taking care to securely brace the plugs from being drawn into the manhole. The test head shall be placed at the inside of the top of the cone section and the seal inflated in accordance with the manufacturer’s recommendations. A vacuum of 10 inches of mercury shall be drawn and the vacuum pump shut off. With the valves closed, the time shall be measured for the vacuum to drop to 9 inches. The manhole shall pass if the time is greater than 60 seconds for 48” diameter, 75 seconds for 60” and 90 seconds for 72” diameter manholes. If the manhole fails the initial test, necessary repairs shall be made with a non-shrink grout while the vacuum is still being drawn. Re-testing shall proceed until a satisfactory test is obtained.

407.10.2 Correction of Defective Work - If leakage of the sanitary sewers and manholes during the tests exceeds the specified amount, the necessary repairs or replacements required to permanently reduce the leakage to within the specified limit must be made. The tests shall be repeated until the leakage requirement is met.

Any defects found in the system must be repaired so as to conform strictly to the specifications. All repairs shown necessary by the tests are to be made, broken or cracked pipe replaced, all deposits removed, and the sanitary sewer left true to line and grade and entirely clean, free from lumps of cement, protruding gaskets, bulkheads, etc., and ready for use before final acceptance.

407.10.3 Cleaning and Repair - The applicant shall be required to clean the entire sanitary sewer system of all debris and obstructions before acceptance. This shall include, but not be limited to removal of all form-work from structures, concrete and mortar droppings, construction debris and dirt. The system shall be thoroughly flushed clean and the applicant shall furnish all necessary hose,
pumps, pipe and other equipment that may be required for this purpose. No debris shall be flushed into existing sanitary sewers. All debris shall be removed from the system.

407.10.4 **Engineer’s Presence at Test** - All tests of the storm and sanitary sewer systems shall be made in the presence of a representative of the Municipality. The applicant shall notify the Municipality at least 48 hours in advance of such tests. Preliminary tests may be made without such notification.

407.10.5 **Condition of Sewer** - All sewer systems shall be left in good operating condition. If defects of material or workmanship in sewer systems or equipment are disclosed as result of these tests and operation, repairs shall be made by the applicant, using new materials, and all defective materials shall be immediately removed from the site. Tests shall be repeated until a satisfactory test has been made.

407.10.6 **Repairs to Pipe** - No caulking of joints, cracks or holes will be acceptable. Replacement shall be for the full length of the defective section of pipe.

407.11 **Existing Sanitary Sewer**

407.11.1 **Maintenance of Sewage Flow** - The flow of the sewage in an existing sanitary sewer system must be maintained at all times and cannot be discharged into an existing stream or storm sewer at any time. Temporary measures for bypassing flow of the sewage during connections or disturbing the existing sewer shall be taken such as pumping from an upper manhole to a lower manhole or with the use of a by-pass gravity or pressure sewer. If it is planned to use temporary measures during the night or over a weekend the applicant must continuously monitor the installation and be prepared to immediately correct any overflows or failures. The new flow lines constructed in existing manholes and the new flow lines in new manholes on the existing sewer must cure for 24 hours before the flow of sewage is permitted across said flow line unless a hydraulic mortar mix is used.

407.12 **Rehabilitation of an Existing Inlet**

407.12.1 The casting for the inlet shall be removed and the walls of the inlet shall be repaired. Repairs shall consist of the removal of all loose mortar coating and loose and deteriorated bricks; the replacement and resetting of bricks in mortar; placement of a
new mortar coating where required; resetting of casting to proper grade and any other minor repairs as required.

407.12.2 Frames, Covers and Gratings - Frames, covers and/or gratings for manholes, catch basins and inlets shall be of the type and size indicated on the details. Frames shall be well bedded in mortar and shall be set accurately to the correct alignment and grade. Manhole frames shall be anchored to the manhole masonry with 4 bolts at least ½” in diameter. In areas to be paved, frames shall be set by using four (4) points of reference, set ninety (90) degrees apart, to insure accurate setting to proposed pavement grade. Where inlets are to be placed on curb lines or at edge of pavements, sufficient length of proposed curb or edge of pavement adjacent to the structure shall be established prior to the construction of the inlet to insure that the structure is correctly located and oriented.

§408 Concrete Work.

408.1 Scope of Work - The work covered under this section consists of furnishing all labor, materials, equipment and services necessary in performing all operations in accordance with these specifications and the applicable drawings. Without intending to limit and/or restrict the amount of work required under this section the work generally consists of the following: Reinforced Concrete Pavement, Reinforced Concrete Base, Concrete Curb of Various Dimensions, Concrete Sidewalk, Reinforced Concrete Drives, Concrete Base Replacement, Concrete Pavement Replacement, Concrete for Structures, Curing & Sealing Compound for Concrete, Sealing of Concrete Joints, Other Applicable Items

408.2 General

408.2.1 Concrete Mixes

408.2.1.1 For reinforced concrete pavement, reinforced concrete base for bituminous surface, concrete curb, concrete sidewalk, reinforced concrete drives and concrete for structures.

The dry weight mixture for concrete shall be as follows:

Cement: 658 lbs/cu yd, type 1. non-air entraining Portland cement
Fine Aggregate: 1220 lbs/cu yd, type A aggregate
Coarse Aggregate: 1530 lbs/cu yd, type A, No. 57
Aggregate:  
Water: 33 gallons/cu yd

Slump shall be 1 inch to 3 inches
(a) Air-entraining admixture shall be in accordance with AASHO Designation M-154.
(b) Entrained air content shall be 6.5% with a tolerance of ± 1.5%.

408.2.1.2 For concrete pavement replacement, concrete base replacement and reinforced concrete base for brick surface, the dry weight mixture for concrete shall be as follows:

Concrete: 752 lbs/cu yd, type 1, non-air entraining Portland cement
Fine: 1220 lbs/cu yd, type A Aggregate
Aggregate: Coarse 1530 lbs/cu yd, No. 57
Aggregate: Water: 33 gallons/cu yd

Slump shall be 1 inch to 3 inches.
(a) Air-Entraining Admixture shall be in accordance with ASSHO Designation M-154.
(b) Entrained air content shall be 6.5% with a tolerance of ± 1.5%.

408.2.1.3 Course aggregate must be slag, limestone aggregate or crushed gravel for reinforced concrete pavement, concrete base, concrete curb, concrete sidewalk, reinforced concrete drives and any exposed concrete in structures.

408.3 Curing and Sealing Compound for Concrete

408.3.1 General - All concrete curbs, sidewalks, driveways, finished concrete pavement and other exposed concrete surfaces shall be cured and sealed by one of the following four methods:

408.3.2 Alternate “A”

408.3.2.1 First Coat - “Seal tight CS-309” or equal manufactured by W.R. Meadows, Inc. shall be
applied as soon as surface water disappears and the concrete will not be marred. Apply evenly over the entire surface that is to be cured and sealed. Avoid puddling. Foot traffic should be restricted for at least twelve (12) hours. One gallon will cover 200 to 600 square feet of surface depending upon the porosity and finish of the concrete. The compound must be applied as uniformly as possible to form a complete film. Use a standard garden type sprayer with neoprene hose and gaskets for application of the compound. Do not apply if the temperature of the concrete surface is less than forty (40) degrees Fahrenheit.

408.3.2.2 Second Coat - If a second coat is required in the proposal it shall consist of a uniform application of “Sealtight Tiah” or equal, as manufactured by W.R. Meadows, inc. The second coat shall be applied in accordance with the manufacturer’s specifications.

408.3.3 Alternate “B”

408.3.3.1 General - At his discretion the Municipality may approve this alternate method of curing and sealing when requested in writing by the applicant.

408.3.3.2 Curing - White polyethylene sheeting, minimum 4 mil thickness, shall conform to the requirements of PENN DOT Spec., Form 408, latest revision and used to cover all exposed concrete as soon as the material will not mar the concrete surface. The sheeting shall be weighted down to prevent premature removal and improper curing. The covers shall remain in place for a period of 96 hours, and a maximum additional period of 96 hours, if so directed by the Engineer.

Curing Operations shall commence as soon as possible after the edging and finishing is completed and in no case more than two (2) hours thereafter.

408.3.3.3 Sealing - The sealing of concrete surfaces shall conform to the requirements of PENN DOT Specification 1983 edition, Section 503 only when
used in conjunction with the curing of said concrete with polyethylene sheeting.

Two applications of boiled linseed oil shall be used with each application consisting of 0.02 gallon per square yard. The first coat must be applied when the concrete surface is thoroughly dry and the second coat at least 24 hours after the first coat. The surface must be closed to traffic at least four (4) hours for the first coat and at least six (6) hours after the second coat.

408.3.4 Alternate “C”

408.3.4.1 General - At his discretion the Municipality may approve this alternate method of curing and sealing when requested in writing by the applicant.

408.3.4.2 Curing and Sealing - The curing and sealing of concrete surfaces shall be accomplished by the use of one coat of Tri-Dar 33/1 Linseed Oil Emulsion Cure/Seal System manufactured by Tamms meeting ASTM:C309 & AASHTO:M-148 Specifications with maximum coverage of 200 square feet per gallon of emulsion. Application shall be in accordance with manufacturer’s specifications.

408.3.5 Alternate “D”

408.3.5.1 General - At his discretion the Municipality may approve this alternate method of curing and sealing when requested in writing by the applicant.

408.3.5.2 Curing and Sealing - The curing and sealing of concrete surfaces shall be accomplished by using Con-Seal manufactured by Monarch Chemical Company. It shall be applied as soon as surface water disappears and the concrete surface will not be marred by walking workmen. Apply evenly over the entire surface to be cured and sealed; avoid puddling in low areas.

Con-Seal must be applied to form a uniform film by sprayer, long-nap roller, soft-bristle broom or lamb’s wool applicator. Standard garden-type
sprayers, equipped with a neoprene hose and gaskets, are recommended for best results.

Maximum coverage shall be 300 square feet per gallon, of the concrete surface.

Do not apply if the temperature of the concrete surface is less than 40°F.

Con-Seal is flammable and should be kept away from heat and open flame. Con-Seal should be used with normal precautions, avoid prolonged contact with skin, use with adequate ventilation and avoid prolonged breathing of vapor.


408.3.6 Curing compound for Concrete Base - Reinforced concrete base and reinforced concrete base replacement may be cured with a white membrane curing compound in accordance with the latest PENN DOT Form 408 Specification.

408.3.7 Winter Concreting and Protection

408.3.7.1 General - No concrete shall be placed prior to April 15th or after December 1st in any year except with special permission of the Municipality and then only if the applicant is prepared to comply with the cold weather requirements as specified in PENN DOT Specifications Form 408, latest Edition.

408.3.7.2 Cold Weather Requirements - When the air temperature may be expected to drop below forty (40) degrees Fahrenheit at any time during the day or night of the 24 hours following the placing of concrete, there will be required, in addition to the covers, three bales of straw or hay, weighting approximately 100 pounds, shall be spread for each thirty five (35) square yards of concrete and then covered with a tarpaulin. The concrete shall be maintained at a temperature of not less than fifty (50) degrees Fahrenheit and not more than eighty (80) degrees Fahrenheit for the first seven (7) days after it is placed. Approved heating devices must be used to maintain proper temperatures.
Gradually lower the temperature to the surrounding area for at least three (3) additional days.

408.3.8 Backfilling - The Applicant shall not backfill against walks, driveways, curbs, etc., until concrete forms have been removed and concrete cured. All debris, etc., shall be removed from top to bottom of all excavations prior to all backfilling operations. In Lawn or ground cover areas, backfilling shall be done with clean earth placed in six (6) inch compacted layers.

408.3.9 Casting Adjustments - Casting adjustments shall be made to conform to the finished grade of the street, sidewalk and/or driveway.

408.3.10 Expansion Joint Filler – Expansion joints in all concrete pavement, base, curbs, walks and drives shall be pre-molded expansion fiber joint filler furnished in flat strips to the full depth of the slab as per PENN DOT Form 408 latest edition and AASHTO – M213.

408.3.11 Sealing of Concrete Joints

408.3.11.1 General - All expansion and contraction joints in new concrete shall be sealed including the joints in straight and roll curbs, sidewalks, driveways and other concrete structures. The joints between old and new concrete must also be sealed.

408.3.11.2 Materials

408.3.11.2.1 Sealant - The sealant shall be “Sikaflex-1A Elastic Sealant/Adhesive” or equal. The sealant is a one component polyurethane-base material. Color of sealant shall be limestone. Refer to manufacturer’s specifications for more details.

408.3.11.3 Construction Methods - All joint walls must be sound, clean, dry and free from oil and grease. Any curing compound residues and any foreign matter must be thoroughly removed. If the joint is too deep, a foam backer rod may be used in conjunction with the sealer. The joint walls must be primed with Sikaflex Primer 429 with a single
uniform coat by brush. The primer should dry forty-five (45) minutes to one hour. Sikaflex-1A must be installed within eight (8) hours, if not, re-prime the joint.

Apply Sikaflex-1A at a temperature between forty (40) degrees Fahrenheit and one hundred (100) degrees Fahrenheit with a gun and using the twenty (20) ounce sausage. The joint slot should be at mid-point of its expansion and contraction.

The joint should be tooled slightly concave and approximately one eighth (1/8) inch below the concrete surface. The pointing tool should be wet with a soap solution.

408.3.12 Use of Vibrator

408.3.12.1 For Concrete Curbs & Structures - The concrete shall be placed in forms in horizontal layers not to exceed five (5) inches, and vibrated sufficiently to eliminate all voids. The vibrator shall not be operated in one place more than five (5) seconds. The vibrator shall be of a size to perform the function intended and not be too small or too large. The applicant shall have in reserve at all times sufficient vibration equipment to guard against shutdown of work occasioned by the failure of equipment then in operation. Vibrators shall not be used to move or spread concrete.

408.3.12.2 For Concrete Pavement, Base, Walks & Drives - The vibrator shall be used around but not in contact with transverse and longitudinal joints, castings, reinforcement and forms to consolidate the concrete. The vibrator shall not be operated in one place more than five (5) seconds.

408.3.13 Rain Conductors Through Curbs, Curb & Gutter, Sidewalk and Driveways

408.3.13.1 Curbs or Curb & Gutter - Rain conductor shall be three (3) inch diameter ABS Schedule 40 pipe with fittings. A coupling shall be placed on the pipe so that the coupling is flush with the back of the curb. The section of curb that will contain the conductor...
shall be reinforced for its entire length with a No. 5 steel reinforcing bar, placed above the top of the conductor. The rain conductor shall be connected to the existing rain conductor, if any, at the back of the curb.

408.3.13.2 Sidewalks and Driveways – Rain conductor shall be three (3) inch diameter ABS Schedule 40 pipe with fittings, placed under the sidewalk or driveways. A coupling shall be placed on the pipe at the edge of the walk adjacent to the property line. The slab of walk or drive under which the rain conductor is placed shall be reinforced over its entire area with welded wire fabric 66-44, and said slab shall be isolated from the remainder of the sidewalk or drive by ¼” expansion material on both sides.

408.3.14 Crown in Pavement - The crown in any pavement or base shall be measured from the high side edge where one edge is higher than the other except where otherwise noted.

408.4 Reinforced Concrete Pavement & Reinforced Concrete Base

408.4.1 Thickness of Pavement

408.4.1.1 Reinforced Concrete Pavement - The reinforced concrete pavement shall be seven (7) inches thick for nine (9) feet from the centerline of paving. The pavement shall thicken from seven (7) inches to eight (8) inches in the remaining distance to the gutter line. The pavement thickness may be modified if so specified in the construction drawings.

408.4.1.2 Reinforced Concrete Base - The reinforced concrete base shall be six (6) inches thick for nine (9) feet from the centerline of paving. The base shall thicken from six (6) inches to seven (7) inches in the remaining distance to the gutter line. The base thickness may be modified if so specified in the construction drawings.

408.4.2 Subgrade - The subgrade shall be shaped in accordance with the dimensions as shown in the paving detail. The subgrade shall be compacted with a minimum 10-ton vibratory roller and any soft
spots removed and replaced and recompacted until a uniformly compacted subgrade is accomplished. The grade of the subgrade shall be uniform and shall be four (4) inches below bottom of proposed slab.

A layer of No. 57 aggregate, other than slag, shall be placed on the subgrade to four (4) inch thickness after compaction. The grade of the subgrade shall be made to permit the placement of the required depth of pavement and/or base and aggregate course.

408.4.3 Subgrade Testing - At the beginning of work on the project, the applicant shall provide and keep on the project two standard subgrade testers: if subgrade work is carried on at more than one location, additional subgrade testers shall be provided as ordered. Immediately prior to placing the concrete pavement or base course, the subgrade shall be checked with a standard tester and corrected, if necessary.

408.4.4 Slab Reinforcement - The reinforcement shall be welded wire fabric, 612-04, 69 pounds per 100 square feet or a similar fabric, which will supply a minimum of 0.148 square inches of steel per foot in a longitudinal direction and 0.040 square inches of steel per foot in a transverse direction. The applicant shall order the necessary reinforcement sufficiently ahead of time to insure that the project will not be delayed due to lack of same. If the specified welded wire fabric is not readily available the applicant shall submit to the Municipality an alternate, which would meet the minimum required steel in both the longitudinal and transverse directions.

408.4.5 Surface Finish

408.4.5.1 Reinforced Concrete Pavement - A self-propelled finishing machine with an oscillating screed shall be used on reinforced concrete pavement. After the finishing machine has placed the concrete the surface shall be finished with a bull float and a burlap drag, unless otherwise indicated. A vibrating screed may be used for small areas if approved in writing by the Municipality.

408.4.5.2 Reinforced Concrete Base - A vibrating or oscillating screed may be used to finish reinforced concrete base only where in the opinion of the Municipality a self-propelled finishing machine
will not operate satisfactorily, otherwise a self propelled finishing machine must be used. After the finishing machine has placed the concrete the surface shall be finished with a bull float and burlap drag, unless otherwise indicated.

408.4.6 Transverse Expansion and Contraction Joints

408.4.6.1 Contraction joints in the reinforced concrete pavement and/or base shall be constructed by sawing with a special concrete saw using one or more circular blades, cooled and lubricated with water. The joints must be sawed after at least eight (8) hours after and before three (3) days have passed from the time of concrete pour. The contraction joints shall be at least a depth of 1 ½” and a center-to-center maximum spacing of 46.5 feet and slip dowels must be in place as per detail. A steel plate and slip dowels can be used as an alternate. All joints shall be poured with “Sikaflex-1A” joint sealing material as soon as possible after construction of the joint.

408.4.6.2 Expansion joints in reinforced concrete pavement and/or base shall be constructed with slip dowels, and a minimum ¾” thick expansion joint filler as detailed. A steel plate, slip dowels and a minimum ¾” thick expansion joint filler can be used as an alternate. Spacing shall be at all points of curve, points of tangent and at street intersections. All joints shall be sealed with “Sikaflex-1A” as soon as possible after construction of the joint.

408.4.6.3 On any tooled joints or edges of concrete do not use the jointing or edging tool until the surface water has evaporated from the concrete (sheen disappears). Bull float and broom the surface, then finish the joint and edges and use broom to remove the tool marks on the surface.

408.4.7 Pouring Concrete from Subgrade - Under no conditions whatsoever shall the applicant be permitted to pour the concrete pavement, base, curbs, walks or driveways from any portion of the prepared subgrade on which he is placing the concrete.
408.4.8 **Pouring Concrete from New Pavement** - After concrete has been placed on one side of the street the applicant shall wait until the concrete has been sufficiently cured for at least ten (10) days, to permit mixing and pouring from that side, or shall provide means for mixing and pouring concrete on the berm of that side of the street which remains unpaved.

408.4.9 **Traffic on Concrete Pavement** - No private, public or applicant vehicles and/or equipment shall be placed or moved on the concrete pavement until ten (10) days have elapsed from time of pour, and then only when earth shoulders are placed against the pavement edges.

408.4.10 **Straight Edging of Concrete** - Straight edging shall be done with a ten (10) foot straight edge placed parallel to the centerline at not more than five (5) foot intervals. Irregularities exceeding 1/8” shall be corrected. Areas so disturbed shall be floated with a three (3) foot by six (6) inch wooden float.

408.4.11 **Direction of Pour** – Concrete shall be poured from the lower elevation to the higher elevation of the proposed road, in an ascending grade.

408.4.12 **Future Extension of Pavement** - Where extension of pavement is contemplated, slip dowels shall be placed to facilitate tying old and new pavement together. Method of joining of pavement shall be as indicated on detail drawings.

408.5 **Concrete Curbs**

408.5.1 **Reconstruction of Old Curbs** - The reconstruction of concrete curbs shall include the removal and disposal of the old curb and curb drain, the removal, disposal and replacement in kind of any adjacent pavement, including base and sub-base disturbed by removal of the old curb, miscellaneous excavation, installation of new curb drain and new curb to the dimensions as shown on the detail for the applicable curb. Section 408.5.11 shall be applicable to replacement of adjacent pavement.

408.5.2 **New Curbs** - On new curb construction the excavation shall be included in the general excavation. The new curbs shall include the curb drain as shown on the detail for the applicable curb.

408.5.3 **Dimensions** - The dimensions of the curbs and curb drains shall be as shown on the details and/or plans.
408.5.4 **Reinforcement** - The reinforcement for the specific type curb shall be as shown on the details and/or plans.

408.5.5 **Joints** - Contraction joints shall be made every ten (10) feet and the contraction joint shall be in line with each contraction joint in the sidewalk if one abuts said curb. They shall not exceed \( \frac{1}{4} \)" in thickness and shall be formed with steel plates and mastic 1/8" in thickness. Expansion joints ½” thick, shall be formed at not more than 100 foot intervals.

408.5.6 **Finish** - The portion of the curb to be exposed to the elements shall be finished smooth with a wood or magnesium float. All minor defects shall be filled with cement mortar. No watered brush finish or plastering of the curb will be permitted. All joints and exposed edges shall be tooled to a radius of \( \frac{1}{4} \)" but no tool marks will be permitted to show on the finished curb. Final finish shall be made with a coarse hairbrush.

On any tooled joints or edges of concrete do not use the jointing or edging tool until the surface water has evaporated from the concrete (sheen disappears). Bull float and broom the surface, then finish the joint and edges and use brush to remove the tool marks on the surface.

408.5.7 **Curb Drains** - The curb drains shall be constructed with new No. 57 gravel aggregate to the detailed dimensions. Prior to placing the aggregate, the trench shall be thoroughly compacted and shaped for uniform grade for proper drainage. Four (4) inch, six (6) inch or eight (8) inch AD slotted drain tubing will be included where specified or detailed.

408.5.8 **Forms** - Forms shall be of metal and shall be at least ten (10) feet long. Where a uniform curb radius is required the forms shall be wood of sufficient strength not to bow, bulge or twist when the concrete is placed. Forms shall be braced and staked in at least three (3) places for each ten (10) feet of length, and closer when necessary. They shall be thoroughly cleaned and coated with non-staining oil. Worn, broken or distorted forms shall not be used.

408.5.9 **Drain Protection** - After the placement of the curb drain and installation of the curb forms a layer of two-ply tarpaper or other waterproof membrane shall be placed on the surface of said drain before the placement of the concrete for the curbs.
408.5.10 **Sawcutting of Existing Curbs** - Where an existing section of concrete curb has only a small deteriorated portion, a sawcut at least two (2) inches deep shall be made approximately twelve (12) inches from said deteriorated portion and the deteriorated portion removed. Minimum length of curb to remain is six (6) feet in length.

408.5.11 **Pavement Base and Sub-base Replacement** - Any pavement disturbed and/or removed during the reconstruction of curbs shall be replaced. The pavement shall be replaced as follows:

408.5.11.1 **Bituminous Surfaced Street:**

408.5.11.1.1 **Concrete Base:**

(a) No. 57 Aggregate at least 6” deep with the top of the aggregate no less than 10” below the curb gutter line.

(b) Concrete at least 7” deep reinforced with a #4 Bar parallel with the curb and 4” below the concrete surface. The edge of the existing concrete pavement shall be trimmed so the exposed face is as close to vertical as possible. The top of the concrete shall be no less than 3” below the curb gutter line.

(c) Bituminous Pavement in two 1½” layers. The lower layer to be ID-2 Binder and the top layer to be ID-2 Modified. The existing bituminous surface shall be removed at least 6” beyond the joint between the old and new concrete base. The new edge of the existing bituminous pavement shall be vertical and a uniform distance from the curb gutter line.

408.5.11.1.2 **Concrete and Brick Base** - (a) No. 57 Aggregate at least 6” deep with the top of the aggregate no less than 11” below the curb gutter line.

(b) Concrete at least 6” deep reinforced with a #4 Bar parallel with the curb and 3” below the concrete surface. The edge of the
existing concrete pavement shall be trimmed so the exposed face is as close to vertical as possible. The top of the concrete shall be no less than 8” below the curb gutter line. (c) Brick laid on an approximately 1” sand cushion. The brick shall be keyed into the existing brick pavement with whole brick and the brick cut to proper length where it abuts the concrete curb. The joints between the brick shall be filled with grout. The top of the brick shall be no less than 3” below the curb gutter line. (d) Bituminous Pavement in two 1 ½” layers. The lower layer to be binder and the top layer to be ID-2 Modified. The existing Bituminous surface shall be removed at least 6” beyond the edge of the existing bituminous surface created by curb reconstruction. The new edge of the existing bituminous pavement shall be vertical and a uniform distance from the curb gutter line.

408.5.11.1.3 Bituminous Base - (a) No. 57 Aggregate at least 6” deep with the top of the aggregate no less than 11” below the curb gutter line. (b) Bituminous base course at least 8” deep placed in 2 layers. The first being approximately 5 inches deep and compacted before the second layer is placed and compacted. The edge of the existing bituminous base shall be trimmed so the exposed face is as close to vertical as possible. The top of the bituminous base course shall be no less than 3 inches below the curb gutter line. (c) Bituminous Pavement in two 1 ½” layers. The lower layer to be ID-2
Binder and the top layer to be ID-2 Modified. The existing Bituminous surface shall be removed at least 6” beyond the joint between the old and new bituminous base. The new edge of the existing bituminous pavement shall be vertical and a uniform distance from the curb gutter line.

408.5.12 Brick Surfaced Streets

408.5.12.1 **Concrete Base** - (a) No. 57 Aggregate at least 6” deep with the top of the aggregate no less than 11” below the curb gutter line. (b) Concrete at least 7” deep reinforced with a #4 Bar parallel with the curb and 4” below the concrete surface. The edge of the existing concrete pavement shall be trimmed so the exposed face is as close to vertical as possible. The top of the concrete shall be no less than 4” below the curb gutter line. (c) Brick laid on an approximately ½” sand cushion. The brick shall be keyed into the existing brick pavement with whole brick and the brick cut to proper length where it abuts the concrete curb. The joints between the brick shall be filled with grout.

408.5.13 Concrete Surfaced Streets

408.5.13.1 **Concrete Pavement** - (a) No. 57 Aggregate at least 6” deep with the top of the aggregate no less than 7” below the curb gutter line. (b) Concrete at least 7” deep reinforced with a #4 Bar parallel with the curb and 4” below the concrete surface. The edge of the existing concrete pavement shall be sawed to a depth of at least 3 inches and parallel to the curb and the existing concrete from the saw cut to the edge of the existing concrete shall be removed. Expansion and contraction joints in the new pavement shall be at the same locations as in the existing concrete pavement.
408.5.14 Streets Where Pavement Is to be Totally Removed

408.5.14.1 Temporary Pavement Base - (a) Between the time the curb is replaced and the total pavement is removed the area between the face of curb and existing pavement shall be filled with material (other than earth) to within 2 inches of the curb gutter line.

408.5.14.2 Temporary Pavement Surface – (a) The space between the face of curb and existing pavement that is at least 2 inches deep shall be filled with a temporary bituminous material, such as cold patch, and leveled and compacted to establish a stable surface that will not erode due to storm water runoff along the curb.

408.6 Concrete Sidewalk

408.6.1 Reconstruction of Old Sidewalks - The reconstruction of concrete sidewalks shall include the removal, and disposal of the old sidewalk, miscellaneous excavation, installation of new aggregate bed and new sidewalk to the applicable dimensions.

408.6.2 New Sidewalk - On new sidewalk construction the excavation shall be included as part of the total Sidewalk Construction.

408.6.3 Dimension - Concrete sidewalk shall be a minimum of four (4) inches thick and to a width equal to the existing sidewalk or as specified. The aggregate bed shall be three (3) inches in depth and to a width of the sidewalk or as specified. The aggregate bed shall be No. 57 stone, or gravel.

408.6.4 Excavation - The depth of excavation and removal of existing sidewalk shall be seven (7) inches minimum.

408.6.5 Forms - Forms shall be of metal or new wood at least ten (10) feet long. Each form shall be braced and staked in at least three (3) places for each ten (10) foot length and closer if necessary to keep from deforming when concrete is placed. They shall be thoroughly cleaned and coated with non-staining oil. Wood forms shall be rigid enough not to bow and deflect when concrete is placed. Worn, broken or distorted forms shall not be used.
408.6.6  **Joints** - Contraction joints shall be spaced at a maximum of five (5) foot intervals and formed with a device to have the completed joint at least 1/2” deep. Expansion joints shall be spaced no more than thirty (30) feet apart and formed with ¼” pre-molded filler to the full depth of the slab. The ¼” pre-molded filler shall also be placed adjacent to curbs, other sidewalks, buildings or pavement. If the sidewalk abuts a curb the joints on the sidewalk shall match the joints in the curb.

408.6.7  **Finish** - The surface of the slab shall be brought to a uniform plane surface by means of a wood screed riding on forms. The surface shall then be finished with a wood or magnesium float and fine broom finished. The tool marks for joints and edges shall match the marks in the existing walk. Neither dry cement nor water shall be added to the surface during the finishing process.

On any tooled joints or edges of concrete do not use the jointing or edging tool until the surface water has evaporated from the concrete (sheen disappears). Bull float and broom the surface, then finish the joint and edges and use broom to remove the tool marks on the surface.

408.6.8  **Sawcutting** - Where a small portion of an existing section of concrete sidewalk is deteriorated or only a small portion is required to be removed a 1 ½” deep sawcut shall be made where required and the small portion removed.

408.7  **Concrete Driveways**

408.7.1  **Reconstruction of Old Driveways** - The reconstruction of concrete driveways shall include the removal and disposal of the old driveway, miscellaneous excavation, installation of new aggregate bed and new driveway to the applicable dimensions.

408.7.2  **New Driveways** - On new driveway construction the excavation shall be included as part of the total Driveway Construction.

408.7.3  **Dimensions** - Concrete driveways shall be a minimum of six (6) inches thick and to a width equal to the existing driveway or as specified. The aggregate bed shall be three (3) inches in depth and to a width equal to the existing driveway or as specified. The aggregate bed shall be No. 57 stone or gravel.
408.7.4 **Reinforcement** - The concrete driveway shall be reinforced with welded wire fabric 66-44 with a minimum cover of two (2) inches.

408.7.5 **Joints** - Contraction joints shall be spaced at a maximum of five (5) foot intervals and formed with a device to have the completed joint at least ½” deep. Expansion joints shall be spaced no more than thirty (30) feet apart and formed with ¼” thick pre-molded filler to the full depth of the slab. The ¼” pre-molded filler shall also be placed adjacent to curbs, sidewalks, other driveways, buildings or pavements. If the driveway abuts a curb the joints on the driveway shall match the joints in the curb.

408.7.6 **Finish** - The surface of the slab shall be brought to a uniform plane surface by means of a wood screed riding on forms. The surface shall then be finished with a wood or magnesium float and fine broom finished. The tool marks for joints and edges shall match the marks in the existing driveway. Neither dry cement nor water shall be added to the surface during the finishing process.

On any tooled joints or edges of concrete do not use the jointing or edging tool until the surface water has evaporated from the concrete (sheen disappears). Bull float and broom the surface to remove the tool marks on the surface.

408.7.7 **Forms** - Forms shall be of metal or new wood at least ten (10) feet long. Each form shall be braced and staked in at least three (3) places for each ten (10) foot length and closer if necessary to keep from deforming when concrete is placed. They shall be thoroughly cleaned and coated with non-staining oil. Wood forms shall be rigid enough not to bow and deflect when concrete is placed. Worn, broken or distorted forms shall not be used.

408.7.8 **Excavation** - The depth of excavation and removal of existing driveway shall be nine (9) inches minimum.

408.7.9 **Sawcutting** - Where small portion of an existing section of concrete driveway is deteriorated or only a small portion is required to be removed a 1 ½” deep sawcut shall be made where indicated and the small portion removed.
408.8  **Seven (7) Inch High Concrete Deck Curb**

408.8.1  **Dimensions** - The seven (7) inch high deck curb shall be installed on the existing bituminous pavement to the dimensions as shown on the detail.

408.8.2  **Method of Construction** - No. 6 bars fifteen (15) inches long shall be driven into the existing pavement at thirty (30) inches c/c and a No. 4 bar nine (9) foot eight (8) inches long shall be wired to the No. 6 bars. Where required a back and front form shall be used.

If the curb abuts an existing bituminous walk the walk shall be used as the back form and the concrete permitted to fill the voids. Contraction joints shall be placed at ten (10) foot intervals and expansion joints at PC’s and PT’s as well as at expansion joints in abutting concrete walks. Where the curb abuts a concrete walk a ¼” expansion material shall be used. The joint between the walk and new curb shall be sealed with Sikaflex 1A and the front of the curb where it abuts the existing pavement shall be sealed as shown on the details. The concrete for the curb shall be as specified in Section 408.1 and the curb shall be sealed as specified in Section 408.3. The concrete curbs shall be finished as specified in Section 408.5.6. The concrete shall be thoroughly vibrated to eliminate voids adjacent to the bituminous pavement and in the face of the curb. The hot bituminous seal shall be the same as the gutter seal for new bituminous pavement.

408.9  **Concrete Base Replacement**

408.9.1  **Removal and Excavation** - Where an existing concrete base is encountered the Engineer shall inspect the existing base and if any unstable areas are found or the existing base elevation requires adjustment or the existing base is to be widened, the existing material shall be removed by the applicant in its entirety to a depth of ten (10) inches below top of existing base and disposed of. The sub-base shall be four (4) inches of No. 57 or 2A modified (mechanically tamped). The joint between the existing concrete base and the new concrete base shall be saw cut to a depth of at least 1½ inches.

408.9.2  **Dimensions** - The width and length of the replacement shall be determined in the field. The depth of concrete shall be a minimum of six (6) inches.
408.9.3 Reinforcement - The base replacement shall be reinforced with No. 4 bars eighteen (18) inches center-to-center both ways and placed within two (2) inches of the bottom of the concrete.

408.9.4 Finish - The concrete shall be vibrated in place and struck flush with the existing surface of the base with a wood screed, and finished with a wood float and burlap drag.

On any tooled joints or edges of concrete do not use the jointing or edging tool until the surface water has evaporated from the concrete (sheen disappears).

408.9.5 Curing - The concrete shall be cured with a plastic or paper cover with the edges securely weighted down to form a closed joint. The cover shall remain in place for a period of 48 hours.

408.9.6 Concrete - The concrete for the concrete base replacement shall be as specified in Section 408.2.1.2.

408.9.7 Paving Over Base Replacement - A waiting period of 48 hours shall pass before any bituminous pavement or brick can be placed on the base replacement.

408.10 Concrete Pavement Replacement

408.10.1 Description of Work

408.10.1.1 General - This work is the construction of a one-course cement concrete pavement patch, to a depth equal to the existing pavement depth. The patch shall not be less than one lane in width.

408.10.1.2 Patching Joint - Provide a full depth saw cut at existing pavement/patch interface; install load transfer dowels in face of existing pavement; provide sealant reservoir and sealant.

408.10.1.3 New Pavement Joint - Provide load transfer unit, sealant reservoir and sealant.

408.10.2 Determination of Extent of Removal - The Engineer shall inspect the existing concrete pavement to determine the extent of the deteriorated pavement that is to be replaced. He shall mark the limits of removal on the pavement. The depth of the removal will be to the depth of the existing pavement. The depth of the replacement shall be at least seven (7) inches in...
depth. Four (4) inches of existing subbase below bottom of existing slab shall be replaced with four (4) inches of No. 57 or 2A gravel or stone mechanically tamped.

408.10.3 Construction Procedures

408.10.3.1 General - When both lanes are to be replaced, construct concrete pavement patches in one-lane width.

Satisfactorily repair any damage to the existing shoulders and curbs as a result of this work.

408.10.3.2 Sawcutting - Make a full depth saw cut in the existing longitudinal joint at the centerline and at the curb line for the full length of the patch. Make a full depth transverse saw cut and do not break back the underside of the existing pavement. If break back occurs, make new full depth transverse saw cuts beyond the area of break back.

408.10.3.3 Removal of Existing Pavement - Remove concrete between narrowly spaced saw cuts made at the end of a proposed patch with air hammers and hand tools. Once the narrow space between saw cuts is removed then the applicant may use a drop hammer or hydra hammer to break up the slab to be removed. The broken pieces may be removed with a rubber-tired backhoe.

If the surface of the subbase is disturbed by the removal technique, beyond the four (4) inches noted in 409.10.2, recompact the surface using small vibratory compactors.

408.10.3.4 Transverse Joints - Where any patch is replacing an existing expansion joint and the existing expansion joint in an adjacent lane is to remain in place, install ¾” expansion joint material in the joint nearest to the remaining expansion joint. Provide tube, with a minimum one (1) inch clearance pocket, over the lubricated end of all coated dowel bars.

408.10.3.5 Patching Joint - Drill holes into the face of the existing pavement that has been saw cut full depth.
Provide holes 1/8” larger in diameter than the coated dowel bars. Mount drilling machines in a frame that maintains the proper horizontal and vertical alignment during drilling.

Dowel bars shall be smooth surfaced, 1 ¼” in diameter, 18” long and spaced 18” center-to-center.

Hand held drills are not permitted. Change location of drill holes plus or minus one (1) inch to avoid existing reinforcing steel.

Securely embed the coated dowel bars into place with epoxy. Use procedures acceptable to the Engineer.

Render exposed portion of each coated dowel bar bondless as specified in PENN DOT Form 408.

408.10.3.6 New Pavement Joint - As indicated and when directed, provide load transfer units adjacent to existing joints and at the same joint spacing as the existing pavement. When all contiguous lanes are being patched, make the joint spacing forty (40) feet. Make all joints normal to the centerline of the roadway. Place coated dowel bars parallel to the centerline and surface of the pavement.

Dowel Bars shall be smooth surfaced, 1 ¼” in diameter, 18” long and spaced 12” center-to-center.

Install load transfer units as specified in Section 501.3 (h) of PENN DOT Form 408.

408.10.3.7 Forms - Form all patch sides where not in contact with sound pavement to remain in place. Forms shall be of steel or wood with adequate bracing to maintain proper position. Make all formed joints vertical.

408.10.3.8 Concrete - The concrete for the concrete pavement replacement shall be as specified in Section 408.2.1.2.

408.10.3.9 Reinforcement - The base replacement shall be reinforced with No. 4 bars 18” center-to-center.
both ways and placed within 2” of the bottom of the concrete.

408.10.3.10 Final Strike-Off and Consolidation - The concrete shall be struck off and consolidated as specified in Section 408.9.4.

408.10.3.11 Final Finish for Pavements - Finish the surface of the patch to match the existing pavement cross-section.

The texture of the patches should correspond with the texture of the surrounding pavement.

Following the final finishing and before application of curing materials, score the date of patch placement in the surface of the fresh concrete along the shoulder edge of the patch.

On any tooled joints or edges of concrete do not use the jointing or edging tool until the surface water has evaporated from the concrete (sheen disappears). Bull float and broom the surface, then finish the joint and edges and use broom to remove the tool marks on the surface.

408.10.3.12 Curing of Concrete - The concrete shall be cured as specified in Section 408.9.6.

408.11 Concrete for Structures

408.11.1 Removal and Excavation - Where existing concrete structures are to be removed and replaced, the structure, drains and any other material shall be removed in their entirety and hauled away and disposed of by the applicant unless otherwise indicated.

408.11.2 Dimensions - The dimensions of the structures shall be as indicated on the details and/or plans.

408.11.3 Reinforcement - The type and placement of reinforcement for the structures shall be as indicated on the details and/or plans.

408.11.4 Concrete Placement - Concrete placement, form work, etc., shall meet all the requirements of applicable industry standards, the
American Concrete Institute and the Concrete Reinforcing Steel Institute.

408.11.5 Concrete - The concrete for structures shall be as specified in Section 408.2.1.

408.12 Power Milling of Concrete Base - After removal of the bituminous pavement by power milling the Engineer shall determine what areas of the concrete base will be power milled to remove the deteriorated surface of the concrete base (1 ½” to 2 ½” in depth). The condition of the base is such that extreme caution must be taken to prevent further damage to the base. The milled material must be hauled from the site in small trucks or partially loaded tandem trucks. The Engineer shall have the right to require the applicant to use even smaller loads if there is evidence that the larger loads are damaging the existing concrete base and/or the existing pavements on the municipal streets used as haul routes.

All the concrete removed by milling shall be disposed of by hauling it to the area designated by the Applicant.

408.13 Casting Adjustments - Casting adjustment shall be made so that all castings conform to the finished grade of the street. The raising and lowering of castings shall be done by adding to or deleting a portion of the masonry work. The base disturbed or removed shall be replaced with six (6) inches of reinforced concrete.

The use of metal bands or rings in the adjustment of castings may be permitted if said bands or rings are permanently fastened to the existing casting by welding with the proper welding rod and the existing lids fit the ring properly without rattling.

§409 Bituminous Pavement

409.1 Scope of Work - The work under this section consists of furnishing all labor, materials, equipment, and services necessary in performing all operations in connection with these specifications.

409.2 General

409.2.1 Penn DOT Form 408 Specification - Bituminous pavement, type of materials, method of placement, etc., shall meet the requirements of PENN DOT Form 408 specifications latest edition unless otherwise herein specified.
409.2.2 Crown in Pavement - The crown in any pavement or base shall be measured from the high side edge where one edge is higher than the other except where otherwise noted.

409.3 Wearing Surface Courses

409.3.1 FJ-1 - The fine aggregate, bitumen and filler shall be combined in the mid range proportions of table A Section 401.2 (d) of Form 408, Latest Edition, except that the bitumen percent by weight shall be 8.0 – 12.0 instead of 6.0 – 12.0.

409.3.2 Modified ID-2 - The fine aggregate, coarse aggregate, bitumen and filler shall be combined in the mid range proportions of the following table:

<table>
<thead>
<tr>
<th>Passing Sieve</th>
<th>Required Composition of Mixture by Weight Percentage</th>
</tr>
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<tbody>
<tr>
<td>½”</td>
<td>100</td>
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<tr>
<td>3/8”</td>
<td>90-100</td>
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<tr>
<td>4</td>
<td>60-80</td>
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<td>50-65</td>
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<tr>
<td>200</td>
<td>3-8</td>
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<table>
<thead>
<tr>
<th>Bitumen % By Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stone or crushed gravel</td>
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<tr>
<td>Slag</td>
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</table>

409.4 Binder Course

409.4.1 ID-BC - The fine aggregate, coarse aggregate, bitumen and filler shall be combined in the proportions of Table A binder course section 401.2 (d) of Form 408, Latest Edition.

409.5 Aggregate - The aggregate for all the bituminous wearing surface and binder course shall be either slag, crushed gravel or crushed limestone.

409.6 Thickness - The minimum thickness specified shall be the thickness of the pavement after final compaction.

409.7 Supply of Material - The applicant shall furnish a continuous supply of material after the paving operations commence.
409.8 **Temperature of Material** - The temperature of any bituminous material, when placed shall be not less than 250 degrees Fahrenheit. Any bituminous material that has reached a temperature of less than 250 degrees Fahrenheit before being placed must be rejected and ordered off the job site. No bituminous material shall be placed on a surface that has a temperature less than 40 degrees Fahrenheit. Any bituminous material that has reached a temperature less than 225 degrees Fahrenheit before initial rolling shall be removed and replaced at no expense to the Applicant.

409.9 **Bituminous Paver** - The Paver shall be a self-contained, power-propelled unit, with activated screeds or strike-off assemblies, that produce a finished surface of required evenness and texture. A unit must be provided that does not tear, shove or gouge the mixture. It must be heated, and capable of spreading and finishing a bituminous plant mix material to widths and depths indicated.

A paver must be capable of being operated at forward speeds consistent with satisfactory laying of the mixture, equipped with receiving hoppers having sufficient capacity for uniform spreading, and with distribution systems that place the mixture uniformly in front of the screeds.

Hydraulic or other type extensions may be used against abutting lanes or longitudinal joints if the extensions are fed and activated by the same method as the main screed. A non-activated extension may not be used. The width of the screed shall be such as to cover a total width of twenty-four (24) feet in two passes.

409.10 **Rolling of Material**

409.10.1 A pneumatic-tired roller shall be used for rolling of a scratch course.

409.10.2 Breakdown rolling shall be done with a vibratory roller operated in vibrating mode or a pneumatic-tire roller.

409.10.3 Finish rolling shall be done with a vibratory roller in the static mode or with a steel wheel tandem roller.

409.11 **Bituminous Tack Coat** - Bituminous tack coat shall be applied in accordance with Section 460 of PENN DOT Form 408, Latest Edition, to all concrete base and the bituminous base or binder course when the surface is not satisfactory for direct placement of paving.

409.12 **Gutter Seal** - All of the wearing course adjacent to curbs, existing pavement and other structures shall be evenly sealed with a hot bituminous material of the class and type designated for the wearing course extending twelve (12) inches from the curb, existing pavement or other structures along their total length. The wearing course shall have had its final rolling but shall not have
cooled before the application of the gutter seal. The sealing material shall be evenly applied to the surface by means of squeegees immediately after final rolling and sealed with hot irons to completely fill the surface voids and provide a water tight joint along the curb, existing pavement or other structure. Excess bituminous material shall be removed from the wearing course.

409.13 Coating Adjacent Concrete Surfaces - The vertical surface of curbs, gutters, existing pavement and structures that will be in actual contact with bituminous mixtures shall be painted with a thin, uniform coating of bituminous material, Pennsylvania Department of Highways Class E-1, E-6, E-8 or of the class and type designated for the bituminous course.

409.14 Bituminous Concrete Base Course

409.14.1 General - Bituminous Concrete Base Course (Standard) shall consist of a hot-mixed, hot-laid bituminous concrete base course in accordance with the PENN DOT Specification Form 408, Section 305, Table D, 401.2 (d), Latest Edition.

409.14.2 Maximum Thickness - The Bituminous Concrete Base Course shall be placed in compacted layers not exceeding a maximum depth of five (5) inches.

409.15 Crushed Aggregate Base Course, Type B

409.15.1 General - Crushed Aggregate Base Course shall conform to PENN DOT Specifications Form 408, Section 310, 1976 Edition, of the compressed thickness after completion as indicated on the drawings or as specified.

409.15.2 Material - Coarse aggregate and fine aggregate shall be stone, gravel or Type A slag, conforming to PENN DOT Specification, Form 408, Section 703.2, Latest Edition.

409.15.3 Use of Base - The applicant shall not haul or permit others to haul heavy loads over the base course.

409.16 Dusting and Protection of Finished Surface - Where deemed necessary by the Engineer, the finished surface shall be dusted with fine slag, stone or sand, as directed. After the finished surface has been dusted and thoroughly broomed, no vehicular traffic of any kind shall be permitted on the pavement until it has hardened sufficiently and in no case in less than six (6) hours after being placed.

409.17 Removal of Existing Bituminous Pavement
409.17.1 General - Extreme care shall be taken during removal of the existing bituminous pavement to not disturb the existing base. Where the bituminous pavement is not removed by milling a Gradall shall be used.

409.17.2 Method of Removal from Brick Base (Bricks to be saved) - When the brick base is to be removed and the bricks saved the existing bituminous pavement shall be removed from the existing brick base with a Gradall and loaded into trucks with the Gradall or a rubber tired loader. No tracked equipment shall be used.

409.17.3 Method of Removal from Concrete, Brick or Aggregate Base

409.17.3.1 Milling - The existing bituminous pavement shall be removed from the existing concrete, brick or aggregate base with a cold milling machine of sufficient size and power to do the work as fast and efficiently as possible. Milling and milling machine shall meet the requirements of Section 491 of the PENN DOT Specifications, Form 408, latest edition. The bituminous material shall be removed to the surface of the concrete base and the top one-eighth (1/8) inch to one-quarter (1/4) inch of the concrete base shall also be removed.

409.17.3.2 Deteriorated Base - There may be areas of the existing concrete base that are in such a deteriorated condition that they will be removed during the progress of the project. The cold milling on the deteriorated concrete base will be done in such a manner as to remove only the bituminous surface.

409.17.3.3 There may be areas of the existing concrete base that are in such a condition that by removal of a portion of the thickness of the concrete base the remaining portion may be saved. The cold milling on such areas of the concrete base shall be done in accordance with Section 409.17.

409.18 Removal of Bituminous Surface Adhering to the Existing Base - After the existing bituminous surface has been removed, all other bituminous material still adhering to the existing base shall be removed from the base and loaded into trucks by hand.
409.19 **Removal of Fines from Existing Base** - All fines shall be removed from the existing base with a power broom and loaded into trucks. Areas where the power broom did not remove the fines shall be cleaned by hand.

409.20 **Construction of Full Depth Bituminous Base**

409.20.1 **Removal** - The existing bituminous pavement, brick pavement, concrete pavement, concrete base, brick base and subgrade shall be removed in its entirety as specified in Section 416.

409.20.2 **Component Parts** - The full depth bituminous base shall consist of the following:

409.20.2.1 **Compacted Subgrade** - The subgrade shall be shaped in accordance with the dimensions as shown in the paving detail and as specified in Section 412. The subgrade shall be compacted with a minimum ten (10) ton roller and any soft spots removed and replaced and re-compacted until a uniformly compacted subgrade is accomplished. The grade of the subgrade shall be uniform and shall be six (6) inches below bottom of proposed B.C.B.C.

409.20.2.2 **Aggregate Base** - A layer of PENN DOT 2A aggregate (slag, crushed gravel or crushed stone) shall be placed on the subgrade to a depth of six (6) inches after compaction with a minimum ten (10) ton vibratory roller.

409.20.2.3 **Bituminous Concrete Base Course** - The bituminous concrete base course shall be as specified in Section 104.7.14 of this Specification. The depth of the Bituminous Concrete Base Course after compaction shall be eight (8) inches and shall be placed in two layers of four (4) inches unless otherwise noted.

409.20.2.4 **Surface** - The completed surface of the Bituminous Concrete Base Course shall be kept as clean as possible to permit good bonding between said course and the binder. Before application of the binder the base course shall be power broomed and if the surface is not satisfactory for the proper bonding of the binder then the base course shall be tack coated before placement of the binder.
409.21  **Bituminous Driveway**

409.21.1  **General** - The existing bituminous driveway shall be removed to the limits indicated and to a depth of eight (8) inches and the material so removed and disposed of by the applicant.

409.21.2  **Pavement** - The bituminous pavement replacement shall be as follows:

409.21.2.1  **Sub-base** - Three (3) inches compacted depth of 2A aggregate (crushed gravel or crushed stone).

409.21.2.2  **Base** - Four (4) inches in compacted depth of ID-2 binder.

409.21.2.3  **Wearing Surface** - One (1) inch in compacted depth of FJ-1 bituminous wearing course.

409.21.3  **Joint Between New and Old Bituminous Driveway** - The joint between the old and new bituminous driveway shall be neatly sawn and then sealed with the same bituminous material as used in sealing the gutter and shall be twelve (12) inches in width with an overlap of the old driveway of six (6) inches.

409.22  **Bituminous Seal Coat**

409.22.1  **Method of Application** – The bituminous seal coat shall be applied in accordance with Section 470 of the PENN DOT Form 408, Latest Edition. Aggregate shall be crushed stone, crushed gravel or slag.

409.22.2  **When Seal Coat is Required** - The bituminous seal coat shall be applied where it is required to protect the existing concrete base from further deterioration after the existing bituminous surface has been removed. The bituminous seal coat shall be applied as soon after the existing concrete base has dried sufficiently for seal coat application. The seal coat is also to prevent destruction of the base by vehicles traveling over said base.

409.23  **Minor Casting Adjustments** - Minor casting adjustments (2 ½ inches or less up or down) shall be made so that all castings conform to the finished grade of the street. The raising and lowering of castings shall be done by adding to or deleting a portion of the masonry work. The base disturbed or removed shall be replaced with the type of pavement in which the casting is located.
The use of metal bands or rings in the adjustment of castings may be permitted if said bands or rings are permanently fastened to the existing casting by welding with the proper welding rod and the existing lids fit the ring properly without rattling.

409.24 Final Cleanup and Removal of Material - Upon completion of placement and rolling of the surface the applicant shall make a final cleanup and inspection and clean and remove all excess asphaltic and bituminous materials from curbs, adjacent sidewalks and any other areas where it may have been deposited. All lampholes, manholes and catch basins shall be inspected and any material or debris deposited in same during progress of the work shall be removed.

409.25 Weather Limitations for Bituminous Paving - The placing of bituminous paving shall terminate on October 31 and shall not be resumed prior to April 1 unless otherwise approved by the Engineer, in writing, based upon weather and/or traffic conditions at the location of the project.

When the air temperature falls below 50 degrees Fahrenheit, extra precautions shall be taken in drying the aggregate, controlling the temperature of the delivered material, and compacting the mixture. Bituminous concrete shall not be placed on wet surfaces; nor when the temperature of the pavement, base or binder on which it is to be placed, is 40 degrees Fahrenheit or lower.

§410 Joint Sealing

410.4 Scope of Work - The work under this section consists of furnishing all labor, materials, equipment and services necessary in performing all operations in connection with these specifications and as shown on the details.

410.5 Sealing of Expansion and Contraction Joints in Concrete Pavement, Curbs, Sidewalks and Other Concrete Structures.

410.5.1 General - All expansion joints in concrete shall be sealed including expansion joints in pavement, curbs, sidewalks, driveways and other concrete structures. The contraction joints in concrete pavement, curbs, sidewalk and driveways shall be sealed. The joints between old and new concrete must also be sealed. No sealing of the false contraction joints in sidewalks and driveways are required.

410.5.2 Materials

410.5.2.1 Sealant - The sealant shall be W. R. Meadows, Inc. “Gardox” joint sealant, W. R. Meadows “Sealtight
3405” or equal. Refer to manufacturer’s specifications for more details.

410.5.3 Construction Methods - All joints must be sound, clean, dry and free from oil and grease by sandblasting of the joint and then blowing out loose foreign material with oil free compressed air. Curing compound residues, old joint sealing material and any foreign matter must be thoroughly removed to a minimum depth of 1-1/2” for concrete pavement and structures and a minimum of 1” for curbs and sidewalks.

The sealant shall be applied at a temperature between forty degrees farhenheit and one hundred degrees farhenheit. The joint slot shall be at the mid-point of its expansion and contraction. The joint must have a minimum width of one-half (1/2) inch. The joint must be formed during construction or by sawing or routing.

The joint shall be poured so that the sealant will be level with the top of the adjacent concrete slabs.

410.6 Sealing Expansion, Contraction, Transverse & Longitudinal Joints and Cracks in Existing Concrete Base, New Concrete Base or Concrete Pavement to be Overlaid with a Bituminous Pavement

410.6.1 General - Just prior to the placement of the bituminous leveling course the existing joints and cracks shall be sealed in accordance with this section.

The joints, cracks and the surrounding surface shall be thoroughly dry (no standing water or moist surface). The joints and cracks may be dried with applied heat. No sealing shall be performed during a rain.

410.6.2 Materials


410.6.3 Construction Methods – Joints and Cracks - All joints and cracks shall be routed to a minimum width of one-half (1/2) inch and a minimum depth of one and one-half (1-1/2) inches with a Crafco Model 200 router, Windsor Router Model JAW-1, or
approved equal. After routing all loose material must be removed from the joints and cracks by blowing it out with oil free compressed air. The sealant shall be applied at a temperature of at least forty degrees (40°) Fahrenheit and rising.

The joints and cracks shall be poured to a level with the top of the adjacent concrete slab.

Joints and cracks shall be filled as soon as possible after they are cleaned but no later than the same day they are cleaned. It is imperative that no foreign material enters the crack and joints before they are sealed.

410.6.4 Protection of Joint - A twenty-four (24) inch wide strip of “Pro-Guard” manufactured by Phillips Fibers Corporation or equal shall be placed over and centered on the sealed joint. It shall be applied as follows:

410.6.4.1 Apply asphalt cement tack coat at least 0.10 gallons/sq.yd. For milled and other irregular surfaces, the rate should be increased, but not to exceed a maximum of 0.20 gallons/sq.yd. Do not use on Emulsions.

410.6.4.2 Over apply the asphalt tack coat approximately 2” wider than the width of the “Pro-Guard”.

410.6.4.3 Roll the non-woven, fuzzy side of “Pro-Guard” into the asphalt tack prior to the time asphalt cement has cooled and lost its tackiness.

410.6.4.4 Pneumatically roll to ensure contact and adhesion to the existing pavement surface.

410.6.5 Traffic - Traffic shall not be permitted on “Pro-Guard” due to safety considerations. After placement, the fabric may be opened to traffic after 24 hours but for no longer than 48 hours prior to installing the surface course. Signs and/or flagmen shall warn motorists that the driving surface may be slippery when wet and that speed should be significantly reduced. Signs posted shall state the appropriate safe speed.

410.7 Sealing of Existing Joints and Cracks in Curbs

410.7.1 General - All joints and cracks in existing concrete curbs shall be sealed.
410.7.2 Materials

410.7.2.1 Sealant - The sealant shall be Sika “Sikadur 51-SL”, Crafco Inc., “Crafco Brand Rubber Sealant” or equal. Refer to manufacturer’s specifications for more details.

410.7.3 Construction Methods for Joints and Cracks - Joints and cracks shall be routed to minimum width of three-eighths (3/8) of an inch and a minimum depth of one (1) inch with a Crafco Model 200 router, Windsor Router Model JAW-1, or approved equal. All joints and cracks shall be cleaned by blowing out loose foreign material with oil free compressed air. The sealant shall be applied at a temperature of at least forty degrees (40°F) farhenheit and rising. Where a false joint is cut through a repaired section, the joint should have the same cross section for placement of the sealant. Old joint sealing material and any foreign matter must be thoroughly removed.

The joint shall be poured so that the sealant will be level with the top of the adjacent concrete.

Cracks shall be filled as soon as practical after they are cleaned but no later than the same day they are cleaned. It is imperative that no foreign material enter the crack and joints before they are sealed.

The crack and joint slot shall be at mid-point of its expansion and contraction.

410.8 Sealing of Joints and Cracks in Bituminous Pavement

410.8.1 General - All joints and cracks in bituminous pavement shall be sealed.

410.8.2 Materials

410.8.2.1 Sealant - The sealant shall be W. R. Meadows, Inc. “Gardox” joint sealant, Crafco Inc., “Crafco Brand Rubber Sealant” or equal. Refer to manufacturues specifications for more details.

410.8.3 Construction Methods - All joints and cracks must be sound, clean, dry and free from oil and grease and cleaned by sandblasting the joint or cracks and then blowing out loose material from the joints with oil free compressed air. Curing compound residues, old joint sealing material and foreign matter
must thoroughly be removed by routing to a minimum width of one-half (1/2) inch and a depth of one and one-half inches (1-1/2). If the joint or crack is too deep a backer rod may be used in conjunction with the sealer. When using “Gardox” the joint walls must be primed with P/G Primer.

The sealant shall be applied at a temperature between forty degrees farhenheit and one hundred degrees farhenheit. The joint slot or crack shall be at the mid-point of its expansion and contraction. The joint or crack must have a minimum width of one-half (1/2) inch and a depth of at least one and one-half (1 1/2) inch. Cracks or joints of one-half (1/2) inch or less must be routed to a width more than one-half (1/2) inch. The joint must be formed and the cracks enlarged by sawing or routing.

§411 Construction Fabrics

411.1 Scope of Work - The work under this section consists of furnishing all labor, materials, equipment and services necessary in performing all operations in connection with these specifications.

411.2 Non Woven Fabric Reinforcement

411.2.1 Materials

411.2.1.1 Fabric – The fabric shall be “Petromat” or equal as manufactured by Phillips Petroleum Co. The fabric shall be non-woven polypropylene fabric having the following properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile strength, either direction, min. per inch of width</td>
<td>50 lbs.</td>
</tr>
<tr>
<td>Elongation, warp direction, 20 pounds, inches, max</td>
<td>0.5</td>
</tr>
<tr>
<td>Elongation, Fill direction, 50 pounds, inches max.</td>
<td>1.1</td>
</tr>
<tr>
<td>Weight, oz/sq yd (fused two sides)</td>
<td>3 – 5</td>
</tr>
<tr>
<td>Color</td>
<td>Black</td>
</tr>
</tbody>
</table>

411.2.1.2 Asphaltic Binder – The asphaltic binder to be applied to the road surface and/or to the fabric shall meet the following requirements, listed in order of preference:
<table>
<thead>
<tr>
<th>Material</th>
<th>Grade</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cationic Asphalt Emulsion plus Rubber</td>
<td>Crs-1hr[1,3]</td>
<td>AASHO-M-208[2]</td>
</tr>
<tr>
<td>Cationic Asphalt Emulsion</td>
<td>Crs-2</td>
<td>AASHO-208</td>
</tr>
<tr>
<td>Cationic Asphalt Emulsion</td>
<td>Crs-1[3]</td>
<td>AASHO-208</td>
</tr>
<tr>
<td>Anionic Asphalt Emulsion</td>
<td>Rs-1</td>
<td>AASHO-M-140</td>
</tr>
<tr>
<td>Anionic Asphalt Emulsion</td>
<td>Rs-1</td>
<td>AASHO-M-140</td>
</tr>
</tbody>
</table>

[1] Cationic asphalt emulsion with five percent cationic rubber latex added.
[3] h is appended to indicate the penetration of the asphalt residue as hark; penetration at 77 degrees Fahrenheit, 100g, 5 sec. of 50-100.
[4] When using 85/100 penetration asphalt cement, a tack coat of ss-1 or ss-1h dilute emulsion should be used at the rate of 0.02 to 0.03 gallon per square yard based on residual content.

411.2.1.3 Aggregate – Normally, mineral aggregate will not be required. However, it may be advisable to use a small quantity of washed concrete sand to blot excess asphalt or to facilitate movement of construction equipment over the Petromat fabric during the overlay. A small quantity of the hot mix spread over the fabric will also serve for this purpose.

411.2.1.4 Asphalt Distributor - The distributor must be capable of spraying the asphalt binder at the prescribed temperature and application rate. It must be adjustable to give a uniform spray pattern over the entire width of application. No drilling or skipping shall be permitted. Preliminary test applications are required at an off-site area to ensure proper distributor performance.

The distributor shall be equipped with a hand spray with only one nozzle. The hand spray must be easily controlled and have a positive shut off valve. Hand spraying should be kept to a minimum because of difficulty in making accurate rates of application.

411.2.1.5 Miscellaneous Equipment - Stiff bristle push brooms to remove bubbles and wrinkles and scissors for cutting fabric must be provided.
411.2.2 Surface Preparation - The surface to be covered with fabric must be free of dirt, dust, water and vegetation.

411.2.3 Application of Binder - The asphalt binder shall be sprayed uniformly over the area to be fabric covered at a rate of 0.25 to 0.30 gallon per square yard, based on residual content. Binder application shall be accomplished with an asphalt distributor for all surfaces except areas where the distributor does not have room to operate. Hand spraying of the binder shall be kept to a minimum.

411.2.4 Temperature of Application - The binder application of the pavement surface, prior to placing the fabric, shall be at the temperature recommended by the supplier or that recommended by the distributor manufacturer. The temperature must permit uniform application.

411.2.5 Construction Method - The area to be covered with the fabric must be sprayed with binder at the specified rate. The width of the spray application shall be no more than six (6) inches wider than the fabric and no less than the fabric width plus two (2) inches. After the binder has essentially cured, the fabric shall be unrolled into the binder. To prevent runoff of the binder on steep grades and super-elevations it may be necessary to place the fabric into the fresh asphalt immediately after spraying. The membrane shall be allowed to cure prior to paving. The fabric shall be laid as smoothly as possible to avoid wrinkles. Wrinkles shall not be enough to cause laps of the fabric. Wrinkles shall be cut and laid out flat with a patch about twelve (12) inches wide applied over the cut. Small wrinkles, which will flatten out under compaction without lapping, may remain. The fabric shall be broomed or squeezed to remove air bubbles and make complete contact with the road surface. Sufficient time shall be allowed for setting or curing of the binder prior to the paving operation.

If, in the opinion of the Engineer, a tack coat is needed, it shall be applied at a rate of 0.02 to 0.05 gallon per square yard, based on residue content, using SS-1 or SS-1h anionic emulsion. The tack should not be placed until just prior to the paving operation, allowing for cure. Road traffic shall not be permitted after placement of the fabric.

Paving operations shall follow membrane placement as soon as the membrane has cured. Turning of the paving machine and other vehicles shall be gradual and kept to a minimum to avoid
damage to the membrane. If equipment tires tend to stick to the membrane during paving, a small quantity of hot mix or sand may be broadcast ahead of the tires to prevent sticking.

Temperature of the hot mix shall not exceed 325 degrees Fahrenheit. Most satisfactory laydown of the mix can be accomplished at a temperature of about 275 degrees Fahrenheit.

All of the binder should be applied to the pavement prior to placing the fabric. The heat from the hot mix application will cause the binder to completely saturate the fabric.

411.2.6 Joints and Laps - The fabric shall overlap the adjacent fabric panel a minimum of six (6) inches. Additional binder must be applied to make the joints. The transverse joints shall be made in such a manner to avoid pickup by the paver.

The direction of paving operations shall be opposite the direction of fabric placement to prevent pickup by the paver. The fabric should be shingled, where shingling is impractical, hot mix or sand spread over the joint will aid in prevention of edge pickup.

For good drainage, in the event of rain during construction or prior to paving, the joints shall be shingled to facilitate runoff.

411.3 Roadbed Stabilizing Fabric

411.3.1 Materials

411.3.1.1 Fabric - The fabric shall be “Supac 8NP” or equal as manufactured by Phillips Petroleum Company or FX-80HS manufactured by Carthage Mills. The fabric shall be non-woven polypropylene fabric having the following minimum properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight per oz/sq yd</td>
<td>7.6</td>
</tr>
<tr>
<td>Thickness, mils</td>
<td>85</td>
</tr>
<tr>
<td>Tensile, lbs</td>
<td>200</td>
</tr>
<tr>
<td>Puncture strength, lbs</td>
<td>100</td>
</tr>
<tr>
<td>Elongation, %</td>
<td>50</td>
</tr>
</tbody>
</table>

411.3.2 Surface Preparation – The surface shall be free from sharp objects and large loose particles.
411.3.3 Construction Method

411.3.3.1 General - Roll out the fabric in the direction of the roadway directly on top of the prepared surface as shown on the detail. No vehicular or equipment traffic will be permitted on the fabric. Where several widths of fabric are required the longitudinal joints shall be overlapped at least twelve (12) inches and pinned together by using 8-penny aluminum nails at twelve (12) inches center to center.

411.3.3.2 Placing Bituminous Material on Fabric - Placing the hot bituminous Concrete Base Course shall follow the fabric placement as soon as possible. Turning of the paving machine and other vehicles shall be gradual and kept to a minimum to prevent damage to the fabric.

Temperature of the hot mix shall not exceed 325 degrees Fahrenheit and should be at a temperature of 275 degrees Fahrenheit.

411.3.3.3 Placing Aggregate Material on Fabric - Trucks will not be permitted to travel over the fabric and the aggregate shall be placed on the fabric by dumping of the trucks and then bladed onto the fabric with a front loader. The aggregate must be dropped onto the fabric and not shoved over it. Finish grading shall be accomplished with a motor grader.

§412 Subgrade

412.1 Scope of work - This work is the preparation of the roadbed.

412.2 Construction

412.2.1 General - Grade roadbed to the established subgrade elevation and compact to specified density requirements, using a roller with a minimum weight of ten (10) tons.

412.2.2 Density Requirements - Compact the subgrade to not less than 100% of the determined dry-weight density. When material is too coarse compaction will be determined based on non-movement of material under compaction equipment.
At the time of compaction, maintain the subgrade material’s moisture content not more than two (2) percentage points above optimum moisture for that material. However, on subgrades displaying pronounced elasticity or deformation under rolling, maintain a moisture content not greater than optimum at the time of compaction or at the time of placing the overlaying construction. When the specified stability cannot be obtained in small areas excavate the material in the area to a depth that, when replaced and re-compacted at a moisture content not exceeding optimum, the subgrade will have required stability.

412.2.3 Subgrade Requirements - Complete, progressively maintain, and protect subgrade sufficiently in advance of the placement of the subbase. Prior to placement of the subbase, promptly and satisfactorily reshape and re-compact, or remove and replace, damaged or unsatisfactory areas. Check subgrade for grade and slope.

Test the finished surface for irregularities by using a template cut to the required cross section of the surface. Equip the template with metal or other vertical extensions attached to each end, so the bottom of the template will be at the elevation of the top of the surface. Test the cross section for surface irregularities at intervals of not more than twenty-five (25) feet.

Install string lines with ample supports, offset along each side to control the elevation. Maintain string lines until the surface is completed and deficiencies corrected.

Use a ten (10) foot straight edge to test for longitudinal irregularities in the surface. Hold the straight edge parallel to the road centerline in contact with the surface. Move the straight edge from one side of the surface to the other. Advance along the surface in five (5) foot increments.

Correct all surface irregularities exceeding one half (1/2) inch by loosening the surface and removing or adding material as required. Compact the corrected area and surrounding surface by rolling.

412.3 Unsuitable Subgrade

412.3.1 Repair - After the subgrade is exposed it shall be checked by the Engineer to determine if it is stable or not.
412.3.2 **Backfill** - After the unsuitable material has been removed the area shall be backfilled with PENN DOT 2A stone or gravel aggregate mechanically tamped in six (6) inch layers to the surface of the subgrade.

§413 **Cross Drains and Subdrains**

413.1 **Scope of Work** - The work under this section consists of furnishing all labor, materials, equipment and services necessary in performing all operations in connection with these specifications and as shown on the details.

413.2 **Aggregate** - All aggregate for Cross Drains and Subdrains shall be crushed stone or crushed gravel meeting the AASHTO No. 57 aggregate.

413.3 **Cross Drains**

413.3.1 **Construction** - The cross drains shall be installed to the dimensions as shown on the detail and connect one subdrain to another subdrain or a subdrain to an existing storm inlet. The bottom of the drain shall have a positive slope. The excavated material shall be disposed of off site and the cross drain shall be constructed after the compaction of the subgrade and before the placement of the aggregate subbase. The slotted ADS drainage tubing shall be placed for positive drainage with the slots facing downward. The No. 57 aggregate (crushed stone or crushed gravel) shall be placed over and around the tubing in such a manner as to give it support and prevent it from crushing. A layer of roadbed stabilizing fabric shall be placed on top of the No. 57 aggregate at the surface of the subgrade. The width of the fabric shall be as shown on the detail.

413.4 **Subdrains**

413.4.1 **Construction** - The subdrain shall be installed in the locations as specified and to the dimensions as shown on the detail. The excavated material shall be disposed of off site. The subdrain shall be constructed after the compaction of the subgrade but before placement of the aggregate subbase. The slotted ADS drainage tubing shall be placed for positive drainage and the aggregate subbase shall be placed around and over the tubing in such a manner as to support the tubing and prevent it from crushing due to the rolling of the aggregate base. A layer of roadbed stabilizing fabric shall be placed on top of the No. 57 aggregate at the surface.
of the subgrade. The width of the fabric shall be as shown on the detail.

413.5 Four (4) Inch Schedule 40 Storm Drain

413.5.1 Purpose - The four (4) inch Schedule 40 Storm Drain will connect with the four (4) inch ADS tubing in the cross drains and/or subdrains and carry the water collected to the ground surface at a uniform falling grade.

413.5.2 Construction - The four (4) inch Schedule 40 Storm Drain shall be installed in the location specified and as shown on the detail and connect to a subdrain or a cross drain. The bottom of the drain shall have a slope to carry all the subdrain water to the surface. The excavated material shall be disposed of off site and the storm drain shall be constructed after the installation of the curb and before the placement of the pavement. The No. 57 aggregate shall be placed six (6) inches over and around the drain in such a manner as to give it support and prevent it from crushing. A layer of roadbed stabilizing fabric shall be placed on top of the No. 57 aggregate. The trench shall be backfilled with compacted good soil within six (6) inches of the surface. The final six (6) inches shall be topsoil and the surface restored with sod. The flow-line depth of the storm drain shall vary from thirty-six (36) inches more or less to four (4) inches.

§414 Rain Conductors

414.1 Scope of Work - The work under this section consists of furnishing all labor, materials, equipment and services necessary in performing all operations in connection with these specifications.

414.2 General

414.2.1 Rain Conductors shall be adjusted where required due to adjustments in curb grade. The existing rain conductor shall be removed until there is satisfactory fall from the existing rain conductor to the adjusted curb. A flexible coupling shall be used to connect the new rain conductor and existing rain conductor. The new rain conductor shall be laid at a uniform grade and the pipe shall be covered with earth and if a grassed area is disturbed it shall be restored with sod.

414.2.2 Before removal of curb and/or sidewalk the location of the rain conductor shall be marked in such a way as to be able to locate same at time of construction of new curb and/or sidewalk. If
there are no roof drains through the curb or under the sidewalk
no openings shall be placed in the curb.

414.3  **Pipe Specification** - Pipe used for new rain conductor shall be three (3) inch inside diameter ABS Schedule 40 pipe with the necessary fittings.

414.4  **Rain Conductors Under Sidewalks and Through Curbs** - Where rain conductors have to be adjusted due to adjustments in curb and sidewalk grades, installation of said rain conductors shall be as specified in Section 414.2. The slab of walk under which the rain conductor is placed shall be reinforced over its entire area with welded wire fabric 66-44 and isolated from the remainder of the sidewalk with one quarter (1/4) inch expansion material. In place of reinforcement of the sidewalk slab the pipe may be laid 90° to the curb line and a contraction joint placed over the center or the rain conductor.

Where the rain conductor passes through a curb, said curb shall be reinforced with a No. 4 bar for the total length of curb from joint to joint over the top of pipe. The rain conductor through the curb shall be made of a short piece of pipe and a coupling with the coupling flush with the back of curb. The roof drains shall be inserted into the coupling. The rain conductor at the back of the walk shall be fitted with a coupling to permit proper joining of the conductor.

§415  **Bituminous Pavement Surface Treatment**

415.1  **Scope of Work** - This work shall consist of furnishing all labor, materials, equipment and services necessary in performing all operations necessary for the sealing of a bituminous surface course by spray application of petroleum oil and resins emulsified with water, complete, in accordance with the specifications and subject to the terms and conditions of the contract.

415.2  **Notification of Adjacent Properties** - The applicant shall distribute by hand, a typed notice to each building (residence or business) abutting the streets to be treated. The notice shall be delivered at least 24 hours but not more than thirty (30) hours in advance of starting work and shall explain the procedure, what to expect, and precautions they should take. The notice shall have a local phone number that residents may call to ask questions. The notice shall be of the door hanger type which secures to the door handle of each dwelling. Unsecured notices will not be allowed. The applicant shall also place the notice on the windshield of any parked cars on the street. Hand distribution of this notice will be considered incidental to the contract.

415.3  **Material** - The material for this application shall be “RECLAMITE” as furnished by Witco Chemical, Golden Bear Division, Bakersfield, California 93302 and applied by a well qualified subapplicant with at least three (3)
years of experience in the application of said material. The Owner reserves
the right to approve or disapprove the subapplicant. The material shall be an
emulsion composed of a petroleum resin oil base uniformly emulsified with
water. The applicant must submit along with his bonds, insurance certificates
a certified statement from the asphalt rejuvenator manufacturer showing that
the asphalt rejuvenating emulsion conforms to the required physical and
chemical requirements.

415.4 **Material Performance** - The rejuvenating agent shall have a record of at least
five years of satisfactory service as an asphalt rejuvenating agent and in-
depth sealer. Satisfactory service shall be based on the capability of the
material to decrease the viscosity and increase the penetration value of the
asphalt binder as follows. The viscosity shall be reduced by a minimum of
forty-five percent (45%) and the penetration value shall be increased by a
minimum of twenty-five percent (25%). Testing shall be performed on
extracted asphalt cement from a pavement to a depth of three-eighths inch
(3/8”). In addition, the pavement shall be in-depth sealed to the intrusion of
air and water.

The applicant must submit the manufacturer’s certification that the material
proposed for use is in compliance with the specification requirements. He
must submit previous use documentation and test data conclusively
demonstrating that; the rejuvenating agent has been used successfully for a
period of five years by government agencies such as Cities, Counties, etc;
and that the asphalt rejuvenating agent has been proved to perform, as
required, through field testing by government agencies as to the required
change in the asphalt binder viscosity and penetration number. Testing data
shall be submitted indicating such product performance on a sufficient
number of projects, each being tested for a minimum period of three years to
insure reasonable longevity of the treatment, as well as product consistency.

415.5 **Application Temperature / Weather Limitations** - The temperature of the
asphalt rejuvenating emulsion, at the time of application shall be as
recommended by the manufacturer. The asphalt rejuvenating agent shall be
applied only when the existing surface to be treated is thoroughly dry and
when it is not threatening to rain. The asphalt rejuvenating agent shall not be
applied when the ambient temperature is below 40 degrees Fahrenheit.

415.6 **Applicating Equipment** - The distributor for spreading the emulsion shall be
self-propelled, and shall have pneumatic tires. The distributor shall be
designed and equipped to distribute the asphalt rejuvenating agent uniformly
on variable widths of surface at readily determined and controlled rates from
0.05 to 0.5 gallons per square yard of surface, and with an allowable variation
from any specified rate not to exceed five percent (5%) of the specified rate.
Distributor equipment shall include full circulation spray bars, pump tachometer, volume measuring device and have a hose attachment suitable for application of the emulsion manually to cover areas inaccessible to the distributor. The distributor shall be equipped to circulate and agitate the emulsion within the tank.

A check of distributor equipment as well as application rate accuracy and uniformity of distribution shall be made when directed by the Engineer.

The truck used for sanding shall be equipped with a spreader that allows the sand to be uniformly distributed onto the pavement. The spreader shall be able to apply one half (1/2) pound to three (3) pounds of sand per square yard in a single pass. The spreader shall be adjustable so as not to broadcast sand onto the driveways or lawns.

The sand to be used shall be free flowing, without any leaves, dirt, stones, etc. Any wet sand shall be rejected from the job site.

Any equipment which is not maintained in full working order, or is proven inadequate to obtain the results prescribed, shall be repaired or replaced at the direction of the Engineer for the applicant.

415.7 Application of Rejuvenating Agent - The asphalt rejuvenating agent shall be applied by a distributor truck at the temperature recommended by the manufacturer and at the pressure required for the proper distribution. The emulsion shall be so applied that uniform distribution is obtained at all points of the areas to be treated. Distribution shall be commenced with a running start to insure full rate of spread over the entire area to be treated. Areas inadvertently missed shall receive additional treatment as may be required by hand sprayer applications.

Application of asphalt rejuvenating agent shall be on one half (1/2) width of the pavement at a time. When the second half of the surface is treated, the distributor nozzle nearest the center of the road shall overlap the previous application by at least one-half (1/2) the width of the nozzle spray. In any event the centerline construction joint of the pavement shall be treated in both application passes of the distributor truck.

Before spreading, the asphalt rejuvenating agent shall be blended with water at the rate of two (2) parts rejuvenating agent to one (1) part water, by volume or as specified by the manufacturer. The combined mixture of asphalt rejuvenating agent and water shall be spread at the rate of 0.05 to 0.10 gallons per square yard, or as approved by the Engineer following field-testing.
Where more than one application is to be made, succeeding applications shall be made as soon as penetration of the preceding application has been completed and approval is granted for additional applications.

Grades or super elevations of surfaces that may cause excessive runoff as determined by the Engineer shall have the required amounts applied in two or more applications, as directed.

After the street has been treated, the area within one foot of the curb line on both sides of the road shall receive an additional treatment of the asphalt rejuvenating emulsion. Said treatment shall be uniformly applied by an acceptable method.

After the rejuvenating emulsion has penetrated, a coating of dry sand shall be applied to the surface in sufficient amount to protect the traveling public as required.

The applicant shall furnish a quality inspection report showing the source, manufacture, and the date shipped, for each load of asphalt rejuvenating agent. When directed the applicant shall take representative samples of material for testing.

415.8 Street Sweeping - The applicant shall be responsible for sweeping and cleaning of the streets prior to and after treatment.

Prior to treatment, the street will be cleaned of all standing water, dirt, leaves, foreign materials, etc. This work shall be accomplished by hand brooming, power blowing or other approved methods. If the hand cleaning is not sufficient than a self-propelled street sweeper shall be used.

All sand used during the treatment must be removed no later than forty-eight (48) hours after treatment of the street. This shall be accomplished by a combination of hand and mechanical sweeping. All turn-outs, cul-de-sacs, etc. must be cleaned of any material.

If, after sand is swept, a hazardous condition exists on the roadway, the applicant must apply additional sand and sweep same no later than twenty four (24) hours following reapplication.

415.9 Traffic Control - The applicant shall schedule his operations and carry out the work in a manner to cause the least disturbance and/or interference with the normal flow of traffic over the areas to be treated. Treated portions of the pavement surfaces shall be kept closed and free from traffic until penetration has become complete and the area is suitable for traffic.
When traffic must be maintained at all times on a particular street, then the applicant shall apply asphalt rejuvenating agent to one lane at a time. Traffic shall be maintained in the untreated lane until the traffic may be switched to the completed lane.

The applicant shall be responsible for all traffic control and signing required to permit safe travel. The applicant shall notify the police and fire departments as to the streets that are to be treated each day.

If proper signing is not being used, the applicant shall stop all operations until safe signing and barricading is achieved.

§416 Base Replacement

416.1 Scope of Work - The work under this section consists of furnishing all labor, materials, equipment and services necessary in performing all operations in connection with these specifications and as shown on the details. The work also includes the installation of the six (6) inch thick subbase.

416.2 Construction Procedure for Base Replacement

416.2.1 Base Removal - The existing base and subgrade shall be removed to a depth of seventeen (17) inches below proposed finished grade by the use of a Gradall. No other piece of equipment shall be used. The existing base may consist of two or more of the following materials such as brick, bituminous material, plain concrete, reinforced concrete, coarse aggregate, cinders, sand, slag, rock and earth. Once the removal of the base is started the applicant must continue to work expeditiously until the base is completely removed.

416.2.2 Loading of Trucks - The removal of the base shall proceed in such a manner so that the Gradall will load the trucks while both the truck and Gradall are standing on the existing base. The trucks, loaded or unloaded shall not travel on the exposed subgrade.

416.2.3 Grade - The surface shall be within one (1) inch more or less of the established grade of the subgrade after the removal of the base.

416.2.4 Unsuitable Material Replacement - The Engineer will review the condition of the subgrade as the base is being removed and determine the areas of unsuitable material to be removed and replaced. The material shall be removed with the Gradall while removing the base and hauled from the site in partially loaded
tandem trucks. Replacement material shall be hauled to the areas in partially loaded tandem trucks.

416.2.5 Subdrain Installation - Where the installation of a subdrain is required the subdrain shall be excavated by the use of the Gradall while removing the base. All drain material shall be dumped at one specific place at the work site and transported to the areas where needed in partially loaded tandems or in the bucket of a tracked highlift. Once the subdrain is started the applicant must continue to work expeditiously until the subdrain is completed.

416.2.6 Disturbance of Subgrade - After removal of the base the exposed subgrade is at a critical point with respect to its structural integrity and it is important that any vehicular and equipment travel over said subgrade is kept to an absolute minimum and that it be covered as soon as possible after unsuitable material is replaced.

416.2.7 Fine Grading - Fine grading of the subgrade can be accomplished with the Gradall and a good operator. If the Gradall cannot be used then the subgrade shall be fine graded with a motor grader in as few passes as possible to reach proper grade and cross-section.

416.2.8 Compaction of Subgrade - The subgrade shall be compacted with at least a ten (10) ton vibratory roller to a condition satisfactory to the Engineer. Any areas of the subgrade showing distress, in the opinion of the Engineer, shall be removed and replaced, fine graded and re-compacted. After this point if any condition arises to cause distress to the subgrade by vehicular or equipment traffic by the applicant or by others due to the applicant has not properly barricaded the project, the applicant shall replace the distressed areas at his cost.

416.2.9 Placement of Roadbed Stabilizing Fabric - Immediately after the compaction of the subgrade the Road Bed Stabilizing Fabric shall be placed if required by this contract.

416.2.10 Subbase Placement - Immediately after the placement of the Road Bed Stabilizing Fabric, if required, or the compaction of the subgrade, the full depth bituminous base shall be placed in accordance with Section 409.20 starting with the placement of the six (6) inch thick subbase. The six (6) inch subbase shall consist of Penn DOT 2A aggregate as approved for subbase use by Penn DOT. Reclaimed and recycled material that utilizes
crushed asphalt or concrete from streets in this contract may be used if it meets the same Penn DOT 2A gradation and contains no foreign material such as clay, earth and reinforcing steel. The material for the subbase shall not be hauled over the compacted subgrade or the Road Bed Stabilizing Fabric and shall be placed with a motor grader in as few passes as possible to reach proper grade and profile. The subbase shall be compacted to a six (6) inch thickness with at least a ten (10) ton vibratory roller. After completion of the rolling of the subgrade, no other traffic shall be permitted on the subgrade except for emergency vehicles.

416.2.11 Scheduling - The applicant shall schedule his work so that the subbase shall be covered with the first layer of Bituminous Concrete Base Course within three (3) calendar days from completion date for the subdrain, if required, or five (5) calendar days from completion of the removal of base. If the applicant does not meet the schedule as specified herein he will be responsible for the cost of any and all repair, removal and replacement of subgrade and subbase for any and all reasons.

§417 Incidental Construction

417.1 Scope of Work - The work under this section consists of furnishing all labor, materials, equipment and services necessary in performing all operations in connection with these specifications and as shown on the details and drawings.

417.2 Adjusting Existing Storm Inlets

417.2.1 General - Existing storm inlets shall be adjusted by removing the castings, hoods, grates and concrete apron and raising, lowering or tilting by adding or removing brick, re-plastering any exposed brick and resetting the castings, hoods and grates in a bed of mortar. Backfill shall be with 2B aggregate, other than slag, where in a grassed area the last six (6) inches shall be top soil and any disturbed grassy areas shall be re-sodded.

417.3 Adjusting Existing Manholes

417.3.1 General - For major casting adjustments (over 2 ½ inches up or down) the existing manholes shall be adjusted by removing the casting and raising, lowering and tilting it by adding or removing brick, re-plastering, resetting the casting in a bed of mortar and restoring the disturbed base in kind. The top of the
casting shall be set to the new slope and grade. No metal bands or rings shall be used to adjust the manholes.

417.4 **Access to Walks and Driveways**

417.4.1 **General**

Private driveways and sidewalks shall be made accessible to pedestrian and vehicular use at the end of each day where the base has not been removed. During the day while construction is in progress the driveways and sidewalks not being affected by the actual work shall be accessible. Temporary access shall be made with wooden or steel plates, backfilling, bridges, etc.

Access to driveways and sidewalks may be denied during the excavation for base replacement, removal of existing pavement and placement of pipe and backfilling of the trenches. Vehicular access to driveways shall be denied while forms are being installed, concrete poured and during the period for curing of the concrete pavement curbs and driveways. Vehicular access to driveways shall be denied until the bituminous concrete base course is placed. Immediately thereafter temporary access shall be installed until permanent improvements can be completed.

Piles of material, equipment, vehicles and the like shall not be placed in such a manner as to prevent access to private sidewalks and driveways.