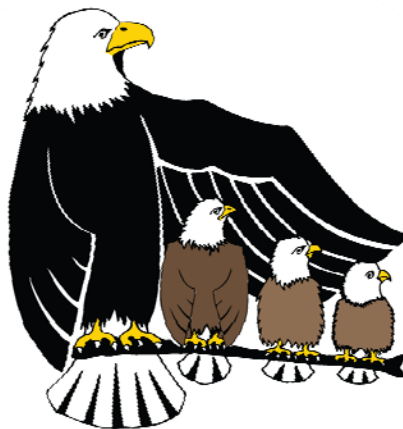


**Ferndale Public Schools  
Technology Plan - 2009-2012**



**FERNDALE  
SCHOOLS**  
TOGETHER

**Section 1**

Ferndale Public Schools	2920 Burdette, Ferndale, MI 48220
School Code Number	63020
County	Oakland
Phone	248-586-8652
Fax	248.586.8610
Superintendent	Gary W. Meier
Start date	July 1, 2009
End date	June 30, 2012
Technology Plan Contact	Melissa Auchter, Director of Technology Services Harding Administration Center 2920 Burdette Street Ferndale, MI 48220
Phone	248-586-8602
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ISD	Oakland Intermediate School District
Website	www.ferndaleschools.org

## **Section 2: Introductory Material**

### **Mission:**

*Ferndale Public Schools Mission statement is to provide all our students with quality educational programs while promoting the values of diversity and responsible citizenship.*

### **Introduction:**

Ferndale Public Schools (FPS) is a district located in the southern tier of Oakland County that provides supported technology services throughout all its facilities. Eight Mile and Ten Mile Roads are its northern and southern borders. Hilton and Scotia Roads provide its eastern and western borders. The district serves four distinct communities: the majority of the City of Ferndale, all of the City of Pleasant Ridge, a portion of the Charter Township of Royal Oak, and a section from the City of Oak Park. Serving these four communities results in a very diverse district, economically as well as racially, with very strong family and community ties. The following figures are based on Winter 2009 Supplemental Count Day FTEs.

- The Ferndale Schools served 2,976.91 FTE students in its K-12 program and an additional 926.42 FTE students enrolled in the Alternative Education and shared time program.
- The community poverty level of municipalities served by the district was 16.9% in the 2000 Census. In 2008-2009, 53% of students in grades K-12 qualify for free or reduced lunch, up from 36% in 2004-2005.
- FPS currently has 202 professional staff in the K-12 program and 40 professional staff in its Alternative Education Program.
- FPS has been experiencing a decline in enrollment in the early part of the decade, and based on census data and area birth rates, was anticipating further decline; however, the enrollment has leveled off.
- The Ferndale Schools superintendent has served the district since 2000. He developed and implemented a comprehensive Restructuring Plan in 2002 that has led to long-term financial stability and improved student achievement.
- In summer 2002, four buildings were closed to K-12 instruction and the district downsized to six schools in five K-12 buildings. There was additional restructuring in the summer of 2005, when one closure was reassigned to create a new reform model college-preparatory high school, University High School.
- Ferndale has earned a reputation for being a forward-thinking district focused on providing the best possible education for all its students.

## School Buildings

### 3 Elementary Schools

Name	Grade	Street	City/Zip	Phone
Roosevelt Primary	K-3	2610 Pinecrest	Ferndale, MI 48220	248.548.1950
Coolidge Intermediate	4-6	2521 Bermuda	Ferndale, MI 48220	248.547.1700
Kennedy Elementary School	K-6	24220 Rosewood	Oak Park, MI 48237	248.547.0880

### 1 Middle School (same building as Ferndale High School)

Name	Grade	Street	City/Zip	Phone
Ferndale Middle School	7-8	725 Pinecrest	Ferndale, MI 48220	248.548.1783

### 2 High Schools

Name	Grade	Street	City/Zip	Phone
Ferndale High School	9-12	881 Pinecrest	Ferndale, MI 48220	248.548.8600
University High School	9-12	1244 Paxton	Ferndale, MI 48220	248.547.7680

### 3 Alternative/Adult Education High Schools

Name	Grade	Street	City/Zip	Phone
Jefferson Education Center	9-12	22001 Republic	Oak Park, MI 48237	248.546.6832
Taft Education Center	9-12	427 Allen	Ferndale, MI 48220	248.541.4855
Crossroads Education Center	9-12	16250 Northland Drive	Southfield, MI 48075	248.552.6242

### 1 High School Consortium Program

Name	Grade	Street	City/Zip	Phone
CASA	11-12	23561 Rosewood	Oak Park, MI 48237	248.691.8502

### **Section 3: Vision and Goals**

The technology available to all Ferndale Schools students allows its students to achieve the outcomes expected by the Ferndale Community:

- Ferndale students will be engaged learners who are responsible for their own learning.
- The students will be self regulated and able to define their own learning goals and evaluate their own achievement along with their teachers.
- Their learning will energize them, and their joy of learning will lead to a lifelong passion for solving problems.
- They will know how to learn and will be able to transfer knowledge to solve problems creatively.
- Ferndale's engaged learners will be collaborative and value the skills needed to work with others.

The mission statement for the Ferndale Public Schools is based on a commitment to providing quality educational programs. This means the district acknowledges the world is ever changing, and to provide a quality education, the district must provide technology services and training to maintain an up-to-date infrastructure and curricular framework that ensures student success. Technology skills are necessary for success in the world at large. Students must have the ability to access information, use this information for decision making, and learn to communicate both verbally and electronically. School improvement plans and all curriculum documents throughout the District include the use of technology. The goals for these plans include technology strands as a means of addressing each school's needs.

#### **District technology mission statement:**

Technology as a tool, used effectively in a differentiated environment, will allow all learners in the Ferndale Public Schools to become proficient communicators, collaborators, problem solvers and thinkers, through integrated instructional practices, authentic assessment tasks and decision making opportunities, in preparation for an ever-changing world.

#### **District technology vision statement:**

It is the vision of the Ferndale Public Schools that technology will become a tool for communicating, collaborating and problem solving. Learners will use technology rather than merely learn about technology, that learners will use applications rather than merely learn about applications. The use of technology will be embedded in how students learn, gather information, make decisions and communicate and evaluate their decisions.

### **Goals of the technology plan:**

1. Ferndale students and staff will have access to the best technology the district is able to provide.

#### **Strategies**

- All technology purchases will meet established criteria before being purchased.
  - Software and/or web-based applications will be appropriate for the districts culturally diverse population.
  - Software and/or web-based applications will be selected to align with the curriculum.
  - Software and/or web-based applications will be selected to promote critical thinking and problem solving.
  - All technology will be employed when the opportunity for learning is best met using technology.
  - All students will have access to software and/or web-based applications and technology that addresses their needs, abilities and interests.
2. There will be a district-wide curriculum that ensures teachers integrate the use of technology in all areas.

#### **Strategies**

- A Curriculum Committee will be established to review, evaluate and revise its technology curriculum every five years in accordance with the district's five-year curriculum review plan.
  - Technology Curriculum will be reviewed during the 2009-10 school year and will be reviewed again in 2014.
  - Adopted curriculum includes activities that align with standards and content expectations.
  - The revised curriculum will be integrated into other content area curricula so as to use technology as a tool, when appropriate, and not as a stand-alone class, when possible.
3. Students will use technology as a tool for learning, communicating, problem-solving and collaborating in keeping with the district's overall mission.

#### **Strategies**

- Middle School students will use computers as part of the Career Pathways course.
- High School students will use available technology to demonstrate their learning through projects and products.
- All High School students are required to have .5 credits in technology for graduation.
- The focus will be on integrating various forms of technology into the instructional program.

- District curriculum documents will continue to include description of technology to be used in the implementation of subject area objectives.
  - Beginning with the class of 2011, all students graduating from Ferndale Public Schools will have a minimum of 20 hours of online learning experiences.
  - Online learning will be used as a supplemental instructional tool during the students' school day and for credit recovery.
4. Staff will be trained to implement technology in the classroom as an instructional tool. In addition, the staff will use technology as a data management tool which will link and analyze multiple sources of student data. This will provide staff with the vehicle to determine key instructional strategies thereby impacting student achievement.

**Strategies:**

- Teachers will use technology as a means to have students interact with information and demonstrate their learning.
  - Teachers will be trained in interactive and presentational technology. Technologies may include the use of SmartBoards, Student Response Systems, Microsoft Office Suite, student/teacher online collaboration portals, and document cameras.
  - Teachers will be trained in the use of online learning tools and engaging presentational hardware and software. Technologies may include the use of United Streaming, Compass Learning, KeyTrain, and others.
  - Teachers will use a data management system to analyze student achievement and adjust instruction to address individual student's needs. Training will include using Pearson Benchmark to design, administer and score an answer-key only test. Teachers will create appropriate reports and modify instruction to address instructional needs as identified in the reports.
  - Teachers and administrators will use a data management system to analyze student achievement using multiple assessments. Training will include using Pearson Inform to identify students' areas of deficiencies based on multiple assessments. Staff will have the knowledge and skills to access a variety of reports, develop queries, and use the data in Inform to create intervention groups.
5. Staff will use technology as they revise and implement school improvement plans.

**Strategies:**

- Use the Michigan Department of Education's online school improvement template to design and modify the school improvement plan.
  - Use the district's data warehouse system to identify goals for improving student achievement.
  - Create common assessments to monitor progress toward goals.
  - Use online programs to research and identify school-wide best practices to be used across departments and grade levels to increase student achievement.
  - Use online Advance-Ed programs to annually report progress toward goals.
6. Safe computer use and ethical internet practices will be embedded in instruction

**Strategies:**

- Emphasis will be placed on the appropriate use of hardware.
- The district will implement precautions necessary to protect computers.
- Students will learn the importance of protecting their identity and to avoid abuse by others.
- Ethical practice in the use of networks, email systems and the internet will be emphasized and monitored.

**Objectives:**

All Ferndale students will:

1. Learn to use the software and online programs provided by the district to enhance academic success.
2. Learn to access and use the Internet for research, online learning programs/sites, and to communicate with others.
3. Have access to a computer on a daily basis within their classroom or building.
4. Have access to software and web-based programs that enhance the district's core curriculum.
5. Prior to graduating from Ferndale Public Schools all students in grades 7-12 will participate in 20 hours of online learning.

All Ferndale staff will:

1. Use district technology for administrative purposes (i.e., attendance, grading, lesson planning, report cards, research and communication).
2. Use available technology to enhance their instructional practices.
3. Be offered professional development on the effective use of provided technology.
4. Use district approved academic software and programs for the sole purpose of enhancing student learning.
5. Demonstrate a thorough knowledge of and use of data warehousing programs to increase student achievement.

## I. CURRICULUM

### Section 4: Curriculum Integration

In the 2008-2009 school year, the Ferndale Public Schools provide an early childhood center, a K-3 primary school, a 4-6 intermediate school, and a K-6 magnet school. The district's 7-8 grade middle school is co-located in the 400,000 square foot Pinecrest facility with Ferndale High School which serves 9-12. Since 2005, the district has also operated a reform model college preparatory high school, University High School serving grades 9-12. Alternative Education high school students and Adult Education students attend classes at three district facilities, in addition to several community based sites. Ferndale provides facilities for the consortium high school program known as CASA, The Center for Advanced Studies and the Arts, which is located in a district facility in Oak Park. Each grade level K-6 has a specific curriculum document that guides teachers to incorporate technology into all curriculum areas.

As teachers strive to ensure all students demonstrate proficiency on grade level and/or course content standards, as defined by the Michigan Department of Education, the use of technology continues to expand as does its intended purpose. Albeit progress has been made since the writing of the last Technology Plan, the need for technology in the broadest sense is increasing. Within this section technology will be addressed in three broad areas; (1) Data Management, (2) Technology to enhance instructional practices, and (3) Online learning.

#### Data Management

With the State's accountability system changing to a growth model, it is critical the district provide staff with the tools and training to be able to analyze student achievement data from multiple sources. Pearson Inform will be the vehicle to accomplish this task. Prior to it being fully implemented, the district will work with Oakland Intermediate Schools to ensure it has uploaded sufficient student demographic data so that each student has his/her complete *story* represented. In addition, multiple sources of data will be located into this data warehousing tool.

To increase the effectiveness of Pearson Inform, and to make the tool relevant for teacher use, common assessments will be developed and entered into Pearson Benchmark. The results of the common assessments will be uploaded into Pearson Inform. At the elementary level, quarterly mathematics, science and social studies assessments; beginning, middle and end of year Dibels results; and beginning and end of year Developmental Reading Assessment (DRA) results will also be uploaded into the product. Using Version 5.0. the district will input intervention data for individual students.

A new student information system, Zangle, will be introduced to the staff Fall 2009. Working with the Intermediate School District, Ferndale Public Schools will implement the electronic grade-book, report card, attendance, parent communication, electronic IEP, student scheduling and food service modules. In addition, the student data management system will be used. Although some cursory training will begin this spring, the 2009-2010 school year will focus on implementation of the various aspects of the software.

## **Technology Enhanced Instruction**

Using technology to enhance instruction is the second area of focus in this technology plan. Teachers are requesting presentational and/or interactive technology. Smart Boards are being requested as teachers integrate the Internet into lessons; enhance graphic presentations; and actively involve students during instruction. Student Response Systems are increasing in use as teachers are using the systems to keep students actively engaged and assess learning throughout the lesson. Digital projection devices are desired as teachers seek to have student work displayed in real time as the learning is taking place. Students and teachers are looking for ways to increase collaboration. Online student/teacher collaboration portals allow the removal of the traditional brick and mortar schoolhouse and create an anytime, anywhere learning environment.

## **Online Learning**

The third area of focus is increasing the use of technology as an alternate method of instruction. High school teachers are seeking methods to assist students who are lacking achievement on some of the high school content expectations. With the use of common assessments and Pearson Benchmark's ability to disaggregate test data, they understand failing students are not empty vessels; they have acquired some knowledge, just not all of the content. To this end, the district is looking to use online learning to customize instruction for students; to fill in the gaps. Online learning will be used for credit recovery.

In addition to recovering credit, online learning will be used to supplement classroom instruction and provide opportunities for dual enrollment. Using Key Train, an ACT product, and Compass Learning, teachers' lessons will address content expectations which have not been mastered. During class students will use the online programs, as well as receive instruction from the teacher, thereby providing students with a differentiated method of instruction. Michigan Virtual High School will be used for dual enrollment opportunities.

Since the writing of the last plan, teachers have learned to use technology more effectively. Walking through schools one will see some teachers and students using Smart Boards to interact with information; while others use it as a projection screen. Some teachers use student response systems as a means of formative assessment, while others wish they had time and opportunity to learn to use it more effectively. Teachers use Benchmark to analyze quarterly mathematics data. Understanding the significance of doing so they are requesting additional training in the use of the product and in the development of common assessments. Currently, the high schools have one class integrating online learning opportunities for students; they are seeking training and resources to increase this promising practice.

While the district has begun some of these practices, this technology plan will focus on training and increasing use of the data management systems, using technology to enhance instruction, and online learning.

All technology purchases must meet several criteria before being purchased. Does the product:

- Appeal to the district's culturally diverse population?
- Align with the curriculum?
- Promote critical thinking and problem solving?
- Provide an opportunity for learning that is best met using technology?
- Address the needs of the intended population? Align with current research on best practices?
- Interact with the existing network system?
- Promote student engagement and enhance student learning?
- Instruct, assess or monitor student progress?
- Fit with the financial scope of the district?

In addition to the selection of software, the district reviews curriculum on a five-year rotational cycle and align each curriculum to state and national standards. Included in this project is the need to incorporate how technology will support the adopted curriculum. The curriculum covers not only the four core subject areas of Language Arts, Mathematics, Science and Social Studies but also includes Art, Music, Physical Education, Foreign Language, and Career Education. This curriculum project requires teams of teachers to define the curriculum in terms of the content, expectations, key concepts, assessments, and integration of technology. The technology integration section is the least developed of any of the areas. As funding becomes available this will be addressed.

The following standards will guide implementation and integration of technology into the Ferndale curriculum documents:

### **Using and Transferring**

Use and transfer technological knowledge and skills of key learner behaviors to use technology as a tool for learning and communicating;

### **Using Information Technologies**

Use information technologies to input, retrieve, organize, manipulate, evaluate, and communicate information;

### **Applying Appropriate Technologies**

Apply appropriate technologies to critical thinking, creative expression, and decision-making skills;

### **Employing Systematic Approach**

Employ a systematic approach to technological solutions by using resources and processes to create, maintain, and improve products, systems, and environments;

### **Applying Standards**

Apply ethical and legal standards in planning, using, and evaluating technology;

### **Evaluating and Forecasting**

As professionals responsible for educating, we will use technology to evaluate the effectiveness of curriculum and programs; use technology to evaluate individual student's areas of strength and weakness; develop intervention plans to address these needs; and use technology to evaluate the effectiveness of the plans.

The expectation is that technology which supports the curriculum will be in regular use in each classroom to impact student achievement. In the process, the technical skill of students will develop in an articulated sequence.

### **Section 5: Student Achievement**

Technology, when used frequently in conjunction with daily instruction, will impact student achievement. Examples of technology products are lengthy and for the purpose of this report will include a highlight of some of the instructional tools currently being used within the district. Used at the elementary level to prevent failure of at-risk students is Head Sprout, Read Naturally, and Waterford Early Reading System. All students use Microsoft Office production software to generate reports and projects; the Harcourt interactive website, and Everyday Math online activities. Harcourt Reading Systems and Pearson Benchmark are used as an assessment tool. Teacher resources include FOSS web, Harcourt, and University of Oregon Dibels Data System. Additional software is used by a variety of teachers, as an example the English as a Second Language teacher uses Compass Learning. A full technology audit will be conducted during the 2009-2010 school year to determine the use of specific software titles and websites and in conjunction with curriculum revisions evaluate the appropriateness of the products.

Looking at the secondary level, the newly adopted World History textbook offers every student the opportunity to sign-out a CD of the text. U.S. History grades eight and nine offer online activities. Career Cruising is used by all middle and high school students. Several technology classes are offered to middle and high school students. These include a wide-variety of topics including, but not limited to, web design, multi-media, and digital design. In addition, work certifications are offered through the Career and Technical Education Program; Microsoft Office Specialist Certification, and Career Readiness Certification. Michigan Virtual High School, Compass Learning and Plato are used for online learning.

In addition, software can assist in tracking student progress. The district is part of the Oakland Intermediate School District's initiative and its use of Pearson. Through Benchmark and Inform, staff will be able to evaluate student progress, create assessments

that are aligned with state standards and benchmarks and generate reports to share with parents on individual student growth. Data collection of student achievement is also supported by the use of Microsoft Excel, Grade Quick, and the district's MMS student data base software. Monthly meetings of the Principals Forum provide the opportunity for Pearson training, analysis and goal setting. The Curriculum Coordinators, Director of Special Education, and the Executive Director of Curriculum and Instruction coach staff in the use of technology in the classroom.

Within this section technology will be addressed in three broad areas; (1) Data Management, (2) Technology to enhance instructional practices, and (3) Online learning.

<p style="text-align: center;"><b>Year 1</b> <b>2009-2010</b></p>	<p style="text-align: center;"><b>Year 2</b> <b>2010-2011</b></p>	<p style="text-align: center;"><b>Year 3</b> <b>2011-2012</b></p>
<p>The district will focus on improving <b>data management</b> tools to increase student achievement:</p> <ul style="list-style-type: none"> <li>• Using Inform version 5.0 to determine the components of a comprehensive student profile and input identified student data.</li> <li>• Increase knowledge of and use of Pearson Benchmark to develop a formative assessment system to standardize the use of common assessments and inform instructional decisions.</li> <li>• Implement Zangle as a student information management system. Implementation to include electronic IEP component, grade book, report cards, progress reports, progress reports and parent communication tools.</li> </ul>	<p>The district will focus on increasing knowledge and use of <b>data management</b> tools to increase student achievement:</p> <ul style="list-style-type: none"> <li>• Use Pearson Inform 5.0 to monitor and support school improvement goals, plan interventions strategies, and create individual at-risk student's instructional plans.</li> <li>• Use Pearson Benchmark to build interim assessments using the test bank items contained within the product.</li> <li>• Continue implementation of Zangle components and build proficiency for all staff.</li> </ul>	<p>The district will focus on increasing knowledge and use of <b>data management</b> tools to increase student achievement:</p> <ul style="list-style-type: none"> <li>• Use Pearson Inform, version 5.0, to disaggregate data to examine individual and multiple factors impacting students who are resistant to learning. Increase staff's ability to assess and impact individual needs.</li> <li>• Use Pearson Benchmark online assessment tool.</li> <li>• Maintain use of Zangle, assess staff training needs, and train all new staff.</li> </ul>
<p>The district will use <b>technology to support the instructional process</b> and enhance learning.</p> <ul style="list-style-type: none"> <li>• Students and staff will use technology to access information.</li> <li>• Technology will be used to enhance learning through presentational hardware and software such as: Smartboards, document cameras and projection devices, student response systems, United Streaming, Microsoft Office Suite.</li> <li>• The district will conduct a comprehensive audit of its current software to determine viability of products and usage to support updated curriculum.</li> <li>• The district will update and/or replace outdated software so as to provide alternative instructional methods.</li> </ul>	<p>The district will use <b>technology to support the instructional process</b> and enhance learning.</p> <ul style="list-style-type: none"> <li>• Students and staff will apply information to demonstrate learning and determine future course of study.</li> <li>• Technology will be used to enhance learning through presentational hardware and software such as: institute projection devices as funding allows, Moodle, podcasts, and educational blogging.</li> <li>• The district will integrate the use of technology into district curriculum documents under review.</li> <li>• Review software and continue updates as budget allows.</li> </ul>	<p>The district will use <b>technology to support the instructional process</b> and enhance learning.</p> <ul style="list-style-type: none"> <li>• Continued use of web-based information systems to demonstrate and determine future learning.</li> <li>• Technology will be used to enhance learning through the use of presentational hardware and software. Continue implementation of document cameras and projection devices as funding allows, increase use and availability of Smartboards.</li> <li>• The district will maintain its focus on implementing technology into curriculum and therefore classroom instruction.</li> <li>• Review software and continue updates as budget allows.</li> </ul>
<p>The district will expand its use of <b>online learning</b> to support student achievement:</p> <ul style="list-style-type: none"> <li>• Students will use Compass Learning as an online tool to recover credit.</li> <li>• Students will use online learning as an alternative method of instruction for dual-enrollment, credit completion, or additional course work.</li> </ul>	<p>The district will expand its use of <b>online learning</b> to support student achievement:</p> <ul style="list-style-type: none"> <li>• Continue to expand teacher knowledge and use of Compass Learning to address individual student need, thereby customizing instruction.</li> <li>• Create an evaluation tool to determine online courses which meet the Michigan Merit Curriculum requirements</li> </ul>	<p>The district will expand its use of <b>online learning</b> to support student achievement:</p> <ul style="list-style-type: none"> <li>• Review and evaluate new programs and updates to Compass Learning with the possibility of implementation.</li> <li>• Continue the use of online learning as an alternative method of instruction and evaluate program and new products.</li> </ul>

## **Section 6: Technology Delivery**

Students in Ferndale are able to access the internet to research various topics. The district technology curriculum is an integrated model that teaches technology literacy via content related activities. Ferndale Public Schools is utilizing distance learning. Several staff and students have taken online courses. This is a delivery system that needs to be incorporated into classrooms to expand student options.

Using technology as an instructional tool has begun, however work remains in this area. The new technology plan calls for increased staff training. Title IID allocations will be used to support this plan.

## **Section 7: Parental Communications & Community Relations**

The district's revised Technology Plan will be presented to the Board Program/Technology Committee. Several members of this committee are parents as well as two board members. With the committee's recommendation the plan will be presented to the full board for approval. The revised Technology Plan will then be posted on the district's website. The Public Relations Department will create a press release for building administrators to include information on the approval of the Technology Plan in their school newsletters. Community members will be given the opportunity to receive hard copies if requested. Building administrators will be given copies of the revised Technology Plan to review and disseminate to staff at the start of the 2009-10 school year. They will also be reviewed at the Administrator's Forum in the fall of 2009.

## **Section 8: Collaboration**

The Ferndale Public Schools Technology Services team oversees the planning, utilization, and maintenance of all technology in the entire district for pre-kindergarten through grades 12, the Adult Education Program as well as the K-12 program. Two of the existing Adult Education sites are on the district's fiber optic WAN and the third site connects via high speed switched Ethernet circuit. All buildings have access to the district's network as well as programs and support to include.

The District provides Wide Area Fiber Optic Network (WAN) access to the City of Ferndale and WAN and phone service to Royal Oak Township. The district also works closely with local law enforcement to create a safe and secure environment for learning. The district's commitment to the community and the willingness to collaborate with other municipalities plays an important role in the success of Ferndale Schools.

## **Part II Professional Development**

### **Section 9: Professional Development**

It is the intent of Ferndale Public Schools to implement the following strategies into its professional development plan. This model is more comprehensive and is designed to assist staff in becoming more flexible, creative, and competent with the use of technology.

1. Modeling - Staff development will provide a trainer to teach lessons using technology integrated into the curriculum for the classroom teacher. The lesson will be reviewed with the teacher before it is taught and then discussed with the teacher afterwards. The teacher is also asked to do a follow-up lesson with the children on her own before the trainer returns.
2. Co-teaching - Trainers and teachers will work collaboratively to design a lesson, and integrate technology into the curriculum while teaching the lesson together.
3. Consultants - Teachers who have a high degree of proficiency with technology and who feel confident in using the tools in an integrated manner with a class will work with a trainer to coordinate resources, provide input and help align the lesson with curriculum, benchmarks and assessments.
4. After-school training- The District provides a variety of after-school training opportunities for teachers. Most of these classes are designed to provide the skills needed, in a project-based format, to help teachers use the software tools available to them in actual classroom applications.
5. Rotating Substitutes-Substitute teachers will be hired and rotate through the building to provide release time for training.
6. Training-On-Demand - An individual teacher or group of teachers will be able to request training on a particular piece of software or to create a lesson that integrates technology. They will contact the Curriculum and Instruction Department to schedule the training.

The district will continue to seek funding to support this professional development model.

All technology training has been and will continue to be available to all staff, including certified and non-certified staff, administrative, secretarial/clerical, custodial and para-professional. The district will continue to design and implement training programs by employment group and will provide release time for them to attend these training opportunities if necessary

<b>Year 1 2009-2010</b>	<b>Year 2 2010-2011</b>	<b>Year 3 2011-2012</b>
<p>All staff will be trained to:</p> <ul style="list-style-type: none"> <li>• Access student information in Pearson Inform, version 5.0.</li> <li>• Understand the implications of the student profile components.</li> <li>• Access and utilize reports to inform instruction.</li> </ul> <p>Building administrators and school improvement team data-leaders will:</p> <ul style="list-style-type: none"> <li>• Locate pre-written student reports contained in Inform.</li> <li>• Use data to determine and/or monitor school improvement goals.</li> <li>• Plan for building intervention practices to impact MEAP and MME.</li> </ul> <p>Department leaders and/or Curriculum Writing teams will be in-serviced on the use of Pearson Benchmark to:</p> <ul style="list-style-type: none"> <li>• Create answer-key only common assessments.</li> <li>• Assessment literacy.</li> <li>• Accessing reports and data.</li> <li>• Staff will be trained on using Zangle report cards, electronic IEPs, attendance, grade book, parent communication, food service, etc:</li> <li>• Training for initial implementation.</li> <li>• Staff will have the opportunity to attend technology training based interest and/or needs in the use of presentational and interactive technology.</li> <li>• Teacher-leaders and administrators will be trained in the use of online learning.</li> <li>• To implement using Compass Learning as a credit recovery tool.</li> <li>• To support the needs of students participating in dual enrollment or credit recovery programs.</li> </ul>	<p>All staff will be trained to:</p> <ul style="list-style-type: none"> <li>• Use Pearson Inform to create individual student instruction plans.</li> </ul> <p>Building administrators and school improvement team data-leaders will:</p> <ul style="list-style-type: none"> <li>• Use Pearson Inform to generate data for the building's EdYES! Comprehensive Needs Assessment; Student Demographic section.</li> </ul> <p>Department leaders and/or Curriculum Writing teams will be in-serviced on the use of Pearson Benchmark to:</p> <ul style="list-style-type: none"> <li>• Use test-bank items to create answer-key only common assessments.</li> <li>• Access reports and data to evaluate year one assessments.</li> <li>• Staff will be trained on using Zangle report cards, electronic IEPs, attendance, grade book, parent communication, food service, etc:</li> <li>• Training for continued implementation.</li> <li>• Staff will have the opportunity to attend technology training based interest and/or needs in the use of presentational and interactive technology.</li> <li>• Teacher-leaders and administrators will be trained in the use of online learning.</li> <li>• As needed for implementation of new products.</li> </ul>	<p>New staff will be trained to use Pearson Inform, version 5.0.</p> <ul style="list-style-type: none"> <li>• Professional development will be delivered through the mentor program.</li> </ul> <p>Building administrators and school improvement team data-leaders will:</p> <ul style="list-style-type: none"> <li>• Continue to apply knowledge and skills to update school improvement data. Professional development will be determined based on building team needs.</li> </ul> <p>Department leaders and/or Curriculum Writing teams will be in-serviced on the use of Pearson Benchmark to:</p> <ul style="list-style-type: none"> <li>• Online Pearson Benchmark common assessments.</li> <li>• Staff will be trained on using Zangle report cards, electronic IEPs, attendance, grade book, parent communication, food service, etc:</li> <li>• Training in maintenance of use.</li> <li>• Staff will have the opportunity to attend technology training based interest and/or needs in the use of presentational and interactive technology.</li> <li>• Teacher-leaders and administrators will be trained in the use of online learning.</li> <li>• As needed for implementation of new products.</li> </ul>

## **Section 10: Supporting Resources**

The Board of Education is committed to the effective use of technology to both enhance the quality of student learning and the efficiency of Board operations. Board support is indicated in the following policies as updated in 2007:

- #7540 Computer Technology and Networks
- #7540.01 Technology Privacy
- #7540.02 District Web Page
- #7540.03 Student Network and Internet Acceptable Use and Safety
- #7540.04 Staff Network and Internet Acceptable Use and Safety

These policies are available on the district website and available to staff and the public. They are updated in accordance with changes in state and federal laws.

The district maintains an interactive website, [www.ferndaleschools.org](http://www.ferndaleschools.org) that posts all district activities, calendar, announcements, etc. It also provides a direct link for parents to email staff.

FPS staff members are assigned district email accounts. These accounts are available through web access from home or other remote locations, as well as their classrooms. In addition to email FPS staff members are assigned a district voice mail account. These accounts are available remotely from any phone inside and outside of the district.

Technology help and online tutorials, manuals and help files for software are available electronically to all staff, as well as other printable materials such as forms and reports. The Technology Services team works collaboratively with the Curriculum and Instruction team and other department teams to continuously enhance and make available technical learning resources.

The Oakland Schools ISD provides access to order materials, videos and other educational materials. As a part of the Oakland Schools consortium all staff and students have access to Oakland Schools Television Network, REMC materials, Information Center/Library, and the online subscription services provided.

### **III. Infrastructure, Hardware, Technical Support, and Software**

#### **Section 11: Infrastructure Needs/Technical Specification, and Design**

This section describes the district's current technical environment to include the infrastructure, security, enterprise applications, curriculum applications, telephone, video, workstation hardware, and IT Governance.

##### **Infrastructure:**

The wide area network consists of single-mode fiber that connects FPS in a hub and spoke topology where Ferndale High School is the hub and all other district-owned buildings and the administration center are the spokes. Most of the building interconnections are 100 Mbps connections with a few upgraded to 1 Gbps. The main data center for FPS is located in the hub at Ferndale High School. Internet services are provided by the Oakland Schools ONE network. There is an OC-12 (622 Mbps) fiber connection from FPS to the Oakland Schools primary network head end (PHE) in Waterford and the Oakland Schools secondary network head end (SHE) in Southfield. Both the PHE and SHE connections to Oakland Schools terminate at the main FPS data center.

The main FPS data center houses most of the district file servers and the main voice, video, and data network equipment and is the buildings main distribution frame (MDF). All district buildings have an MDF that acts as the building head end room and most buildings have at least one intermediate distribution frame (IDF). Most MDF and IDF internal building connections are multi-mode fiber with a mix of 100 Mbps and 1 Gbps connections. A combination of managed and unmanaged switches deliver 10/100 Mbps copper Ethernet connections to user workstations and printers.

The current server environment includes HP servers with Novell NetWare as the operating system. The current servers are used to provide printing capabilities and house student, teacher, and administrative files, curriculum applications, enterprise applications, such as email and district virus software.

There are individual battery back up systems to support most of the servers and the phone system. There is no generator power supporting the main data center.

##### **Security:**

FPS uses many aspects of the defense in depth strategy for securing organizational data assets. FPS employs an enterprise level antivirus application, firewall, hierarchical passwords, spyware, and intrusion prevention systems in an effort to thwart would be hackers both internally and externally. This multilayer approach to network design reduces the probability that a malicious attacker can succeed in causing damage to the FPS network or gaining access to files that require privacy based on the Family Educational Rights and Privacy Act (FERPA) regulations.

FPS also follows the Children's Internet Protection Act (CIPA) and e-rate requirements for Internet safety and has deployed security measures to block and filter Internet access. The FPS security device combines the benefits of behavior and signature based intrusion

prevention with proxy and content control to filter and block inappropriate content to FPS user community.

The district uses the Oakland ISD email SPAM filtering system to provide very general protection and filtering of district email.

FPS has analog surveillance cameras at Ferndale High School, Ferndale Middle School, and University High School. Many of the cameras are failing which requires constant maintenance. These cameras need to be replaced. There are no surveillance cameras at the other buildings.

### **Enterprise Applications:**

FPS uses Novell Directory Services (NDS) to drive its technical environment but has started to convert the environment away from NDS to Microsoft Active Directory Services (ADS). Many of the NDS driven applications will be migrated and integrated into ADS such as email, DHCP, and DNS. Work has started on a configuration system. This system will allow the automation of desktop and application deployment as well as provide a centralized approach to patch and workstation image updates and management. FPS has a limited support/helpdesk application with minimal reporting capabilities and no automated asset management capabilities.

FPS uses Bi-Tech to support its Business Office functions. Bi-Tech is hosted offsite at St. Clair RESA.

### **Curriculum Applications:**

Many of the curriculum applications are moving to Internet based solutions or some hybrid of Internet and server based applications. We have a few single licensed copies of software for curriculum however we are working towards server or Internet based applications when possible. This includes applications such as CompassLearning Odyssey, KeyTrain, Pearson Benchmark and Inform, Pearson Waterford, and TurningPoint Student Response Systems.

The current student management system does not meet the district needs. FPS is moving to Internet based Zangle hosted at Oakland ISD for its student management system. Zangle provides a streamlined and integrated approach to pupil accounting, grading, food service, integrated education plans, and Medicaid services allowing FPS to eliminate some duplicate work tasks. Zangle will provide online access to student progress for parents, students, and teachers. This will allow FPS to provide enhanced services to parents and students.

FPS uses the Dynix automated library system in all its media centers. This has provided a district-wide inventory as well as an efficient and accurate means of circulating library books and materials. The hardware and software require updates and upgrades for continued use.

### **Telephone:**

FPS has a Nortel telephone system at each of its 14 buildings. Each telephone system is connected to the high school telephone system as an emulated T1 circuit using the fiber WAN. The district's long distance ATT BVOIP trunks and voicemail system reside at the

high school. The voicemail system and high school phone system were recently upgraded to the most recent release of Nortel software and hardware and are up to date. The remaining 13 buildings require hardware and software upgrades to bring them up to date. There is no call management system in place to centrally manage the district phone systems, gather call usage statistics, and perform centralized backup capabilities.

The interconnected Nortel phone systems allow for 4-digit dialing throughout most of the district owned buildings incurring no additional cost to the district. The system provides voice mail and a voice mail menu to every employee in the district. There are phones in every classroom and teachers have auto dial available to them for instant connectivity to administration and to call for help.

**Video:**

At FPS most classrooms have access to selected channels from Comcast and Wide Open West, as well as available curriculum programming via channels from the Oakland Schools ONE network.

The FPS buildings have video production and podcasting capabilities that allow capture and/or cablecast live student events and district or building activities. Video editing software is available at the middle school/high school site. The video production studio at Ferndale High School will be upgraded with updated video production equipment and editing suites to support the curriculum.

**Workstations:**

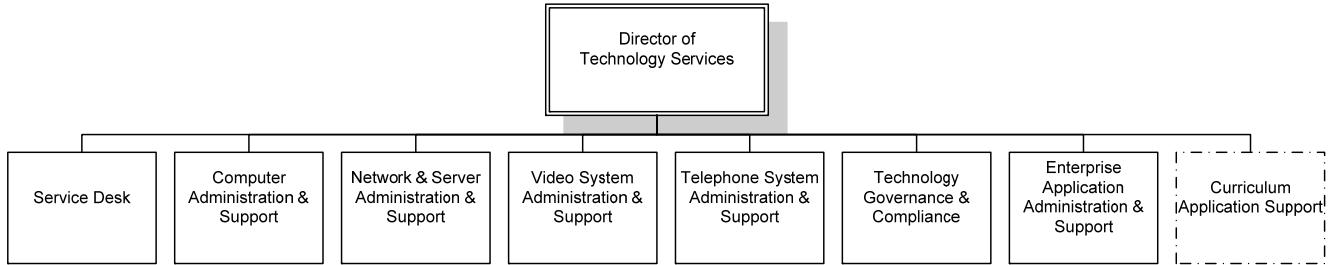
FPS supports a Windows/Intel workstations environment using Novell NetWare as the network authentication mechanism. Integrity software and some network profile setting are used on some student and teacher machines to keep configurations under control. This authentication approach will be enhanced and changed as we move to Microsoft ADS. The enhancements and changes will help to control configuration changes and secure the workstations from potential threats. Network profiles, images, and integrity software will be centralized and managed to allow for more efficient support and less downtime for students and teachers. Workstations are available for student and teacher use in the classrooms, media centers, and school labs of all buildings.

**Maintenance/Service Contracts:**

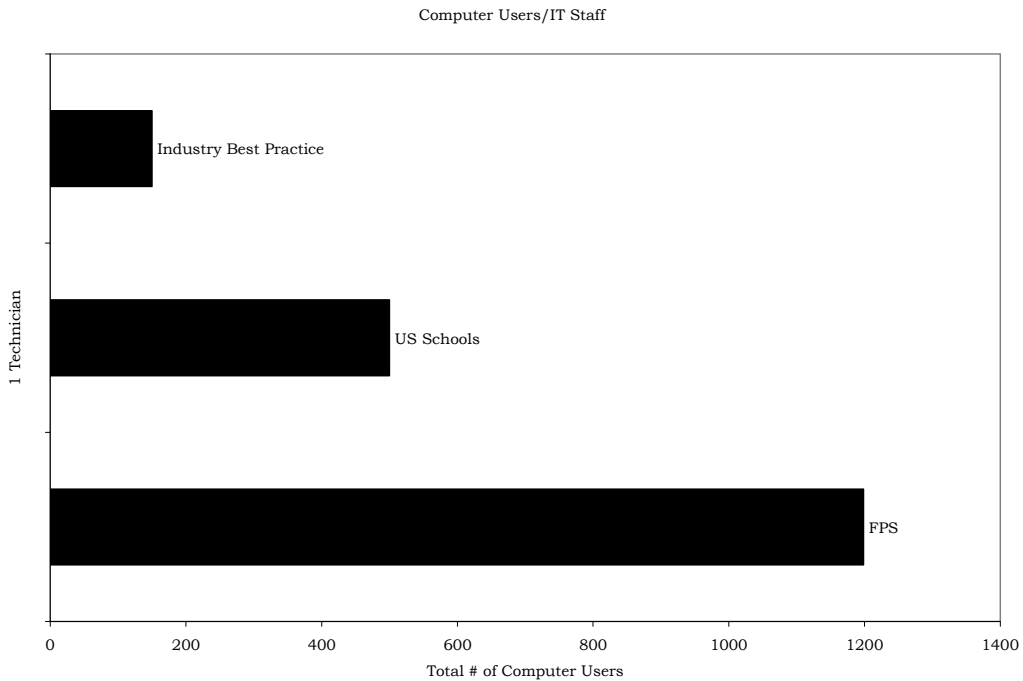
FPS uses its technical team, hardware and software manufacturer warranties, hardware and software maintenance agreements, and various third party vendors and consultants to provide maintenance for all district technology. Short term vendor agreements provide the district flexibility when a specific expertise is needed but not required long term. This allows for the best use of taxpayer dollars.

**Technical Support:**

The Technology Services team supports 8 functional technology areas that include a Service Desk, Computer Administration and Support, Network Administration and Support, Video System Administration and Support, Telephone System Administration and Support, Technology Governance and Compliance, Enterprise Application Administration and Support and Curriculum Application Support.



The Technology Services team is lead by the Director of Technology Services. Each functional area is covered using district employees, contractors, and vendors that fall in many of the functional areas with experience and expertise in many areas. The Technology Services team works collaboratively within the functional areas and with other district departments and building teams. Technology Services works to continuously improve the service it provides to the FPS user community. The challenge as with many school districts, is the ratio of technology staff to computer users. With over 4700 students, teachers, and staff FPS falls well beyond industry best practice of 150 users to 1 technology staff and the US Schools ratio of 500 to 1 as reported in a March 2009 eSchools News special report, “School IT Support: Overworked and Understaffed.”



Sources: eSchools News. (March 2009). “School IT Support: Overworked and understaffed.”  
Winter 2009 Supplemental County Day FTEs

FPS is working to automate the management of its technology environment. Automation will help the technology team to meet the needs of its computer user community without having to increase staff a tremendous amount. FPS continually works to find creative ways to do more with less while maintaining a stable and consistent technical environment for the FPS technology user community.

## **Section 12: Increase Access**

This section describes the future enhancements planned for different aspects of the district's technical environment. The goal for the expected future enhancements is to provide an environment that improves instruction and student learning and builds a foundation for the 21<sup>st</sup> century classroom.

### **Infrastructure Enhancements:**

Plans are underway to create a secondary hub in the district for disaster recovery and business continuity purposes. The single data center at the high school is a vulnerability point for the district's access to Internet based curriculum, student, and financial systems. A secondary connection allowing continued access to essential systems is crucial for daily operations.

Plans are in process to move all building interconnections to 1 Gbps in the next few years. This will allow for the improvement of access to Internet and server based curriculum applications as well as general Internet access for student and teacher curriculum research.

Plans are underway to determine capital replacement needs for the main distribution frame (MDF) and intermediate distribution frame (IDF) switches. Many of the district network switches have been identified as end of life and end of support by the manufacturer and will need to be replaced. In addition, FPS is planning to implement wireless access in some of the buildings. This will allow FPS to provide flexibility in areas not currently wired and provide greater usability to students, teachers, and the Ferndale community.

Efforts have started to move the district away from the Novell NetWare environment. Integration limitations where server based curriculum and enterprise applications cannot be installed or run has prompted the move away from Novell NetWare. This will increase the flexibility to support the efforts of reform and adoption of a 21<sup>st</sup> century classroom.

Plans to update the Dynix system hardware and software are underway. Enhancements are expected to be completed during the period of this plan.

Plan and implementation of an updated parent notification system is underway. This enhancement will provide improved communication and collaboration between the school district administrators and parents. Enhancements are expected to be completed during the period of this plan.

### **Security Enhancements:**

Plans are in place to enhance the defense in depth strategy in securing the FPS technical environment. Additional segmentation of the network to include the deployment of additional firewall devices will add defensive layers to protect organizational data. Strong password practices will be implemented to enhance the hierarchical password strategy. Improving user level profiles and access controls assist in securing the FPS technology assets in support of Board of Education acceptable use policies for students and teachers.

Plans are in process to implement a district level email SPAM filtering system to improve security and filtering of district email.

Discussion and planning has started to provide individual student accounts. This will provide autonomy to the students, provide accountability data for the acceptable use policy, and provide a way for students to access curriculum based servers to collaborate with teachers to securely submit and receive homework assignments and projects.

Enhancements and upgrades are planned for the surveillance cameras at many of the buildings. FPS is working closely with the Ferndale Police Department to complete the enhancements and upgrades.

#### **Enterprise Application Enhancements:**

Continue the work started to convert the environment away from NDS to Microsoft ADS. Continue to evaluate and improve the deployment and support of the workstations management process.

Plans are underway to automate asset management. An updated and accurate inventory of the organization's technology hardware and software is necessary to development and manage capital replacement. Planning for expected cash flows helps limit the impact to revenue and increase the impact on the classroom.

#### **Curriculum Application Enhancements:**

Continue to move towards Internet based curriculum and instruction applications. Create an Internet based approach for collaboration between teachers and students.

Continue to streamline and integrate additional modules of the Zangle student management systems.

Upgrade and enhance the Dynix automated library system for continued use in the district media centers.

#### **Telephones Enhancements:**

Plans are started to address the necessary hardware and software phone system upgrades needed to bring the phone systems up to date.

Plans to implement a call management system will commence after the needed phone system upgrades are completed. Call management system cannot pull data from the phone systems until upgrades are completed.

Wireless conference phones are under consideration to enhance training and collaboration capabilities.

#### **IT Governance Enhancements:**

Establish a service oriented best practices technology team. Work to implement the IT Infrastructure Library (ITIL) framework to IT service management and delivery. This approach will allow FPS to structure approach to providing the service of technology to the FPS organization. A structure approach provides a mechanism for FPS to reduce costs in

technology, improve technology services based on best practices, establish technology standards and guidance, improve productivity by identifying the services provide, and improved use of technology skills and expertise.

**Projected Timeline:**

Year 1 2009-2010	Year 2 2010-2011	Year 3 2011-2012
<ul style="list-style-type: none"> <li>• Planning and design for facility updates to create a secondary hub in the district for disaster recovery and business continuity purposes</li> <li>• Procure necessary hardware to move building interconnections to 1 Gbps</li> <li>• Identify, plan, and begin to replace end of life and end of support network switches</li> <li>• Procure necessary server hardware to move from Novell Network to Microsoft Active Directory</li> <li>• Update and enhance Dynix system environment</li> <li>• Procure necessary technology to implement the parent notification system</li> <li>• Implement strong password practices and work with the Board of Education to update policies to reflect practice</li> <li>• Plan and implement district level SPAM filtering system</li> <li>• Plans are started to address the necessary hardware and software phone system upgrades needed to bring the phone systems up to date</li> <li>• Establish plan to implement ITIL service management framework and start initial implementation.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue implementation of secondary hub</li> <li>• Continue replacement of network hardware until all interconnections are 1 Gbps</li> <li>• Continue to identify, plan, and replace end of life a and end of support network switches</li> <li>• Continue to identify, plan, and make improvements to the Microsoft Active Directory environment to support school reform</li> <li>• Continue to monitor and improve the use and availability of the Dynix system</li> <li>• Review installed parent notification system and make adjustments if necessary</li> <li>• Review password practices and work with the Board of Education to update policies to reflect practice</li> <li>• Review district level SPAM filtering system and make adjustments if necessary</li> <li>• Plans are started to address the necessary hardware and software phone system upgrades needed to bring the phone systems up to date</li> <li>• Plans to implement a call management system will commence after the need phone system upgrades are completed</li> <li>• Continue implementation and adjustment of ITIL service management framework.</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate additional needs for secondary hub</li> <li>• Continue replacement of network hardware until all interconnections are 1 Gbps</li> <li>• Continue to identify, plan, and replace end of life a and end of support network switches</li> <li>• Continue to identify, plan, and make improvements to the Microsoft Active Directory environment to support school reform</li> <li>• Continue to monitor and improve the use and availability of the Dynix system</li> <li>• Review installed parent notification system and make adjustments if necessary</li> <li>• Review password practices and work with the Board of Education to update policies to reflect practice</li> <li>• Review district level SPAM filtering system and make adjustments if necessary</li> <li>• Plans are started to address the necessary hardware and software phone system upgrades needed to bring the phone systems up to date</li> <li>• Continue implement of call management system as phone system upgrades are completed</li> <li>• Continue implementation and adjustment of ITIL service management framework.</li> </ul>

**IV. Funding and Budget**

**Section 13 J: Budget and Timetable**

**Projected Expenses**

<b>Description</b>	<b>Year 1 2009-2010</b>	<b>Year 2 2010-2011</b>	<b>Year 3 2011-2012</b>
<b>Projected Expense</b>			
Salaries & Benefits	\$ 270,000.00	\$ 272,700.00	\$ 275,427.00
Hardware & Networking Costs	\$ 228,000.00	\$ 230,280.00	\$ 225,674.40
Maintenance & Service Costs	\$ 40,000.00	\$ 40,400.00	\$ 40,804.00
License Agreements	\$ 85,000.00	\$ 84,150.00	\$ 84,991.50
Software & Curriculum Support	\$ 11,000.00	\$ 11,110.00	\$ 11,221.10
Professional Development	\$ 42,000.00	\$ 41,580.00	\$ 41,995.80
Technical Support	\$ 125,000.00	\$ 137,500.00	\$ 68,750.00
Data Center Infrastructure	\$ 247,000.00		
Other areas as required by the technology plan			
<b>Total Projected Expense</b>	\$ 1,048,000.00	\$ 817,720.00	\$ 748,863.80
<b>Projected Revenue</b>			
District General Fund	\$ 700,000.00	\$ 700,000.00	\$ 700,000.00
District Bond Millage	\$ 160,000.00	\$ -	\$ -
e-Rate Funds	\$ 40,000.00	\$ 40,400.00	\$ 40,804.00
ARRA Funds	\$ 75,000.00	\$ 75,000.00	\$ -
Title II D	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
COPS-Secure our Schools (SOS)	\$ 63,000.00		
<b>Total Projected Revenue</b>	\$ 1,048,000.00	\$ 825,400.00	\$ 750,804.00

#### **Section 14: Coordination of Resources**

Ferndale Public Schools has on staff a professional grant writer who collaborates with many teams in the organization to prepare necessary documents to obtain monies for technology. Many teams to include the Technology Services team and the Curriculum and Instruction team research and investigate grant opportunities from the many resources available through federal, state, local, and private organizations.

FPS contracts the services of a consultant to assist with the district's USF application from which money is received yearly for telecommunication. The district also receives money annually from Title II part D that is used to offset the cost of networked software that must be renewed yearly. FPS also works with local law enforcement to collaborate on school security grants.

## **V. Monitoring and Evaluation**

### **Section 15: Evaluation**

The Board Program and Technology Committee reviews and evaluates the technology plan annually. Based on the completion of the annual evaluation, and in response to new technological developments and opportunities, the plan is modified accordingly. In addition, all principals and K-12 Curriculum Coordinators monitor the use of technology within the classroom.

Evaluation questions to assess the following areas of technology use will be incorporated into the annual staff survey and will include the following:

1. To what extent do teachers integrate the use of technology into the curriculum?
2. What impact does the use of technology integration in the curriculum have on instruction?
3. How effective has the network-based curriculum guide been in helping teachers integrate technology?
4. To what extent do integrated technology lessons meet the curricular standards?
5. To what extent are teachers using technology resources appropriately?
6. To what extent do teachers integrate the use of technology into the curriculum?
7. What impact does the use of technology integration in the curriculum have on instruction?
8. How effective is in-service training on using best practices when teaching technology?
9. To what extent are teachers using the available resources to develop lessons and implement lessons?
10. To what extent will technology be used to communicate integration practices?
11. What impact will communication have on technology integration?
12. To what extent has access to appropriate forms of technology been increased for students, staff and community?
13. How has greater access to appropriate forms of technology benefited students, staff and community?
14. Was a purchasing plan for new and replacement equipment and software developed?
15. Did the purchasing plan meet the needs of the district?
16. To what extent are students using technology as a tool for communicating, problem solving and collaborating?
17. What impact did the use of technology have on communication, problem solving and collaboration for students?

## Section 16: Acceptable Use Policy

Ferndale Public Schools adopted an Acceptable Use Policy since computers were made available to students. It has been revised twice, once in 1999 and most recently in 2002 to meet the CIPA requirements. Use of the Internet is closely monitored by the district's network supervisor. The district uses Border Manager to filter all Internet use and students who attempt to access inappropriate sites lose Internet access. In addition parents of all students must give permission for their students to use the Internet. Upon receipt of parental permission, students are given an Internet Driver's License which must be displayed while students are on-line.

BOARD OF EDUCATION  
FERNDALE PUBLIC SCHOOLS

### STUDENT NETWORK AND INTERNET ACCEPTABLE USE AND SAFETY

*Advances in telecommunications and other related technologies have fundamentally altered the ways in which information is accessed, communicated, and transferred in our society. Such changes are driving the need for educators to adapt their means and methods of instruction, and the way they approach student learning, to harness and utilize the vast, diverse, and unique resources available on the Internet. The Board of Education is pleased to provide Internet services to its students. The Board encourages students to utilize the Internet in order to promote educational excellence in our schools by providing them with the opportunity to develop the resource sharing, innovation, and communication skills and tools which will be essential to life and work in the 21st century. The instructional use of the Internet will be guided by the Board's policy on Instructional Materials.*

*The Internet is an electronic highway connecting computers and users in the District with computers and users worldwide. Access to the Internet enables students to explore thousands of libraries, databases, and bulletin boards, while exchanging messages with people throughout the world. Access to such an incredible quantity of information and resources brings with it, however, certain unique challenges.*

*First, and foremost, the Board may not be able to technologically limit access to services through the Board's Internet connection to only those that have been authorized for the purpose of instruction, study and research related to the curriculum. Unlike in the past when educators and community members had the opportunity to review and screen materials to assess their appropriateness for supporting and enriching the curriculum according to adopted guidelines and reasonable selection criteria (taking into account the varied instructional needs, learning styles, abilities, and developmental levels of the students who would be exposed to them), access to the Internet, because it serves as a gateway to any publicly available file server in the world, will open classrooms and students to electronic information resources which have not been screened by educators for use by students of various ages.*

*The Board has implemented technology protection measures which block/filter Internet access to visual displays that are obscene, child pornography or harmful to minors. The Board utilizes software and/or hardware to monitor online activity of students to restrict access to child pornography and other material that is obscene, objectionable, inappropriate and/or harmful to minors. Nevertheless, parents/guardians are advised that a determined user may be able to gain access to services on the Internet that the Board has not authorized for educational purposes. In fact, it is impossible to guarantee students will not gain access through the Internet to information and communications that they and/or their parents/guardians may find inappropriate, offensive, objectionable or controversial. Parents/guardians assume risks by consenting to allow their children to participate in the use of the Internet. Parents/guardians of minors are responsible for setting and conveying the standards that their children should follow when using the Internet. The Board supports and respects each family's right to decide whether to apply for independent student access to the Internet.*

*The Superintendent or Director of Technology is directed to prepare guidelines which address students' safety and security while using e-mail, chat rooms and other forms of direct electronic communications, and prohibit disclosure of personal identification information of minors and unauthorized access (e.g., "hacking") and other unlawful activities by minors online.*

*Building principals are responsible for providing training so that Internet users under their supervision are knowledgeable about this policy and its accompanying guidelines. The Board expects that staff members will provide guidance and instruction to students in the appropriate use of the Internet. All Internet users (and their parents if they are minors) are required to sign a written agreement to abide by the terms and conditions of this policy and its accompanying guidelines.*

*Student and staff members are responsible for good behavior on the Board's computers/ network and the Internet just as they are in classrooms, school hallways, and other school premises and school sponsored events. Communications on the Internet are often public in nature. General school rules for behavior and communications apply. The Board does not sanction any use of the Internet that is not authorized by or conducted strictly in compliance with this policy and its accompanying guidelines. Users who disregard this policy and its accompanying guidelines may have their use privileges suspended or revoked, and disciplinary action taken against them. Users granted access to the Internet through the Board's computers assume personal responsibility and liability, both civil and criminal, for uses of the Internet not authorized by this Board policy and its accompanying guidelines. The Board designates the Superintendent and Director of technology as the administrators responsible for initiating, implementing and enforcing this policy and its accompanying guidelines as they apply to the use of the Network and the Internet for instructional purposes.*

*H.R. 4577, P.L. 106-554, Children's Internet Protection Act of 2000  
47 U.S.C. 254 (h), (1), Communications Act of 1934, as amended  
20 U.S.C. 6801 et seq., Part F, Elementary and Secondary Education Act of 1965, as amended  
18 U.S.C. 2256  
18 U.S.C. 1460  
18 U.S.C. 2246  
Adopted 4/15/2002*