

PACTS

Portland Area Comprehensive Transportation Committee

Planning Committee Meeting Notice

June 12, 2008

8:30 a.m.

GPCOG, 68 Marginal Way, Portland

Agenda

- 1. Call to order**
- 2. Minutes of May 1st meeting**
- 3. Report on Leveraging Increased Transportation Funding**

Final Committee action on this report (sent by mail)

- 4. Ranking of 2010/2011 Bicycle/Pedestrian Improvement Proposals**

Staff will present their ranking (attached) of seven bicycle/pedestrian proposals. The next step is for the Planning Committee to submit recommendations to the Policy Committee for funding.

- 5. Election of new officers and representative to the Policy Committee**
- 6. Status Reports**
- 7. Joint Session with the Transit Committee at 9:30 a.m.**
- 8. Adjourn**

Next Meeting: July 3rd at 9:00 a.m.

The Metropolitan Planning Organization for the Portland Urbanized Area

68 Marginal Way • Portland, Maine 04101

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Minutes of May 1st Meeting

Members Present: Donna Larson, Chair, Freeport; Bill Bent, HNTB (for Maine Turnpike Authority); Deb Fossum, Gorham; Jay Chase (for Dan Bacon), Scarborough; Tex Haeuser, South Portland; Alex Jaegerman, Portland; Robert Kahn, Policy Committee Appointee; Mike Laberge, MaineDOT; Gary Lamb, Old Orchard Beach; Brooks Moore, Windham; Steve Linnell, GPCOG; Jon McNulty, Public Transportation; Maureen O'Meara, Cape Elizabeth; Greg Tansley, Vice-Chair, Biddeford.

Members Absent: Dawn Emerson, Yarmouth ;Gary Guerette, Policy Committee Appointee; Molly Just, Westbrook; Peter Morelli, Saco; Carla Nixon, Cumberland; Tom Reinauer, SMRPC; Amanda Stearns, Falmouth.

Staff and Guests: Kevin Donoghue, Portland City Council; Sarah Devlin, Freeport Intern; John Duncan, PACTS; Carl Eppich, PACTS; Mark Eyerman, Planning Decisions; Tom Gorrill, Gorrill-Palmer Associates; Steve Landry, MaineDOT; Sue McIntyre, GPCOG; John Melrose, Maine Tomorrow; Paul Niehoff, PACTS.

1. **Call to Order.** Donna Larson, Chair called the meeting to order at 9:04 a.m.
2. **Minutes of January 3rd, 2008 meeting**
Greg Tansley moved for approval of the January 3rd, 2008 meeting minutes, seconded by Gary Lamb. Vote taken. All were in favor. Minutes were unanimously accepted.
3. **New Transportation Funding Opportunities** – Mark Eyerman and John Melrose
John Duncan introduced John Melrose and Mark Eyerman. Mark and John have been asked to research how municipalities could pay for transportation improvements within the realm of what is currently available under Maine statutes. They were also asked to review and report on funding strategies for all modes of surface transportation. (A draft copy of “Alternative Local Funding Mechanisms for Transportation Improvements” has been included with the meeting packet).

It was noted that new transportation funding opportunities has now become a nationwide effort. A link to a Burlington, VT MPO describing work they have been doing in this regard was sent out to PACTS members for reference.

John Melrose said they had looked at a wide range of precedents noting that there are many tools that have been included in the Maine state statutes. (John's first report makes reference to a few of those). Among opportunities that exist in this area is the federal funding set asides for towns that are unique because of MPO status. It would be worth looking at statutes with regards to compact communities. 30% of towns in the state are compact communities and within some of those, the entire boundaries are compact. Your control over the system is more intense and you have less state support. It also affects maintenance and partnerships with the URIP program. The focal point ought to be in the area of transportation and of capacity improvement. Capacity can be addressed in a multitude of ways. Many of the tools available at the local level dovetail into the capacity issue with regards to new development and traffic movement permits.

John asked for feedback from the group as to whether this is the general area of need for capital investment and whether this should be the focus of the consultants' work. With respect to the capacity issue, this could be addressed through the traffic movement items. He spoke of a region wide solution including an area wide cost sharing and made reference to a region-wide effort involving Route 111 that is working out well with the community and the MaineDOT. When asked if something could be done in the PACTS region or an urban compact area, John made reference to financing as it relates to Section 129 and the repayment system. He spoke of using federal funds to create a revolving loan mechanism that would allow for the second time around being supportive of

all modes of transportation. It could be the 10% increment that could be used for leveraging of some other funds. The traffic movement permitting process as it relates to new development is where opportunities could also be found to raise funds. He encouraged the group to look at those tools as a potential key part of a package and said that a multi-faceted financing plan could be beneficial. John then introduced Mark Eyerman who elaborated on these tools.

Mark provided an overview of the various other funding mechanisms available for municipalities to use for raising monies for transportation improvements. Also provided was a description of local examples of how some of those “tools” could be applied and how to address transportation situations.

Among items and topics noted and discussed:

- Is an impact fee the best way?
- How does a town pay for improvements without reverting to the same old things such as impact fees, etc?
- None of the tools alone by themselves can provide big monies for all the funding.
- A key element is to think creatively in how to apply the various tools.
- Some tools apply in broader situations while some are directly aimed at infrastructure needed in conjunction with new development, while others can be used to correct deficiencies or for operations and maintenance.
- The development extraction model is a powerful model for transportation approval or site plan approval.
- Various ways to “piggyback” some of these tools with other funding tools.
- Fees paid by new development for being allowed to connect to water and sewer extensions paid by earlier development, with some of those fees being paid back to the original developer.
- Mitigation fees as an interesting approach in regards to the traffic improvement extraction. Saco has instituted this as a part of their zoning and review process.
- Capital improvement districts in regards to fees paid by the benefiting property owners in that district. State law states it has to be for a specific project and those affected have to agree to be charged. (i.e., special projects such as sidewalks, parking areas, etc.)
- Tax Increment Financing (TIFs_) - Revenues from TIFs could be used to pay for transportation improvements. But the improvement must be related to that new development within the TIF district. South Portland has instituted one that includes a pedestrian district.
- Non-TIF districts. A tool that is potentially available where there is a defined group to benefit.
 - Business Districts - Communities are allowed to develop a district and the income can be used for capital improvements, maintenance, operations, etc. In other parts of the country these are called “business districts”. (One example can be found in Bar Harbor where they have been looking at creating a Downtown Development District in relation to a remote parking lot and the island bus system).
 - Village Corporations – These were used to provide better and higher services. Gorham had one, at one time to provide street-lighting.
 - User fees- i.e., paying for parking through parking meters, garages, parking impact fees, etc.
 - Good tool/funding mechanism combinations for providing equitable treatment among all groups.
 - Regional approaches to funding mechanisms/Regional plans/Regional support systems/Adjacent communities.

This last topic generated discussion. An idea for PACTS would be to take a few projects in this region and show how PACTS could mix and match some of the funding mechanisms and test these out. It was noted that a tax financing district to improve the downtown district had been tried in some of the local towns but the towns had faced some problems and subsequently had to dig into their general fund. Costs escalated over the years and there wasn't enough revenue coming in. But, if done on a regional basis it might help to minimize some of those risks. It was also felt that the user fee model as well as the development district model had both been underutilized. If a user fee is charged it could then generate revenue to offset the cost for some of those improvements. Discussion continued about other items such as amending TIFs for TODs, and transit/bus subsidies. It was noted that TIFs take monies out of the general fund. A bigger issue is the ongoing maintenance and operating costs for all of the existing and new development as well as the issue of the continuing reliance on the automobile, which creates impacts, air pollution, storm water problems, etc. Alex felt that we should be trying to move toward a more balanced system and toward other modes of transportation. A universal fund could help with operating costs, maintenance and alternative modes of transportation. If it were regional, it could be contributing to a system that could be more multi-modal and could even reach into the existing parking issues. He asked if there was some theoretical structure that could go into the report with respect to a well-balanced system and how to fund it. More discussion followed.

Greg pointed out that some of the recommendations could probably work well with the larger cities, such as Portland, but did not really address the smaller municipalities such as the Biddeford-Saco area that is currently faced with different challenges. Discussion then focused on capacity issues and how other areas such as London and Chicago had addressed those issues.

I-295 was noted as one example of an existing capacity issue in the region as well as parking on the Portland peninsula as another example. Mark said that the important thing to note in his mind when referring to these issues is the appropriate geographic unit. If one is discussing parking on the Portland peninsula, that that has one dimension. If one is talking about intersection improvements in North Scarborough that is a whole different geography. In each case, the threshold question is, "What is the appropriate geography that relates to it?" Geography has to be based on commonality of interest. The key in transportation is to understand what the appropriate geography is as it relates to these things. More discussion followed on this topic, as well as on building permitting fees, TIFs, the funding of non-highway modes, traffic movement permits, etc. It was noted that towns should ask themselves what they are trying to accomplish. Do they want to fund non-highway modes? Robert Kahn pointed out that the geography of transportation seems to be moving. Governor Baldacci has extended the rail north to Brunswick and it also now includes Freeport. He felt that the Governor's office would be supportive of anything in the area of extending the rail system north of Portland.

With respect to regional fees, another item to consider would include how PACTs would decide priorities in the region to make it equitable. Tex spoke of a more robust regional review kind of plan at the top with a more regional oriented approach at the second level.

Discussion continued on the following other topics:

- TDM issues with respect to parking
- Coordination of transit services between adjacent towns.
- Making transit more efficient and affordable.
- Solutions to issues may require that it be addressed by region or by corridor.
- Ordinances for one community may not necessarily fit another community's needs.
- Looking at issues holistically and using the "toolbox" to see what is good for your community.

Mark Eyerman and John Melrose will make their presentation at the Annual PACTS Luncheon. Members of the group provided the following feedback as items they would like to see addressed in more detail in the report:

- A toolbox that doesn't depend solely on new development would be useful.
- A reliable resource for a staggering economy.
- Could the toolbox be used in a more comprehensive way with transit?
- Examples of inter-municipal agreements/solutions as well as region-wide solutions.
- Sub-region solutions according to geography. (Geography is extremely important).
- Legislative amendments that would be beneficial to help in finding solutions.
- Destination Tomorrow with respect to transit. Where do we want to focus our funding?

Donna thanked Mark and John for coming in. They will be providing John Duncan with a follow-up report.

4. **Ranking of 2010/2011 Capital Improvement Proposals.** (Tabled until next meeting.)
5. **Status Reports.** (Tabled until next meeting.)
6. **Adjourn.**
Meeting adjourned at 11:02 a.m.

Agenda Item 3 – Report on Leveraging Increased Transportation Funding

The goal for today's meeting is for the Planning Committee to forward this report to the Policy Committee for acceptance. The Policy Committee will begin its review in July. One idea is to have a workshop with Mark Eyerman and John Melrose this summer.

On June 6th we mailed copies of the final draft report to all members of PACTS committees and to top management at MaineDOT. John Melrose and Mark Eyerman will present it to the membership at the June 20th annual luncheon.

The consultants' budget is essentially spent. PACTS staff can continue to work on this if needed.

We have done the following since the Planning Committee's May meeting:

- John Melrose and Mark Eyerman added some details, and established a uniform report format. Mark added a summary matrix.
- Mark traded many phone calls unsuccessfully with Jason Schreiber, the primary consultant for our Portland Peninsula Transit Study.
- David Willauer advised that Windham is prepared to use TIF funds to support the operations of the proposed Lakes Region Bus Service.
- John Duncan talked with John, Mark, Steve Landry, Tom Gorrill and Tom Errico about developing a rough estimate of potential increased revenue from implementation of the mechanisms in the report. This is a work in progress.

Agenda Item 4 – Ranking of 2010/2011 Bicycle/Pedestrian Proposals

A. Proposals for PACTS Bike/Ped Set Aside Funding

Seven project applications from five municipalities were submitted for consideration for the 2010/2011 work plan. The total monetary amount based on the estimates as submitted is \$1,172,130. Six projects are infrastructure related and one (Portland's Tukey's Bridge) is for preliminary design. The anticipated Bicycle-Pedestrian set-aside dollar figure for new projects is \$385,000. A brief overview of the proposals follows on the next page.

The next step is for the Planning Committee to submit recommendations to the Policy Committee for funding (final action in October).

SCORING CRITERIA - AVERAGE OF PAUL'S & CARL'S SCORES														
ID	Municipality	Location	Cost Est.	Users (type, number)	Regional Benefits	Cost Effectiveness	Growth Area	Network	Safety	Main tain/improve	Expand	Land Use Connection	Livability/Redevelop	Sum
1	OOB	Saco Ave. Sidewalk and Bike Lane Enhancement	\$186,980	2.5	1.5	1.5	2.5	2.5	2.0	2.5	1.0	2.0	2.5	20.5
2	Portland	Trail Connect. I-295 Exit7 - Back Cove Trail	\$78,000	2.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0	1.5	1.5	20.0
2	Portland	Tukey's Bridge: Improve Bike Ped Access	\$40,000	3.0	2.5	2.0	2.0	2.0	3.0	2.0	1.0	1.0	1.5	20.0
4	Falmouth	Falmouth Foreside Sidewalk	\$65,000	2.5	1.5	2.0	1.5	1.0	2.5	1.5	1.5	2.5	2.5	19.0
5	Portland	Improved Trail & Transit Connections: I-295 Exit 5	\$132,000	2.0	2.5	1.5	1.0	2.0	2.0	1.0	2.0	1.5	1.0	16.5
6	Freeport	Concord Gully Trail Phase 1	\$98,150	1.5	1.0	1.5	1.5	1.5	1.5	1.5	2.5	1.5	1.5	15.5
6	Yarmouth	Rte. 1 Bike/Ped Path" Complete Phase 1	\$572,000	2.0	1.5	0.5	1.0	1.5	2.5	1.5	1.5	1.5	2.0	15.5

Please note that our policy is to program a 25% contingency for all PACTS projects, except design work and STP Transit projects. The amounts above do not include the contingency.

Based on the \$385,000 available, on the scores above, on the 25% contingency policy and on an understanding that amounts shown below are the maximum PACTS contribution to these projects, PACTS Staff recommends funding the first three projects in the table above at:

- \$234,000 for the Old Orchard Beach project,
- \$98,000 for the Exit 7 trail, and
- \$40,000 for the Tukey's Bridge access study and preliminary design.

Please also note that in 2006 PACTS funded sidewalk projects for Main Street in Biddeford and for Saco Avenue in Old Orchard Beach, but in 2007 the Policy Committee deferred these two projects to 2010/2011, and capped the PACTS contribution to them at a total of

\$329,112. As such, our total Bike/Ped program for the upcoming 2010/2011 biennium is \$329,112 + \$385,000 = \$714,112.

A brief overview of the seven proposals follows in alphabetical order.

Falmouth- Foreside Road (Rte 88)/Underwood Park/Johnson Road/Town Landing Road: Construct a new sidewalk from a future parking lot at Underwood Park to Johnson Road, including a crosswalk from Johnson Road across Rte 88 to a landing area at Town Landing Road. The project will improve pedestrian access and safety to the Town Landing area. Anticipated cost: \$65,000.

Freeport- Gully Trail, phase I: An off road multi-use trail connecting an existing trail on Casco Street to Forest Street in the vicinity of the LL Bean facility. The project will connect existing facilities and improve non-motorized access. Anticipated cost: \$98,150.

Old Orchard Beach- Saco Avenue new and rehabilitated sidewalks and bike lanes: Rehabilitation and construction of new sidewalks and a bike lane on Saco Avenue (Rte 5) from Staples Street to Union Avenue, including ADA ramps. The project will improve access and safety for both bicyclists and pedestrians (including transit users) along the Rte 5 corridor. Anticipated cost: \$186,980.

Portland- Back Cove Trail/Peninsula Connection: A multi-use trail connection between Franklin Arterial/Marginal Way and the Back Cove Trail beneath I-295. The project will be a new connection from the Portland Peninsula to the Back Bay trail for bicyclists and pedestrians. Anticipated cost: \$78,000.

Portland- Study to improve bicycle access across Tukey's Bridge: Feasibility and preliminary design for bicycle improvements to both the north and south approaches to Tukey's Bridge for connections to the peninsula, Eastern Prom and Back Cove Trail. Anticipated cost: \$40,000.

Portland- Bicycle and pedestrian connections to the Portland Transportation Center: Construct multi-use trail from facility across the Fore River Parkway to Congress Street and construct sidewalk connection from the existing sidewalk on Sewall Street to the PTC facility. Anticipated cost: \$132,000.

Yarmouth- Rte 1 multi-use trail construction: Construction (extension) of multi-use trail from the existing Beth Condon Memorial Pathway near Forest Falls Drive, over, along and across East Main Street to connect to existing trail at the East Main Street ramp. Project includes a retaining wall along Rte 1. Anticipated cost: \$572,000.

Agenda Item 5 – Election of new officers and a representative to the Policy Committee

Donna Larson and Peter Morelli, the current and immediate past Chairs, are the Nominating Committee per our bylaws. They recommend Greg Tansley as Chair and Dan Bacon as Vice Chair for the coming two years.

Greg Tansley, as the presumed incoming Chair, has decided to serve on the new PACTS Executive Committee. This is his decision, per our bylaws. If he chose not to serve on the Executive Committee then the Planning Committee would be charged with voting to fill that position with another member.

In April the Policy Committee also created two new voting seats on the Policy Committee: one for the Planning Committee and one for the Technical Committee. (The Transit Committee already has two seats.) This raises the total voting members to 24, plus 5 non-voting members.

The Planning Committee seat on the Policy Committee needs to be filled:

- The seat is open to any member.
- The Planning Committee is responsible for selecting someone.
- A vote today would be good, but is not necessary.
- John Duncan recently asked Donna Larson if she would be willing to serve. Donna has served on many PACTS committees during the past two years, so could bring her experience to the Policy Committee for the Planning Committee. Donna is willing to serve if the Planning Committee wishes her to do so.

Agenda Item 6 – Status Reports

We are going to do a \$20,000 High Priority Projects telephone survey this summer. See Carl Eppich for details.

MaineDOT has hired a new Traffic Engineer, Brian Keezer, for their Scarborough office.

Steve Linnell has been appointed chair of the subcommittee on passenger transportation to the Governor's Working Group on the High Cost of Transportation Fuels which is part of the Governor's Pre-Emergency Task Force on Energy.

The GPCOG Annual Meeting will be on June 19, 2008 at 5:00 Keeley the Katerer's. The PACTS Annual Meeting will be the following day on June 20 at 12:00 at USM.

GPCOG has prepared DVD's of Charlie Stephens's presentation, *Toward a Sustainable Energy Future*. See Steve Linnell for more information.

GPCOG Executive Committee is developing three sub-committees to pursue sustainability initiatives on Community, Economy and Environment. There will be a retreat over the summer followed by several forums next year.

The Transit Committee recently:

- Elected Ed Clifford and Catherine Debo to serve as the Chair and Vice Chair, respectively, of the committee for the next two years.
- Met with Greg Tansley regarding a mixed use special transit district ordinance.
- Continued work to implement the PACTS Transit Study adopted last year.
- Discussed an update on their work with MaineDOT to implement a cell-phone based automatic vehicle location (AVL) pilot program.

The Technical Committee recently:

- Elected Jennie Franceschi (Biddeford) and Dan Jellis (Yarmouth) as the incoming Chair and Vice Chair.
- Hear a presentation on our upcoming traffic signal study. See Carl Eppich.
- Discussed MaineDOT's MPO/Service Center Challenge Fund, and the PACTS role in setting priorities for proposals.

The Policy Committee recently:

- Elected Bill Shane (Cumberland) and John Bubier (Biddeford) as incoming Chair and Vice Chair.
- Adopted a list of intersection proposals for further consideration for funding in the 2010/2011 biennium.

Noteworthy Transportation Studies Underway, About to Start or Proposed

- MaineDOT's I-295 Corridor Study
- MaineDOT's "Small Starts" passenger rail study
- MaineDOT et al review of Traffic Movement Permit process
- Turnpike Widening Alternatives Analysis
- Turnpike Authority's Gorham Connector Study
- PACTS New Transportation Funds Opportunities Study
- PACTS Portland Peninsula Transit Study
- PACTS Collector Roads Assessment Study
- PACTS Regional Signal Coordination Study
- PACTS Franklin Arterial Corridor Study
- PACTS Portland Peninsula Wayfinding Study
- PACTS Falmouth Infrastructure/Transportation Plan
- PACTS Yarmouth Route One Study (Phase II)
- PACTS Cape Elizabeth Shore Road Pathway Study
- Forest Avenue Transit Oriented Development Study (EPA \$?)

Agenda Item 7 – Transit and Planning Committees Joint Meeting

How can Transit and Planning Committees work together to:

- ✓ Reduce VMT
- ✓ Increase Transit Options
- ✓ Integrate transit into municipal land use policy
- ✓ Develop a regional approach to Transit Oriented Development
- ✓ Prioritize funding for transit

Attached below is background material:

1. Transit in *Destination Tomorrow*
2. “Let's get serious about public transit” Link
3. Excerpt from PACTS Transit Coordination Study
4. Recent vanpool and transit trends for Greater Portland
5. \$10 Gasoline and Rising Inflation, The Trend of the Future
6. Model Mixed Use Special Transit “MUST” ordinance

1. Transit in *Destination Tomorrow*:

As you know *Destination Tomorrow* incorporated an Alternatives Analysis in Chapter 4. One of the Alternatives presented is called the Transit Theme in which the transportation systems throughout the PACTS region are analyzed to determine their benefits and impacts derived from various transit strategies.

- There is a **Transit Theme Strategies** table on page 4-21 (Table 4-10)

Here various options and strategies are presented for boosting transit options throughout the region.

*** It is noted here that the Transit Theme is the only Transportation Theme that reduces both regional VMT and regional VHT relative to the 2025 base. These reductions are key to reducing climate change gases.**

- **Best-of Themes** or combined themes are presented on page 4-39 and in a table on page 4-41.
- **Objective 3 To expand accessibility in the region by non-automobile users** can be found in Chapter 5 on page 5-17. Perhaps the language should be changed to read “To expand transportation options AND accessibility in the region by non-automobile users”

Strategy 23, 24, and 25 within Objective 3 all deal with transit

- Strategy 27 Model Ordinances can also be found under Objective 3, the intention of which is to provide technical assistance to communities to revise their ordinances and incorporate language which will lead to expanded and improved sidewalks, bicycling infrastructure, preferential parking for rideshare vehicles, transit infrastructure and other

transit oriented provisions, to be incorporated at the site plan review stage of development review.

2. Here is a link to a brief commentary by Robert Reich that aired on Marketplace a couple of days ago titled **Let's get serious about public transit.**

http://marketplace.publicradio.org/display/web/2008/06/04/reich_public_transit

You can listen to the audio or read the text and comments from listeners.

3. **From the PACTS Transit Coordination Study:**

The PACTS Transit Committee should work with PACTS staff and municipal officials to incorporate transit service planning into the municipal comprehensive planning process.

a. *Involve the PACTS Transit Committee in the review of major land use development projects. Providers should have an opportunity to comment on design of and access to new facilities.*

Communication – PTC Staff to notify Transit Committee of all MaineDOT Scoping meetings in the region. Scoping meetings are required for larger developments that need to receive a Traffic Movement Permit from MaineDOT. All Regional Planning Agencies in Maine currently receive notices of these meetings.

Coordination – PTC to appoint member to attend Scoping Meetings when and where appropriate, who would then report back to the PTC. PTC would then discuss the project and work with staff to develop recommendations to the MaineDOT Regional Engineer.

Collaboration – PTC staff serve as providers' representative, to review developments and offer input for transit design, amenities, etc., an possibly fill other related planning needs.

Consolidation – PTC and/or the PACTS Policy Committee to work with MaineDOT to amend the Traffic Movement Permit process to include formal public transportation representation and input. PTC Staff to work with individual municipalities to incorporate transit design in site plan review and other ordinance processes.

b. *Explore the possibility of Regional Impact Fees for Transit.*

Communication – PTC Staff to gather information regarding impact fees and other areas of the country where transit fees may be utilized, and share with PTC.

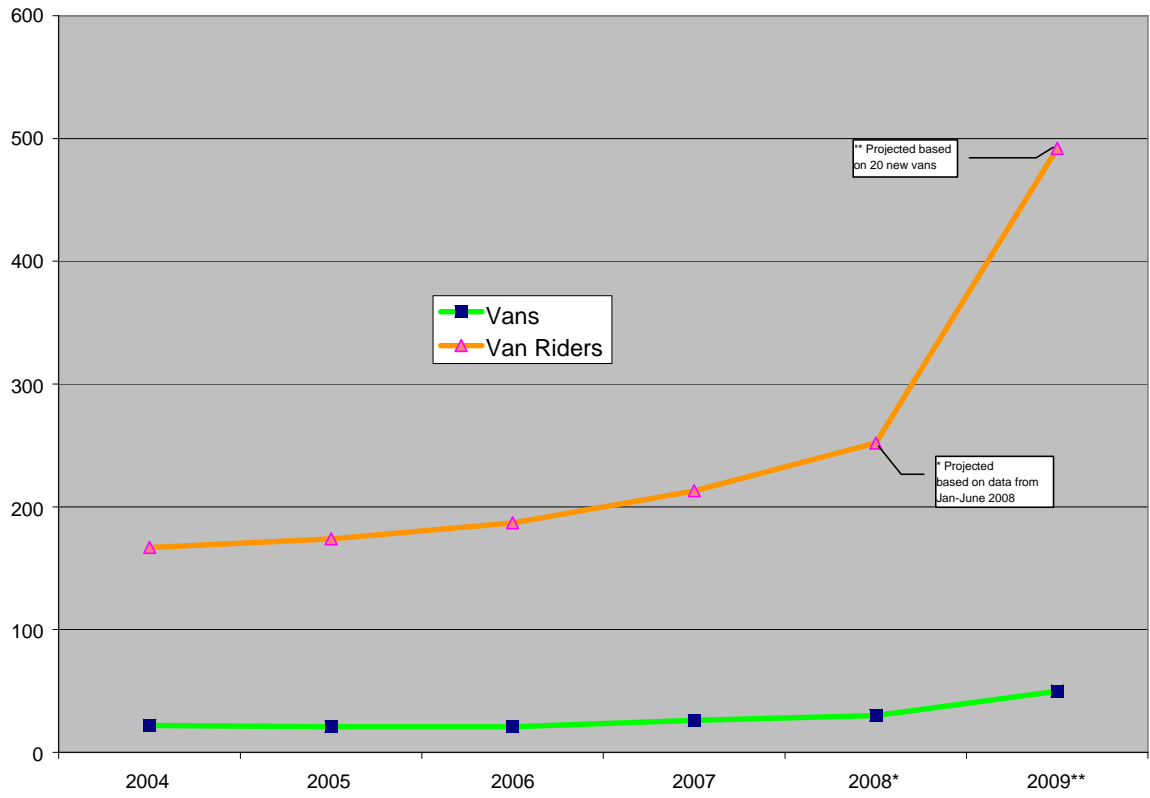
Coordination – PTC to develop model impact fee ordinance and take necessary steps to forward idea through the PACTS and public processes.

Collaboration – PTC utilize previous work to approach municipalities for possible inclusion of transit impact fees for new development.

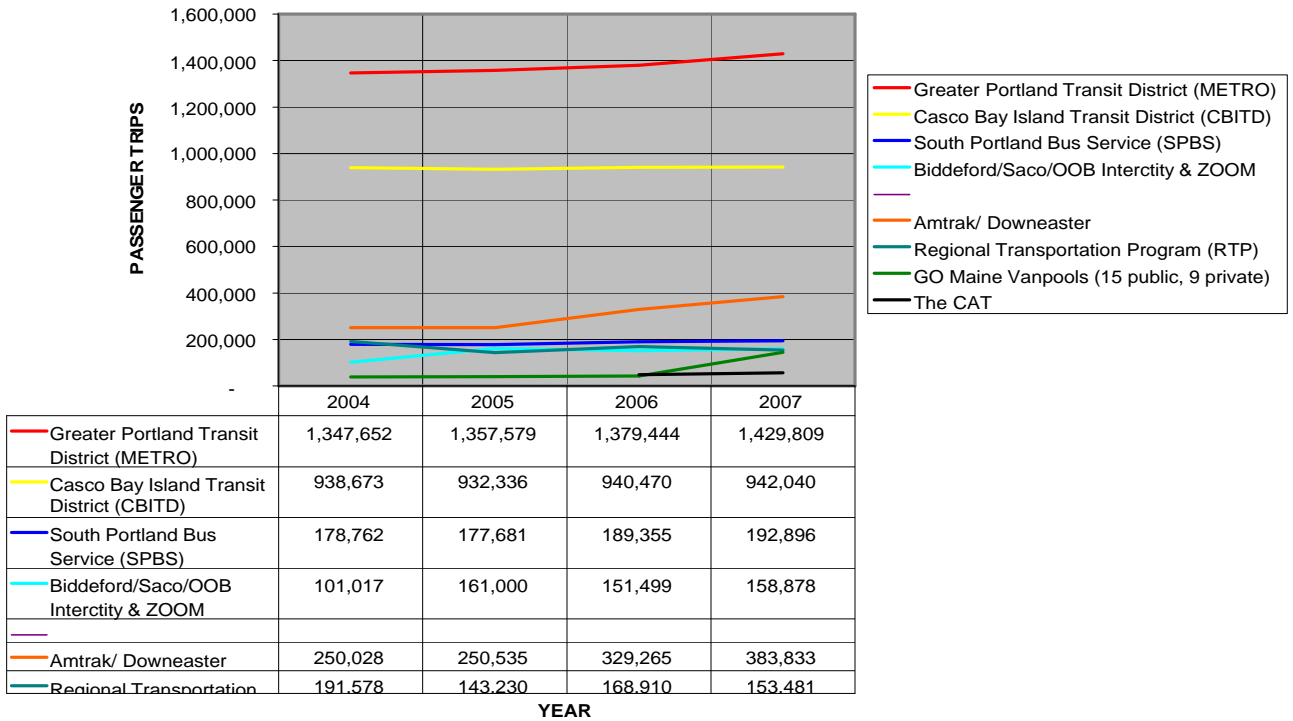
Consolidation – PTC to work with PACTS in deciding how new funds should be distributed between transit projects and/or providers.

4. On the next page is a chart of the increases of GoMaine Vanpool ridership and a second chart showing the increasing ridership trends among the fixed-route providers in the Greater Portland region.

GO Maine Commuter Growth Trends



Greater Portland Transit Boardings 2004 - 2007



5. Blog entry: \$10 Gasoline and Rising Inflation, The Trend of the Future

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Population Growth and Control, Sustainable Living

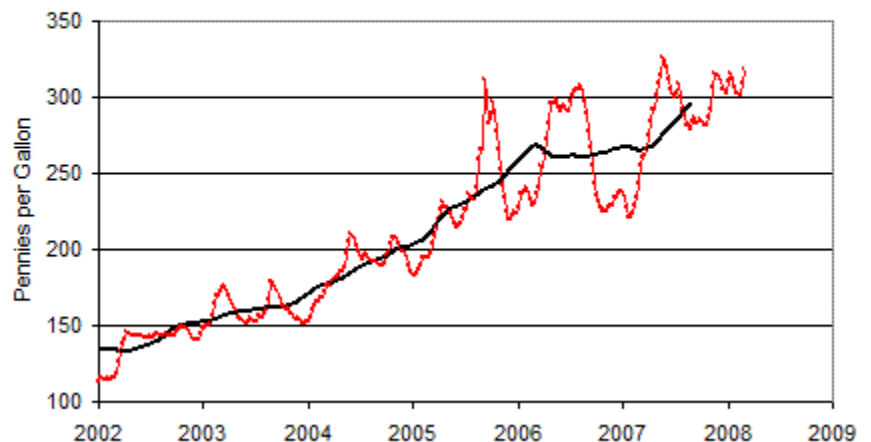
While it sounds incredible, \$10 per gallon gasoline is what we should expect only seven years from now. That is, if everything goes extremely well, between now and then.

When thinking about where to live, and what car to buy, the future price of gasoline should definitely be a consideration. Not many people will be able to afford to drive long distances to work each day. Not many people will be interested in cars that get poor or even average gas mileage.

Weekly Gasoline Prices, USA

12 Month Centered Moving Average

Data: U.S.A. D.O.E. E.I.A. psw17.xls, February 27, 2008



Why should we expect \$10 per gallon gasoline in seven years?

Because gasoline prices have been increasing for a while now, long enough that we should take for granted that prices will continue to increase at about that same rate.

How fast have prices increased?

In 2003, the average price of gasoline was \$1.50 per gallon in the USA. Now, it is over \$3.00 per gallon. This doubling in price happened over about four and a half years.

Let's take a look at a graph that shows the average price of gasoline in the USA since the start of 2002.

In red, is the average gasoline price for each week. These red dots show how gasoline prices tend to go up and down throughout the seasons. The black line helps to show the overall trend of increasing gas prices.

Prices are typically at their low for the year during the winter, and at their high for the year during the summer. In 2007, the lowest average price was \$2.21 per gallon. That was in January. Over the following sixteen weeks, the price increased by 47% to \$3.25 per gallon.

So far, in 2008, the lowest average price has been \$3.01 per gallon. If we again see a 47% increase, then we'll be paying an average of \$4.43 at the pump before the end of May.

There is no guarantee prices will increase this rapidly, but this number gives us an idea of how much belt tightening might be necessary.

Since price for gasoline doubled in four and a half years, how long will it be before we reach \$10 per gallon?

The chart at right shows the price of gasoline over the past several years, and then simply extends the trend out to the \$10 point. This graph shows exponential growth as a straight line.

The way things have been going, we will be paying \$10 per gallon within seven years.

With that in mind, the thought of buying a poor gas mileage car, taking a job far from home, or buying that house in the suburbs or ex-urbs doesn't sound like the best idea.

But "the way things have been going" is a big assumption; actually, it is several big assumptions. Here are a few of them:

1. The world economy continues as it has for the past five years
2. The inflation rate stays about the same

3. World oil production stays about the same
4. The world remains in a state of relative peace
5. Other factors remain basically the same

Stagnant world oil production is the most likely cause of the increasing gasoline prices.

Over the past three years, world oil production has not increased. Instead, oil production is now at a plateau of about 84.5 million barrels per day. This is in great contrast to constant industry and economic predictions of continued growth in production.

With more people demanding gasoline, both because of population increases, and because nations are rapidly increasing their use of automobiles, the increase in the price of gasoline and oil is not a surprise. As production

has remained constant, the prices must rise as demand increases. This is economics 101.

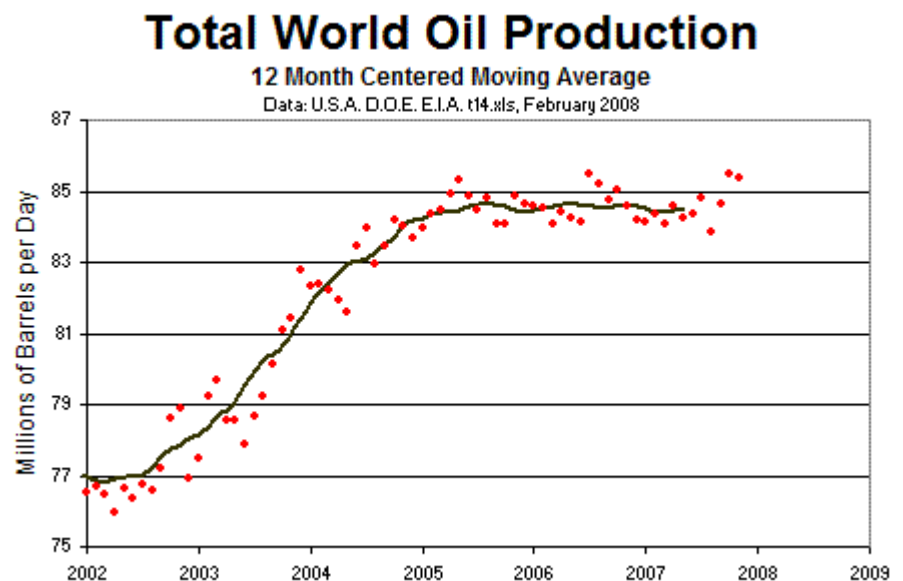
What is surprising is that world oil production has not increased in over three years. Could it be that the oil producing countries and companies could produce or extract more oil, but they just aren't trying hard enough, or don't want to, for some reason?

The incentive in business is to make money, as much as possible, as fast as possible. If an oil company had more oil to sell, at today's prices, they would sell it to bring in the additional profits. There is no incentive for them to hold back on production.

Let's look at the prices of oil over the past few years:

We can see that prices rose from about \$25 per barrel, to around \$60 per barrel, over the period of only two years, being 2004 and 2005. After a brief pause during 2006, prices continued to rise in 2007, and are now around \$100 per barrel.

This increase in the price of oil is driving many individuals and companies to try to increase oil extraction, so they can sell the oil at these all time record \$100 rates.



In Alberta, Canada, a major effort is being made to extract oil from the earth by mining it. Here, tar sands are dug up using huge tractors, loaded on dump trucks, taken to a factory to wash the tar off the sand, and then the tar is mixed with natural gas to produce refinery grade oil.

In the deep oceans, oil companies have sent floating oil platforms, to attempt to drill through miles of water, and more miles of earth to get at smaller and smaller oil patches.

In Pennsylvania, the original oil boom state, people are trying to get the last barrels out, by pumping, digging deep holes, or whatever means necessary. And yet, with these and similar efforts around the world, oil production has not increased, and the natural result has been a not-too-surprising increase in the prices. If this plateau in oil production continues, we can expect some very high oil prices in the not too distant future.

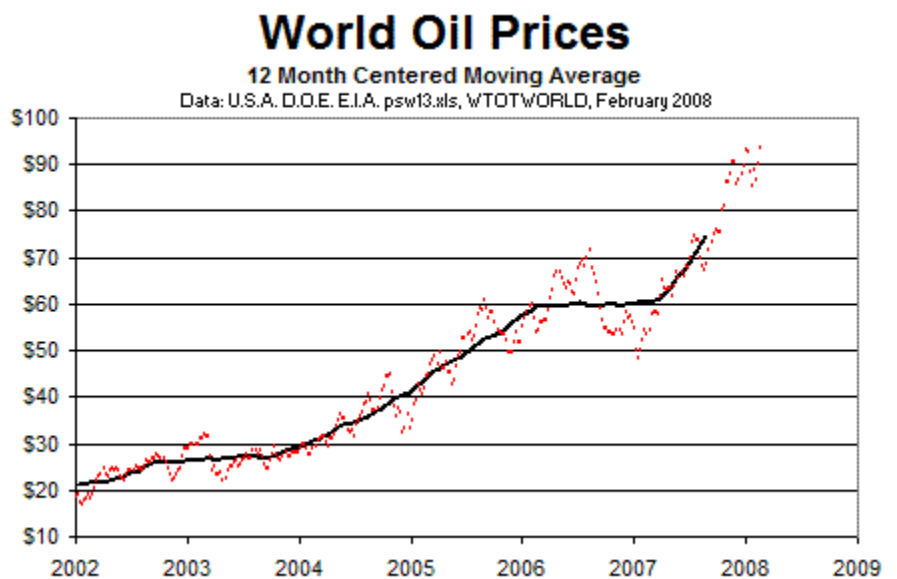
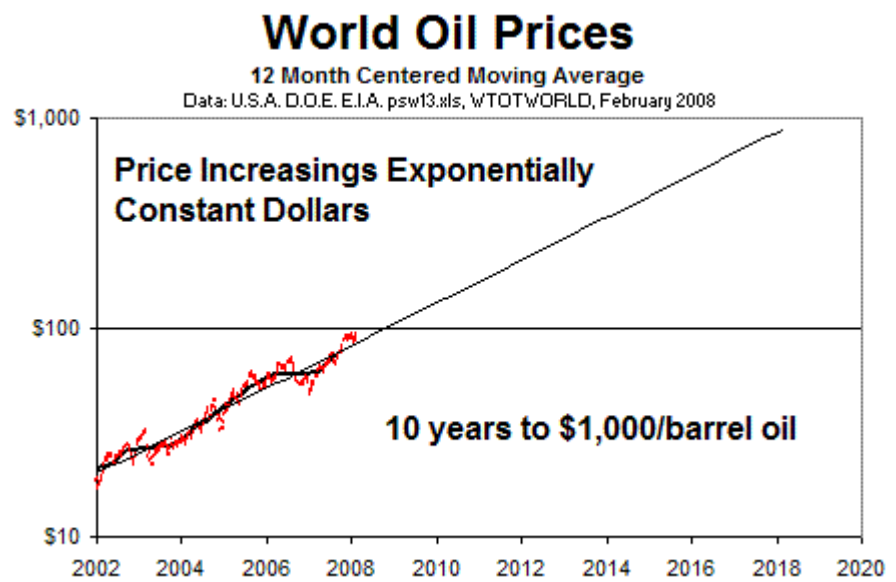
Again, using a graph that shows exponential growth of prices as a straight line, we can see that oil prices may be \$1,000 per barrel in ten years time.

If you look closely at the red dots, you may notice that ten years might not be the best estimate. Recently, oil prices have been increasing rapidly. Perhaps ten years to \$1,000 is the lowest price we should expect.

What this all boils down to is that gasoline prices, oil prices, food prices, and all prices that depend on the transportation and production of goods and services, will be increasing. It appears that our oil producers are no longer able to increase production, and so the prices will continue to rise. That is what we should expect, in the best case scenario.

What makes this the best case scenario?

It is the best case because oil geologists and oil companies are starting to tell us that we will be unable to continue producing 84.5 million barrels per day for much longer.



Retired oil geologists Colin Campbell and Ken Deffeyes are but two of many who both state that 84.5 mbpd is either the ultimate maximum extraction rate, or very near to it. More importantly, they and others point out that it isn't getting any easier to extract the oil, in fact, the easy-to-get-at oil is mostly gone, and now even the hard-to-get-at-oil is in decline.

If the plateau of 84.5 mbpd ends, and world oil production begins to decline, then all bets are off. The best case \$10 per gallon gasoline and \$1,000 per barrel oil will look like the deals of the century. This possibility is concerning to a growing number of people, who have begun to learn about peak oil.

Peak oil is simply a shorthand way of describing the point at which world oil extraction reaches its all time limit, before going into a permanent and unstoppable decline.

Similar situations have happened before. In 1956, the most famous oil geologist in the world, Dr. M. King Hubbert, predicted that oil production in the USA would peak before the mid-1970's. He made his calculations by examining the amount of oil discovered in the USA, and noting that less and less oil was being discovered each year. Since discovery was declining, production would also have to eventually begin to decline.

Hubbert's prediction proved to be accurate. US oil production did peak before the mid-70's. The US was but the first of dozen's of countries to reach their personal bests in oil production. All these countries are now in production decline.

Hubbert later pointed out that the peaking of oil production would also happen to the entire world, since global oil discoveries were already beginning to decline.

What this all means for us is that we need to start adjusting to a new reality. Not only should we expect that increasing gasoline prices is normal, but we should also expect that other prices will increase as well. For those individuals on a fixed budget or a low income, it is particularly important to find ways to adjust to these price increases. This new reality is also a call to the rest of us to start considering what can be done.

In the 70's, after the peaking of US oil production, we began a wide effort to conserve energy and reduce oil consumption. We insulated homes. When it was time to get a new car, we bought one that got the best gas mileage possible. We started gardening to grow vegetables to keep our grocery bills in check. We shared rides to work and combined trips. We did what it took to take care of ourselves and our families.

Had oil prices remained high through the 80's and 90's, we would probably be in an okay place today. But prices did not remain high, and as they declined to record low levels, our rate of consumption reached new highs.

Today, we are in a similar situation to the one we found ourselves in during the 70's, but with one major difference: there is no likelihood we will ever see stable gasoline prices ever again. We have to expect that the prices will continue to rise, and we will have to continue to adapt, until someday, perhaps decades from now, we find that we have transitioned away FROM gasoline, in much the same manner that we transitioned TO gasoline in the first place.

The challenge is in making this transition, and in making it quickly and purposefully enough

that we can continue to take care of ourselves, our families, and our communities. We don't know for sure when the decline in oil extraction will begin, how rapid the decline will be, or even how that will accelerate the rise in prices, but we certainly can think about it, and start planning now for this unique, unexpected and challenging future.

Source: <http://www.planetthoughts.org/?pg=pt/Whole&qid=1916#>

DRAFT (7/22/04)

6. MODEL “MUST” ORDINANCE

NO. _____

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I. PURPOSE AND APPLICABILITY

A. General Purpose

The Mixed Use Special Transit District (MUST) is established to encourage the development of transit-supportive mixed-use neighborhoods that foster economic viability, pedestrian activity and a sense of community. It recognizes the importance of public transit as a viable alternative to the automobile by permitting appropriate densities and a mix of land uses within walking distance of transit stops while, at the same time, providing sufficient off-street parking to uses both within and adjacent to the MUST.

The intent of this Article is to allow development that decreases auto dependency and mitigates the effects of congestion and pollution. The regulations create accessible neighborhoods and promote and protect the health, safety and general welfare of the citizens of Lower Merion Township. Further, this Article is designed to enhance the economic stability of the Township by promoting the attractiveness, convenience and stability of those areas of the Township to which the MUST applies.

These general goals and objectives include the following specific purposes:

1. Encourage location efficient, pedestrian oriented and human scale development;
2. Promote well-integrated residential, commercial, office and civic development in close proximity to local and regional transit stations;
3. Support new development that includes diverse pedestrian-compatible, higher density, transit friendly designs and expands economic development opportunities and minimizes distances between destinations by requiring linked sidewalks and pedestrian oriented access;
4. Provide incentives for the creation of mixed uses in keeping with the character, scale and architecture of the neighborhood, while using development design guidelines to promote compatibility of uses and stimulate pedestrian activity;
5. Maintain a scale, balance and variety of commercial, institutional and residential uses;
6. Promote the livability and identity of the neighborhood by providing for dwellings, shops and workplaces in close proximity to each other.
7. Enhance the visual character and physical comfort of the district by minimizing pedestrian and vehicular conflicts and encouraging the renovation and erection of buildings and storefronts that provide direct connections to the street and sidewalk.
8. Discourage the dependence on automobile use, thereby reducing traffic congestion and promoting alternative modes of travel.
9. Encourage the development of attractive, convenient off-street parking facilities to reduce on-street congestion and facilitate vehicular and pedestrian circulation.

B. Applicability

1. The MUST is defined and established to include and be an overlay upon all parcels within the Ardmore Special Development District 1, C-1, C-2 and CL Commercial Districts that are located within certain boundaries of the Septa R-5, R-6 and R-100 railroad lines and the bus lines along Lancaster Avenue, Wynnewood Road and the Bala Avenue public transportation systems as specifically described below.

- A. All commercially zoned properties extending fifteen hundred feet from the center line of the R-5 railroad tracks in a Southerly direction from the Rosemont Train Station in Bryn Mawr to the Wynnewood Train Station in Wynnewood.
 - B. All commercially zoned properties extending five hundred feet from the center line of the R-5 railroad tracks in a Northerly direction from Woodside Road to Church Road in Ardmore.
 - C. All commercially zoned properties extending five hundred feet from the center line of the R-6 railroad tracks in a Southwesterly direction from City Avenue to the intersection of Montgomery Avenue and Conshohocken State Road in Bala Cynwyd.
 - D. All commercially zoned properties extending five hundred feet from the center line of the R-100 railroad tracks in the Northeasterly direction from County Line Road to Prospect Ave in Bryn Mawr.
2. The provisions of this article apply to the entire commercially zoned area on a parcel at the edge of the overlay district provided any portion of that parcel is within the MUST district boundary.
 3. The use regulations and development design standards in the MUST are mandatory.
 4. The development design standards in the MUST overlay district shall apply to exterior building improvements requiring a Township building permit.
 5. Authorization to develop a tract pursuant to the requirements of the underlying commercial district (conventional development), rather than the Mixed Use Special Transit District (MUST), may be granted by the Board of Commissioners as a conditional use pursuant to Section 155-141.2 provided the applicant proves compliance with the standards and criteria set forth in Section 155-141.2 B & C and that the applicant has achieved the MUST development goals set forth in Section (I. A. & IV. C.)

C. Definitions

Accessway – a formalized path, walkway or other physical connection that allows pedestrians to directly reach destinations.

Arcade – a covered walkway attached to a building and supported on the sides but not attached to the building by columns.

Articulation – the visible expression of architectural or landscape elements through form, structure or materials that “break up” the scale of buildings and spaces to achieve “human scale.”

Buffer - A buffer is used for planting and screening between residential and non-residential zoning districts and it is also used to separate areas used by pedestrians from those designed primarily for vehicular use. The buffer is a shield to block light, noise and other nuisances.

Building Scale - The relationship between the mass of a building and its surroundings, including the width of street, nearby open space, and the mass of buildings on adjacent properties. Mass is determined by the three-dimensional bulk of a structure: height, width and depth.

Build-to Line – The location along a property’s frontage where the building façade shall be placed. Build to lines are generally situated between the right of way and the front yard setback and are used to create a unified street wall.

Clear Window – the amount of glass surface of a window that allows 100% visual permeability.

Commercial Parking Facility – a parking structure operated for economic gain where 50% or more of its parking spaces are not accessory to a primary use and the spaces are available to the public on a first come first serve basis. This term does not include park-and-ride lot.

Drive-Through Facility – facilities allowing transactions for goods or services without leaving a

motor vehicle.

Fast Food Establishment – a food service business that offers relatively immediate service of semi-prepared or prepared foods for take-out or in-house consumption in disposable containers and serving walk-in and/or drive-through customers.

Fitness Center – a place, building or portion of a building where passive or active exercises and related activities are performed for the purpose of physical fitness, improved circulation or flexibility, and/or weight control. The activities shall be conducted entirely w/in an enclosed building and be operated for profit or not for profit and which can be open only to bona fide members and guests of the organization or open to the public for a fee.

Frontage – the linear edge of a property adjacent to the property line abutting a street or public right of way.

Grocery Store – a food market with more than 4,000 square feet of Floor Area.

Ground Floor – The first floor of a building other than a cellar or basement.

Liner Retail – a retail building adjacent to a street and serving pedestrian traffic. It is located at the front of a larger retail site that may also contain large retail uses or parking structure.

Live-Work – a residential unit that is also used for commercial purposes for a time, with minimum of 25% of the total building area given to the nonresidential use within the same structure as the residential component.

Loggia – a roofed, but open arcade along the front or side of a building on an upper story.

Mixed-Use – development contained within a single parcel or within a master plan development (horizontally or vertically), which contains different land use categories. No one use may utilize more than 75% of the building area and the uses shall provide a variety of peak hour pedestrian and vehicular activity times.

Overhang – the architectural elements of a building that extends horizontally beyond the wall over a street or walkway.

Parking Structure – a parking garage located above ground and/or underground consisting of one or more levels, not surface parking.

Park and Ride lot – a parking structure or surface parking lot intended primarily for use by persons riding transit or carpooling and that is owned or operated either by a transit agency or by another entity with the concurrence of the transit agency.

Parking, Off-Street – marked or unmarked parking located within a parcel and outside a private or public right of way.

Parking, On-Street – marked or unmarked parking located outside of a parcel and within a private or public right of way.

Pedestrian oriented design – the design of communities, neighborhoods, streetscapes, sites and buildings that emphasizes pedestrian access, comfort and visual interest. Transit-Oriented Design is a particular type of pedestrian oriented design that includes location efficiency, design and intensity of land use to support both transit and pedestrians.

Pedestrian-Oriented Street – a street where adjacent uses generate and encourage foot traffic.

Pedestrian Scale – the size and proportion of physical environmental elements that closely relate to the human body e.g., a 16-foot lamppost vs. a 30-foot lamppost, and a façade with vertically oriented framed windows vs. a façade with a continuous and unarticulated window wall.

Pedestrian Way – a linear space or an area where the primary users are pedestrians and that may also accommodate bicyclists.

Pergola – an arbor or passageway with a roof or trelliswork on which climbing plants can be

trained to grow.

Portico – a porch or walkway with a roof supported by columns, often leading to the entrance of a building.

Primary Front Façade – the façade of a building facing onto a public or private street or pedestrian accessway.

Redevelopment – The improvement of a building and/or parcel requiring Land Development approval.

Shared Parking – parking that is utilized by two or more uses taking into account the variable peak demand times of each use; the uses can be located on more than one parcel.

Story – the distance in a structure between the upper surface of a floor and the upper surface of the floor or roof next above, generally between 10 and 16 feet.

Visual Permeability – the ability of vertical surfaces to allow viewers to see through to the other side e.g. windows and open fences.

Walking radius – the distance beyond a given point from which a person is willing to walk. This distance varies depending up existing barriers, the walking environment and the availability of destinations.

II. USE REGULATIONS

A building may be erected or used and a lot may be used or occupied only for the purposes listed below in Section II.A and B. The applicant is encouraged to create a mixed-use development. Developments shall adhere to the development design standards in Sub-section IV.

A. Residential uses

1. Single Family Semi-detached Dwellings
2. Townhouses.
3. Apartment houses, which shall include condominiums.
4. Upper story residential uses above non-residential uses.
5. Live/work units for artisans, professionals and service providers, provided the work area does not exceed 50% of the floor area of the dwelling unit.
6. Accessory uses on the same lot w/and customarily incidental to any of the above permitted uses, including above- or below-ground parking structures and fitness centers, but specifically excluding off-track betting parlors.
7. Any use of the same general character as any of the uses hereinbefore specifically permitted, excluding off-track betting parlors.

B. Nonresidential/Commercial Uses

1. Adult or child day care.
2. Nursery school or similar nonresidential use for more than six (6) children.
3. Bank or other financial institution, excluding drive-thru windows. Existing banks with drive thru windows may be incorporated into a new mixed use development if the drive thru window and the vehicle stacking area can not be seen from any street.
4. Office building, medical clinic building.
5. Restaurants excluding drive-thru windows.
6. Bakery, confectionery or custom shop for the production of articles to be sold at retail on the premises.
7. Copy centers and job printing operating on a retail sales level.

8. Commercial parking facility that is pedestrian oriented in both design and scale.
9. Retail store with an area on each Story equal to or less than 25,000 square feet.
10. Personal service shop, excluding fitness centers but including tailor, barber, beauty salon, shoe repair, dressmaking or similar type use.
11. Grocery store with a floor area less than 35,000 square feet.
12. Hand laundry, dry-cleaning or dyeing establishment operating on a retail sales level.
13. Hotels.
14. Theater.
15. Indoor recreational facilities such as roller & skating rinks, skate board park, indoor playgrounds.
16. Real estate sales office.
17. Municipal office building.
18. Accessory use on the same lot with and customarily incidental to any of the above permitted uses, including above ground or below ground parking structures and fitness centers but specifically excluding off-track betting parlors.
19. Any use of the same general character as any of the uses hereinbefore specifically permitted, but excluding off-track betting parlors.

III. DIMENSIONAL STANDARDS FOR DEVELOPMENT

A. Land Use Zoning Chart

Land Use	Lot width	Bldg Area	Front yard	Side yard	Rear yard	Height	Imp. Cover	Buffer
Single Use Bldgs/Development.								
Townhouses	20 ft.	80 %	0 - 12 ft.	0 - 20 ft.	0-15 ft.	3 stories or 39 ft.	85 %	20 ft.
Apts. & Condos	50 ft.	80 %	0 - 12 ft.	0 - 25 ft.	0-20 ft.	5 stories or 65 ft.	85 %	20 ft.
Hotels	60 ft.	80 %	0 - 12 ft.	0 - 25 ft.	0-25 ft.	5 stories or 65 ft.	85 %	20 ft.
Other Commercial Uses	20 ft.	80 %	0 - 12 ft.	0 - 25 ft.	0-25 ft.	2 stories or 32 ft.	85 %	20 ft.
Office	20 ft.	80 %	0 - 12 ft.	0 - 25 ft.	0-25 ft.	3 stories or 39 ft.	85 %	20 ft.
Mixed Use Bldgs/Development.								
Commercial/Residential	-----	100 %	0 - 12 ft.	-----	0-15 ft.	6 stories or 78 ft.	100 %	20 ft.
Other Commercial/Non-Residential	-----	100 %	0 - 12 ft.	-----	0-20 ft.	6 stories or 78 ft.	100 %	20 ft.

B. Building Area

1. Single Use Buildings – limited to 80% of the lot area, as per Section III (A) above, the Land Use Zoning Chart.
2. Mixed Use Buildings – Permitted to cover up to 100% of the lot area, as per Section III (A) above, the Land Use Zoning Chart.

C. Building Setbacks

1. Build-to-Line are used to maintain a strong sense of streetscape and encourage pedestrian activity.
 - a. Unless otherwise authorized by the Board of Commissioners as part of a development plan, the Build-to-Line shall be located at the street Right of Way.
 - b. The primary pedestrian access point to buildings shall face onto the Build-to-Line, rather than onto rear or side parking lots or alleys. Secondary access points may be located along other façades.
 - c. Parking lots, driveways, loading zones and other auto-related areas do not qualify as structures, enhanced pedestrian spaces or amenities, and are prohibited at or in front of the Build-to-Line.
 - d. Enhanced pedestrian spaces and amenities, landscaped with shade trees and furnished with seating areas, may be created and located along the Build-to-Line, in front of the new/redeveloped building façade if approved by the Board of Commissioners as a Conditional Use.
 - i. Features such as overhangs, balconies, loggias, arcades, covered (non-enclosed) bicycle parking, pergolas and similar architectural features placed on the front (street facing) side of the building may extend beyond the build-to-line and/or up to five feet into the right of way but no closer than 2 to the curb line.
 - ii. Projections into the right of way shall be subject to approval by the authority having jurisdiction.
2. Front Yards. There is no required minimum front yard setback.
 - a. Maximum. No front yard setback shall be greater than that of the closest building within 150 feet, facing the same street and in the same zoning district. However, the maximum front yard may extend up to 12 feet, if the additional area is used as a public gathering space or for outdoor dining.
 - b. Where a street line separates the MUST district from a residential use in a residential zoning district, a 10' landscaped front yard setback in the MUST district along the build to line is required in accordance with the required buffer provisions.
3. Side Yards. New and redeveloped buildings in the MUST shall be subject to a range of minimum/maximum side yard setbacks in order to maintain a consistent sense of the streetscape and encourage pedestrian activity.
 - a. Minimum. There is no required minimum side yard setback. However, if the new/redeveloped structure is not built up to the side property line, the new/redeveloped building must be setback a minimum of 10 feet from the side property line. Where a building is located between a street and a train station or bus stop, direct egress shall be provided to the occupants of the building to the street and the public transportation stop.
 - b. Maximum. The maximum side yard setback varies, depending on the proposed use, from 15 to 25 feet, or the width of any required Buffer, whichever is greater. Section III (A) above, the Land Use Zoning Chart, details side yard setbacks.
 - c. For a corner lot immediately contiguous to a residential use in a residential zoning district, the side yard on the residential street shall be at least equal in depth to the side yard requirement in such residential district.

4. Rear Yards. Depending on the proposed use and subject to the Buffer requirements set forth in Section III (G) below, all parcels subject to this overlay may have a required minimum rear yard setback.
 - a. When a new or redeveloped building complying with the MUST development design standards is on a parcel that backs up to another commercially zoned parcel, a rear yard setback is not required.
 - b. When a new or redeveloped building complying with the MUST development design standards is on a parcel that backs up to a residentially zoned parcel, then the rear yard setback is the maximum listed in Section III (A) above, the Land Use Zoning Chart. The property must also comply with the minimum buffer requirements.
 - c. When a railroad right of way separates a new or redeveloped building complying with the MUST development design standards from a residential zoning district the rear yard setback provided for in Section III (A) above, may be reduced by up to five feet, but in no case may the setback be less than 15 feet.

D. Lot Width

1. Single use buildings – The minimum lot width is between 20 and 60 feet, depending upon use, as per Section III (A) above, the Land Use Zoning Chart.
2. Mixed use buildings – There is no minimum requirement.

E. Impervious Cover

1. Single use buildings – Impervious cover is limited to 85% of the net lot area, as per Section III (A) above, the Land Use Zoning Chart. This limit may be increased to 100% when the property contains a Class 1 or 2 structure on the Township's Historic Inventory that is being preserved in compliance with the Secretary of the Interior Standards referenced in Chapter 88 of the Lower Merion Code.
2. Mixed-use buildings – Impervious cover may go up to 100% of the net lot area.

F. Building Height

1. The provisions of Section 155-137 (setbacks, impervious cover and bldg area) hereof shall not apply to new and redeveloped structures developed in accordance with this article.
 - a. The minimum height of any building shall be 2 Stories, or 28 feet above grade over 90 % of the building area, whichever is less.
 - b. Depending upon the proposed use, the maximum height of any building shall be 6 Stories, exclusive of basement, or 78 feet above grade whichever is greater. Section III (A) above, the Land Use Zoning Chart, details individual height limits.
 - c. The building height limits may be increased by one story or 15' for a penthouse space provided it occupies less than 25% of the floor area of the story below and is setback a minimum of 20 feet from the exterior walls of the building.
 - d. Notwithstanding the building height provisions noted above or in Section III (A), the Land Use Zoning Chart, no building shall exceed by more than two stories or thirty (30) feet, whichever is less, the height of the tallest building or buildings that front on the same street and are located within 150 feet of such building. For a corner lot, this provision shall be applied to buildings within 150 feet on all street frontages.

- i. No portion of a building located within 50 feet of an existing one or two family dwelling in a residential zoning district shall be permitted to exceed 3 Stories or 42 feet whichever is less.
2. All rooftop mechanical equipment, including antennas, shall be screened visually and acoustically. Such screening shall be integral to the architectural design of the building.
3. Any application for any new construction over 50 feet tall shall include an analysis of the impact of the new structure on surrounding buildings. Shadows shall not be cast onto any residential dwelling in a residential zoning district.

G. Buffer Area

1. Where a MUST commercial development abuts a residential use in a residential zoning district, or a railroad right of way with a residential district on the opposite side of the railroad, there shall be a buffer area along the district boundary line within the MUST.
 - a. The depth of this buffer shall be at least 20 feet measured from the district boundary line.
 - b. Where the district boundary line is a railroad right of way, the depth of the buffer area shall be at least 15 feet from the railroad right of way.
 - c. Where the district boundary line is the center of a street or at a street line, there shall be a 10 foot wide planted landscape area along the build to line in the MUST district. Other than the required street trees, the plantings shall be low level plantings that do not obstruct a pedestrian's view of the first floor window and door openings.
2. The buffer area shall be planted with a variety of high and low level plantings. Where the required buffer is along a railroad right of way, a wall or a fence or a similar architectural detail that satisfies the purpose of the buffer requirement may be used.
3. There may not be more than one vehicular entrance and one vehicular exit through the buffer area to any street.
4. Any lot which becomes vacant through the removal of a structure for any reason must be screened from all abutting public streets by planting street trees and providing a six-foot wide landscaped area with a continuous row of 2 feet high shrubs, or a fence or seating wall not less than 2 feet and no more than 3 feet high. These shrubs shall be maintained at a height of 4 to 5 feet.

IV. PARKING AND LOADING REQUIREMENTS

A. On-site parking.

1. At-grade, above- or below-ground parking and loading facilities shall be permitted.
2. Surface parking lots and loading areas shall be placed between the structure and a rear lot line.
 - a. On a corner lot, if surface parking and loading can not be behind the buildings and screened from view, then the parking shall be located:
 - i. along the street with the least amount of commercial activity.
 - ii. along the street with the least amount of pedestrian activity if the lot is located along two or more commercial streets with equal amounts of commercial activity.

3. If surface parking and loading areas are visible from the street frontage, then a fence, wall or plantings shall be provided to maintain the street edge, and buffer views of the parked cars.
 - a. In no case shall surface parking lots or loading areas occupy more than 1/3 of a parcel's frontage along a pedestrian street or street segment.
 - b. Parking areas and loading shall be buffered from any adjacent Pedestrian Way by planting street trees and providing a six-foot wide landscaped area with a continuous row of 2 feet high shrubs, or a fence or seating wall not less than 2 feet and no more than 3 feet high. Shrubs shall be maintained at a height of 2 to 3 feet.
4. The Primary Front Façade of a parking structure visible from a public or private street or Pedestrian Way shall be pedestrian oriented and scaled and designed to look like adjacent active commercial facades. Residential and/or useable commercial floor space shall occupy eighty percent (80%) of the ground floor façade.
5. Ground level parking beneath buildings shall be permitted provided 80% of the Primary Front Façade, is pedestrian oriented and scaled commercial and/or residential space.
6. Changing a non-residential use to another use or uses permitted in the MUST does not require additional on-site parking provided that:
 - a. The existing structure will be a mixed use building, and
 - b. The new use requires a maximum of 15 additional parking spaces above what the existing use currently requires, and
 - c. Any exterior changes to the building comply with the MUST development design standards.
7. On site parking shall not be required if the development complies with the MUST development design standards and the parcel is less than 2,500 square feet with an improved road frontage of 25 feet or less.

B. Parking for single-use structures.

1. Required parking for new and redeveloped structures within the MUST shall be calculated by using the Single Use Peak Hour Demand values noted in TABLE 1.

C. Parking for mixed-use structures.

1. Parking required for new and redeveloped mixed-use structures within the MUST shall be calculated by using the following process and the percentages provided in TABLE 1.
2. First, determine the number of parking spaces required for each individual use within the mixed-use structure by using the Single Use Peak Hour Demand values in TABLE 1. That number serves as the base for calculating the Percentages of Peak Demand for Key Times.
3. Next, calculate the number of spaces needed for each use for each peak hour by multiplying the base number (the Single Use Peak Hour Demand value) by the Percentage of Peak Demand for Key Times values.
4. Next, add the columns for each Peak Demand Time to determine the number of spaces required for the mixed-use structure for each peak hour.
5. The required number of parking spaces for the development is the highest total hour figure for the mixed-use development.

TABLE 1: Required Parking (revise to include more specific land uses)

Land Use	Single Use Peak Hour Demand (spaces)	Percentage of Peak Demand for Key Times ¹									
		Weekdays					Saturday				
		10 am	1 pm	5 pm	8 pm	10 pm	10 am	1 pm	5 pm	8 pm	10 pm
Retail	4/1000 sq. ft.	50	75	75	65	25	50	100	90	65	35
Office	4/1000 sq. ft.	100	90	50	5	5	15	15	5	0	0
Restaurant	8/1000 sq. ft.	20	70	70	100	95	5	45	60	100	95
Theatre	1/5 seats	0	60	60	85	85	0	70	70	100	100
Health Club	5/1000 sq. ft.	10	80	100	30	10	60	80	60	30	10
Hotel	1/room	45	30	60	90	100	40	30	60	90	100
Residential	1.5/unit *	85	80	85	95	100	70	65	75	95	100

¹ Source of peak demand percentages is the Urban Land Institute's Shared Parking Standards.
* = Moderate-income dwelling units require ½ (.5) parking spaces/unit.

Example: An existing commercial building is renovated according to the MUST design standards and now contains: 3,500 sf. retail; 1,500 sf. restaurant and 10 residential units. The MUST number of required parking spaces is 40. Calculations are shown below in TABLE 2:

TABLE 2: Mixed Use Building Example

Land Use	Single Use	Percentage of Peak Demand for Key Times									
		Weekdays					Saturday				
		10 am	1 pm	5 pm	8 pm	10 pm	10 am	1 pm	5 pm	8 pm	10 pm
3,500 sf. retail	14	7	10.5	10.5	9.1	3.5	7	14	12.6	9.1	4.9
1,500 sf. restaurant	12	2.4	8.4	8.4	12	11.4	6	5.4	7.2	12	12
13 market rate dwlg. Units	19.5	16.6	15.6	16.6	18.5	19.5	13.7	12.7	14.6	18.5	19.5
Totals	NA	26	34.5	34.5	39.6	36.5	21.3	32.1	34.4	39.6	36.6

D. Off-site parking

Shared parking for public and/or private use is encouraged.

1. When land uses on adjacent parcels within the MUST create shared parking areas with circulation paths and access points that are under common ownership or controlled by a reciprocal easement agreement, the collective parking requirements for development on those properties may comply with the Required Parking values listed in TABLE 1.
 - a. Documentation confirming the ownership and/or management arrangement shall be submitted prior to the Board of Commissioners approving a Tentative Sketch

Plan application and shall be subject to the Board's approval. The agreement must demonstrate a permanent commitment for the use of the off site parking.

- b. Buildings with extra parking retain expansion rights equivalent to that number of extra spaces.
2. Code required parking for Mixed-Use structures may be provided off-site, provided:
 - a. Parking is available within 900 feet of the mixed-use development using a pedestrian route continually accessible to the public, measured from property line to property line, and
 - b. Both the Mixed-Use development and the parking facility comply with the MUST design standards, and
 - c. Documentation that the parking facility owner agrees to make the spaces available to the proposed off-site Mixed-Use development within the MUST shall be submitted prior to the Board of Commissioners approving a Tentative Sketch Plan application. The off-site parking spaces may not already be designated as required parking for some other use.
3. Code required parking for Single-Use structures may be provided off-site when:
 - a. The development parcel is less than 8,000 square feet and improved street frontage is less than 40 feet, and
 - b. Parking is available within 900 feet of the single-use development using a pedestrian route continually accessible to the public, measured from property line to property line, and
 - c. Both the Single-Use development and the parking facility comply with the MUST design standards, and
 - d. Documentation that the parking facility owner agrees to make the spaces available to the proposed off-site Single-Use development within the MUST shall be submitted prior to the Board of Commissioners approving a Tentative Sketch Plan application. The off-site parking spaces may not already be designated as required parking for some other use.
 - e. The proposed use seeking to use the off site parking provisions must be in the MUST district but the off site parking spaces are not required to be in the MUST district.

E. On-Street Parking

Provided the new or rehabilitated building or buildings complies with MUST design standards, legal on-street parking along the parcel's street frontage may be counted toward the development's minimum parking requirements.

F. Bicycle Parking

Convenient bicycle facilities shall be provided as follows:

1. For Residential uses there shall be one bicycle space or locker for each three dwelling units or portion thereof.
2. For Commercial uses there shall be one bicycle space or locker for every 20 automobile parking spaces or fraction thereof.
3. The Board of Commissioners, may, by conditional use, hold in reserve or reduce the number of required bicycle parking spaces if the applicant demonstrates that there are ample facilities available for use nearby.

G. Loading

1. To the greatest extent feasible, areas used for loading or trash receptacle purposes shall not be located adjacent to residential uses and residential zoning districts.
 - a. If these areas must be located adjacent to residential uses/zoning districts then they shall be screened from view. Noise, sound and odors associated with these uses shall not be discernable at the property line.
2. Buildings and structures, excluding parking structures, must provide adequate area for loading/unloading entirely within the property lines of the premises.

V. DENSITY DETERMINATION

A. Providing housing.

1. The total number of residential units and/or the amount of commercial space may be increased when an application provides on-site housing opportunities for a mix of household incomes, including both market rate housing and housing that is affordable to moderate-income households. Price and income guidelines for moderate-income households shall be as defined by the federal department of Housing and Urban Development and based on regional median income figures applicable in Lower Merion Township. Developers shall provide documentation showing compliance with these family income and rental/purchase price limits. The amount of the density increase shall be noted on the plan and recorded in the deed. The bonus shall be calculated as follows:
 - a. For each moderate-income dwelling unit created as part of the MUST application, either an additional ½ market rate dwelling unit or 200 square feet of additional non-residential space may be created.
 - b. Moderate-income dwelling units created as part of a qualified MUST development require ½ (.5) parking space/unit rather than the 1.5 spaces/unit required for market rate housing.
2. Building area may be increased to 85% and impervious surface may be increased to 90% for single-use developments complying with Section VI, Development Design Standards, provided housing opportunities for a mix of household incomes is provided. To qualify for the increase, the new building must be three Stories or higher and at least 10% of the dwelling units, but no less than 2 units, shall be affordable to moderate-income families.
 - a. Any bonus residential units and/or commercial space created under the provisions of this sub-section are not required to be included in the minimum parking calculations, provided that no less than one residential parking space/unit is constructed.

B. Creating public space

1. If an applicant offers to provide and maintain public gathering space on the property, the Board of Commissioners may authorize a density bonus by conditional use upon a finding that the space provides a public benefit. Public gathering space may include ornamental fountains, stairways, waterfalls, sculptures, arbors, trellises, planted beds, drinking fountains, clock pedestals, public telephones, awnings, canopies, and similar structures. The Land Development Committee and the Planning Commission shall provide recommendations. The amount of bonus shall be noted on the plan and recorded in the deed. The bonus shall be calculated as follows:

- a. For each 200 square feet of public gathering space provided and maintained by the property owner a maximum of 1 affordable rate housing unit, ½ of a market rate housing unit or 100 square feet of non-residential land use may be created.
- b. Any bonus residential units and/or commercial space created under the provisions of this sub-section are not required to be included in the minimum parking calculations, provided that no less than 1 residential parking space/unit is developed.

VI. DEVELOPMENT DESIGN STANDARDS

A. Purpose.

1. The purpose of this section is to require pedestrian oriented buildings and to require building entrances to be oriented toward the streets, sidewalks &/or public access ways. Windows must facilitate views into and out of buildings. Requirements for orientation and primary entrances are intended to;
 - a. Provide for convenient, direct, and accessible pedestrian access to and from public sidewalks, transit facilities, residential and commercial uses;
 - b. Provide a safe, pleasant and enjoyable pedestrian experience by connecting activities between buildings in the MUST and within a structure to the adjacent sidewalk and/or transit stop; and
 - c. Promote use of pedestrian and mass transit modes of transportation to access residential and commercial facilities.
2. New and renovated buildings may be either traditional in their architectural character or be a contemporary expression of traditional styles and forms, respecting the scale, proportion, character and materials of structures within a 500 foot radius.
3. The preservation and rehabilitation of existing buildings and structures is strongly encouraged in order to create diversity of development, accent pedestrian-scale activity, and to preserve the character of Lower Merion’s existing commercial districts in the vicinity of the train stations.

B. Building Orientation and Primary Entrance

1. General Standards: All new and rehabilitated buildings shall comply with the following standards:
 - a. Buildings shall be designed with window space, public access points and signage facing the street and sidewalk.
 - b. The façade treatment of walls facing residential uses or residential zoning districts shall be similar to the Primary Front Façade along the pedestrian oriented street.
 - c. All buildings shall provide clear windows along the ground floor of the Primary Front Facades.
 - i. Required window areas must be either windows that allow views into working areas or lobbies, pedestrian entrances, or merchandise display windows.
 - d. Primary building entrances shall be articulated and visible from the street.
 - i. Building entrances shall incorporate arcades, roofs, porches, alcoves and awnings that protect pedestrians from the sun and rain.

- ii. If the building has frontage on more than one street, the building shall provide primary entrances oriented toward both streets, or a single entrance to the corner where two streets intersect.
- e. To the greatest extent feasible, if a single lot is redeveloped any new vehicular access point shall be located on a side lot line and shared with adjacent lots. (See Section VI.C)
- f. Driveways, parking areas and traffic circulation patterns shall be designed as shared facilities whenever feasible. The design of these elements shall create a unified site plan between the lots. The goal is to gain parking efficiencies, reduce the number of access points and improve internal and external vehicular circulation patterns.
- g. When one or more lot(s) is redeveloped such that 150 feet or more of new building façade is constructed along the Primary Front Façade, an accessway or some method of access shall be provided i.e. (through a lobby or alley) to reach available shared parking facilities shall be provided.

C. Architectural Design Standards

The architectural design standards have been incorporated into this district to ensure that the size and proportions of new buildings relate to the scale of the existing structures, especially at the street level. The first three stories of new buildings must relate to the street level heights of existing buildings. The architectural features of the vertical and horizontal façade character of new buildings must relate to adjacent structures (especially at the street level). The setback of the new buildings must relate to the setback established by the surrounding existing buildings.

1. Buildings

- a. If the subject property is listed on the Lower Merion Township historic inventory or within a local and/or national historic district, the new construction shall reflect and be an example of the character of that building/district in compliance with Chapter 88 of the Lower Merion Code and the Secretary of the Interior Standards for Rehabilitation.
- b. All buildings shall articulate the line between the ground and upper levels with a cornice, canopy, balcony, arcade, or other visual device.
- c. The massing of all buildings shall be de-emphasized in a variety of ways, including the use of projecting and recessed elements such as porches, windows and roof dormers, to reduce their apparent overall bulk and volume, to enhance visual quality and contribute to human-scaled development. Such breaks in the facades and roof lines shall occur not more frequently than the width of two historic shop fronts (generally about 25 feet each), nor less frequently than 100 feet.
- d. The ground floor of a Primary Front Façade shall contain an average of 75% clear windows and doors.
- e. Any walls with less than 25% of clear windows shall be articulated by two or more of the following:
 - i. details in masonry courses,
 - ii. the provision of blank window openings trimmed w/frames, sills and lintels
 - iii. if the building is occupied by a commercial use, recessed or projecting display window cases.

- f. The ground floor design shall be based upon historic examples in the area, with commercial uses having large, clear window displays.
 - i. The maximum sill height above the adjacent sidewalk elevation shall be two feet or lower.
 - ii. Window heads shall be 9 to 12 feet above sidewalk level.
 - iii. The top of the display window shall be at least as high as door height.
 - g. Second floor facades of a Primary Front Façade, and those that are higher, shall contain between 40 and 60% clear windows with glass openings a minimum of 50% of the horizontal width of the façade.
 - i. Clear window openings shall be vertical, at least twice as high as the width of those openings.
 - ii. To the extent possible, individual window units in the upper stories shall be vertically aligned with the location of window and doors on the ground level, including storefront or display windows.
 - h. Buildings shall be topped with either pitched roofs with overhanging eaves or flat roofs with articulated parapets and cornices.
 - i. Pitched roof material may include slate (either natural or manmade), shingle (either wood or asphalt composition) and metal formed to resemble “standing seams” or other similar materials. Specifically prohibited are white, tan or blue shingles and corrugated plastic or metal. Fascias, dormers and gables or similar architectural features shall be employed to provide visual interest. All gables shall be functional.
 - j. Exterior wall materials may include stucco, wood clapboard (including aluminum imitation clapboard siding) native stone, brick of a shape, color and texture as that found within the adjacent neighborhood. Specifically prohibited shall be white, tan or any type of painted brick or T-111 or other similar plywood siding. Except on side or rear walls, not visible from any public way, all forms of concrete block shall be prohibited. Metal buildings shall be prohibited. The Board of Commissioners may approve a prohibited material if it can be demonstrated that the material can be installed to have the same appearance and texture as any of the approved materials.
 - k. Grade level exterior doors that swing onto a public walkways that are less than six foot wide, shall be set into the building to avoid conflict with pedestrians. Doors swinging out that do not project into a required public walkway shall include a barrier to prohibit doors from swinging into pedestrians.
2. The Board of Commissioners may, by conditional use, approve the use of architectural concepts and designs which differ from those set forth above, if the applicant demonstrates to the satisfaction of the Board that such concepts and designs are in furtherance of the legislative intent of this article and of this subsection.
3. Public walkways shall:
- a. Be constructed of brick, concrete pavers, stamped colored concrete or integral colored concrete w/brick borders.
 - b. Have a minimum unobstructed width of six feet.
 - c. Create a completely linked network of walkways connecting transit stops, commercial centers, institutional facilities and residential uses including parks and other open space areas.

- d. Not be used for exterior storage.
 - i. Outdoor seating for food and drink establishments and pedestrian-oriented accessory uses, such as sales display for flowers, small shops, and food or drink stands are permitted.

D. Signage (review/tie and RELOCATE to Article XIX 155-91 – 93.6)

1. The sign regulations applicable to the underlying zoning district shall be applied in the MUST District. If these provisions are in conflict, the sign provisions in the MUST District shall apply.
2. Pedestrian scaled signage which may include, projecting signs or wall signs:
 - a. No portions of a projecting sign or its supports are to be higher than 12 inches below the bottom of second story windows.
 - b. Projecting signs shall not be placed within 50' of each other nor shall there be more than one projecting sign per storefront.
 - c. A clear space of not less than eight feet shall be provided below all parts of a projecting signs.
 - d. Be affixed to a building façade, canopy or arcade and shall not obstruct upper story windows or openings in any way.
 - e. Projecting and wall signs shall not be internally lit.
 - f. Projecting signs shall not project more than five feet from the building and shall not project closer than three feet to the curb line.
3. Freestanding signage:
 - a. No more than one freestanding sign shall be permitted for each property's street frontage.
 - b. Freestanding signs shall not be internally lighted.
 - c. The maximum height of a freestanding sign shall be six foot above grade.
4. General Standards for all signs:
 - a. The total sign area for a lot shall be a maximum of (Current is 1.5) ½ square feet of signage for each lineal foot of building frontage.
 - b. No single sign shall exceed a maximum of forty square feet.
 - c. Have applied, carved or painted letters no larger than 12 inches in height for signs located thirty or less feet above grade; 18 inches in height for signs located thirty to sixty feet above grade; and 24 inches in height for signs located sixty or more feet above grade.
 - d. Extend no closer than one-half the vertical height of the letters employed to a building corner (vertical edge) or to the fascia, roofline or parapet, whichever is lower.
 - e. Signs shall be constructed only from wood, metal, stone or other similar material with dark background colors and light colored lettering. The Board of Commissioners may approve an alternative material if it can be demonstrated that the material will have the same appearance and texture as any of the approved materials.
 - f. If signs are illuminated, only external lighting shall be permitted, except as set forth in this section.
 - g. Non-flashing neon signs may be used inside windows, provided the sign area occupies no more than 15% of the window where they are displayed.
 - h. Only traditional canvas awnings without interior illumination shall be permitted.

5. All signs within a given commercial district shall be complimentary in their use of color, shape, similar themes or logos.
6. Signage shall not reduce visual permeability of street facing windows to less than the minimum clear window requirement.
7. Portable signs are prohibited.
8. Wall signs may project up to 10 inches maximum and may not exceed 40 sf.
9. Temporary window graphics shall not exceed 10% of the clear window surface, provided the minimum clear window requirement is met.
10. Permanent window graphics shall not exceed 30% of the clear window surface, provided the minimum clear window requirement is met.

E. Awnings and canopies

1. Awnings and canopies shall be made of fire resistant canvas and may not be backlit.
2. The furthest extension of a ground floor awning and/or canopy shall be no less than 3 feet and no more than 7 feet. The furthest edge of the awning may be no closer than 24 inches to the curb and may cover no more than two-thirds of the sidewalk width.
3. Ground floor awnings and canopies shall terminate no less than 18 inches below the second floor windowsills.
4. Ground floor awning and canopy height shall not exceed 15 feet above pavement and shall be below the cornice or frieze.
5. All ground floor awnings and/or canopies shall be retractable. The minimum height from the bottom of the frame and valance to the sidewalk is 7 feet.
6. Fixed awnings may be used above the first story provided they project no more than 4 feet maximum.
7. Side flaps on awnings are encouraged.
8. Business logos or emblems are permitted on the top or angles portion of the awning up to a maximum of three square feet. No more than one emblem or logo is permitted on an awning.
9. Any awning that projects into a street right of way must be retractable, or the applicant must enter into an agreement with the Township (or the government entity having jurisdiction) to remove the awning if the entity having jurisdiction requires access to the right of way for maintenance, repairs or any other purpose.

F. Street/Shade Trees

1. Street trees shall be planted by the developer along all public rights-of-way in compliance with Chapter 128 of the Lower Merion Code. In locations where healthy and mature trees exist that comply with the street tree requirements, additional plantings are not required.
2. Street trees shall be at least 2.5 to 3 inches in diameter, measured at chest height, when planted and shall be spaced at intervals no greater than 40 feet along the public/pedestrian right of way.
3. Mature street trees shall be limbed up from the sidewalk to six feet (6') to enhance pedestrian safety.
4. Tree species are to be selected according to the following criteria:
 - a. Cast moderate to dense shade in the summer;
 - b. Survive more than 60 years
 - c. Mature height of at least 50 feet

- d. Street trees shall be deciduous, branching above six feet to facilitate viewing storefronts and signage;
 - e. Tolerant of pollution and direct or reflected heat
 - f. Require little maintenance by being mechanically strong (not brittle) and insect and disease resistant;
 - g. Be able to survive two years w/no irrigation after establishment; and
 - h. Be of native origin, provided they meet the above criteria
5. Street trees shall be planted in Township approved tree grates, or in planter areas at least ?? long by ?? wide.

