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www.oshtemo.org

**NOTICE
OSHTEMO CHARTER TOWNSHIP
PLANNING COMMISSION**

**Regular Meeting
Thursday, February 8, 2018
7:00 p.m.
AGENDA**

1. Call to Order
2. Pledge of Allegiance
3. Approval of Agenda
4. Public Comment on Non-Agenda Items
5. Approval of Minutes: January 11, 2018 and January 25, 2018
6. PUBLIC HEARING: Kalamazoo County Consolidated Dispatch Authority Fence Request
Consideration of an application from Kalamazoo County Consolidated Dispatch
Authority for a special exception use concerning security barbed-wire fencing outside of
an industrial-zoned district, pursuant to Section 78.210 of the Township Zoning
Ordinance, for the subject property located at 7040 Stadium Drive, within the C: Local
Business District. Parcel No. 3905-14-230-049.
7. Old Business
8. Any Other Business
 - a. Adam Garland Construction Concept Plan Review
 - b. BTR Park 2.0 Road Name Approval
9. Planning Commissioner Comments
10. Adjournment

Policy for Public Comment
Township Board Regular Meetings, Planning Commission & ZBA Meetings

All public comment shall be received during one of the following portions of the Agenda of an open meeting:

- a. Citizen Comment on Non-Agenda Items or Public Comment – while this is not intended to be a forum for dialogue and/or debate, if a citizen inquiry can be answered succinctly and briefly, it will be addressed or it may be delegated to the appropriate Township Official to respond at a later date.
- b. After an agenda item is presented by staff and/or an applicant, public comment will be invited. At the close of public comment there will be board discussion prior to call for a motion.

Anyone wishing to make a comment will be asked to come to the podium to facilitate the audio/visual capabilities of the meeting room. Speakers will be invited to provide their name; it is not required unless the speaker wishes to have their comment recorded in the minutes.

All public comment offered during public hearings shall be directed, and relevant, to the item of business on which the public hearing is being conducted. Comment during the Public Comment or Citizen Comment on Non-Agenda Items may be directed to any issue.

All public comment shall be limited to four (4) minutes in duration unless special permission has been granted in advance by the Supervisor or Chairperson of the meeting.

Public comment shall not be repetitive, slanderous, abusive, threatening, boisterous, or contrary to the orderly conduct of business. The Supervisor or Chairperson of the meeting shall terminate any public comment which is in contravention of any of the principles and procedures set forth herein.

(adopted 5/9/2000)
(revised 5/14/2013)

Policy for Public Comment
6:00 p.m. "Public Comment"/Portion of Township Board Meetings

At the commencement of the meeting, the Supervisor shall poll the members of the public who are present to determine how many persons wish to make comments. The Supervisor shall allocate maximum comment time among persons so identified based upon the total number of persons indicating their wish to make public comments, but no longer than ten (10) minutes per person. Special permission to extend the maximum comment time may be granted in advance by the Supervisor based upon the topic of discussion.

While this is not intended to be a forum for dialogue and/or debate, if a citizen inquiry can be answered succinctly and briefly, it will be addressed or it may be delegated to the appropriate Township Official to respond at a later date.

Anyone wishing to make a comment will be asked to come to the podium to facilitate the audio/visual capabilities of the meeting room. Speakers will be invited to provide their name; it is not required unless the speaker wishes to have their comment recorded in the minutes.

Public comment shall not be repetitive, slanderous, abusive, threatening, boisterous, or contrary to the orderly conduct of business. The Supervisor shall terminate any public comment which is in contravention of any of the principles and procedures set forth herein.

(adopted 2/27/2001)
(revised 5/14/2013)

**OSHTEMO CHARTER TOWNSHIP
PLANNING COMMISSION**

MINUTES OF A MEETING HELD JANUARY 11, 2018

Agenda

**ELECTION OF OFFICERS/APPOINTMENT OF PLANNING COMMISSION
LIAISON TO ZONING BOARD OF APPEALS**

OLD BUSINESS

CONDOMINIUM DEVELOPMENT STANDARDS ORDINANCE - DRAFT

A meeting of the Oshtemo Charter Township Planning Commission was held on Thursday, January 11, 2018, commencing at approximately 7:00 p.m. at the Oshtemo Charter Township Hall.

MEMBERS PRESENT: Fred Antosz
Cheri Bell
Ollie Chambers
Dusty Farmer
Micki Maxwell
Mary Smith
Bruce VanderWeele

MEMBERS ABSENT: None

Also present were Julie Johnston, Planning Director, James Porter, Attorney, and Martha Coash, Meeting Transcriptionist. No other persons were in attendance.

Call to Order and Pledge of Allegiance

The meeting was called to order by Chairperson Bell at approximately 7:00 p.m., and the "Pledge of Allegiance" was recited.

Public Comment on Non-Agenda Items

The Chair noted there were no members of the public present and proceeded to the next agenda item.

Approval of the Minutes of December 14, 2017

Chairperson Bell asked if there were additions, deletions or corrections to the Minutes of December 14, 2017. Hearing none, she asked for motion for approval.

Mr. Chambers made a motion to approve the minutes of December 14, 2017 as presented. Mr. Antosz seconded the motion. The motion was approved unanimously.

Election of Officers and Zoning Board of Appeals Liaison

Chairperson Bell solicited nominations for Chair, Vice Chair, Secretary, and Liaison to the Zoning Board of Appeals for 2018.

Mr. Chambers determined Ms. Bell would accept a nomination to continue as Chairperson for 2018 and nominated her for the position. Hearing no other nominations, the Chair asked for a motion.

Mr. Antosz made a motion to elect Ms. Bell as Chair of the Planning Commission for 2018. Mr. Chambers supported the motion. The motion passed unanimously.

In answer to a question from Mr. Antosz, Mr. VanderWeele indicated he would be willing to serve as Vice Chair.

Mr. Antosz nominated Mr. VanderWeele for Vice Chair for 2018.

Hearing no other nominations, Chairperson Bell asked for a motion.

Mr. Antosz made a motion to elect Mr. VanderWeele as Vice Chairperson of the Planning Commission for 2018. Ms. Farmer supported the motion. The motion carried unanimously.

Ms. Farmer indicated she was open to continuing as Secretary.

Mr. VanderWeele nominated Ms. Farmer to serve as Secretary for 2018.

Hearing no other nominations, Chairperson Bell asked for a motion.

Mr. VanderWeele made a motion to elect Ms. Farmer as Secretary of the Planning Commission for 2018. Mr. Antosz supported the motion. The motion carried unanimously.

Mr. VanderWeele said he was willing to continue to serve as liaison to the Zoning Board of Appeals. Ms. Farmer nominated him to serve in that capacity.

Hearing no other nominations, Chairperson Bell asked for a motion.

Mr. Antosz made a motion to approve Mr. VanderWeele as liaison to the ZBA. Mr. Chambers seconded the motion. The motion passed unanimously.

Old Business

Condominium Development Standards Ordinance

Chairperson Bell asked Ms. Johnston for her presentation on the development of a Condominium Development Standards Ordinance.

Ms. Johnston said Staff received a request to develop an attached condominium project on a property zoned R-2: Residence District. In reviewing the subject parcel, it became clear that the size of the property did not meet the 20-acre requirement for a Planned Unit Development (PUD). Therefore, the only option open to the property owner based on current Zoning Ordinance regulations was to subdivide the property and create individual lots where the two-unit attached dwellings could be built.

After reviewing other attached condominium projects in the Township, she said it was discovered many were developed as part of a larger PUD. Currently there are no standards for the development of an attached product outside of the PUD ordinance. Staff does not believe it was the intent of the Zoning Ordinance to preclude this type of development outside of a PUD or platted subdivision or site condominium. This is especially true since the R-2 District allows two-family dwellings by right and the R-3 District allows three and four-family as a special exception use. In addition, the Condominium Act, Public Act 59 of 1978 establishes this type of development as a legitimate option for both developers and homeowners.

She indicated Staff developed the Condominium Development Standards Ordinance utilizing language from the existing development standards for apartments and site condominiums. This new ordinance would require any attached condominium development to request approval through the special exception use process so a public hearing with the Planning Commission would be required.

After some discussion and clarification that development under this Ordinance would be limited to residences, it was agreed Ms. Johnston would add "Residential" to the name of the ordinance and that the Ordinance would include a requirement for 10% open space, the same amount as required for a PUD.

Attorney Porter said this Ordinance would allow an alternative and satisfy a certain niche for a developer who wants to build an owner-occupied attached unit.

Ms. Johnston noted after consideration of the proposed ordinance and any changes/edits, a public hearing will need to be set. It was the consensus of the group that Ms. Johnston should return to the February meeting with a revised document that reflects the changes agreed upon for further review, prior to scheduling a public hearing.

In answer to a question from Mr. VanderWeele regarding whether these new provisions might be included under the existing PUD Zoning Ordinance, Ms. Johnston indicated that she would review that section of the code to see if that would work.

Any Other Business

Ms. Johnston reported that the Township Board reviewed the Zoning Ordinance amendments sent to them from the Planning Commission and that all were approved except for the addressing ordinance. The Board asked for some visual information on the size of the addresses before approving the ordinance. The Board also asked the Commission to review the regulations related to the width of circulation and drive aisles. Ms. Johnston will return with information on that for their further consideration.

PLANNING COMMISSIONER COMMENTS

On behalf of the Board, Chairperson Bell welcomed Ms. Maxwell as a member.

Ms. Farmer reminded the Board that Township Board Members would be joining them at the regularly scheduled January 25 meeting to discuss Master Plan revisions.

ADJOURNMENT

Having exhausted the agenda, and with there being no further business to discuss, Chairperson Bell asked for a motion to adjourn.

Ms. Farmer made a motion to adjourn the meeting. Ms. Smith supported the motion. The motion passed unanimously.

The Planning Commission meeting was adjourned at approximately 8:47 p.m.

Minutes prepared:
January 10, 2018

Minutes approved:
_____, 2018

**OSHTEMO CHARTER TOWNSHIP
TOWNSHIP BOARD OF TRUSTEES AND PLANNING COMMISSION**

MINUTES OF A MEETING HELD JANUARY 25, 2018

Agenda

**JOINT WORK SESSION OF THE TOWNSHIP BOARD OF TRUSTEES AND THE
PLANNING COMMISSION**

DISCUSSION OF DRAFT MASTER PLAN UPDATE

A meeting of the Oshtemo Charter Township Board of Trustees and the Planning Commission was held on Thursday, January 25, 2018, commencing at approximately 7:00 p.m. at the Oshtemo Charter Township Hall.

TOWNSHIP BOARD

MEMBERS PRESENT: Libby Heiny-Cogswell, Supervisor
Nancy Culp, Treasurer
Dave Bushouse
Deb Everett
Zak Ford
Ken Hudok

MEMBER ABSENT: Dusty Farmer, Clerk

PLANNING COMMISSION

MEMBERS PRESENT: Cheri Bell, Chairperson
Fred Antosz, Vice Chairperson
Ollie Chambers
Micki Maxwell
Mary Smith
Bruce VanderWeele
Dusty Farmer, Secretary

Also present were Julie Johnston, Planning Director, James Porter, Attorney, Marc Elliott, Public Works Director, Martha Coash, Meeting Transcriptionist, and six interested persons.

Call to Order

The meeting was called to order by Supervisor Heiny-Cogswell at approximately 7:00 p.m.

Public Comment on Non-Agenda Items

There were no public comments on non-agenda items.

Discussion of Draft Master Plan Update

Supervisor Heiny-Cogswell asked Ms. Johnston to review the Master Plan process and updates for the group.

Ms. Johnston explained Public Act 33 of 2008, Michigan Planning Enabling Act, requires local jurisdictions to review their master plans every five years to determine if updates are required. After an assessment of the 2011 Oshtemo Township Master Plan, the Planning Commission concluded that although the Plan is in good shape, some updates were needed. She said the draft Master Plan Update includes four main chapters:

- Introduction and Planning Drivers: Outlines the demographic changes occurring in the Township that influence planning decisions.
- Rural Character Preservation Strategy: Details the goals and strategies for preserving rural properties and character within the western 2/3rds of the Township. This section includes the detailed environmental mapping conducted by Western Michigan University and the public outreach steps taken to develop the proposed strategies.
- Maple Hill Drive South Sub-Area Plan: This Plan was based on a recommendation in the 2011 Master Plan, which indicated this particular area of the Township was prime for redevelopment and a more detailed sub-area plan was needed. The recommendations in the Sub-Area Plan are based on community outreach and careful consideration of the Planning Commission with regard to the uniqueness of this area and its location in that portion of the Township slated for more intense development. It is the last real undeveloped contiguous green area in this part of the Township. Public feedback reflected a desire that less density be maintained near residential neighborhoods.
- Future Land Use Plan: This section of the Update replaces the 2011 Future Land Use Chapter. Incremental alterations to the Future Land Use Map have been proposed to address changing conditions and support the planning drivers that are affecting the Township. These changes mainly include the development of two new Districts, Transitional Office and Public/Government.

In addition, the Neighborhood Commercial “Nodes” were eliminated and instead specific boundaries for the Neighborhood Commercial District were more clearly defined. The Village Commercial area was redefined as the Village Core District and the boundaries were established around 9th Street and Stadium Drive. The remaining

areas of the old Village Commercial District were designated as Local Commercial and Transitional Office.

Next, Ms. Johnston outlined the variety of public input garnered since the start of the public process. In addition to these specific outreach meetings, the Planning Commission held eight public work sessions throughout the development of the Master Plan. Some of these work sessions were aimed at a specific focus area of the update and participants interested in that section of the Plan were invited to attend.

She said the Planning Commission held the required public hearing on the draft Master Plan Update on December 14, 2017. An email invitation was sent to the email list of attendees accumulated throughout the development of the Plan and notice was placed in the Kalamazoo Gazette and on Mlive. Approximately 20 interested persons were in attendance and seven persons provided verbal comment on the plan. After the public hearing, the Planning Commission forwarded a recommendation of approval of the draft Master Plan Update to the Township Board.

Ms. Johnston concluded by saying household population and growth are leading to an increased need for housing. Currently there is a 7% vacancy rate; the tight housing market will continue to increase values. Diversified housing stock providing greater choice is indicated. Condos, townhouses and other housing stock that require low maintenance are desired by increasing numbers of empty nesters as well as those in their 20s.

Trustee Ford wondered about statistics regarding how many residents younger than 30 live with their parents.

Ms. Johnston said that statistic may be available from census data; usually if residents live with their parents they are counted as part of that household.

In response to a question from the Supervisor, Ms. Johnston indicated the 2011 Master Plan and the 2018 update being considered are two different documents; both would be in effect at the same time. The only new section in the Master Plan is the Future Land Use chapter. The two documents could be combined into one if that would be clearer.

Trustee Ford thanked Ms. Johnston and the Planning Commission for all their work on this project.

Trustee Everett asked how a timeline might be developed to address the priorities in the Master Plan update in order to stay on task.

Ms. Johnston agreed it will be important to put the priorities established into effect; that it was very clear that those who attended public sessions expect implementation. She will work with the Planning Commission to develop a plan.

In response to a question from Trustee Everett regarding storm water regulations, Ms. Johnston said she expects to address those as part of a reorganization of the Zoning Ordinance.

Trustee Ford wondered about the term “environmental sustainability” on page 37.

Ms. Johnston said ordinance language will need to be updated for solar and wind. Also needing updating is language related to RR – large parcels are currently limited to only residential uses. Property owners would like to have other opportunities to develop their land besides subdivision. The Planning Commission will study options.

Supervisor Heiny-Cogswell commented the Rural Preservation Plan, developed in concert with WMU to detail a natural features inventory, is phenomenal. She also wondered if property open to the public might be included in the Public/Government District.

Ms. Johnston said that might be a possibility; Ms. Bell said if that is considered, WMU and Kalamazoo College property should also be included.

Trustee Hudok asked if any consideration was given to allowing more density west of the existing future land use plan. Ms. Johnston said community input and past master plans did not support higher density moving west, a consistent view since the 1990s. This may need to be examined again in the future.

Trustee Hudok noted public water and sewage and better transportation have to be considered for upgrades before the Township experiences big city problems.

In response to a question from Trustt Ford, Ms. Johnston explained green infrastructure includes connectivity to parks and arboretums, etc. She indicated the Township is in good shape to start the planning process for non-motorized connections and greenways because of the work completed by WMU. Non-motorized, greenway and park planning will help to begin implementing some of the strategies from the Rural Character chapter of the Update.

There was some discussion regarding the village area. Ms. Johnston indicated no zoning changes are expected. She said the Form Based Code may be repackaged as an overlay district with design guidelines to remove negative feelings that are keeping the area from being developed, but we are not there yet.

Ms. Johnston responded to the Supervisor’s comment that she was surprised there is more local commercial to the west of the village area than the existing mixed-use village district, saying the Planning Commission looked at what exists in this location and what might develop in the future and thought local commercial was a better fit. They were trying to mirror the development plan of the Village Theme Development Plan.

Supervisor Heiny-Cogswell also wondered whether private vs. public streets should be looked at in some areas.

Mr. Elliott noted some design standards of the Road Commission are less green than we would like. Allowing reduced paved widths is a departure from the Road Commission standards to allow developments to be more “green.”

Ms. Johnston noted private streets can be only in open space and PUD developments and they bring up issues of responsibility for upkeep and maintenance.

Supervisor Heiny-Cogswell noted the future of retail will need to be considered in light of increased online shopping.

Trustee Hudok commended Ms. Johnston for trying to provide smart planning in targeted areas.

Trustee Ford wondered about electric car recharging stations.

Ms. Johnston indicated Ordinance language should allow the Planning Commission to have some flexibility and might include vehicle charging as well as bicycle parking. The vision is already laid out in the Master Plan goals, what is needed is implementation.

Ms. Johnston said the Master Plan needs to be supported by ordinance. That was not entirely done in 2011 after the Master Plan was put in place, which caused some problems. Very specific language is needed to bring ordinance in line with the Master Plan.

There was discussion about whether greenway and non-motorized plans should be stand-alone or integrated into the Master Plan.

Attorney Porter stated that whether they are part of the master plan or stand-alone plans, neither are regulatory. They are the vision of the Township. To require development, the Township needs the regulatory teeth; they have to be in zoning for implementation. Public noticing would be required to include these documents in the Master Plan.

Ms. Bell felt it might provide continuity to have them all in one place.

Supervisor Heiny-Cogswell asked whether Planning Commission members would like to comment.

Mr. Antosz said it all comes down to developing good ordinance to support the Master Plan and it is important that as much feedback as possible from the public be included.

Ms. Smith requested that priority be given to developing sidewalks, especially on Croyden and Maple Hill. She noted people already walk in the street, and with new development, safety is even more of a consideration.

Trustee Hudok shared Ms. Smith's concern. Priority in heavier commercial and high density areas need contiguous walkways as a focus of building and construction.

Chairperson Bell thanked Ms. Johnston for her work and patience during the process to get the Master Plan update to the Township Board.

Members of the public in attendance were offered a chance for comment.

Mr. Simon Ashbrook said he owns property in a section of the Township that may be changed to local commercial. He has wanted for some time to be able to open a small family-owned meat market and is excited at the possibility of being able to do so.

Mr. Kurt Aardema, AVB, expressed his appreciation for the time Ms. Johnston and the Planning Commission have worked to develop and overall vision. They are excited to work with the Township on the next steps of development.

A representative of CTS Telecom said he was in attendance to gather information about Township development as it may pertain to an extended network and appreciated hearing the plans.

ADJOURNMENT

Having exhausted the agenda, and with there being no further business to discuss, Supervisor Heiny-Cogswell adjourned the meeting at approximately 8:30 p.m.

Minutes prepared:
January 27, 2017

Minutes approved:
_____, 2017

January 31, 2018



Mtg Date: February 8, 2018

To: Planning Commission

From: Julie Johnston, AICP
Planning Director

Applicant: Jeff Troyer, Executive Director

Owner: Kalamazoo County Consolidated Dispatch Authority

Property: 7040 Stadium Drive
Parcel number 3905-34-230-049

Zoning: C: Local Business District

Request: Special Exception Use for an 8-foot fence with barbed wire

Section(s): Section 78.200: Fences
Section 60.000: Special Exception Use

Project Name: Kalamazoo Consolidated Dispatch

PROJECT SUMMARY

Kalamazoo County Consolidated Dispatch Authority (KCCDA) recently purchased the property at 7040 Stadium Drive as their new headquarters. Renovations are currently underway to help secure the facility from hazards, vulnerabilities and any resultant risk to their emergency operations. As part of these renovations, KCCDA would like to secure the building with fencing, some of which would include 6-feet of chain-link with three strands of barbed wire. Per the requirements of 78.210.E.

*Security fences six feet high and above in industrial-zoned districts may include an additional 18 inches of barbed wire. Such barbed wire shall slant inward toward the property or be straight up. **Security fences with barbed wire in other zoning districts shall require special exception use approval.***

The property is located C: Local Business District, which requires special exception use approval for any fencing with barbed wire. In addition, 78.230.C. indicates:

Other Zoning Districts. Fences exceeding six (6) feet in height shall be subject to approval by the appropriate reviewing body.

The more decorative fencing shown on the site plan is 8-feet in height. The chain link fence will also reach 8-feet once the barbed wire is attached. Therefore, Planning Commission approval is also required for the height of the fence. The applicant has indicated this security fencing is needed due to the essential 9-1-1 and public safety service provided at the site.

SPECIAL EXCEPTION USE CONSIDERATIONS

Section 60.100 of the Zoning Ordinance provides additional review criteria for consideration when reviewing a Special Exception Use request. Since this special exception use deals specifically with the fence and not the use of the building, staff's response to the below criteria is targeted to that issue. These criteria are as follows:

A. Is the proposed use compatible with the other uses expressly permitted within the Local Business District zoning classification?

Section 78.200 outlines the specific requirements for fences for all of the Township's zoning districts. Fences with barbed wire or taller than 6-feet are not permitted by right within the Local Business District. *Section 78.210: Construction, Material and Maintenance* states the following:

- C. No barbed wire, spire tips, sharp objects, or electrically-charged fences shall be erected in or abutting any residentially zoned district.*
- D. Bona fide agricultural uses may use barbed wire or charged fences to control livestock.*
- E. Security fences six feet high and above in industrial-zoned districts may include an additional 18 inches of barbed wire. Such barbed wire shall slant inward toward the property or be straight up. Security fences with barbed wire in other zoning districts shall require special exception use approval.*

This property is located adjacent to residentially zoned property to the north. However, the placement of the fencing south of the existing parking lot locates the proposed barbed wire fence approximately 75-feet from the residentially zoned property. As the common definition for abutting is, "be next to or have a common boundary with," staff determined that the interior placement of the fence does not violate this zoning requirement.

However, it is clear from the Zoning Ordinance that a fence of this type is not permitted by right outside of bona fide agricultural uses and industrial districts. The location of the new KCCDA building, within a prominent business and residential district of the Township, makes placement of this type of fence problematic. While more decorative fencing is located along the street rights-of-way, barbed wire is proposed along the west and north faces of the building.

B. Will the proposed use be detrimental or injurious to the use or development of adjacent properties or to the general public?

The difficulty with this application is the competing concerns of security for the site and the impacts this type of construction has related to compatibility. Adjacent uses are residential and low-intensity office and commercial. The continued operation of this building as an office fits perfectly into the fabric of this area of the Township. It is the placement of both the decorative and barbed wire security fencing that pushes the issue of compatibility and places a spotlight on what would otherwise be an innocuous use. Section 78.230.D.: Height, states the following:

*Height Exceptions. Multi-family and non-residential development requests undergoing site plan review may request a taller fence in side and rear yard areas that exceeds the height restrictions identified in Paragraphs A through C above as part of the site plan review process. The appropriate reviewing body may approve a fence up to the maximum building height of the underlying zoning district. In considering such a request, the appropriate reviewing body shall consider whether adequate clear vision is present, the **impact on neighboring properties, and the unique site-related issues that warrant the request.***

The applicant has indicated to staff that securing the perimeter of the building is standard best practice for emergency operation centers. The importance of protecting the first responders is critical in the event of an attack. It is our understanding that the placement of the fencing is intended as a deterrent to stop anyone from actually approaching the building.

Staff has conducted some research into what constitutes a “secure” facility of this type. While not exhaustive, we did find some information related to emergency operation centers. The National Emergency Number Association (NENA) published a document called NENA Resource, Hazard and Vulnerability Analysis Information Document published on September 10, 2016, which has a section on facility security, as follows:

Security into and within the facility includes at the minimum:

- *The ability to remotely secure areas or provide access to them.*
- *Keys, badging, levels of permission to gain access to specific areas of the facility.*
- *Door control security systems should have redundant UPS power to assure ongoing controlled access capability if primarily power backup systems fail.*
- *Surveillance video and recording in high security areas.*
- *Vendor control and procedures to monitor visitor and employee access.*

In addition, the Federal Emergency Management Agency (FEMA) provided a case study on hardened first responder facilities. The center in question was located in Smith County, Texas. FEMA outlined the use of their assessment checklist to understand vulnerabilities and address them in an appropriate manner. In this particular case study, the staff parking lot was protected with a 6-foot high security fence.

The assessment checklist provided by FEMA is intended to help local governments determine if their facility is secure, but it can also be used to help make decisions regarding new facilities.

While the location of the new KCCDA is set, it does warrant consideration as to whether the facility chosen and its location along Stadium Drive was the most appropriate for emergency operations if this type of fencing is needed to ensure the site is secure. The residential, office and commercial character of the area may not fit the needs of an emergency operations center.

However, fencing or other security measures could be installed on the site that is more compatible with adjacent uses. The requested fencing along Stadium Drive and 8th Street has a more residential character than the chain-link with barbed wire. Reducing the decorative fence to 6-feet in height as opposed to the requested 8-foot would also go a long way towards mitigating impacts. Below are some examples of security fencing which are not as impactful as barbed wire:



The use of barbed wire fencing in the locations shown on the site plan were chosen because of their limited visibility from the road rights-of-way. Existing landscaping will help to screen the fence along the west property line. Additionally, the setback of the fence and existing landscaping may also help to screen the fence from the residential property to the north.

C. Will the proposed use promote the public health, safety, and welfare of the community?

Certainly, enhanced security measures help to protect the emergency responders working within the dispatch center, promoting public health, safety and welfare.

D. Will the proposed use encourage the use of the land in accordance with its character and adaptability?

The Ordinance requirement that fencing of this type must be reviewed by the Planning Commission was to ensure compatibility with neighbors. The current character of the site and area is aligned with the aesthetic of the C: Local Business District. Fencing could be accommodated for this site that continues to support the overall intent of the C: Local Business District.

POSSIBLE ACTIONS

Based on current Ordinance requirements, Planning Commission approval would not be required if the applicant constructed a fence that is 6-feet in height or less and is without barbed wire. However, if barbed wire is utilized and/or if the fence is taller than 6-feet in height, Planning Commission approval is required.

There are several options open to the Planning Commission regarding this application. From staff's perspective, they are as follows:

1. Approve the application as presented.
2. Approve the application but require the decorative fencing, as presented, around the entirety of the site.
3. Request a different type of fence be installed, but continue to allow a height greater than 6-feet.
4. Request the applicant provide other alternatives to secure the site.
5. Deny the request.

The concern with denying the application outright is that a 6-foot chain-link fence could then be installed without Planning Commission review. While an 8-foot fence is considerably taller, the more decorative nature of the proposed fence may be a preferred alternative to chain-link. Although it should be noted that staff is unsure if the applicant would construct a 6-foot chain-link fence as it is not likely to meet their stated security needs.

Respectfully Submitted,



Julie Johnston, AICP
Planning Director

Attachments: Application
Site Plan
Aerial Map
Zoning Map
Fence Ordinance
NENA Information Document (excerpt)
FEMA Mitigation Case Study

LEGAL DESCRIPTION OF PROPERTY *(Use Attachments if Necessary):*

Legal description attached as "Exhibit A"

PARCEL NUMBER: 3905- 05-34-230-049

ADDRESS OF PROPERTY: 7040 Stadium Drive, Kalamazoo, MI 49009

PRESENT USE OF THE PROPERTY: 5000 - OFFICE BLDG: KCCDA Admin Offices

PRESENT ZONING C COMM **SIZE OF PROPERTY** 3.42 Acres

**NAME(S) & ADDRESS(ES) OF ALL OTHER PERSONS, CORPORATIONS, OR FIRMS
HAVING A LEGAL OR EQUITABLE INTEREST IN THE PROPERTY:**

Name(s)

Address(es)

SIGNATURES

I (we) the undersigned certify that the information contained on this application form and the required documents attached hereto are to the best of my (our) knowledge true and accurate. I (we) acknowledge that we have received the Township's Disclaimer Regarding Sewer and Water Infrastructure. By submitting this Planning & Zoning Application, I (we) grant permission for Oshtemo Township officials and agents to enter the subject property of the application as part of completing the reviews necessary to process the application.

Owner's Signature *(* If different from Applicant)*

Date



Applicant's Signature

December 27, 2017

Date

- Copies to:
- Planning -1
- Applicant -1
- Clerk -1
- Deputy Clerk -1
- Attorney-1
- Assessor -1
- Planning Secretary - Original

PLEASE ATTACH ALL REQUIRED DOCUMENTS

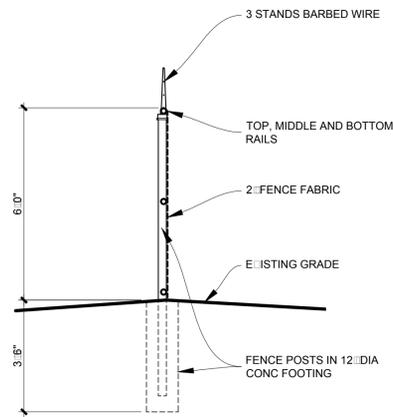
EXHIBIT A

Order No.: 391010519NBU

For APN/Parcel ID(s): 05-34-230-049

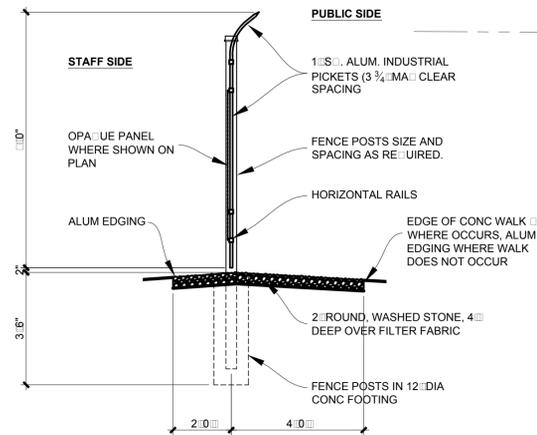
Part of the Northeast Quarter of Section 34, Township 2 South, Range 12 West, Oshtemo Township, Kalamazoo County, Michigan, described as:

Beginning at a Point on the East Line of Said Section 34 a Distance of 396.00 Feet South of the Northeast Corner of Said Section 34; Thence South on Said East Section Line 491.82 Feet to the Centerline of West Michigan Avenue; Thence South $75^{\circ} 07' 52''$ West on Said Centerline 205.12 Feet; Thence North $10^{\circ} 43' 45''$ West 403.69 Feet; Thence West Perpendicular to Said East Section Line 127.90 Feet; Thence North Parallel with the East Line of Said Section 34 a Distance of 144.14 Feet; Thence North $89^{\circ} 28' 20''$ East Parallel with the North Line of Said Section 34 a Distance of 400.91 Feet to the Point of Beginning.



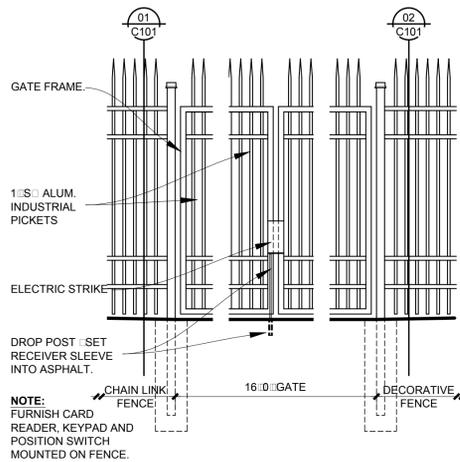
FENCE TYPE 2

SCALE: 3/8" = 1'-0"



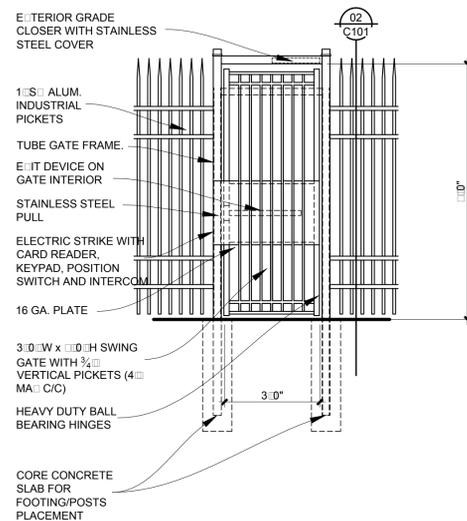
FENCE TYPE 1

SCALE: 3/8" = 1'-0"



FENCE TYPE 1 - VEHICLE GATE

SCALE: 3/8" = 1'-0"



FENCE TYPE 1 - PEDESTRIAN GATE

SCALE: 3/8" = 1'-0"

FENCES AND GATES

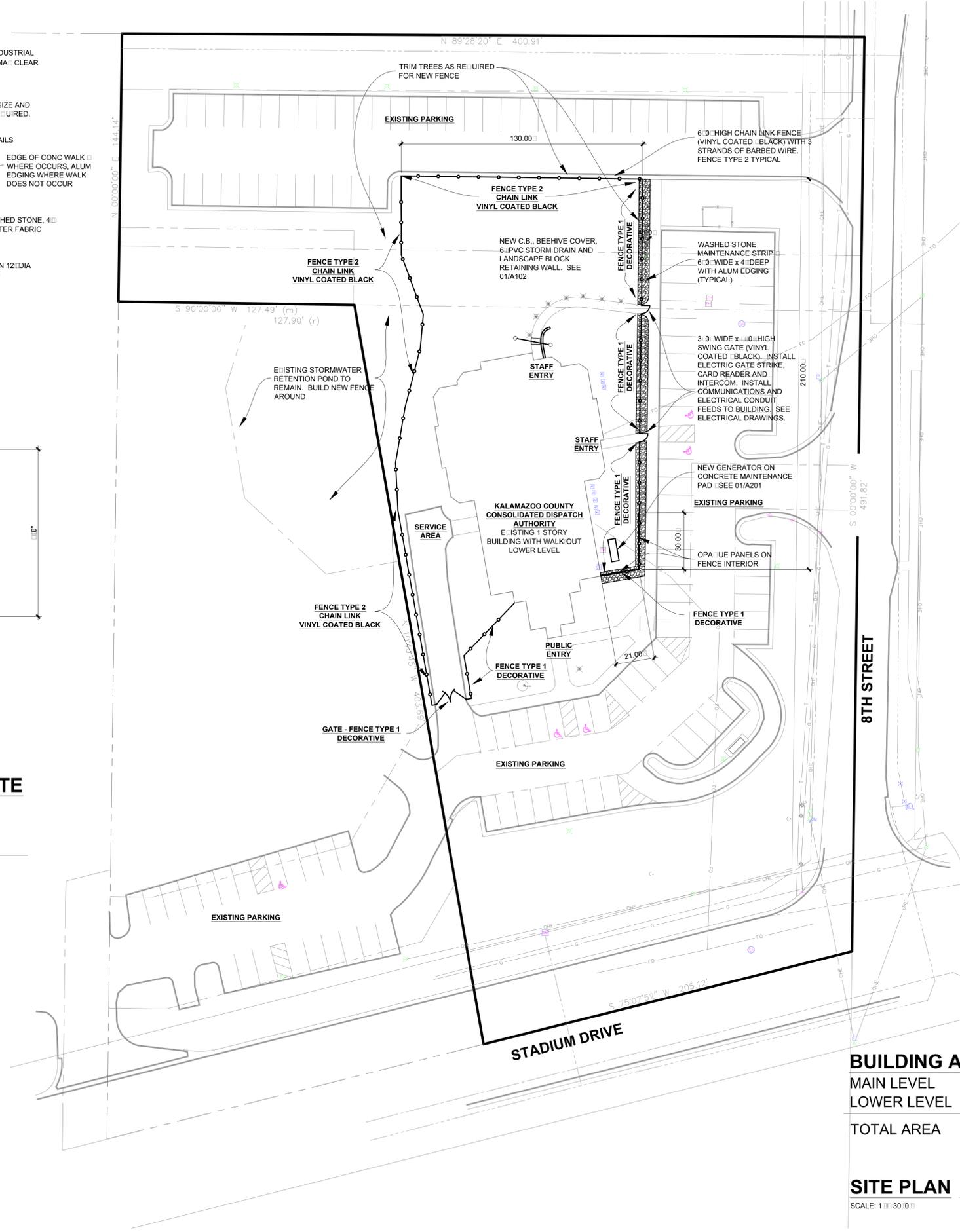
SCALE: 1" = 30'-0"

FENCE TYPE 1:

6'-0" OVERALL HEIGHT WITH 1 1/2" ALUMINUM POWDER COATED (BLACK) PICKETS AND POWDER COATED (BLACK) DECORATIVE POSTS.

FENCE TYPE 2:

6'-0" HIGH CHAIN LINK WITH 3 STRANDS OF BARBED WIRE. FENCE FABRIC, POSTS AND FITTINGS TO BE VINYL COATED (BLACK).



BUILDING AREAS:

MAIN LEVEL	9,612 S.F.
LOWER LEVEL	9,170 S.F.
TOTAL AREA	18,782 S.F.

SITE PLAN

SCALE: 1" = 30'-0"



KCCDA
Kalamazoo County Consolidated Dispatch Authority
Central Dispatch Building Renovation
Kalamazoo, Michigan

Landmark Design Group, P.C.
3113 Linden Ave, S.E., Suite A, Grand Rapids, MI 49541-3406
v: (616) 956-0606

Issued for:	Planning Commission Review
Date:	12.20.2017
Scale:	

Project Number:	
Landmark Project Number:	16.015

FENCE TYPE 2 (NORTH AND EAST PROPERTY BOUNDARIES):
 6'-0" HIGH CHAIN LINK WITH 3 STRANDS OF BARBED WIRE.
 FENCE FABRIC, POSTS AND FITTINGS TO BE VINYL COATED (BLACK).

FENCE TYPE 1:
 1'-0" OVERALL HEIGHT WITH 1" ALUMINUM POWDER COATED (BLACK) PICKETS AND POWDER COATED (BLACK) DECORATIVE POSTS.

VEHICLE GATE - FENCE TYPE 1:
 16'-0" W x 10'-0" H WITH 1" ALUMINUM POWDER COATED (BLACK) PICKETS AND POWDER COATED (BLACK) DECORATIVE FRAME.



SOUTH ELEVATION

SCALE: 1/8" = 1'-0"

FENCE TYPE 1:
 1'-0" OVERALL HEIGHT WITH 1" ALUMINUM POWDER COATED (BLACK) PICKETS AND POWDER COATED (BLACK) DECORATIVE POSTS.

FENCE TYPE 2 (NORTH AND EAST PROPERTY BOUNDARIES):
 6'-0" HIGH CHAIN LINK WITH 3 STRANDS OF BARBED WIRE.
 FENCE FABRIC, POSTS AND FITTINGS TO BE VINYL COATED (BLACK).

FENCE TYPE 1:
 1'-0" OVERALL HEIGHT WITH 1" ALUMINUM POWDER COATED (BLACK) PICKETS AND POWDER COATED (BLACK) DECORATIVE POSTS.

OPAQUE PANELS MOUNTED ON FENCE INTERIOR TO SCREEN GENERATOR

FENCE TYPE 1:
 1'-0" OVERALL HEIGHT WITH 1" ALUMINUM POWDER COATED (BLACK) PICKETS AND POWDER COATED (BLACK) DECORATIVE POSTS.

PEDESTRIAN GATE - FENCE TYPE 1:
 3'-0" W x 10'-0" H WITH 1" ALUMINUM POWDER COATED (BLACK) PICKETS AND POWDER COATED (BLACK) DECORATIVE FRAME.

PEDESTRIAN GATE - FENCE TYPE 1:
 3'-0" W x 10'-0" H WITH 1" ALUMINUM POWDER COATED (BLACK) PICKETS AND POWDER COATED (BLACK) DECORATIVE FRAME.

EAST ELEVATION

SCALE: 1/8" = 1'-0"

KCCDA
 Kalamazoo County Consolidated Dispatch Authority
 Central Dispatch Building Renovation
 Kalamazoo, Michigan

Landmark Design Group, P.C.
 3113 Linden Ave. S.E., Suite A, Grand Rapids, MI 49541-3406
 v: (616) 966-0606

Issued for:	Planning Commission Review
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Project Number:

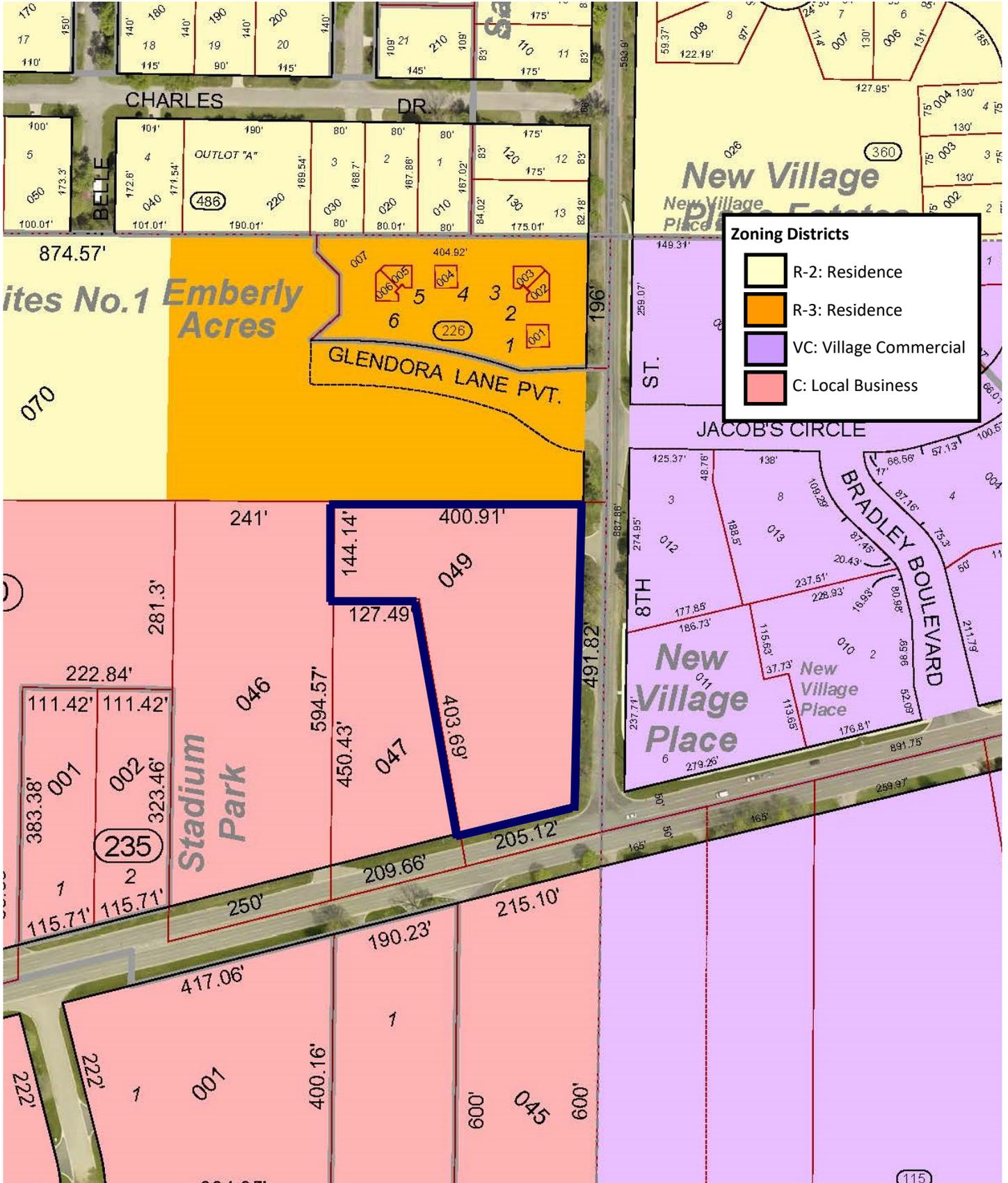
Landmark Project Number:

16.015

Kalamazoo County Consolidated Dispatch Authority

7040 Stadium Drive

Special Exception Use - Fence Request.



ZONING - ORDINANCE

Section 78

78.000 - MISCELLANEOUS PROTECTION REQUIREMENTS

78.200 - Fences.

The requirements of this section shall apply to fences.

(Ord. No. 484, eff. Nov. 7, 2007)

78.210 - Construction, Material and Maintenance.

- A. All fences shall be of sound construction.
- B. All fences shall have the finish side facing out, away from the property on which the fence is located.
- C. No barbed wire, spire tips, sharp objects, or electrically-charged fences shall be erected in or abutting any residentially zoned district.
- D. Bona fide agricultural uses may use barbed wire or charged fences to control livestock.
- E. Security fences six feet high and above in industrial-zoned districts may include an additional 18 inches of barbed wire. Such barbed wire shall slant inward toward the property or be straight up. Security fences with barbed wire in other zoning districts shall require special exception use approval.
- F. All fences shall be maintained and not endanger life or property. Any fence which through lack of repair, type of construction or otherwise, endangers life or property is hereby deemed a nuisance.
- G. Swimming pools as defined in the Michigan Building Code shall be fenced in accordance with the requirements of the Code.

(Ord. No. 484, eff. Nov. 7, 2007)

78.220 - Location.

Except as specified below, fences may be placed up to the property line provided:

- A. No fence shall be placed within any public right-of-way or within the easement for private roads.
- B. On corner properties, no fence more than 30 inches in height shall be placed within 20 feet of the intersection of the abutting street rights-of-way or easements which interferes with traffic visibility across the corner.

(Ord. No. 484, eff. Nov. 7, 2007)

78.230 - Height.

- A. *"AG," "RR," "R-C," "R-1," "R-2," and "R-3" Zoning Districts.* All fences located within the identified zoning districts shall be limited to a maximum height of four (4) feet within the required front building setback area except as stated in SECTION 78.220.B. The maximum fence height in the side or rear yard shall be six (6) feet as measured from the grade on both sides of the fence. Fence height shall be measured from the grade of the lowest side of the wall when a fence is constructed on top of a wall.
- B. *"R-4" and "R-5" Zoning Districts.* All fences located within these specified zoning districts shall be limited to a maximum height of eight (8) feet regardless of which yard it is located in, except as stated in SECTION 78.220.B. Fence height shall be measured in the same manner as described in Paragraph A above. Any fence located in the required front building setback area shall be of a decorative enclosure type, constructed of either wrought iron or simulated wrought iron (pre-finished aluminum), or similarly decorative and durable materials as determined suitable by the appropriate reviewing body. Such fences shall have a maximum 50% opacity.
- C. *Other Zoning Districts.* Fences exceeding six (6) feet in height shall be subject to approval by the appropriate reviewing body.
- D. *Height Exceptions.* Multi-family and non-residential development requests undergoing site plan review may request a taller fence in side and rear yard areas that exceeds the height restrictions identified in Paragraphs A through C above as part of the site plan review process. The appropriate reviewing body may approve a fence up to the maximum building height of the underlying zoning district. In considering such a request, the appropriate reviewing body shall consider whether adequate clear vision is present, the impact on neighboring properties, and the unique site-related issues that warrant the request.

(Ord. No. 484, eff. Nov. 7, 2007; Ord. No. 518 eff. Apr. 28, 2011; Ord. No. 548 eff. May 31, 2013)

NENA Resource, Hazard and Vulnerability Analysis Information Document



NENA Hazard and Vulnerability Analysis Information Document

NENA-INF-019.2-2016 (originally 53-501 & 53-502)

DSC Approval: 08/16/2016

PRC Approval: 08/29/2016

NENA Executive Board Approval: 09/10/2016

Next Scheduled Review Date: 09/10/2018

Prepared by:

National Emergency Number Association (NENA) PSAP Operations Committee, Contingency Planning Subcommittee, Contingency Planning Document Review WG

Published by NENA

Printed in USA

3.4 Facility Environmental Concerns

3.4.1 Heating, Ventilation and Air Conditioning

Both staff comfort and as a means of entry into PSAP. HVAC should be monitored, alarmed and reported. [NFPA 1221 Standard for installation, maintenance and use of emergency communications systems section 4.4]

HVAC Issues: mold, filtration systems, HVAC failures and operations in an inhospitable environment

Internal Environmental Issues

Fire extinguishing system discharge

Hazards associated with fumes produced from construction, painting, cleaning etc.

Gas/Smoke/Fire Hazards

3.4.1.1 Backup Power/UPS & Generator Impact

UPS Battery off Gassing, outside factors. Air Filtration on back-up power. Fuel supply

3.4.2 Water and Sewage Infrastructure

3.4.2.1 Water Supply and Alternatives

Water supply integrity into PSAP, critical considerations water backup/flooding: PSAP Operations Area; leakage in critical areas (9-1-1 center, phone/demarc rooms; server/radio rooms). Power considerations to pump water prevent flooding.

3.4.2.1.1 Water/Sewage System Failure/Backup/Health Risks

When equipment is in contact with water/sewage there is an increased risk of electrocution when connected to a power source. Contact with sewage may expose employees to gases, bacteria, pathogens and other infectious hazards.

3.4.3 Equipment Reinforcement

Ensure servers, monitors and any other equipment that is vulnerable to falling is secured. This vulnerability maybe increased during earthquakes, tornadoes or other damages to the structural integrity of the facility.

3.4.4 Smoke/Fire detection and response

What level of smoke/fire detection is available? Does detection equipment meet the requirements of NFPA 1221: Standard for the installation, maintenance, and use of emergency services communications systems?

3.4.5 Facility Security

Security into and within the facility includes at the minimum:

- The ability to remotely secure areas or provide access to them.

- Keys, badging, levels of permissions to gain access to specific areas of the facility.
- Door control security systems should have redundant UPS power to assure ongoing controlled access capability if primary power backup systems fail.
- Surveillance video and recording in high security areas.
- Vendor control and procedures to monitor visitor and employee access.

3.4.6 Grounding

Is the facility and communications system properly grounded? Include, telephone equipment, communication towers, radio equipment, servers, modems, etc.

Grounding a power entrance, telephone demarc or coaxial cable entrance to a ground rod or other single 'earthing' point may be insufficient for most PSAPs.

PSAP equipment should be connected to a common ground with cables and connectors of sufficient size and installed in such a manner as to reduce the threat of lightning damage, stray current faults and noise. Older buildings, or buildings that have been expanded or improved, may have grounding systems that are isolated from each other, which could result in a difference of potential within the facility. This phenomenon can increase the risk of lightning damage.

PSAP Authorities should refer to industry standards and guidelines, and vendors to ensure their facilities are adequately grounded in accordance with accepted standards, especially in areas with frequent lightning.

3.4.7 Facility Integrity

Is the facility able to remain operational during disaster situation? What measures are in place to help preserve building integrity?

Secure Windows/Hurricane Shutters

Correctly Rated Structural Integrity for Building (NFPA Standards for communication centers)

Hazards on Premise

3.5 External Network Connectivity

PSAP Authorities should identify their voice, data and media network designs, providers and mission critical applications supported. PSAP authorities need to identify what redundancies or alternate plans you have in place. Who provides each of the connections? What are their service level agreements should there be an outage? Emergency contact list audits should be included in operational procedures to be verified semi-annually and before any anticipated major event.

3.6 Radio Communication

3.6.1 Network Failure

What degradation will occur with radio system failure? How is the radio network protected?



Mitigation Case Studies

Hardened First Responder Facility

911 Communication and Emergency Operations Center
Smith County, Texas

September 2003



FEMA

“ We were amazed at how many EOCs had structures that are not designed to resist any extreme loading event. We wanted to make sure our EOC could handle tornadoes. ”

— Jim Carlyle, Chairman of the Smith County Research and Planning Committee

SOURCE: EUBANKS & HARRIS ARCHITECTS, INC



Case Studies

SMITH COUNTY, TEXAS

FEMA Mitigation Case Studies

Smith County is located in east Texas, approximately 100 miles east of Dallas. It is largely rural, with only one metropolitan area, the City of Tyler. The Sheriff of Smith County and the Police Chief of the City of Tyler saw a need for a consolidated emergency operations and communications center that would serve the entire Smith County population. From past experience, they believed that this consolidation would reduce fragmentation and duplication of emergency services, and allow services to be provided in a more efficient and cost-effective manner.

The county has begun construction of a state-of-the-art facility that will serve as the centralized 911 communications dispatch and emergency operations center (EOC) for approximately 30 agencies (serving a population of approximately 175,000). Notable features of this 15,000-square-foot facility include a roof and exterior walls hardened to resist tornadic forces, a lobby designed to minimize blast effects, multiple security access levels, and an area specifically planned for press conferences, interviews, and other interaction with members of the media.



EUBANKS & HARRIS ARCHITECTS, INC.

Computer rendering of the Smith County 911 Communications Dispatch and Emergency Operations Center.



Ground clearing and construction of the Smith County 911 Communications Dispatch and Emergency Operations Center began in mid-October 2002.

Case Studies

SMITH COUNTY, TEXAS

Defining Essential Functions

In addition to its main role of providing 911 dispatch functions, the Smith County facility will serve as the EOC during times of disaster. It will be the primary coordination and control point for all counter-disaster efforts. Before designing this facility, Smith County defined seven essential functions that take place at an EOC before, during, and after a disaster:

Coordination. The EOC serves as the coordination point for the activities of emergency responder organizations (e.g., police, fire, and ambulance; American Red Cross; Salvation Army; and Federal, state, and local agencies), providing a centralized meeting, planning, and reporting facility.

Policy-making. Policies and procedures are often developed at an EOC in anticipation of disaster events. Ideally, these policies and procedures will ensure that the EOC and emergency response activities run as smoothly as possible.

Operations Management. The EOC serves as the central point for managing the deployment of personnel and resources for disaster mitigation, preparedness, response, and recovery in the field. Because the situation during a disaster is continuously changing, the staffing and resources must be able to keep up with these changes.

Information Management. Information pours into the EOC during a disaster. Data concerning the execution of disaster response, damage assessments, and recovery operations must be collected, analyzed, and distributed to the appropriate parties so that it can be acted on in an effective and timely manner.

Documentation. Information gathered at the EOC during a disaster becomes a vital tool in decision-making, both during and after times of emergency response. For example, documentation of damage levels can be used in GIS-based analyses that enable emergency workers to assess the effects of the disaster and compare them to the effects of other events. Furthermore, documentation of emergency response methods during a disaster event allows for future evaluation of what worked and what did not work. This information is often used to define “lessons learned,” which can help guide the development of future policies and procedures.

Public Information. The EOC is responsible for disseminating information about mitigation, preparedness, response, and recovery to the general public, the public at risk, and the media.

Hosting Visitors. Local and regional officials are ultimately responsible for the protection of citizens and public resources during disaster events. These officials, and others such as the President, may visit the site after a large disaster, and the EOC staff must be prepared to escort them through the EOC and designate an area where the visitors are permitted to observe the operations.



Computer renderings of the Smith County 911 Communications Dispatch and Emergency Operations Center.

EUBANKS & HARRIS ARCHITECTS, INC.

Evaluating Existing EOC Designs

After the essential EOC functions were defined, a Research and Planning Committee was created to visit communities with EOCs whose sizes and scopes of service were similar to those planned by Smith County. The purpose was to learn how the design and amenities of those facilities influence their operations. Committee members visited EOCs across the Nation and recorded features they liked and disliked at each site. The visits provided valuable information for Smith County, including elements the county wanted to incorporate into its new facility, as well as obstacles to be avoided.

Salt Lake City, UT - Lockers and showers were provided for employees' comfort.

Tyler, TX - Large screens were used to post critical information, which allowed all involved parties concurrent access to the same information so that their actions could be better coordinated.

Las Cruces, NM - Breakout rooms and radio rooms were located on the perimeter of the command center so that areas devoted to planning, operations, and communications were near each other.

Longview, TX - Employees emphasized the importance of having adequate storage space and special equipment rooms.

Belton, TX - Thumbprint recognition systems were used to control access to the most sensitive areas, and a room was designed specifically for addressing the media.

Conroe, TX - An area outside the command center was provided where visitors could observe the command center operations without interrupting workers.

Shreveport, LA - A workout room was provided on-site to promote good health and stress management.

EOC Assessment Checklist

FEMA has developed an EOC Assessment Checklist to help state and local governments assess hazards that can affect an EOC and its vulnerabilities to those hazards. Architects and engineers will find this checklist useful in defining key features of the architectural, building system, and structural design of an EOC. The checklist is divided into six sections:

1. **Facility Features** - examines the physical features of the EOC
2. **Survivability** - examines the ability of the EOC to sustain the effects of a hazard event and continue operations after the event has occurred
3. **Security** - examines the protection of the EOC facility, its occupants, and communications equipment and systems from relevant hazards
4. **Sustainability** - examines the ability of the EOC to operate for extended periods of time without interruption
5. **Interoperability** - examines the extent to which the EOC shares common principles of operations and information exchange with local, state, and Federal jurisdictions
6. **Flexibility** - examines the ability of the EOC to adapt the scale and pace of its operations to the demands of specific hazard events

The EOC Assessment Checklist can be downloaded at <http://www.fema.gov/library/viewRecord.do?id=1936>.

EOC Assessment Checklist

INTRODUCTION

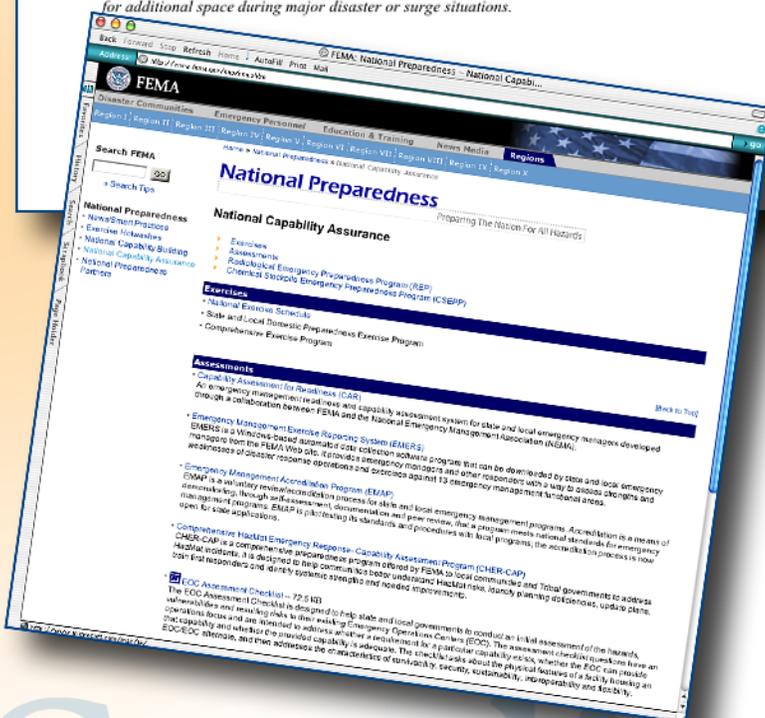
The following checklist will assist State and local governments in performing the initial assessment of the hazards, vulnerabilities, and resultant risk to their existing Emergency Operations Center (EOC), as described in the grant guidance for EOC Phase 1 of the FY 2002 supplemental funds. The questions have an operations focus and are intended to address whether a requirement for a particular capability exists, whether the EOC can provide that capability, and whether the provided capability is adequate. The checklist first asks questions about the physical features of a facility housing an EOC/EOC Alternate, and then addresses the characteristics of Survivability, Security, Sustainability, Interoperability, and Flexibility described in the grant guidance. The checklist may be used for State or local EOCs and, where applicable, State or local alternate EOCs. For this reason, some questions may warrant different responses depending on the type (State or local) or nature (primary or alternate) of the EOC.

When assessing the physical space of an EOC/Alternate EOC, include the area in square feet, the number of staff working a shift, and the ability to accommodate surge requirements. When assessing communications capabilities, provide sufficient detail to assess the adequacy of that capability. For example, for telephones consider the number of instruments available, the number of lines (telephone jacks) in a room, and the capabilities of the telephone switch (e.g., can the switch support additional telephone drops, if required for surge operations). For computers, consider the availability of network connectivity and the capability of the network to handle increased traffic as a result of the increased activity associated with emergency operations. For radio devices, provide sufficient information to describe the type of device (portable transceiver, radio console), quantity of devices on-hand, quantity needed to support operations (normal and surge), and whether that quantity is adequate. Consider the availability of batteries, chargers, and spares for portable devices.

The checklist is a guide and is not intended to be all-inclusive. In conducting the initial assessment, address other concerns or issues that may not be included in the checklist. Space is provided at the end of the checklist for this purpose.

FACILITY FEATURES

Facilities - examines the physical features of EOC facilities: siting, structure, available space. EOC spaces to consider are an operations area, conference rooms, communications center, secure communications room, and multi-use space. Multi-use space is space that is not dedicated to EOC operations, but can quickly be made available to support EOC requirements for additional space during major disaster or surge situations.



Site Considerations

One of the first steps in the successful design of an EOC is selecting an appropriate site. A prime consideration in site selection is that an EOC must remain operational during and after a disaster in order to perform its vital functions. Consequently, site selection depends largely on the identification of potential hazards that could impact the EOC and the surrounding communities. An EOC should be placed where these identified potential hazards will have the least impact on its operation, but where a timely response can still be made by emergency personnel.

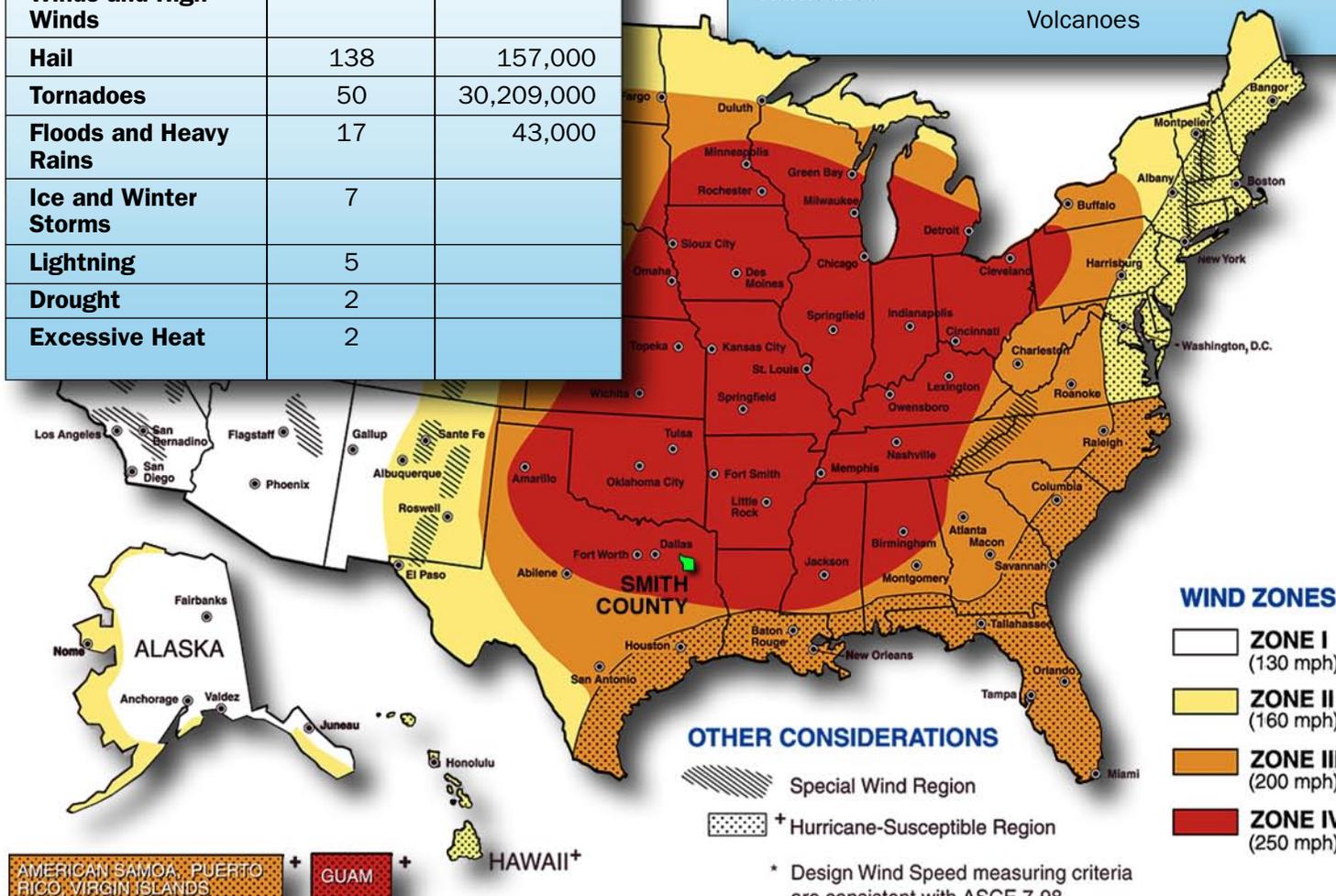
Natural Hazards

Natural hazards tend to be related to geographic regions – tornadoes in the Midwest, hurricanes and high winds in coastal areas, earthquakes in the West and Southeast, and heavy

Natural Hazards in Smith County (1950-2002)		
Hazard	Number of Incidents	Damage in Dollars
Thunderstorm Winds and High Winds	147	945,000
Hail	138	157,000
Tornadoes	50	30,209,000
Floods and Heavy Rains	17	43,000
Ice and Winter Storms	7	
Lightning	5	
Drought	2	
Excessive Heat	2	

Potential Natural Hazards	
Drought	Ice and Winter Storms
Earthquakes	Landslides
Excessive Heat	Lightning
Fires	Thunderstorm Winds and High Winds
Floods and Heavy Rains	Tornadoes
Hail	Tsunamis
Hurricanes	Volcanoes

DATA SOURCE: NOAA



winter storms in northern states. When EOCs are built in these areas, such hazards are usually unavoidable and must be taken into consideration in the physical design of the facility. Other regional hazards, however, such as flooding and landslides, are more easily avoided. For example, an EOC can be located outside the 500-year floodplain or on stable soils.

Smith County is in an area considered to be at high risk for severe tornadoes. In the past 52 years, the most frequently occurring natural hazard for the county has been high winds. Smith County has experienced approximately 200 high-wind incidents that have resulted in over 30 million dollars in damage.

Technological Hazards

The assessment of technological and human-generated hazards involves the investigation of surrounding facilities, infrastructure, and land use. Hazards include the following:

- industrial, manufacturing, or commercial facilities with the potential for industrial accidents or acts of malice
- potential terrorist targets
- hazardous materials storage facilities and transportation routes
- areas susceptible to inundation as a result of the failure of dams and levees

Sites in areas that encompass such identified potential hazards are, therefore, inappropriate locations for EOCs.

Potential Terrorist Targets

The U.S. Code of Federal Regulations defines terrorism as “the unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives.” Potential terrorist targets can be difficult to identify, but, in general, terrorists want media high-exposure and attention. They achieve this by targeting areas or facilities where damage will result in: (1) a potentially high number of casualties, (2) extensive media coverage, and (3) a disruption of everyday life. Potential targets include the following:

- Emergency Support Facilities**
 - Fire stations
 - Police stations
- Financial Facilities**
 - Banks
 - Credit card companies
- Government Facilities**
 - Courthouses
 - Federal/state/local offices
 - Post offices
- Health Care Facilities**
 - Clinics
 - Hospitals
- Industrial Facilities**
 - Chemical manufacturers
- Military Facilities**
 - Academies
 - Armories
 - Bases
- Political Icons**
 - Political party offices
 - Political rallies
- Research Facilities**
 - Animal testing facilities
 - Stem cell research facilities
- Tourist Attractions**
 - Concerts and theaters
 - Festivals
 - Landmarks
 - Sporting facilities
 - Theme parks
- Utilities**
 - Communications
 - Electricity (nuclear, hydroelectric)
 - Gas
 - Water supply



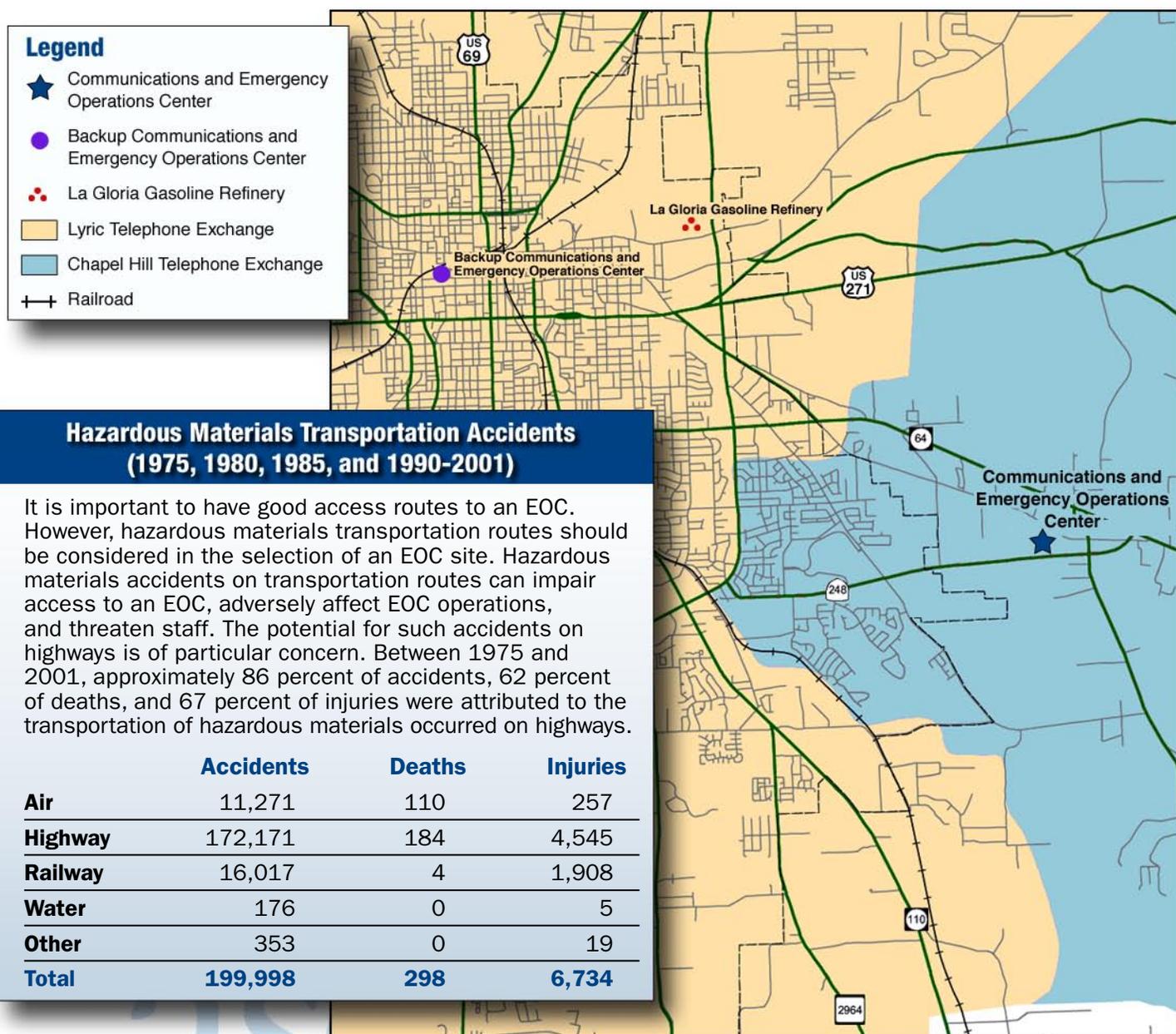
Potential Technological Hazards

- Fires**
- Floods (from dam and levee failures)**
- Hazardous materials releases**
- Nuclear accidents**
- Terrorism**
 - Agriterrorism
 - Armed attack
 - Arson/incendiary attack
 - Attack with biological, chemical, or radiological agent
 - Conventional bombing
 - Cyberterrorism
 - Hazardous materials release
 - Nuclear bombing



Smith County identified three major technological hazard siting considerations for its communications and emergency operations center:

1. The new facility had to be located in a different telephone exchange from the backup communications and emergency operations center so that the loss of telephone service in one exchange would not affect both facilities.
2. The La Gloria Gasoline Refinery (located within the city of Tyler) presents a major potential hazard for industrial accidents or acts of malice, so a site was chosen away from the refinery.
3. Two railways and two U.S. highways run through Smith County. Locating the EOC near any of these major transportation routes was avoided because they all may carry potentially hazardous cargo.

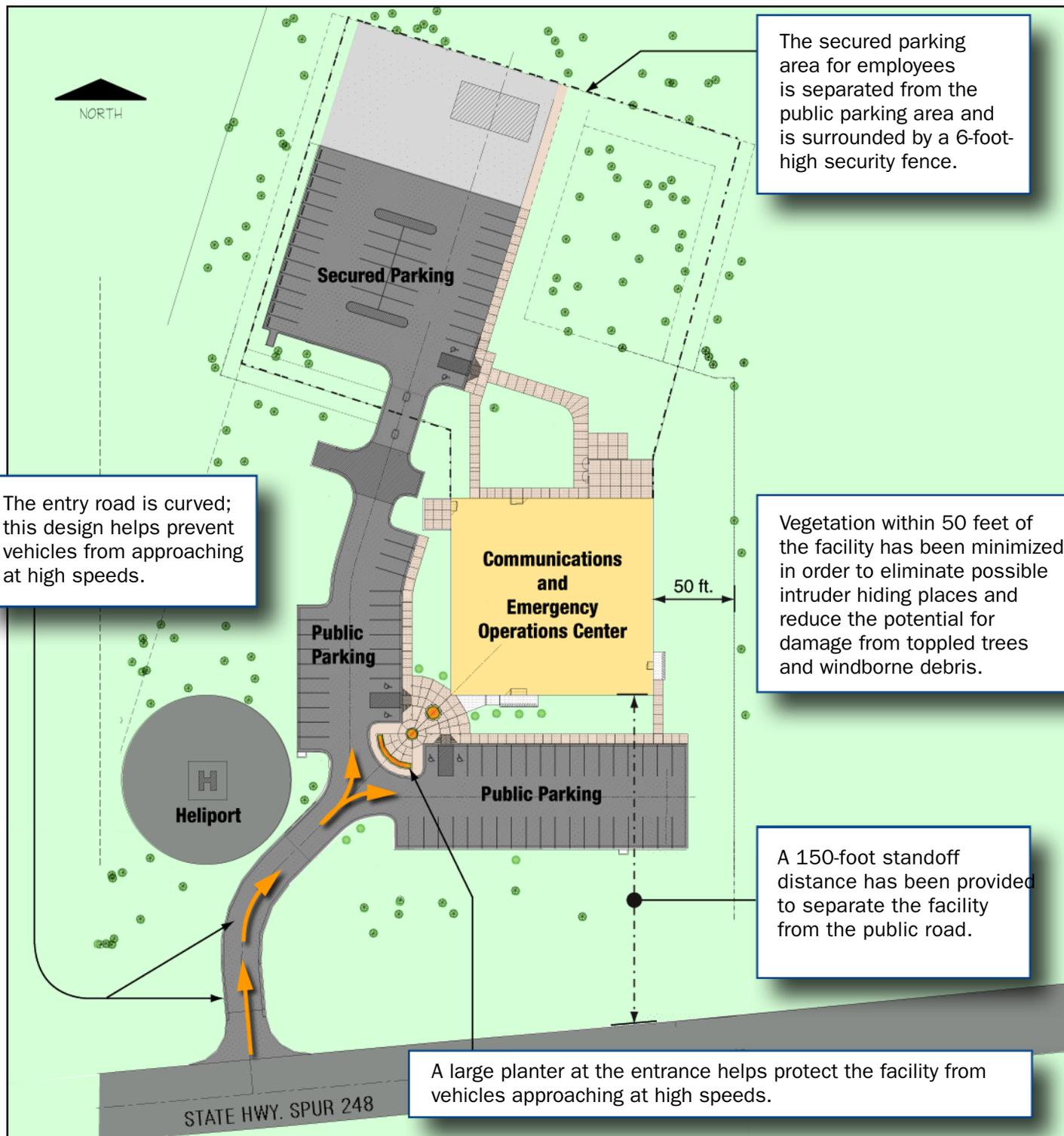


SOURCE DATA: http://www.bts.gov/publications/national_transportation_statistics/2002/

EXCEL FILE: http://www.bts.gov/publications/national_transportation_statistics/2002/excel/table_02_06.xls

Site Security Design

Once a site has been selected, the site design (e.g., building locations, access, parking, landscaping) must be developed. For an EOC, one of the main goals of site design is ensuring the security of the facility and its staff. Smith County addressed site security for its facility by providing secure parking, controlling vehicular access, locating buildings away from the site perimeter, and minimizing vegetative cover.



Structural Design

Because Smith County is in a region susceptible to severe tornadoes, the new communications and emergency operations center, including its utility and support systems, must be able to withstand the extreme wind pressures and windborne debris associated with a tornado.

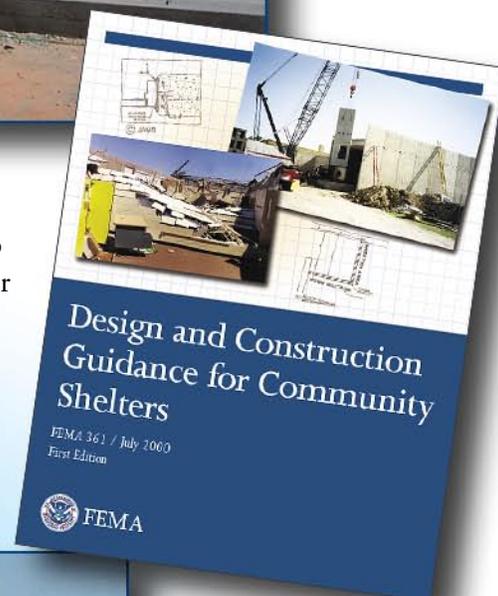
The project architects, Eubanks & Harris Architects, Inc., consulted FEMA 361: *Design and Construction Guidance for Community Shelters* to determine the specific design loads that the new communications and emergency operations center would have to be able to withstand. The facility's exterior walls and roof were designed to resist 250-mph (3-second gust) wind speeds and the impact of a 15-pound wood 2x4 traveling at 100 mph. Smith County's new facility will be eight times stronger than "typical" structures in the area built in compliance with the local building code, which requires buildings to resist 90-mph (3-second gust) wind speeds.

For the exterior walls, the architects chose to use a reinforced insulating concrete form (ICF) wall system. This type of wall system not only provides the needed strength to resist high-wind pressures and windborne debris impacts, but also has superior thermal resistance (R-rating) and sound reduction qualities.

The core of the facility contains the command center, breakout rooms, vault, and restrooms. Given the importance of the command center, the architects took the extra step of specifying ICF construction for the core area, thereby providing two layers of protection for the command center.



Erection of the reinforced ICF walls.



FEMA 361

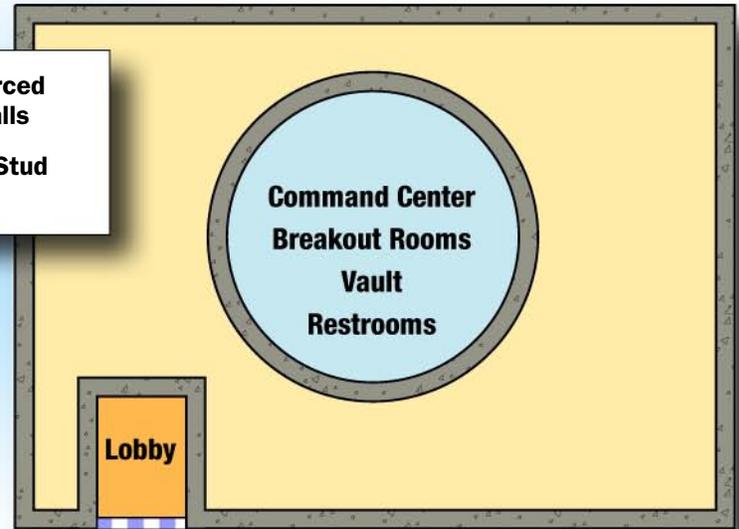


Completed reinforced ICF walls.

The steel-truss roof system is rated to resist wind uplift pressures of 360 pounds per square foot (psf) versus the 90 psf used for general design. A reinforced concrete roof provides protection from windborne debris.

The architect's design ensured that loads would be transferred from the concrete slab roof to the roof structure, from the roof structure to the ICF supporting walls, from the ICF walls to the foundation, and from the foundation into the ground by specifying connections capable of transmitting the extreme wind loads.

All exterior windows and doors and security interior doors are bulletproof. The architects took great care to ensure that the window and door frames would be adequately connected. All exterior doors were specified to have six points of connection: three hinge points and three latching points as recommended by FEMA 361: *Design and Construction Guidance for Community Shelters*.



The lobby is designed to minimize the effects of a bomb blast in the lobby. The interior walls between the lobby and the facility will be hardened, while the exterior wall of the lobby will be of lighter, metal-stud construction. In the event of an explosion, the exterior wall would be blown out, directing the blast pressures away from the structure.



Construction of the steel-truss roof system.

Communications

An EOC serves as the central point for decision-making and coordination of response activities during and after an emergency or disaster; therefore, adequate communications capabilities are an essential part of EOC design. Required communications equipment includes telephones, radios, computers, fax machines, copiers, cellular phones, satellite phones, and supporting equipment such as batteries and chargers. Sufficient electrical, telephone, and network lines must be provided to support this equipment, and they must be protected from known threats. For example, utility lines at the EOC site should be installed in secure locations and designed to withstand the effects of hazard events. In addition, local and state Wide Area Networks (LANs and WANs) should be protected from cyber attack.

Building System Design

Four key concepts should be considered in the design of building systems for a critical facility:

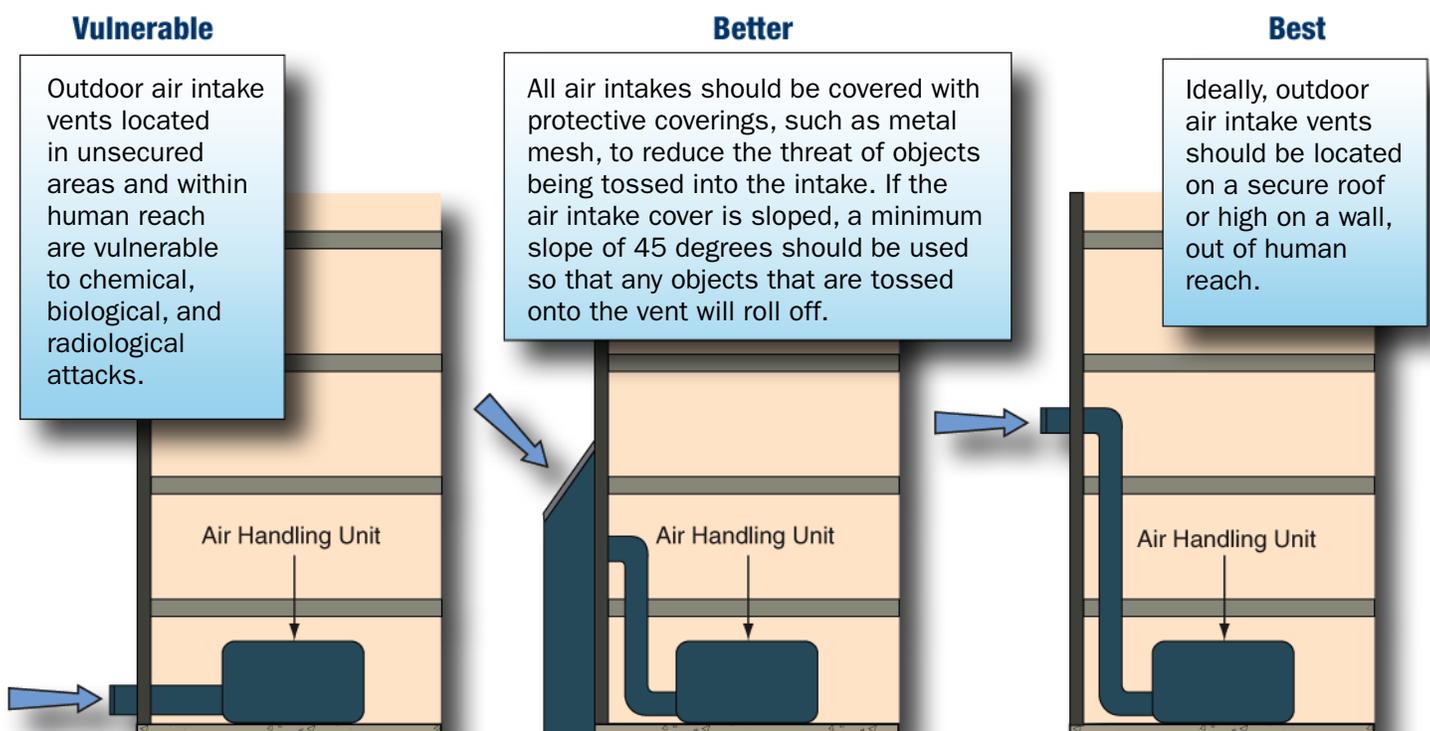
1. Backup systems should be provided.
2. All points of access to the systems – including entry points, control panels, and maintenance access – should be located in secured areas.
3. All systems should be protected from potential hazards.
4. All systems should be physically separated.

For example, Smith County's EOC will have an on-site emergency generator with the capacity to operate the entire facility and function independently from the normal electric service. The emergency generator will be housed in a secured, reinforced concrete masonry mechanical yard covered with a steel screen that will protect the generator from windborne debris impacts. In addition, external connections will be provided for portable generators that can supply power in case the backup generator fails.

A backup system will also be provided for the potable water supply. The facility will be connected to municipal water, but will also have a secured backup water well that can provide potable water if the municipal water service is interrupted or the water becomes contaminated or otherwise unusable.

The heating, ventilation, and air conditioning (HVAC) system will also include built-in redundant features to ensure that, if part of the system becomes inoperable, other units will be available to maintain the required temperature in areas of the building that contain sensitive equipment. In addition, the HVAC outdoor air intakes will be installed in secure areas.

The electrical, communications, and security systems will each have separate rigid conduits and control panels. This will minimize the likelihood of all systems being disabled by one incident.



SOURCE: DEPARTMENT OF HEALTH AND HUMAN SERVICES PUBLICATION: *Guidance for Protecting Building Environments from Airborne Chemical, Biological, or Radiological Attacks*

Controlling Access

Controlling access to an EOC is one of the most critical security concerns. The Smith County facility will have three levels of security access. The first level begins at the lobby and the employee parking area. An electronic access ID card will be needed to enter both areas. For visitors, the receptionist will be able to override the lobby security system and “buzz” them in. The second level of security access will require both an electronic ID card and an access code for entry into the facility from the lobby or the secured parking area. Entry into the command center and vault will require a third level of security access that incorporates an electronic ID card, an access code, and thumbprint recognition.

In addition to the various levels of access security, both the interior and exterior of the building will be monitored by video surveillance systems. Additional security will be provided by extensive exterior lighting, particularly at entrances and utilities, and near the limited vegetative cover allowed by the site plan.

One of the most important roles of the EOC is to disseminate information, particularly through the media. Disasters usually involve intense public interest, and EOC staff often must deal with media representatives who want updated information. Recognizing the importance of the media, Smith County included a special room for media interaction in the design of their facility. The media room will be accessible only from the secured employee parking area so that the media and general public are kept separate.

The secured employee parking area has been designed with additional space for media mobile units, and power outlets have been provided on the exterior of the building so that the mobile units can draw on the facility’s power supply. Electrical outlets have also been provided in the media room. A lounge and restrooms will be accessible to media, but access to the remainder of the building will not be allowed.

Human Factors

During a crisis, emergency workers often work 12- to 15-hour shifts at an EOC and frequently need to remain there for several days, including overnight. Additionally, an EOC can be activated for prolonged periods of time. Therefore, the Smith County facility was designed to be self-contained for 2 weeks at a time. It is equipped with enough cots and mattresses for 25 people, and is stocked with enough food to feed up to 50 people for 2 weeks. Washers and dryers are also available on site for employees, as well as showers and separate dressing rooms.

The extended EOC stays often required of emergency workers, the urgency of emergency response, and the need to deal with injuries, loss of life, damage, and destruction, all place extreme pressure and stress on emergency managers and staff. Recognizing the effects of this difficult working environment, the Research and Planning Committee put high priority on keeping the staff as comfortable as possible during their stay at the EOC. As a result, in addition to basic accommodations, several other features were included in the design of the facility.

The committee members learned from their visit to Shreveport, Louisiana, that an exercise area for employees can be extremely beneficial in helping to relieve the tension emergency workers experience during a crisis. Caddo Parish employees were overwhelmingly positive about the availability of their exercise area and the relief that physical activity offers. Therefore, a similar feature was included in the Smith County facility.

In addition, the Research and Planning Committee visited an EOC in Florida that had an interesting amenity – a secured courtyard that allowed employees access to the outside. Secured outdoor environments of this type are particularly useful when the EOC is located in a high-crime area. Although Smith County’s EOC is not in a high-crime area, a similar secured courtyard was included in its design. The open-air courtyard is adjacent to the break room and is surrounded by concrete masonry walls.

Useful References for Designing Critical Facilities

American Association of State Highway and Transportation Officials

A Guide to Highway Vulnerability Assessment for Critical Asset Identification and Protection, May 2002,
The American Association of State Highway and Transportation Officials' Security Task Force, Washington, DC
http://security.transportation.org/sites/security/docs/guide-VA_FinalReport.pdf

The American Institute of Architects

Building Security Through Design: A Primer for Architects, Design Professionals, and their Clients, November 2001,
The American Institute of Architects
<http://www.aia.org/security>

American Society of Civil Engineers

Blast Effects on Buildings: Design of Buildings to Optimize Resistance to Blast Loading, 1995, G.C. Mays and P.D. Smith, London: Thomas Telford, Ltd., American Society of Civil Engineers, ISBN: 0-7277-2030-9
<http://www.asce.org/bookstore/book.cfm?book=2561>

Blast Resistant Design of Commercial Buildings, 1996, Mohammad Ettouney, Robert Smilowitz, and Tod Rittenhouse, Practice Periodical on Structural Design and Construction, Vol.1, Issue 1, American Society of Civil Engineers, February 1996

<http://ojps.aip.org/dbt/dbt.jsp?KEY=PPSCFX&Volume=1&Issue=1>

A preprint of the final article is available at <http://www.wai.com/AppliedScience/Blast/blast-struct-design.html>

Design of Blast Resistant Buildings in Petrochemical Facilities, 1997, American Society of Civil Engineers, ISBN: 0-7844-0265-5
<http://www.asce.org/bookstore/book.cfm?book=2805>

Minimum Design Loads for Buildings and Other Structures, ASCE 7-02, 2002, American Society of Civil Engineers, ISBN: 0-7844-0624-3, [note revision of 7-98 does not include building security or antiterrorism, but covers all natural hazards]
<http://www.asce.org/bookstore/book.cfm?book=5581>

American Society of Heating, Refrigerating, and Air-Conditioning Engineers

Defensive Filtration, ASHRAE Journal, December 2002, James D. Miller
<http://resourcecenter.ashrae.org/store/ashrae/newstore.cgi?itemid=9346&view=item&categoryid=409&page=1&loginid=29483>

Risk Management Guidance for Health and Safety under Extraordinary Incidents, ASHRAE 2002 Winter Meeting Report, January 12, 2002
http://engineering.tamu.edu/safety/guidelines/faclab/ASHRAE_Security_Rpt_12Jan02.pdf

Centers for Disease Control and Prevention / National Institute for Occupational Safety and Health

Publication No. 2002-139, *Guidance for Protecting Building Environments from Airborne Chemical, Biological, or Radiological Attacks*, May 2002, Cincinnati, Ohio
<http://www.cdc.gov/niosh/bldvent/2002-139.html>

Federal Emergency Management Agency

FEMA 277, 1996, *The Oklahoma City Bombing: Improving Building Performance Through Multi-Hazard Mitigation*, Washington, DC
<http://www.fema.gov/library/viewRecord.do?id=1530>

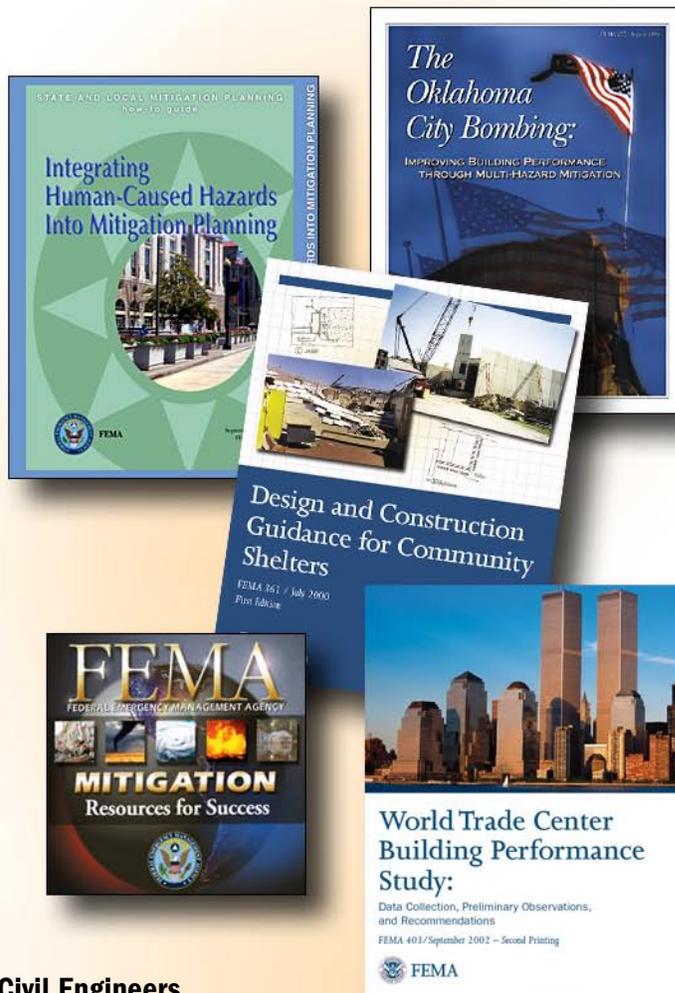
FEMA 361, *Design and Construction Guidance for Community Shelters*, Washington, DC
<http://www.fema.gov/library/viewRecord.do?id=1657>

FEMA 372, 2001. *Mitigation Resources for Success* (CD-ROM), Washington, DC

FEMA 386-7, *Integrating Human-Caused Hazards Into Mitigation Planning*, Washington, DC
<http://www.fema.gov/library/viewRecord.do?id=1915>

FEMA 403, 2002, *World Trade Center Building Performance Study: Data Collection, Preliminary Observations, and Recommendations*, Washington, DC
<http://www.fema.gov/library/viewRecord.do?id=1728>

FEMA EOC Assessment Checklist, Washington, DC
<http://www.fema.gov/library/viewRecord.do?id=1936>



Structural Engineering Institute of American Society of Civil Engineers

Structural Design for Physical Security: State of the Practice, 1999, Edward Conrath, et al., Reston, Virginia, Structural Engineering Institute of American Society of Civil Engineers
<http://www.asce.org/bookstore/book.cfm?book=3861>

U.S. Air Force

Entry Control Facilities Design Guide, October 2002, Air Force Center for Environmental Excellence
<http://www.afcee.brooks.af.mil/dc/dcd/gate/s00overview/home.html>

ESL-TR-87-57, *Protective Construction Design Manual*, November 1989; Contact Airbase Technologies Division (AFRL/MLQ) at Tyndall Air Force Base, Florida, by email at techinfo@afrl.af.mil. [Superseded by Army Technical Manual TM 5-855-1 (Air Force Pamphlet AFPAM 32-1147(I), Navy Manual NAVFAC P-1080, DSWA Manual DAHSCWEMAN-97), December 1997]

Expedient Hardening Methods for Structures Subjected to the Effect of Nonnuclear Munitions, October 1990, Wright Laboratory Report

Installation Force Protection Guide, 1997, Air Force Center for Environmental Excellence
<http://www.wbdg.org/ccb/AF/AFDG/afinstal.pdf>

Vehicle Bomb Mitigation Guide, July 1, 1999, Force Protection Battlelab

U.S. Army Corps of Engineers

Engineer Technical Letters (ETL)

ETL 1110-3-494, *Airblast Protection Retrofit for Unreinforced Concrete Masonry Walls*, July 14, 1999

Technical Manuals (TM)

TM 5-853-1, *Security Engineering Project Development*, May 12, 1994, also Air Force Manual 32-1071, Volume 1 [official use only] <http://www.usace.army.mil/inet/usace-docs/armytm>

TM 5-853-2, *Security Engineering Concept Design*, May 12, 1994, also Air Force Manual 32-1071, Volume 2 [official use only] <http://www.usace.army.mil/inet/usace-docs/armytm>

TM 5-853-3, *Security Engineering Final Design*, May 12, 1994, also Air Force Manual 32-1071, Volume 3 [official use only] <http://www.usace.army.mil/inet/usace-docs/armytm>

TM 5-853-4, *Security Engineering Electronic Security Systems*, May 12, 1994
<http://www.military-info.com/mphoto/new1j98.htm#engineer>

TM 5-855-1, *Design & Analysis of Hardened Structures to Conventional Weapons Effects*, August 1998 [Army Technical Manual TM 5-855-1 (Air Force Pamphlet AFPAM 32-1147(I), Navy Manual NAVFAC (Naval Facilities) P-1080, DSWA Manual DAHSCWEMAN-97) December 1997] [official use only]
<http://www.usace.army.mil/inet/usace-docs/armytm>

U.S. Department of Energy

DOE/TIC 11268, *A Manual for the Prediction of Blast and Fragment Loadings on Structures*, February 1992, Albuquerque NM, Southwest Research Institute

U.S. Department of Housing and Urban Development

Creating Defensible Space, April 1996, Oscar Newman, Washington, DC
<http://www.huduser.org/publications/pdf/def.pdf>

U.S. Department of the Treasury / Bureau of Alcohol, Tobacco and Firearms

Vehicle Bomb Explosion Hazard And Evacuation Distance Tables, 1999, send in a written request to the following to receive a copy: Bureau of Alcohol, Tobacco and Firearms, Arson and Explosives Programs Division, 800 K Street, NW, Tech World Suite 710, Washington, DC 20001

U.S. Navy

Design Manual (DM) NAVFAC (Naval Facilities Command), NAVFAC DM 2.08, *Blast Resistant Structures*, December 1986
http://www.wbdg.org/ccb/NAVFAC/DMMHNAV/dm_08.pdf

TechData Sheets - Naval Facilities Engineering Service Center (NFESC)

TDS-2062-SHR, *Estimating Damage to Structures from Terrorist Bombs*, September 1998 [official use only] Requests for publication can be made to Naval Facilities Engineering Service Center, Security Engineering Division (ESC66), 1100 23rd Ave, Port Hueneme, CA 93043-4370, (805) 982-1582 (Primary), (805) 982-4817 (Alternate), (805) 982-1253 (Fax)

TDS-2063-SHR, *Blast Shielding Walls*, September 1998 [official use only] Requests for publication can be made to Naval Facilities Engineering Service Center, Security Engineering Division (ESC66), 1100 23rd Ave, Port Hueneme, CA 93043-4370, (805) 982-1582 (Primary), (805) 982-4817 (Alternate), (805) 982-1253 (Fax)

TDS-2079-SHR, *Planning and Design Considerations for Incorporating Blast Mitigation in Mailrooms*.

For copies, contact Defense Printing Service, Building 40, 700 Robbins Avenue, Philadelphia, PA 19111-5094, (215) 697-2179 (Primary), (215)697-1462 (Fax)



The Smith County 911 Communications Dispatch and Emergency Operations Center nears completion.

February 1, 2018



Mtg Date: February 8, 2018
To: Planning Commission
From: Julie Johnston, AICP
Re: Adam Garland Construction Concept Plan

Adam Garland Construction is currently housed at 6825 Stadium Drive, which is zoned within the Village Commercial District and is included in the Village Form Based Codes. Mr. Garland would like to complete some improvements on his property, which include:

1. Aesthetic improvements to the existing residential home which has been converted to an office.
2. Asphalt drive from Stadium Drive moving south to terminate behind the home.
3. The development of some onsite parking for staff and the occasional client.
4. The addition of a 40-foot by 60-foot (2,400 square foot) storage building attached to the existing accessory structure on site.

The location of this parcel within the Village Fringe area of the Form-Based Codes provides some difficulties for the expansion of the accessory structure. The building is considered nonconforming to the requirements of the Form-Based Code. The following requirements apply to accessory structures:

34.420 Building Type Distribution

D. Accessory Buildings.

1. *Accessory buildings shall be permitted in the Village Overlay District as set forth in SECTION 78.800 of this Ordinance unless otherwise stated herein.*
2. *All buildings shall be approved through the site plan and special exception use process.*
3. *Accessory buildings shall not be permitted in the Village Core.*
4. ***Accessory buildings in the Village Fringe shall be permitted in the rear yard only.*** *Accessory buildings in the Corridor East sub-district shall be permitted in the side or rear yards.*
5. ***Where permitted, accessory buildings shall adhere to all location and placement standards for a primary building on that property.***
6. ***The accessory building shall be of a similar design, character, materials, and appearance as the primary structure and shall not exceed the size of the primary structure.***

The highlighted regulations are the ones that directly apply to Mr. Garland's request. The two main concerns are the requirement regarding location and placement of the accessory building and that the size shall not exceed the primary structure.

First, the regulations for placement of accessory buildings are difficult to understand. Section 34.420.D.4 indicates that accessory buildings should be in the rear yard but the later regulation (Section 34.420.D.5) states they should adhere to all location and placement standards of the primary building. According to Section 34.410.B.2, "Workplace Buildings" within the Village Fringe, similar to the converted residential home where Garland Construction is housed, should have a build-to line of five to 10 feet from the right-of-way. Per Section 34.420.D.5, the accessory building should have a similar placement. As this request is an addition to an existing structure, meeting this requirement is impossible.

The second concern relates to the limitation on size. The residential home located on this parcel, which has been converted into an office building, is approximately 1,016 square feet. There are currently two existing accessory buildings on the parcel, a garage and a storage building, totaling 672 square feet. Any accessory structure addition could not exceed 344 square feet, which would not meet the needs of the construction company.

The Form-Based Codes provide some flexibility for nonconforming structures, however the language clearly indicates that any additions should comply with the Ordinance, as follows:

34.930 Nonconforming uses and structures. *This section establishes regulations for nonconforming uses and nonconforming structures. This SECTION is intended to allow nonconforming uses and structures to continue to the extent consistent with the health, safety and public welfare purposes of this Ordinance. However, the ultimate goal is to bring such nonconforming uses and structures into compliance with the Ordinance.*

C. Nonconforming buildings or structures. Buildings or other structures that are nonconforming as to placement, frontage, height, design, or other zoning regulations contained in these Overlay standards or elsewhere in this Ordinance may be repaired, replaced, or added to, only to the extent permitted by this section:

- 1. Additions. A nonconforming building or other structure may be added to, provided that the portion of the building or other structure comprising such addition **complies with all requirements of this SECTION 34.***

Based on this regulation, Mr. Garland's addition would not be possible because of its size and location. However, the Form-Based Codes also includes a Section that allows the Planning Commission to modify the standards of the Ordinance. Per Section 34.920.B.3 and 4, build-to zone and the architectural standards of the Form-Based Code may be modified. In addition, Section 34.920.C states the following:

C. Modification due to adjacent development. The Planning Commission may consider modifications to the development standards of this Overlay District so that the proposed development will better fit with adjacent development. When considering the modification, the Planning Commission shall consider the following:

- 1. The anticipated lifespan of the adjacent development,*

2. *Whether the development with the proposed modification is of equal or better quality than without the modification, and*
3. *Whether the modification will limit the ability of the Township to achieve the goals of the Overlay District.*

Adjacent development to 6825 Stadium Drive consists of a single-family home to the immediate east of the subject parcel, Williams Distributing to the immediate west, a cell tower facility to the south and Pinehurst Apartments across Stadium Drive to the north. The general formation of parcels along the south side of Stadium Drive are narrow and exceeding long. The parcel in question has 150 feet of frontage but is 1,232 feet long. Adjacent parcels are very similar in configuration. This contributes to the limitation of development on these lots.

The concept plan proposed by Mr. Garland will improve the site tremendously from its existing condition. It is not likely that this parcel would convert back to a residential home. Therefore, any improvements to the site to bring it to current standards for development for such things as an asphalt drive and parking, resolution of storm water runoff, improved appearance of the structures, landscaping, etc., required as part of site plan review, would be an enhancement to the area.

Based on the modification allowance under Section 34.920.C, staff recommended Mr. Garland present his concept plan to the Planning Commission for consideration. At this time, Mr. Garland is looking for feedback from the Planning Commission before investing in the development of site plans and elevation drawings for a formal submittal. If the Planning Commission is amenable to the expansion of the accessory building on site, Mr. Garland would submit a formal application to be reviewed by the Planning Commission with the understanding that the request could be approved under Section 34.920.C.

Attachments: Concept Plan

Adam Garland Construction

6825 Stadium Drive

Concept Plan Review

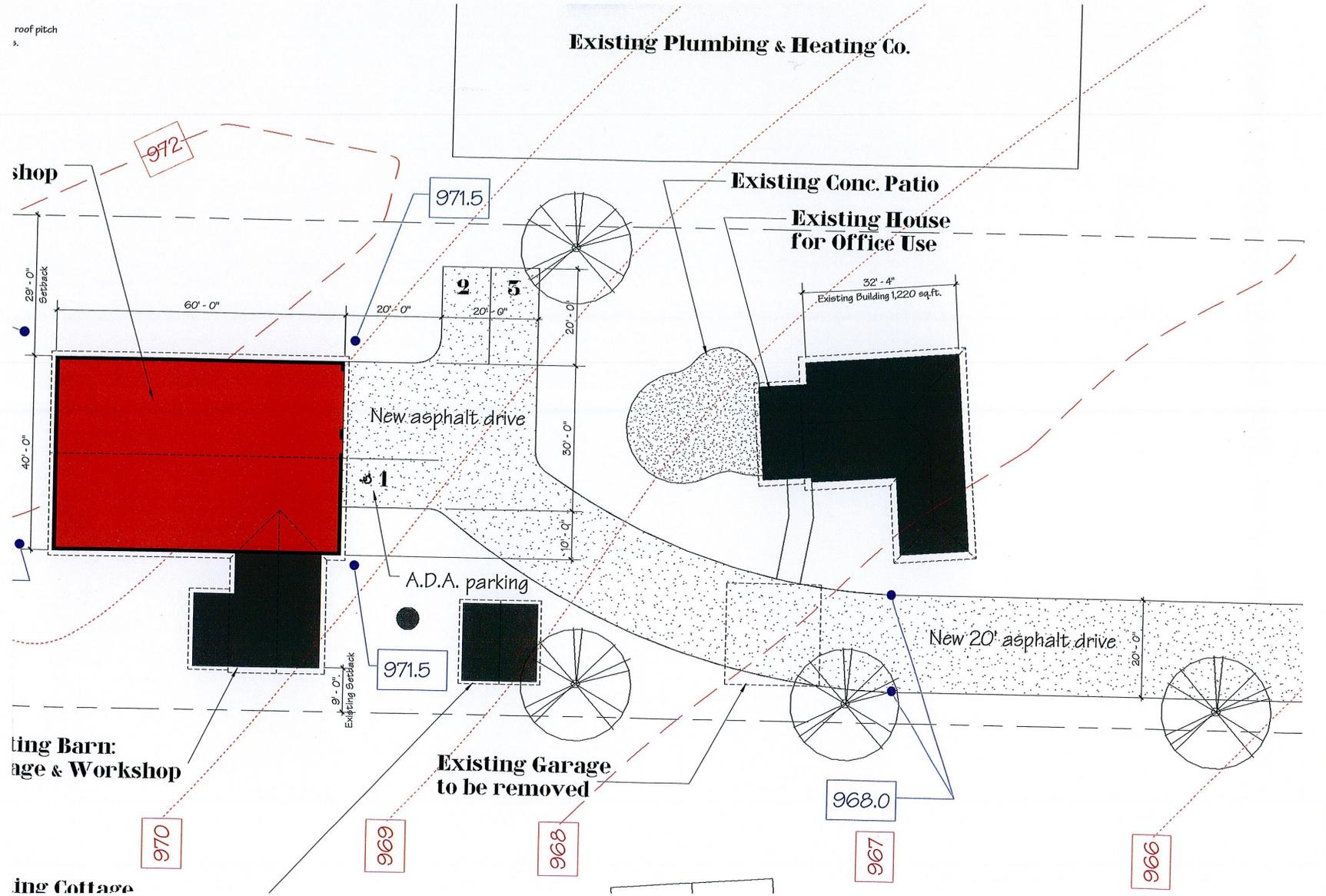


Adam Garland Construction

6825 Stadium Drive

Concept Plan Review

roof pitch
3.



Adam Garland Construction

6825 Stadium Drive

Concept Plan Review





January 31, 2018

Mtg Date: February 8, 2018
To: Planning Commission
From: Julie Johnston, AICP
RE: BTR 2.0 Street Name

Western Michigan University (WMU) would like to begin construction of the infrastructure for the new Business Technology Research (BTR) Park 2.0 in the summer of 2018. As part of that development, a new public road will be built. WMU would like to name the new road "Robert Jones Way."

According to Mr. Robert Miller, Associate Vice President for Community Outreach, the road name was chosen because Mr. Jones was an advocate for the BTR Parks and because of his position with the community as the Mayor of Kalamazoo and a State legislator. Mr. Jones' family has been apprised for the request and is in agreement with the naming.

The name has been submitted to the Road Commission of Kalamazoo County and the County Planning and Development Department. Both agencies are in agreement with the name.

Per past practices, the Planning Commission would make a recommendation to the Township Board regarding the requested name. Staff has no concerns at this time.

Attachments: Letter from County Planning and Development
BTR 2.0 Site Plan



KALAMAZOO COUNTY GOVERNMENT

In the Pursuit of Extraordinary Governance...

January 19, 2018

Robert Miller
Associate Vice President
Community Outreach
Western Michigan University
Bob.miller@wmich.edu

Dear Mr. Miller:

This letter confirms the proposed street name of **Robert Jones Way** for the new road for BTR 2.0 project in section 25, Oshtemo Township.

Please be advised that the subject street name is approved and has been reserved in the Kalamazoo County Street Name Directory.

Planning Department's recommendation is a non-binding advisory opinion. All street name recommendations by the Department of Planning and Community Development are subject to review by the municipality and/or the Kalamazoo County Road Commission.

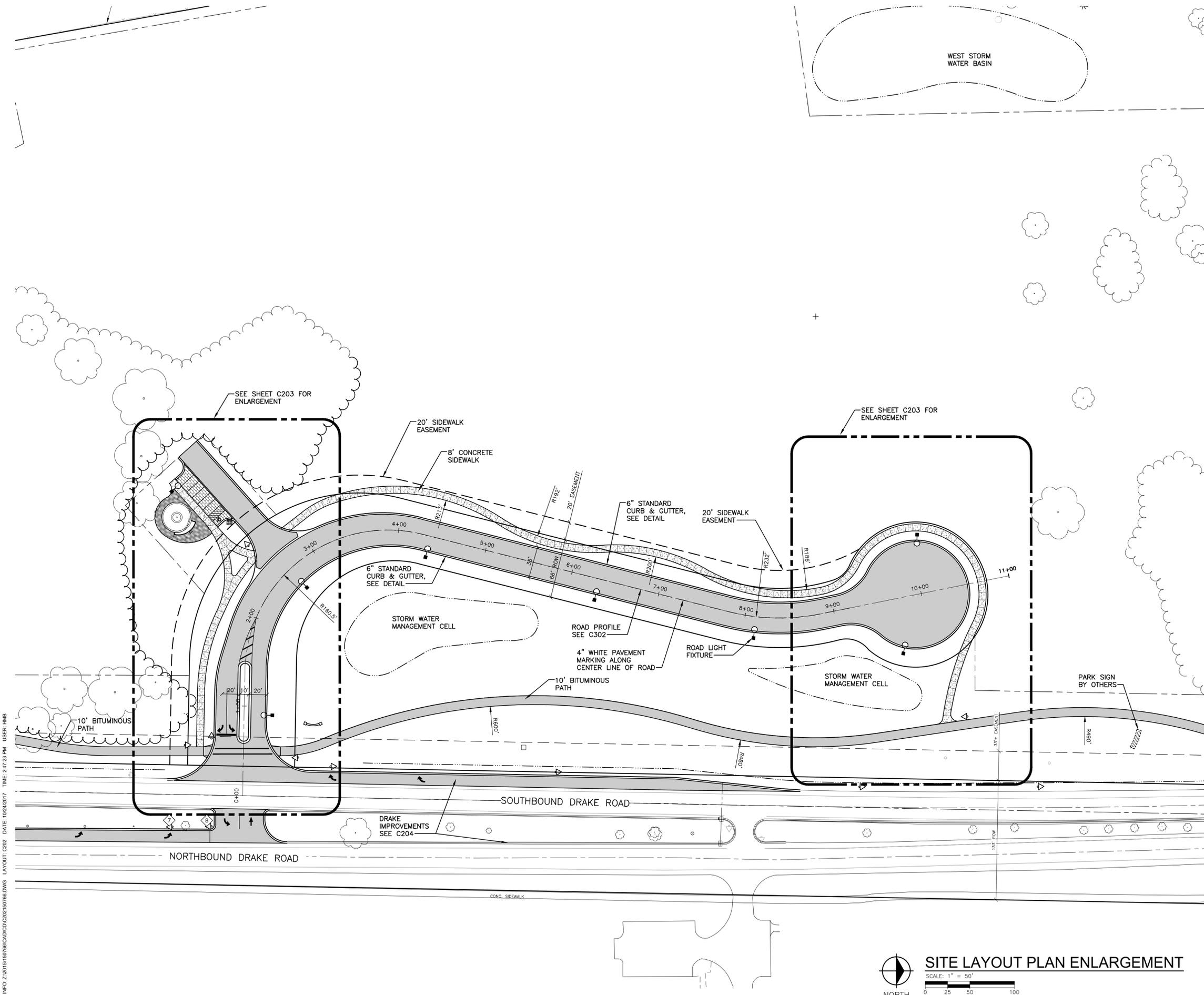
Should you need further information or have questions regarding this matter, please feel free to contact me at your earliest convenience.

Sincerely,

PLANNING & DEVELOPMENT DEPARTMENT

Lotta Jarnefelt
Director

cc: Libby Heiny-Cogswell, Oshtemo Township libbyhc@oshtemo.org
RCKC, info@kalamazooountyroads.com
USPS Kalamazoo, 49009DUCKKalamazooPOSTMASTER@usps.gov
USPS Grand Rapids, GMDAMS@usps.gov
Kalamazoo County GIS, Chris Bessert, cjbess@kalcounty.com
2002



SYMBOL LEGEND

-  ASPHALT PAVEMENT
-  CONCRETE PAVEMENT
-  CONCRETE SIDEWALK
-  EXPANSION JOINT
-  PARKING SPACE COUNT
-  SITE LIGHT POLE

NOTES

1. COUNTY ROAD EXCAVATION: ALL UNSUITABLE MATERIAL MUST BE REMOVED TO A DEPTH OF 2' BELOW TOP OF SUBGRADE FOR COUNTY ROAD, OR AS DIRECTED BY THE COUNTY ENGINEER, AND BACKFILLED WITH MDOT GRANULAR MATERIAL CLASS III.
2. DIMENSIONS ARE TO BACK OF CURB, OUTSIDE FACE OF BUILDING, AND EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

◆ SIGN LEGEND/KEY NOTES

1. EXISTING SIGN TO REMAIN
2. NO PARKING
3. DO NOT ENTER
4. NON-MOTORIZED PATH
5. NO CROSSING; BIKE PATH CONTINUES ALONG ROAD.
6. RIGHT TURN ONLY
7. LEFT TURN ONLY
8. STOP SIGN
9. NO OUTLET



Western Michigan University
 Oshtemo Township, Michigan
Business Technology and Research Park Phase 2

10/24/2017 90% OWNER REVIEW
 Drawn By MB2
 Designer HMB
 Reviewer
 Manager RDM

Hard copy is intended to be 24"x36" when plotted. Scale(s) indicated and graphic quality may not be accurate for any other size.

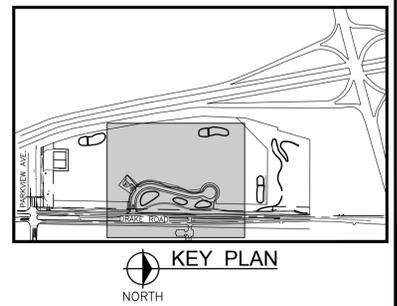
PROJECT NO.
G150766
 SHEET NO.

C202

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 All Rights Reserved

PLOT INFO: Z:\016150766\CADD\C202\150766.DWG LAYOUT C202 DATE: 10/24/2017 TIME: 2:47:23 PM USER: HMB

SITE LAYOUT PLAN ENLARGEMENT
 SCALE: 1" = 50'
 0 25 50 100





7275 W. MAIN STREET, KALAMAZOO, MI 49009-9334
269-216-5220 Fax 375-7180 TDD 375-7198
www.oshtemo.org

**NOTICE
OSHTEMO CHARTER TOWNSHIP
PLANNING COMMISSION**

**Regular Meeting
Thursday, February 8, 2018
7:00 p.m.
AGENDA**

1. Call to Order
2. Pledge of Allegiance
3. Approval of Agenda
4. Public Comment on Non-Agenda Items
5. Approval of Minutes: January 11, 2018 and January 25, 2018
6. PUBLIC HEARING: Kalamazoo County Consolidated Dispatch Authority Fence Request
Consideration of an application from Kalamazoo County Consolidated Dispatch
Authority for a special exception use concerning security barbed-wire fencing outside of
an industrial-zoned district, pursuant to Section 78.210 of the Township Zoning
Ordinance, for the subject property located at 7040 Stadium Drive, within the C: Local
Business District. Parcel No. 3905-14-230-049.
7. Old Business
8. Any Other Business
 - a. Adam Garland Construction Concept Plan Review
 - b. BTR Park 2.0 Road Name Approval
9. Planning Commissioner Comments
10. Adjournment

Policy for Public Comment
Township Board Regular Meetings, Planning Commission & ZBA Meetings

All public comment shall be received during one of the following portions of the Agenda of an open meeting:

- a. Citizen Comment on Non-Agenda Items or Public Comment – while this is not intended to be a forum for dialogue and/or debate, if a citizen inquiry can be answered succinctly and briefly, it will be addressed or it may be delegated to the appropriate Township Official to respond at a later date.
- b. After an agenda item is presented by staff and/or an applicant, public comment will be invited. At the close of public comment there will be board discussion prior to call for a motion.

Anyone wishing to make a comment will be asked to come to the podium to facilitate the audio/visual capabilities of the meeting room. Speakers will be invited to provide their name; it is not required unless the speaker wishes to have their comment recorded in the minutes.

All public comment offered during public hearings shall be directed, and relevant, to the item of business on which the public hearing is being conducted. Comment during the Public Comment or Citizen Comment on Non-Agenda Items may be directed to any issue.

All public comment shall be limited to four (4) minutes in duration unless special permission has been granted in advance by the Supervisor or Chairperson of the meeting.

Public comment shall not be repetitive, slanderous, abusive, threatening, boisterous, or contrary to the orderly conduct of business. The Supervisor or Chairperson of the meeting shall terminate any public comment which is in contravention of any of the principles and procedures set forth herein.

(adopted 5/9/2000)
(revised 5/14/2013)

Policy for Public Comment
6:00 p.m. "Public Comment"/Portion of Township Board Meetings

At the commencement of the meeting, the Supervisor shall poll the members of the public who are present to determine how many persons wish to make comments. The Supervisor shall allocate maximum comment time among persons so identified based upon the total number of persons indicating their wish to make public comments, but no longer than ten (10) minutes per person. Special permission to extend the maximum comment time may be granted in advance by the Supervisor based upon the topic of discussion.

While this is not intended to be a forum for dialogue and/or debate, if a citizen inquiry can be answered succinctly and briefly, it will be addressed or it may be delegated to the appropriate Township Official to respond at a later date.

Anyone wishing to make a comment will be asked to come to the podium to facilitate the audio/visual capabilities of the meeting room. Speakers will be invited to provide their name; it is not required unless the speaker wishes to have their comment recorded in the minutes.

Public comment shall not be repetitive, slanderous, abusive, threatening, boisterous, or contrary to the orderly conduct of business. The Supervisor shall terminate any public comment which is in contravention of any of the principles and procedures set forth herein.

(adopted 2/27/2001)
(revised 5/14/2013)

**OSHTEMO CHARTER TOWNSHIP
PLANNING COMMISSION**

MINUTES OF A MEETING HELD JANUARY 11, 2018

Agenda

**ELECTION OF OFFICERS/APPOINTMENT OF PLANNING COMMISSION
LIAISON TO ZONING BOARD OF APPEALS**

OLD BUSINESS

CONDOMINIUM DEVELOPMENT STANDARDS ORDINANCE - DRAFT

A meeting of the Oshtemo Charter Township Planning Commission was held on Thursday, January 11, 2018, commencing at approximately 7:00 p.m. at the Oshtemo Charter Township Hall.

MEMBERS PRESENT: Fred Antosz
Cheri Bell
Ollie Chambers
Dusty Farmer
Micki Maxwell
Mary Smith
Bruce VanderWeele

MEMBERS ABSENT: None

Also present were Julie Johnston, Planning Director, James Porter, Attorney, and Martha Coash, Meeting Transcriptionist. No other persons were in attendance.

Call to Order and Pledge of Allegiance

The meeting was called to order by Chairperson Bell at approximately 7:00 p.m., and the "Pledge of Allegiance" was recited.

Public Comment on Non-Agenda Items

The Chair noted there were no members of the public present and proceeded to the next agenda item.

Approval of the Minutes of December 14, 2017

Chairperson Bell asked if there were additions, deletions or corrections to the Minutes of December 14, 2017. Hearing none, she asked for motion for approval.

Mr. Chambers made a motion to approve the minutes of December 14, 2017 as presented. Mr. Antosz seconded the motion. The motion was approved unanimously.

Election of Officers and Zoning Board of Appeals Liaison

Chairperson Bell solicited nominations for Chair, Vice Chair, Secretary, and Liaison to the Zoning Board of Appeals for 2018.

Mr. Chambers determined Ms. Bell would accept a nomination to continue as Chairperson for 2018 and nominated her for the position. Hearing no other nominations, the Chair asked for a motion.

Mr. Antosz made a motion to elect Ms. Bell as Chair of the Planning Commission for 2018. Mr. Chambers supported the motion. The motion passed unanimously.

In answer to a question from Mr. Antosz, Mr. VanderWeele indicated he would be willing to serve as Vice Chair.

Mr. Antosz nominated Mr. VanderWeele for Vice Chair for 2018.

Hearing no other nominations, Chairperson Bell asked for a motion.

Mr. Antosz made a motion to elect Mr. VanderWeele as Vice Chairperson of the Planning Commission for 2018. Ms. Farmer supported the motion. The motion carried unanimously.

Ms. Farmer indicated she was open to continuing as Secretary.

Mr. VanderWeele nominated Ms. Farmer to serve as Secretary for 2018.

Hearing no other nominations, Chairperson Bell asked for a motion.

Mr. VanderWeele made a motion to elect Ms. Farmer as Secretary of the Planning Commission for 2018. Mr. Antosz supported the motion. The motion carried unanimously.

Mr. VanderWeele said he was willing to continue to serve as liaison to the Zoning Board of Appeals. Ms. Farmer nominated him to serve in that capacity.

Hearing no other nominations, Chairperson Bell asked for a motion.

Mr. Antosz made a motion to approve Mr. VanderWeele as liaison to the ZBA. Mr. Chambers seconded the motion. The motion passed unanimously.

Old Business

Condominium Development Standards Ordinance

Chairperson Bell asked Ms. Johnston for her presentation on the development of a Condominium Development Standards Ordinance.

Ms. Johnston said Staff received a request to develop an attached condominium project on a property zoned R-2: Residence District. In reviewing the subject parcel, it became clear that the size of the property did not meet the 20-acre requirement for a Planned Unit Development (PUD). Therefore, the only option open to the property owner based on current Zoning Ordinance regulations was to subdivide the property and create individual lots where the two-unit attached dwellings could be built.

After reviewing other attached condominium projects in the Township, she said it was discovered many were developed as part of a larger PUD. Currently there are no standards for the development of an attached product outside of the PUD ordinance. Staff does not believe it was the intent of the Zoning Ordinance to preclude this type of development outside of a PUD or platted subdivision or site condominium. This is especially true since the R-2 District allows two-family dwellings by right and the R-3 District allows three and four-family as a special exception use. In addition, the Condominium Act, Public Act 59 of 1978 establishes this type of development as a legitimate option for both developers and homeowners.

She indicated Staff developed the Condominium Development Standards Ordinance utilizing language from the existing development standards for apartments and site condominiums. This new ordinance would require any attached condominium development to request approval through the special exception use process so a public hearing with the Planning Commission would be required.

After some discussion and clarification that development under this Ordinance would be limited to residences, it was agreed Ms. Johnston would add "Residential" to the name of the ordinance and that the Ordinance would include a requirement for 10% open space, the same amount as required for a PUD.

Attorney Porter said this Ordinance would allow an alternative and satisfy a certain niche for a developer who wants to build an owner-occupied attached unit.

Ms. Johnston noted after consideration of the proposed ordinance and any changes/edits, a public hearing will need to be set. It was the consensus of the group that Ms. Johnston should return to the February meeting with a revised document that reflects the changes agreed upon for further review, prior to scheduling a public hearing.

In answer to a question from Mr. VanderWeele regarding whether these new provisions might be included under the existing PUD Zoning Ordinance, Ms. Johnston indicated that she would review that section of the code to see if that would work.

Any Other Business

Ms. Johnston reported that the Township Board reviewed the Zoning Ordinance amendments sent to them from the Planning Commission and that all were approved except for the addressing ordinance. The Board asked for some visual information on the size of the addresses before approving the ordinance. The Board also asked the Commission to review the regulations related to the width of circulation and drive aisles. Ms. Johnston will return with information on that for their further consideration.

PLANNING COMMISSIONER COMMENTS

On behalf of the Board, Chairperson Bell welcomed Ms. Maxwell as a member.

Ms. Farmer reminded the Board that Township Board Members would be joining them at the regularly scheduled January 25 meeting to discuss Master Plan revisions.

ADJOURNMENT

Having exhausted the agenda, and with there being no further business to discuss, Chairperson Bell asked for a motion to adjourn.

Ms. Farmer made a motion to adjourn the meeting. Ms. Smith supported the motion. The motion passed unanimously.

The Planning Commission meeting was adjourned at approximately 8:47 p.m.

Minutes prepared:
January 10, 2018

Minutes approved:
_____, 2018

**OSHTEMO CHARTER TOWNSHIP
TOWNSHIP BOARD OF TRUSTEES AND PLANNING COMMISSION**

MINUTES OF A MEETING HELD JANUARY 25, 2018

Agenda

**JOINT WORK SESSION OF THE TOWNSHIP BOARD OF TRUSTEES AND THE
PLANNING COMMISSION**

DISCUSSION OF DRAFT MASTER PLAN UPDATE

A meeting of the Oshtemo Charter Township Board of Trustees and the Planning Commission was held on Thursday, January 25, 2018, commencing at approximately 7:00 p.m. at the Oshtemo Charter Township Hall.

TOWNSHIP BOARD

MEMBERS PRESENT: Libby Heiny-Cogswell, Supervisor
Nancy Culp, Treasurer
Dave Bushouse
Deb Everett
Zak Ford
Ken Hudok

MEMBER ABSENT: Dusty Farmer, Clerk

PLANNING COMMISSION

MEMBERS PRESENT: Cheri Bell, Chairperson
Fred Antosz, Vice Chairperson
Ollie Chambers
Micki Maxwell
Mary Smith
Bruce VanderWeele
Dusty Farmer, Secretary

Also present were Julie Johnston, Planning Director, James Porter, Attorney, Marc Elliott, Public Works Director, Martha Coash, Meeting Transcriptionist, and six interested persons.

Call to Order

The meeting was called to order by Supervisor Heiny-Cogswell at approximately 7:00 p.m.

Public Comment on Non-Agenda Items

There were no public comments on non-agenda items.

Discussion of Draft Master Plan Update

Supervisor Heiny-Cogswell asked Ms. Johnston to review the Master Plan process and updates for the group.

Ms. Johnston explained Public Act 33 of 2008, Michigan Planning Enabling Act, requires local jurisdictions to review their master plans every five years to determine if updates are required. After an assessment of the 2011 Oshtemo Township Master Plan, the Planning Commission concluded that although the Plan is in good shape, some updates were needed. She said the draft Master Plan Update includes four main chapters:

- Introduction and Planning Drivers: Outlines the demographic changes occurring in the Township that influence planning decisions.
- Rural Character Preservation Strategy: Details the goals and strategies for preserving rural properties and character within the western 2/3rds of the Township. This section includes the detailed environmental mapping conducted by Western Michigan University and the public outreach steps taken to develop the proposed strategies.
- Maple Hill Drive South Sub-Area Plan: This Plan was based on a recommendation in the 2011 Master Plan, which indicated this particular area of the Township was prime for redevelopment and a more detailed sub-area plan was needed. The recommendations in the Sub-Area Plan are based on community outreach and careful consideration of the Planning Commission with regard to the uniqueness of this area and its location in that portion of the Township slated for more intense development. It is the last real undeveloped contiguous green area in this part of the Township. Public feedback reflected a desire that less density be maintained near residential neighborhoods.
- Future Land Use Plan: This section of the Update replaces the 2011 Future Land Use Chapter. Incremental alterations to the Future Land Use Map have been proposed to address changing conditions and support the planning drivers that are affecting the Township. These changes mainly include the development of two new Districts, Transitional Office and Public/Government.

In addition, the Neighborhood Commercial “Nodes” were eliminated and instead specific boundaries for the Neighborhood Commercial District were more clearly defined. The Village Commercial area was redefined as the Village Core District and the boundaries were established around 9th Street and Stadium Drive. The remaining

areas of the old Village Commercial District were designated as Local Commercial and Transitional Office.

Next, Ms. Johnston outlined the variety of public input garnered since the start of the public process. In addition to these specific outreach meetings, the Planning Commission held eight public work sessions throughout the development of the Master Plan. Some of these work sessions were aimed at a specific focus area of the update and participants interested in that section of the Plan were invited to attend.

She said the Planning Commission held the required public hearing on the draft Master Plan Update on December 14, 2017. An email invitation was sent to the email list of attendees accumulated throughout the development of the Plan and notice was placed in the Kalamazoo Gazette and on Mlive. Approximately 20 interested persons were in attendance and seven persons provided verbal comment on the plan. After the public hearing, the Planning Commission forwarded a recommendation of approval of the draft Master Plan Update to the Township Board.

Ms. Johnston concluded by saying household population and growth are leading to an increased need for housing. Currently there is a 7% vacancy rate; the tight housing market will continue to increase values. Diversified housing stock providing greater choice is indicated. Condos, townhouses and other housing stock that require low maintenance are desired by increasing numbers of empty nesters as well as those in their 20s.

Trustee Ford wondered about statistics regarding how many residents younger than 30 live with their parents.

Ms. Johnston said that statistic may be available from census data; usually if residents live with their parents they are counted as part of that household.

In response to a question from the Supervisor, Ms. Johnston indicated the 2011 Master Plan and the 2018 update being considered are two different documents; both would be in effect at the same time. The only new section in the Master Plan is the Future Land Use chapter. The two documents could be combined into one if that would be clearer.

Trustee Ford thanked Ms. Johnston and the Planning Commission for all their work on this project.

Trustee Everett asked how a timeline might be developed to address the priorities in the Master Plan update in order to stay on task.

Ms. Johnston agreed it will be important to put the priorities established into effect; that it was very clear that those who attended public sessions expect implementation. She will work with the Planning Commission to develop a plan.

In response to a question from Trustee Everett regarding storm water regulations, Ms. Johnston said she expects to address those as part of a reorganization of the Zoning Ordinance.

Trustee Ford wondered about the term “environmental sustainability” on page 37.

Ms. Johnston said ordinance language will need to be updated for solar and wind. Also needing updating is language related to RR – large parcels are currently limited to only residential uses. Property owners would like to have other opportunities to develop their land besides subdivision. The Planning Commission will study options.

Supervisor Heiny-Cogswell commented the Rural Preservation Plan, developed in concert with WMU to detail a natural features inventory, is phenomenal. She also wondered if property open to the public might be included in the Public/Government District.

Ms. Johnston said that might be a possibility; Ms. Bell said if that is considered, WMU and Kalamazoo College property should also be included.

Trustee Hudok asked if any consideration was given to allowing more density west of the existing future land use plan. Ms. Johnston said community input and past master plans did not support higher density moving west, a consistent view since the 1990s. This may need to be examined again in the future.

Trustee Hudok noted public water and sewage and better transportation have to be considered for upgrades before the Township experiences big city problems.

In response to a question from Trustt Ford, Ms. Johnston explained green infrastructure includes connectivity to parks and arboretums, etc. She indicated the Township is in good shape to start the planning process for non-motorized connections and greenways because of the work completed by WMU. Non-motorized, greenway and park planning will help to begin implementing some of the strategies from the Rural Character chapter of the Update.

There was some discussion regarding the village area. Ms. Johnston indicated no zoning changes are expected. She said the Form Based Code may be repackaged as an overlay district with design guidelines to remove negative feelings that are keeping the area from being developed, but we are not there yet.

Ms. Johnston responded to the Supervisor’s comment that she was surprised there is more local commercial to the west of the village area than the existing mixed-use village district, saying the Planning Commission looked at what exists in this location and what might develop in the future and thought local commercial was a better fit. They were trying to mirror the development plan of the Village Theme Development Plan.

Supervisor Heiny-Cogswell also wondered whether private vs. public streets should be looked at in some areas.

Mr. Elliott noted some design standards of the Road Commission are less green than we would like. Allowing reduced paved widths is a departure from the Road Commission standards to allow developments to be more “green.”

Ms. Johnston noted private streets can be only in open space and PUD developments and they bring up issues of responsibility for upkeep and maintenance.

Supervisor Heiny-Cogswell noted the future of retail will need to be considered in light of increased online shopping.

Trustee Hudok commended Ms. Johnston for trying to provide smart planning in targeted areas.

Trustee Ford wondered about electric car recharging stations.

Ms. Johnston indicated Ordinance language should allow the Planning Commission to have some flexibility and might include vehicle charging as well as bicycle parking. The vision is already laid out in the Master Plan goals, what is needed is implementation.

Ms. Johnston said the Master Plan needs to be supported by ordinance. That was not entirely done in 2011 after the Master Plan was put in place, which caused some problems. Very specific language is needed to bring ordinance in line with the Master Plan.

There was discussion about whether greenway and non-motorized plans should be stand-alone or integrated into the Master Plan.

Attorney Porter stated that whether they are part of the master plan or stand-alone plans, neither are regulatory. They are the vision of the Township. To require development, the Township needs the regulatory teeth; they have to be in zoning for implementation. Public noticing would be required to include these documents in the Master Plan.

Ms. Bell felt it might provide continuity to have them all in one place.

Supervisor Heiny-Cogswell asked whether Planning Commission members would like to comment.

Mr. Antosz said it all comes down to developing good ordinance to support the Master Plan and it is important that as much feedback as possible from the public be included.

Ms. Smith requested that priority be given to developing sidewalks, especially on Croyden and Maple Hill. She noted people already walk in the street, and with new development, safety is even more of a consideration.

Trustee Hudok shared Ms. Smith's concern. Priority in heavier commercial and high density areas need contiguous walkways as a focus of building and construction.

Chairperson Bell thanked Ms. Johnston for her work and patience during the process to get the Master Plan update to the Township Board.

Members of the public in attendance were offered a chance for comment.

Mr. Simon Ashbrook said he owns property in a section of the Township that may be changed to local commercial. He has wanted for some time to be able to open a small family-owned meat market and is excited at the possibility of being able to do so.

Mr. Kurt Aardema, AVB, expressed his appreciation for the time Ms. Johnston and the Planning Commission have worked to develop and overall vision. They are excited to work with the Township on the next steps of development.

A representative of CTS Telecom said he was in attendance to gather information about Township development as it may pertain to an extended network and appreciated hearing the plans.

ADJOURNMENT

Having exhausted the agenda, and with there being no further business to discuss, Supervisor Heiny-Cogswell adjourned the meeting at approximately 8:30 p.m.

Minutes prepared:
January 27, 2017

Minutes approved:
_____, 2017

January 31, 2018



Mtg Date: February 8, 2018

To: Planning Commission

From: Julie Johnston, AICP
Planning Director

Applicant: Jeff Troyer, Executive Director

Owner: Kalamazoo County Consolidated Dispatch Authority

Property: 7040 Stadium Drive
Parcel number 3905-34-230-049

Zoning: C: Local Business District

Request: Special Exception Use and Site Plan Review for a Drive-Through Pharmacy Window

Section(s): Section 78.200: Fences
Section 60.000: Special Exception Use

Project Name: Kalamazoo Consolidated Dispatch

PROJECT SUMMARY

Kalamazoo County Consolidated Dispatch Authority (KCCDA) recently purchased the property at 7040 Stadium Drive as their new headquarters. Renovations are currently underway to help secure the facility from hazards, vulnerabilities and any resultant risk to their emergency operations. As part of these renovations, KCCDA would like to secure the building with fencing, some of which would include 6-foot of chain-link with three strands of barbed wire. Per the requirements of 78.210.E.

*Security fences six feet high and above in industrial-zoned districts may include an additional 18 inches of barbed wire. Such barbed wire shall slant inward toward the property or be straight up. **Security fences with barbed wire in other zoning districts shall require special exception use approval.***

The property is located C: Local Business District, which requires special exception use approval for any fencing with barbed wire. In addition, 78.230.C. indicates:

Other Zoning Districts. Fences exceeding six (6) feet in height shall be subject to approval by the appropriate reviewing body.

The more decorative fencing shown on the site plan is 8-feet in height. The chain link fence will also reach 8-feet once the barbed wire is attached. Therefore, Planning Commission approval is also required for the height of the fence. The applicant has indicated this security fencing is needed due to the essential 9-1-1 and public safety service provided at the site.

SPECIAL EXCEPTION USE CONSIDERATIONS

Section 60.100 of the Zoning Ordinance provides additional review criteria for consideration when reviewing a Special Exception Use request. Since this special exception use deals specifically with the fence and not the use of the building, staff's response to the below criteria is targeted to that issue. These criteria are as follows:

A. Is the proposed use compatible with the other uses expressly permitted within the Local Business District zoning classification?

Section 78.200 outlines the specific requirements for fences for all of the Township's zoning districts. Fences with barbed wire or taller than 6-feet are not permitted by right within the Local Business District. *Section 78.210: Construction, Material and Maintenance* states the following:

- C. No barbed wire, spire tips, sharp objects, or electrically-charged fences shall be erected in or abutting any residentially zoned district.*
- D. Bona fide agricultural uses may use barbed wire or charged fences to control livestock.*
- E. Security fences six feet high and above in industrial-zoned districts may include an additional 18 inches of barbed wire. Such barbed wire shall slant inward toward the property or be straight up. Security fences with barbed wire in other zoning districts shall require special exception use approval.*

This property is located adjacent to residentially zoned property to the north. However, the placement of the fencing south of the existing parking lot locates the proposed barbed wire fence approximately 75-feet from the residentially zoned property. As the common definition for abutting is, "be next to or have a common boundary with," staff determined that the interior placement of the fence does not violate this zoning requirement.

However, it is clear from the Zoning Ordinance that a fence of this type is not permitted by right outside of bona fide agricultural uses and industrial districts. The location of the new KCCDA building, within a prominent business and residential district of the Township, makes placement of this type of fence problematic. While more decorative fencing is located along the street rights-of-way, barbed wire is proposed along the west and north faces of the building.

B. Will the proposed use be detrimental or injurious to the use or development of adjacent properties or to the general public?

The difficulty with this application is the competing concerns of security for the site and the impacts this type of construction has related to compatibility. Adjacent uses are residential and low-intensity office and commercial. The continued operation of this building as an office fits perfectly into the fabric of this area of the Township. It is the placement of both the decorative and barbed wire security fencing that pushes the issue of compatibility and places a spotlight on what would otherwise be an innocuous use. Section 78.230.D.: Height, states the following:

*Height Exceptions. Multi-family and non-residential development requests undergoing site plan review may request a taller fence in side and rear yard areas that exceeds the height restrictions identified in Paragraphs A through C above as part of the site plan review process. The appropriate reviewing body may approve a fence up to the maximum building height of the underlying zoning district. In considering such a request, the appropriate reviewing body shall consider whether adequate clear vision is present, the **impact on neighboring properties, and the unique site-related issues that warrant the request.***

The applicant has indicated to staff that securing the perimeter of the building is standard best practice for emergency operation centers. The importance of protecting the first responders is critical in the event of an attack. It is our understanding that the placement of the fencing is intended as a deterrent to stop anyone from actually approaching the building.

Staff has conducted some research into what constitutes a “secure” facility of this type. While not exhaustive, we did find some information related to emergency operation centers. The National Emergency Number Association (NENA) published a document called NENA Resource, Hazard and Vulnerability Analysis Information Document published on September 10, 2016, which has a section on facility security, as follows:

Security into and within the facility includes at the minimum:

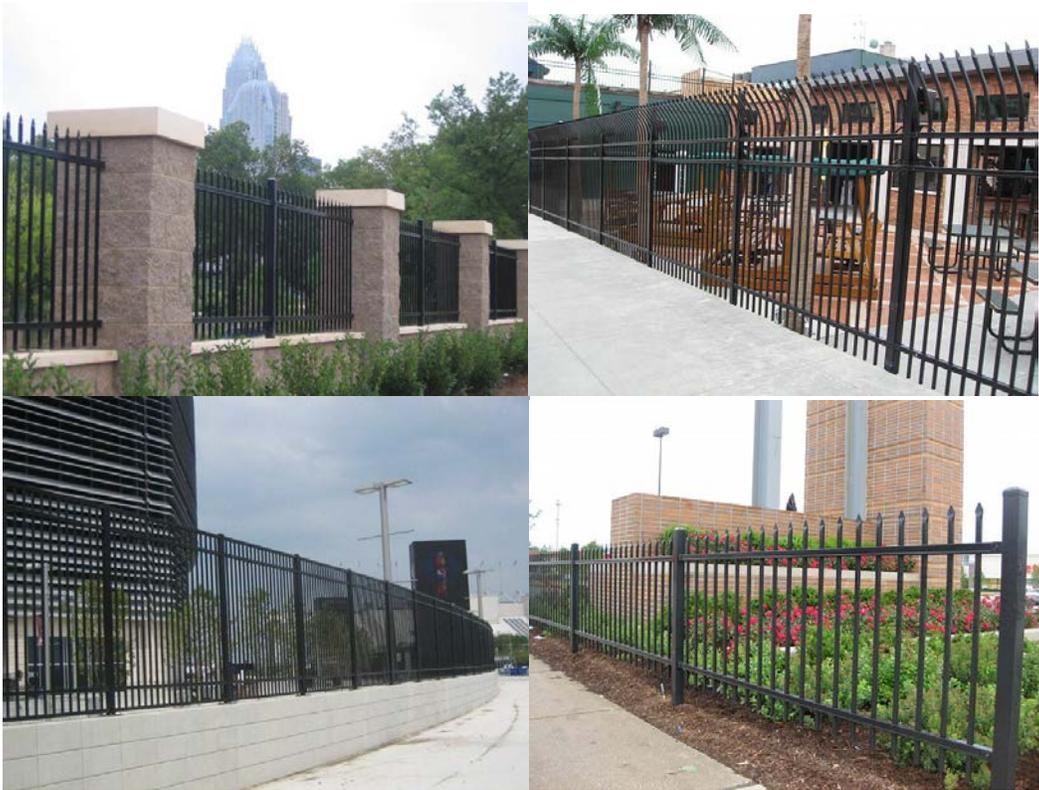
- *The ability to remotely secure areas or provide access to them.*
- *Keys, badging, levels of permission to gain access to specific areas of the facility.*
- *Door control security systems should have redundant UPS power to assure ongoing controlled access capability if primarily power backup systems fail.*
- *Surveillance video and recording in high security areas.*
- *Vendor control and procedures to monitor visitor and employee access.*

In addition, the Federal Emergency Management Agency (FEMA) provided a case study on hardened first responder facilities. The center in question was located in Smith County, Texas. FEMA outlined the use of their assessment checklist to understand vulnerabilities and address them in an appropriate manner. In this particular case study, the staff parking lot was protected with a 6-foot high security fence.

The assessment checklist provided by FEMA is intended to help local governments determine if their facility is secure, but it can also be used to help make decisions regarding new facilities.

While the location of the new KCCDA is set, it does warrant consideration as to whether the facility chosen and its location along Stadium Drive was the most appropriate for emergency operations if this type of fencing is needed to ensure the site is secure. The residential, office and commercial character of the area may not fit the needs of an emergency operations center.

However, fencing or other security measures could be installed on the site that is more compatible with adjacent uses. The requested fencing along Stadium Drive and 8th Street has a more residential character than the chain-link with barbed wire. Reducing the decorative fence to 6-feet in height as opposed to the requested 8-foot would also go a long way towards mitigating impacts. Below are some examples of security fencing which are not as impactful as barbed wire:



The use of barbed wire fencing in the locations shown on the site plan were chosen because of their limited visibility from the road rights-of-way. Existing landscaping will help to screen the fence along the west property line. Additionally, the setback of the fence and existing landscaping may also help to screen the fence from the residential property to the north.

C. Will the proposed use promote the public health, safety, and welfare of the community?

Certainly, enhanced security measures help to protect the emergency responders working within the dispatch center, promoting public health, safety and welfare.

D. Will the proposed use encourage the use of the land in accordance with its character and adaptability?

The Ordinance requirement that fencing of this type must be reviewed by the Planning Commission was to ensure compatibility with neighbors. The current character of the site and area is aligned with the aesthetic of the C: Local Business District. Fencing could be accommodated for this site that continues to support the overall intent of the C: Local Business District.

POSSIBLE ACTIONS

Based on current Ordinance requirements, Planning Commission approval would not be required if the applicant constructed a fence that is 6-feet in height or less and is without barbed wire. However, if barbed wire is utilized and/or if the fence is taller than 6-feet in height, Planning Commission approval is required.

There are several options open to the Planning Commission regarding this application. From staff's perspective, they are as follows:

1. Approve the application as presented.
2. Approve the application but require the decorative fencing, as presented, around the entirety of the site.
3. Request a different type of fence be installed, but continue to allow a height greater than 6-feet.
4. Request the applicant provide other alternatives to secure the site.
5. Deny the request.

The concern with denying the application outright is that a 6-foot chain-link fence could then be installed without Planning Commission review. While an 8-foot fence is considerably taller, the more decorative nature of the proposed fence may be a preferred alternative to chain-link. Although it should be noted that staff is unsure if the applicant would construct a 6-foot chain-link fence as it is not likely to meet their stated security needs.

Respectfully Submitted,



Julie Johnston, AICP
Planning Director

Attachments: Application
Site Plan
Aerial Map
Zoning Map
Fence Ordinance
NENA Information Document (excerpt)
FEMA Mitigation Case Study



7275 W. Main Street, Kalamazoo, Michigan 49009-9334
Phone: 269-216-5223 Fax: 269-375-7180

PLEASE PRINT

PROJECT NAME & ADDRESS Kalamazoo Consolidated Dispatch - 7040 Stadium Drive

PLANNING & ZONING APPLICATION

Applicant Name : Jeff Troyer - KCCDA Executive Director

Company Kalamazoo County Consolidated Dispatch Authority
7040 Stadium Drive

Address Kalamazoo, MI 49009

E-mail jtroyer@kccda911.org

Telephone (269) 718-2195 Fax no fax available

Interest in Property _____

THIS
SPACE
FOR
TOWNSHIP
USE
ONLY

OWNER*:

Name Kalamazoo County Consolidated Dispatch Authority

Address 7040 Stadium Drive

Kalamazoo, MI 49009

Email jtroyer@kccda911.org

Phone & Fax (269) 718-2195 _____

Fee Amount _____

Escrow Amount _____

NATURE OF THE REQUEST: (Please check the appropriate item(s))

- | | |
|--|---|
| <input type="checkbox"/> Planning Escrow-1042 | <input type="checkbox"/> Land Division-1090 |
| <input type="checkbox"/> Site Plan Review-1088 | <input type="checkbox"/> Subdivision Plat Review-1089 |
| <input type="checkbox"/> Administrative Site Plan Review-1086 | <input type="checkbox"/> Rezoning-1091 |
| <input checked="" type="checkbox"/> Special Exception Use-1085 | <input type="checkbox"/> Interpretation-1082 |
| <input type="checkbox"/> Zoning Variance-1092 | <input type="checkbox"/> Text Amendment-1081 |
| <input type="checkbox"/> Site Condominium-1084 | <input type="checkbox"/> Sign Deviation-1080 |
| <input type="checkbox"/> Accessory Building Review-1083 | <input type="checkbox"/> Other: _____ |

BRIEFLY DESCRIBE YOUR REQUEST (Use Attachments if Necessary): KCCDA requests a special exception

to the fencing requirements ordinance (section 78.200) due to the essential 9-1-1 and public safety service to be provided at this site. It is integral

for the 9-1-1/Dispatch Center to have increased security for the core operations of the facility. KCCDA proposes to install two separate types

of fencing - 8ft Decorative Fencing and 6ft Chain Link with 3 strands of barb wire - in accordance with the attached site plan drawings.

LEGAL DESCRIPTION OF PROPERTY *(Use Attachments if Necessary):*

Legal description attached as "Exhibit A"

PARCEL NUMBER: 3905- 05-34-230-049

ADDRESS OF PROPERTY: 7040 Stadium Drive, Kalamazoo, MI 49009

PRESENT USE OF THE PROPERTY: 5000 - OFFICE BLDG: KCCDA Admin Offices

PRESENT ZONING C COMM **SIZE OF PROPERTY** 3.42 Acres

**NAME(S) & ADDRESS(ES) OF ALL OTHER PERSONS, CORPORATIONS, OR FIRMS
HAVING A LEGAL OR EQUITABLE INTEREST IN THE PROPERTY:**

Name(s)

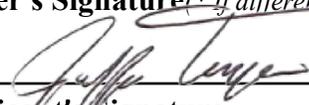
Address(es)

SIGNATURES

I (we) the undersigned certify that the information contained on this application form and the required documents attached hereto are to the best of my (our) knowledge true and accurate. I (we) acknowledge that we have received the Township's Disclaimer Regarding Sewer and Water Infrastructure. By submitting this Planning & Zoning Application, I (we) grant permission for Oshtemo Township officials and agents to enter the subject property of the application as part of completing the reviews necessary to process the application.

Owner's Signature *(* If different from Applicant)*

Date



Applicant's Signature

December 27, 2017

Date

- Copies to:
- Planning -1
- Applicant -1
- Clerk -1
- Deputy Clerk -1
- Attorney-1
- Assessor -1
- Planning Secretary - Original

PLEASE ATTACH ALL REQUIRED DOCUMENTS

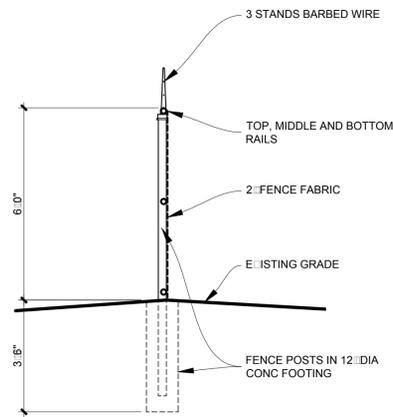
EXHIBIT A

Order No.: 391010519NBU

For APN/Parcel ID(s): 05-34-230-049

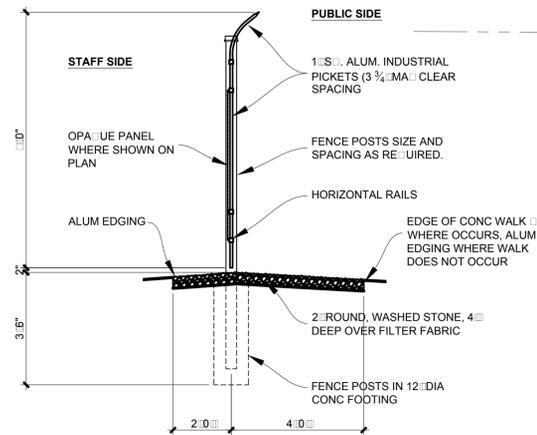
Part of the Northeast Quarter of Section 34, Township 2 South, Range 12 West, Oshtemo Township, Kalamazoo County, Michigan, described as:

Beginning at a Point on the East Line of Said Section 34 a Distance of 396.00 Feet South of the Northeast Corner of Said Section 34; Thence South on Said East Section Line 491.82 Feet to the Centerline of West Michigan Avenue; Thence South $75^{\circ} 07' 52''$ West on Said Centerline 205.12 Feet; Thence North $10^{\circ} 43' 45''$ West 403.69 Feet; Thence West Perpendicular to Said East Section Line 127.90 Feet; Thence North Parallel with the East Line of Said Section 34 a Distance of 144.14 Feet; Thence North $89^{\circ} 28' 20''$ East Parallel with the North Line of Said Section 34 a Distance of 400.91 Feet to the Point of Beginning.



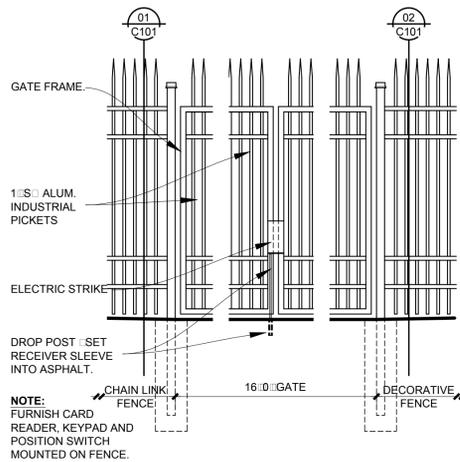
FENCE TYPE 2

SCALE: 3/8" = 1'-0"



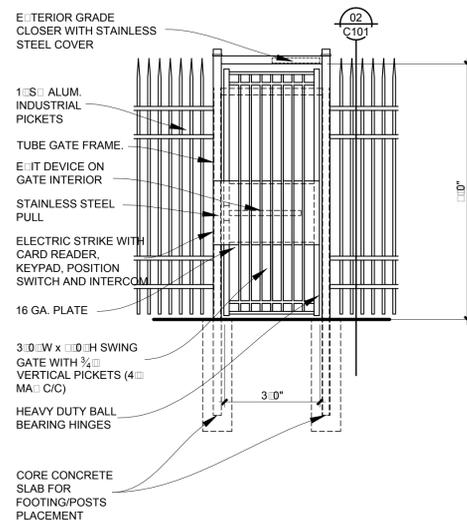
FENCE TYPE 1

SCALE: 3/8" = 1'-0"



FENCE TYPE 1 - VEHICLE GATE

SCALE: 3/8" = 1'-0"



FENCE TYPE 1 - PEDESTRIAN GATE

SCALE: 3/8" = 1'-0"

FENCES AND GATES

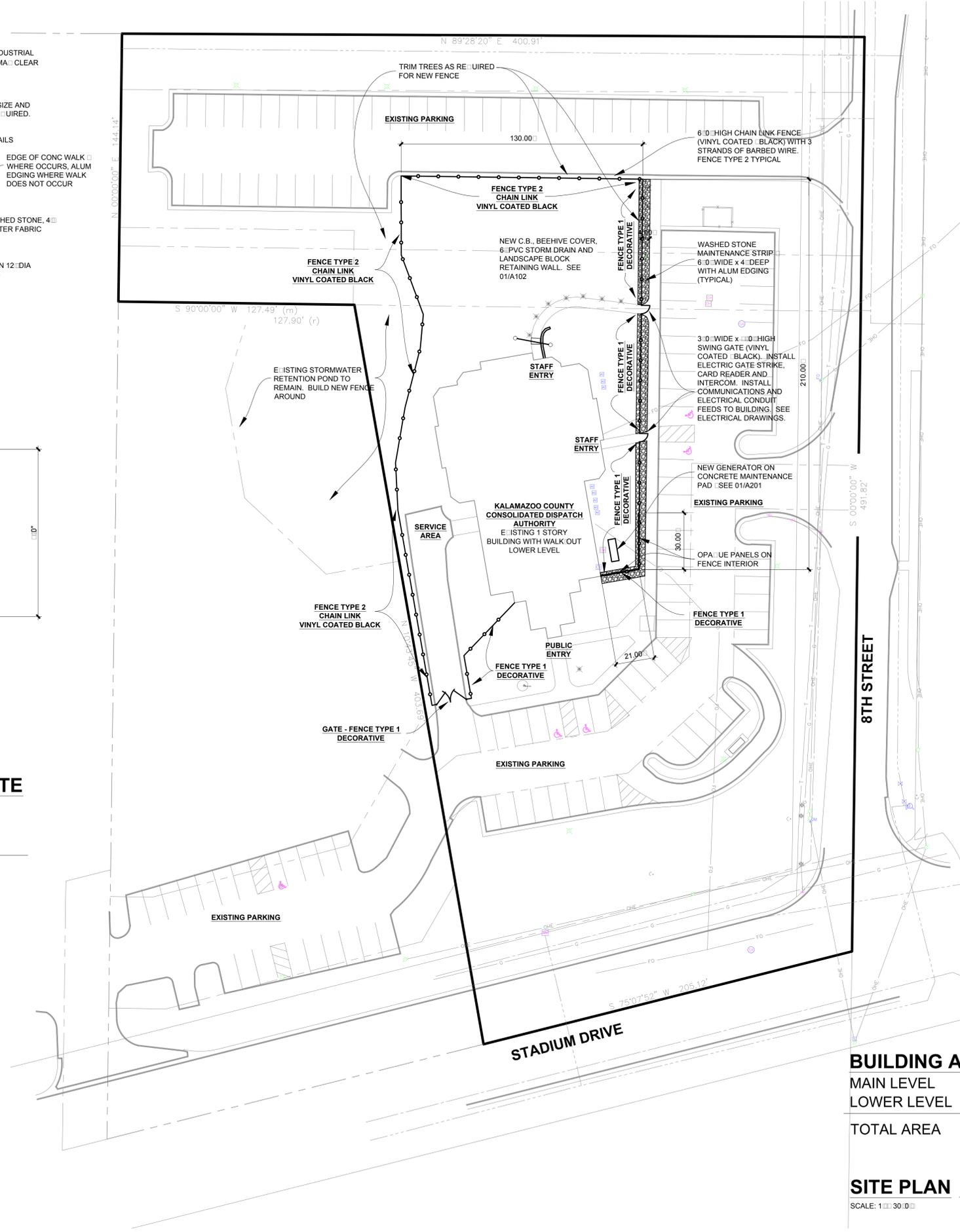
SCALE: 1" = 30'-0"

FENCE TYPE 1:

6'-0" OVERALL HEIGHT WITH 1 1/2" ALUMINUM POWDER COATED (BLACK) PICKETS AND POWDER COATED (BLACK) DECORATIVE POSTS.

FENCE TYPE 2:

6'-0" HIGH CHAIN LINK WITH 3 STRANDS OF BARBED WIRE. FENCE FABRIC, POSTS AND FITTINGS TO BE VINYL COATED (BLACK).



BUILDING AREAS:

MAIN LEVEL	9,612 S.F.
LOWER LEVEL	9,170 S.F.
TOTAL AREA	18,782 S.F.

SITE PLAN

SCALE: 1" = 30'-0"



KCCDA
Kalamazoo County Consolidated Dispatch Authority
Central Dispatch Building Renovation
Kalamazoo, Michigan

Landmark Design Group, P.C.
3113 Linden Ave, S.E., Suite A, Grand Rapids, MI 49541-3406
v: (616) 956-0606

Issued for:	Planning Commission Review
Date:	12.20.2017
Scale:	

Project Number:	
Landmark Project Number:	16.015

FENCE TYPE 2 (NORTH AND EAST PROPERTY BOUNDARIES):
 6'-0" HIGH CHAIN LINK WITH 3 STRANDS OF BARBED WIRE.
 FENCE FABRIC, POSTS AND FITTINGS TO BE VINYL COATED (BLACK).

FENCE TYPE 1:
 1'-0" OVERALL HEIGHT WITH 1" ALUMINUM POWDER COATED (BLACK) PICKETS AND POWDER COATED (BLACK) DECORATIVE POSTS.

VEHICLE GATE - FENCE TYPE 1:
 16'-0" W x 10'-0" H WITH 1" ALUMINUM POWDER COATED (BLACK) PICKETS AND POWDER COATED (BLACK) DECORATIVE FRAME.



SOUTH ELEVATION

SCALE: 1/8" = 1'-0"

FENCE TYPE 1:
 1'-0" OVERALL HEIGHT WITH 1" ALUMINUM POWDER COATED (BLACK) PICKETS AND POWDER COATED (BLACK) DECORATIVE POSTS.

FENCE TYPE 2 (NORTH AND EAST PROPERTY BOUNDARIES):
 6'-0" HIGH CHAIN LINK WITH 3 STRANDS OF BARBED WIRE.
 FENCE FABRIC, POSTS AND FITTINGS TO BE VINYL COATED (BLACK).

FENCE TYPE 1:
 1'-0" OVERALL HEIGHT WITH 1" ALUMINUM POWDER COATED (BLACK) PICKETS AND POWDER COATED (BLACK) DECORATIVE POSTS.

OPAQUE PANELS MOUNTED ON FENCE INTERIOR TO SCREEN GENERATOR

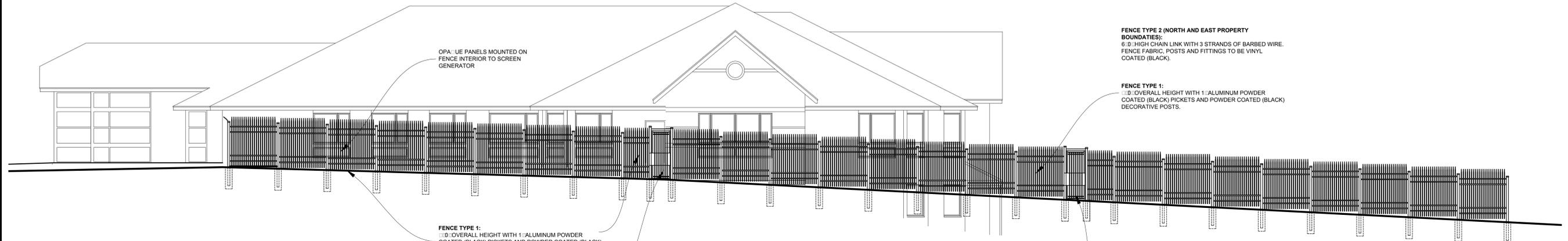
FENCE TYPE 1:
 1'-0" OVERALL HEIGHT WITH 1" ALUMINUM POWDER COATED (BLACK) PICKETS AND POWDER COATED (BLACK) DECORATIVE POSTS.

PEDESTRIAN GATE - FENCE TYPE 1:
 3'-0" W x 10'-0" H WITH 1" ALUMINUM POWDER COATED (BLACK) PICKETS AND POWDER COATED (BLACK) DECORATIVE FRAME.

PEDESTRIAN GATE - FENCE TYPE 1:
 3'-0" W x 10'-0" H WITH 1" ALUMINUM POWDER COATED (BLACK) PICKETS AND POWDER COATED (BLACK) DECORATIVE FRAME.

EAST ELEVATION

SCALE: 1/8" = 1'-0"



KCCDA
 Kalamazoo County Consolidated Dispatch Authority
 Central Dispatch Building Renovation
 Kalamazoo, Michigan

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Issued for:	Planning Commission Review
Date:	12/20/2017

Project Number:

Landmark Project Number:

16.015

Kalamazoo County Consolidated Dispatch Authority

7040 Stadium Drive

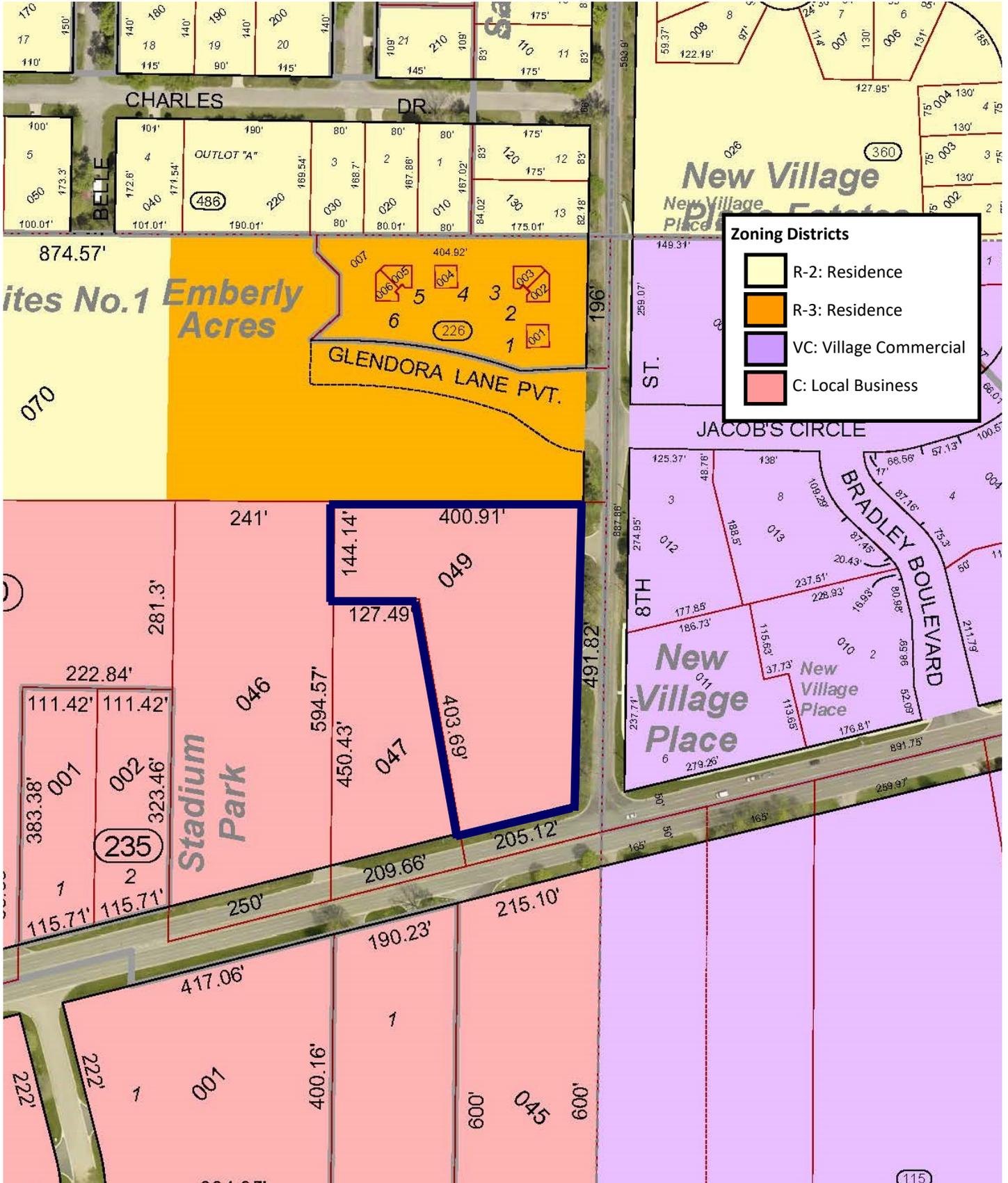
Special Exception Use - Fence Request.



Kalamazoo County Consolidated Dispatch Authority

7040 Stadium Drive

Special Exception Use - Fence Request.



ZONING - ORDINANCE

Section 78

78.000 - MISCELLANEOUS PROTECTION REQUIREMENTS

78.200 - Fences.

The requirements of this section shall apply to fences.

(Ord. No. 484, eff. Nov. 7, 2007)

78.210 - Construction, Material and Maintenance.

- A. All fences shall be of sound construction.
- B. All fences shall have the finish side facing out, away from the property on which the fence is located.
- C. No barbed wire, spire tips, sharp objects, or electrically-charged fences shall be erected in or abutting any residentially zoned district.
- D. Bona fide agricultural uses may use barbed wire or charged fences to control livestock.
- E. Security fences six feet high and above in industrial-zoned districts may include an additional 18 inches of barbed wire. Such barbed wire shall slant inward toward the property or be straight up. Security fences with barbed wire in other zoning districts shall require special exception use approval.
- F. All fences shall be maintained and not endanger life or property. Any fence which through lack of repair, type of construction or otherwise, endangers life or property is hereby deemed a nuisance.
- G. Swimming pools as defined in the Michigan Building Code shall be fenced in accordance with the requirements of the Code.

(Ord. No. 484, eff. Nov. 7, 2007)

78.220 - Location.

Except as specified below, fences may be placed up to the property line provided:

- A. No fence shall be placed within any public right-of-way or within the easement for private roads.
- B. On corner properties, no fence more than 30 inches in height shall be placed within 20 feet of the intersection of the abutting street rights-of-way or easements which interferes with traffic visibility across the corner.

(Ord. No. 484, eff. Nov. 7, 2007)

78.230 - Height.

- A. *"AG," "RR," "R-C," "R-1," "R-2," and "R-3" Zoning Districts.* All fences located within the identified zoning districts shall be limited to a maximum height of four (4) feet within the required front building setback area except as stated in SECTION 78.220.B. The maximum fence height in the side or rear yard shall be six (6) feet as measured from the grade on both sides of the fence. Fence height shall be measured from the grade of the lowest side of the wall when a fence is constructed on top of a wall.
- B. *"R-4" and "R-5" Zoning Districts.* All fences located within these specified zoning districts shall be limited to a maximum height of eight (8) feet regardless of which yard it is located in, except as stated in SECTION 78.220.B. Fence height shall be measured in the same manner as described in Paragraph A above. Any fence located in the required front building setback area shall be of a decorative enclosure type, constructed of either wrought iron or simulated wrought iron (pre-finished aluminum), or similarly decorative and durable materials as determined suitable by the appropriate reviewing body. Such fences shall have a maximum 50% opacity.
- C. *Other Zoning Districts.* Fences exceeding six (6) feet in height shall be subject to approval by the appropriate reviewing body.
- D. *Height Exceptions.* Multi-family and non-residential development requests undergoing site plan review may request a taller fence in side and rear yard areas that exceeds the height restrictions identified in Paragraphs A through C above as part of the site plan review process. The appropriate reviewing body may approve a fence up to the maximum building height of the underlying zoning district. In considering such a request, the appropriate reviewing body shall consider whether adequate clear vision is present, the impact on neighboring properties, and the unique site-related issues that warrant the request.

(Ord. No. 484, eff. Nov. 7, 2007; Ord. No. 518 eff. Apr. 28, 2011; Ord. No. 548 eff. May 31, 2013)

NENA Resource, Hazard and Vulnerability Analysis Information Document



NENA Hazard and Vulnerability Analysis Information Document

NENA-INF-019.2-2016 (originally 53-501 & 53-502)

DSC Approval: 08/16/2016

PRC Approval: 08/29/2016

NENA Executive Board Approval: 09/10/2016

Next Scheduled Review Date: 09/10/2018

Prepared by:

National Emergency Number Association (NENA) PSAP Operations Committee, Contingency Planning Subcommittee, Contingency Planning Document Review WG

Published by NENA

Printed in USA

3.4 Facility Environmental Concerns

3.4.1 Heating, Ventilation and Air Conditioning

Both staff comfort and as a means of entry into PSAP. HVAC should be monitored, alarmed and reported. [NFPA 1221 Standard for installation, maintenance and use of emergency communications systems section 4.4]

HVAC Issues: mold, filtration systems, HVAC failures and operations in an inhospitable environment

Internal Environmental Issues

Fire extinguishing system discharge

Hazards associated with fumes produced from construction, painting, cleaning etc.

Gas/Smoke/Fire Hazards

3.4.1.1 Backup Power/UPS & Generator Impact

UPS Battery off Gassing, outside factors. Air Filtration on back-up power. Fuel supply

3.4.2 Water and Sewage Infrastructure

3.4.2.1 Water Supply and Alternatives

Water supply integrity into PSAP, critical considerations water backup/flooding: PSAP Operations Area; leakage in critical areas (9-1-1 center, phone/demarc rooms; server/radio rooms). Power considerations to pump water prevent flooding.

3.4.2.1.1 Water/Sewage System Failure/Backup/Health Risks

When equipment is in contact with water/sewage there is an increased risk of electrocution when connected to a power source. Contact with sewage may expose employees to gases, bacteria, pathogens and other infectious hazards.

3.4.3 Equipment Reinforcement

Ensure servers, monitors and any other equipment that is vulnerable to falling is secured. This vulnerability maybe increased during earthquakes, tornadoes or other damages to the structural integrity of the facility.

3.4.4 Smoke/Fire detection and response

What level of smoke/fire detection is available? Does detection equipment meet the requirements of NFPA 1221: Standard for the installation, maintenance, and use of emergency services communications systems?

3.4.5 Facility Security

Security into and within the facility includes at the minimum:

- The ability to remotely secure areas or provide access to them.

- Keys, badging, levels of permissions to gain access to specific areas of the facility.
- Door control security systems should have redundant UPS power to assure ongoing controlled access capability if primary power backup systems fail.
- Surveillance video and recording in high security areas.
- Vendor control and procedures to monitor visitor and employee access.

3.4.6 Grounding

Is the facility and communications system properly grounded? Include, telephone equipment, communication towers, radio equipment, servers, modems, etc.

Grounding a power entrance, telephone demarc or coaxial cable entrance to a ground rod or other single 'earthing' point may be insufficient for most PSAPs.

PSAP equipment should be connected to a common ground with cables and connectors of sufficient size and installed in such a manner as to reduce the threat of lightning damage, stray current faults and noise. Older buildings, or buildings that have been expanded or improved, may have grounding systems that are isolated from each other, which could result in a difference of potential within the facility. This phenomenon can increase the risk of lightning damage.

PSAP Authorities should refer to industry standards and guidelines, and vendors to ensure their facilities are adequately grounded in accordance with accepted standards, especially in areas with frequent lightning.

3.4.7 Facility Integrity

Is the facility able to remain operational during disaster situation? What measures are in place to help preserve building integrity?

Secure Windows/Hurricane Shutters

Correctly Rated Structural Integrity for Building (NFPA Standards for communication centers)

Hazards on Premise

3.5 External Network Connectivity

PSAP Authorities should identify their voice, data and media network designs, providers and mission critical applications supported. PSAP authorities need to identify what redundancies or alternate plans you have in place. Who provides each of the connections? What are their service level agreements should there be an outage? Emergency contact list audits should be included in operational procedures to be verified semi-annually and before any anticipated major event.

3.6 Radio Communication

3.6.1 Network Failure

What degradation will occur with radio system failure? How is the radio network protected?



Mitigation Case Studies

Hardened First Responder Facility

911 Communication and Emergency Operations Center
Smith County, Texas

September 2003



FEMA

“ We were amazed at how many EOCs had structures that are not designed to resist any extreme loading event. We wanted to make sure our EOC could handle tornadoes. ”

— Jim Carlyle, Chairman of the Smith County Research and Planning Committee

SOURCE: EUBANKS & HARRIS ARCHITECTS, INC



Case Studies

SMITH COUNTY, TEXAS

FEMA Mitigation Case Studies

Smith County is located in east Texas, approximately 100 miles east of Dallas. It is largely rural, with only one metropolitan area, the City of Tyler. The Sheriff of Smith County and the Police Chief of the City of Tyler saw a need for a consolidated emergency operations and communications center that would serve the entire Smith County population. From past experience, they believed that this consolidation would reduce fragmentation and duplication of emergency services, and allow services to be provided in a more efficient and cost-effective manner.

The county has begun construction of a state-of-the-art facility that will serve as the centralized 911 communications dispatch and emergency operations center (EOC) for approximately 30 agencies (serving a population of approximately 175,000). Notable features of this 15,000-square-foot facility include a roof and exterior walls hardened to resist tornadic forces, a lobby designed to minimize blast effects, multiple security access levels, and an area specifically planned for press conferences, interviews, and other interaction with members of the media.



EUBANKS & HARRIS ARCHITECTS, INC.

Computer rendering of the Smith County 911 Communications Dispatch and Emergency Operations Center.



Ground clearing and construction of the Smith County 911 Communications Dispatch and Emergency Operations Center began in mid-October 2002.

Case Studies

SMITH COUNTY, TEXAS

Defining Essential Functions

In addition to its main role of providing 911 dispatch functions, the Smith County facility will serve as the EOC during times of disaster. It will be the primary coordination and control point for all counter-disaster efforts. Before designing this facility, Smith County defined seven essential functions that take place at an EOC before, during, and after a disaster:

Coordination. The EOC serves as the coordination point for the activities of emergency responder organizations (e.g., police, fire, and ambulance; American Red Cross; Salvation Army; and Federal, state, and local agencies), providing a centralized meeting, planning, and reporting facility.

Policy-making. Policies and procedures are often developed at an EOC in anticipation of disaster events. Ideally, these policies and procedures will ensure that the EOC and emergency response activities run as smoothly as possible.

Operations Management. The EOC serves as the central point for managing the deployment of personnel and resources for disaster mitigation, preparedness, response, and recovery in the field. Because the situation during a disaster is continuously changing, the staffing and resources must be able to keep up with these changes.

Information Management. Information pours into the EOC during a disaster. Data concerning the execution of disaster response, damage assessments, and recovery operations must be collected, analyzed, and distributed to the appropriate parties so that it can be acted on in an effective and timely manner.

Documentation. Information gathered at the EOC during a disaster becomes a vital tool in decision-making, both during and after times of emergency response. For example, documentation of damage levels can be used in GIS-based analyses that enable emergency workers to assess the effects of the disaster and compare them to the effects of other events. Furthermore, documentation of emergency response methods during a disaster event allows for future evaluation of what worked and what did not work. This information is often used to define “lessons learned,” which can help guide the development of future policies and procedures.

Public Information. The EOC is responsible for disseminating information about mitigation, preparedness, response, and recovery to the general public, the public at risk, and the media.

Hosting Visitors. Local and regional officials are ultimately responsible for the protection of citizens and public resources during disaster events. These officials, and others such as the President, may visit the site after a large disaster, and the EOC staff must be prepared to escort them through the EOC and designate an area where the visitors are permitted to observe the operations.



Computer renderings of the Smith County 911 Communications Dispatch and Emergency Operations Center.

EUBANKS & HARRIS ARCHITECTS, INC.

Evaluating Existing EOC Designs

After the essential EOC functions were defined, a Research and Planning Committee was created to visit communities with EOCs whose sizes and scopes of service were similar to those planned by Smith County. The purpose was to learn how the design and amenities of those facilities influence their operations. Committee members visited EOCs across the Nation and recorded features they liked and disliked at each site. The visits provided valuable information for Smith County, including elements the county wanted to incorporate into its new facility, as well as obstacles to be avoided.

Salt Lake City, UT - Lockers and showers were provided for employees' comfort.

Tyler, TX - Large screens were used to post critical information, which allowed all involved parties concurrent access to the same information so that their actions could be better coordinated.

Las Cruces, NM - Breakout rooms and radio rooms were located on the perimeter of the command center so that areas devoted to planning, operations, and communications were near each other.

Longview, TX - Employees emphasized the importance of having adequate storage space and special equipment rooms.

Belton, TX - Thumbprint recognition systems were used to control access to the most sensitive areas, and a room was designed specifically for addressing the media.

Conroe, TX - An area outside the command center was provided where visitors could observe the command center operations without interrupting workers.

Shreveport, LA - A workout room was provided on-site to promote good health and stress management.

Other cities marked on the map include Salt Lake City, Dallas, Shreveport, Las Cruces, Dallas, Longview, Tyler, Shreveport, Belton, Bryan, Conroe, Houston, and Orlando.

EOC Assessment Checklist

FEMA has developed an EOC Assessment Checklist to help state and local governments assess hazards that can affect an EOC and its vulnerabilities to those hazards. Architects and engineers will find this checklist useful in defining key features of the architectural, building system, and structural design of an EOC. The checklist is divided into six sections:

1. **Facility Features** - examines the physical features of the EOC
2. **Survivability** - examines the ability of the EOC to sustain the effects of a hazard event and continue operations after the event has occurred
3. **Security** - examines the protection of the EOC facility, its occupants, and communications equipment and systems from relevant hazards
4. **Sustainability** - examines the ability of the EOC to operate for extended periods of time without interruption
5. **Interoperability** - examines the extent to which the EOC shares common principles of operations and information exchange with local, state, and Federal jurisdictions
6. **Flexibility** - examines the ability of the EOC to adapt the scale and pace of its operations to the demands of specific hazard events

The EOC Assessment Checklist can be downloaded at <http://www.fema.gov/library/viewRecord.do?id=1936>.

EOC Assessment Checklist

INTRODUCTION

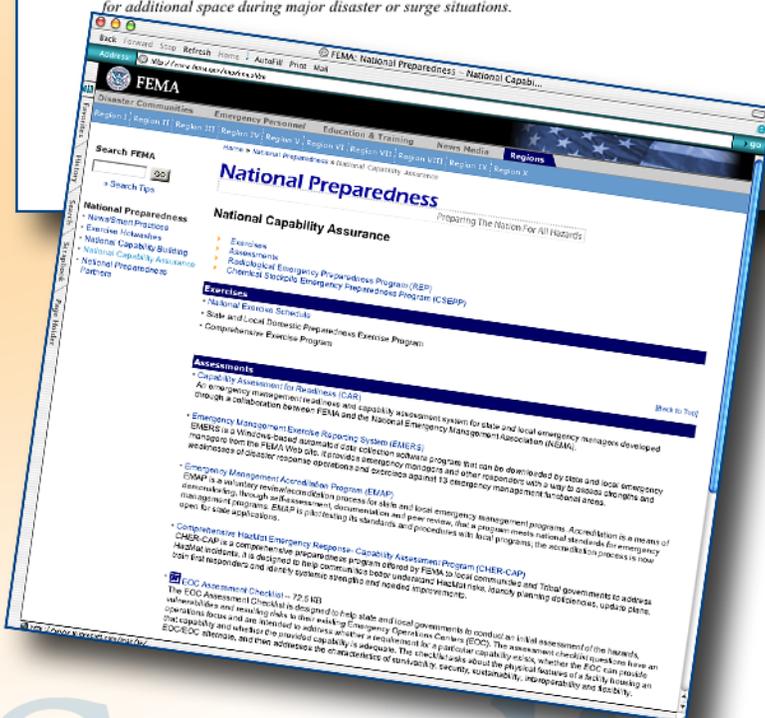
The following checklist will assist State and local governments in performing the initial assessment of the hazards, vulnerabilities, and resultant risk to their existing Emergency Operations Center (EOC), as described in the grant guidance for EOC Phase 1 of the FY 2002 supplemental funds. The questions have an operations focus and are intended to address whether a requirement for a particular capability exists, whether the EOC can provide that capability, and whether the provided capability is adequate. The checklist first asks questions about the physical features of a facility housing an EOC/EOC Alternate, and then addresses the characteristics of Survivability, Security, Sustainability, Interoperability, and Flexibility described in the grant guidance. The checklist may be used for State or local EOCs and, where applicable, State or local alternate EOCs. For this reason, some questions may warrant different responses depending on the type (State or local) or nature (primary or alternate) of the EOC.

When assessing the physical space of an EOC/Alternate EOC, include the area in square feet, the number of staff working a shift, and the ability to accommodate surge requirements. When assessing communications capabilities, provide sufficient detail to assess the adequacy of that capability. For example, for telephones consider the number of instruments available, the number of lines (telephone jacks) in a room, and the capabilities of the telephone switch (e.g., can the switch support additional telephone drops, if required for surge operations). For computers, consider the availability of network connectivity and the capability of the network to handle increased traffic as a result of the increased activity associated with emergency operations. For radio devices, provide sufficient information to describe the type of device (portable transceiver, radio console), quantity of devices on-hand, quantity needed to support operations (normal and surge), and whether that quantity is adequate. Consider the availability of batteries, chargers, and spares for portable devices.

The checklist is a guide and is not intended to be all-inclusive. In conducting the initial assessment, address other concerns or issues that may not be included in the checklist. Space is provided at the end of the checklist for this purpose.

FACILITY FEATURES

Facilities - examines the physical features of EOC facilities: siting, structure, available space. EOC spaces to consider are an operations area, conference rooms, communications center, secure communications room, and multi-use space. Multi-use space is space that is not dedicated to EOC operations, but can quickly be made available to support EOC requirements for additional space during major disaster or surge situations.



Site Considerations

One of the first steps in the successful design of an EOC is selecting an appropriate site. A prime consideration in site selection is that an EOC must remain operational during and after a disaster in order to perform its vital functions. Consequently, site selection depends largely on the identification of potential hazards that could impact the EOC and the surrounding communities. An EOC should be placed where these identified potential hazards will have the least impact on its operation, but where a timely response can still be made by emergency personnel.

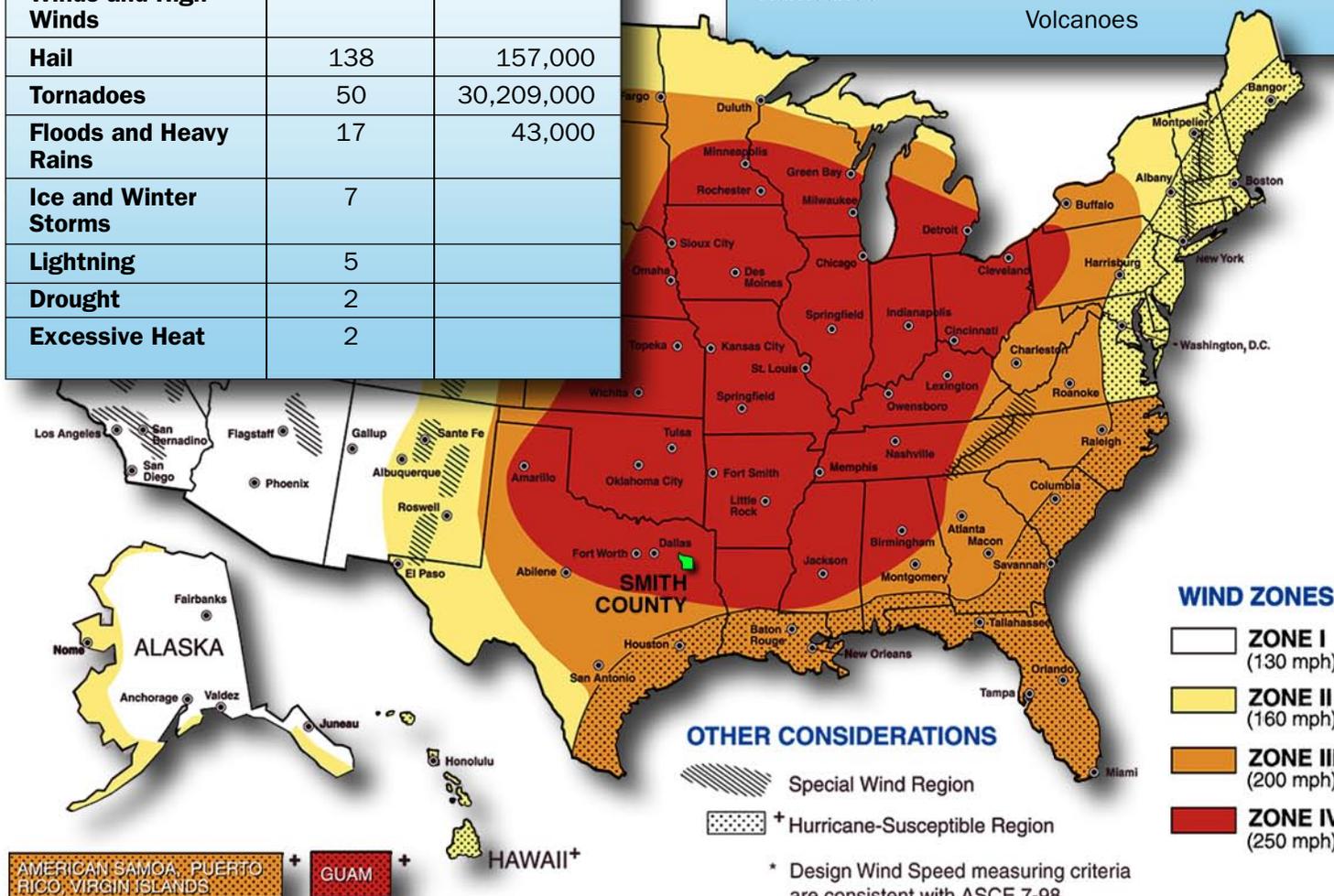
Natural Hazards

Natural hazards tend to be related to geographic regions – tornadoes in the Midwest, hurricanes and high winds in coastal areas, earthquakes in the West and Southeast, and heavy

Natural Hazards in Smith County (1950-2002)		
Hazard	Number of Incidents	Damage in Dollars
Thunderstorm Winds and High Winds	147	945,000
Hail	138	157,000
Tornadoes	50	30,209,000
Floods and Heavy Rains	17	43,000
Ice and Winter Storms	7	
Lightning	5	
Drought	2	
Excessive Heat	2	

Potential Natural Hazards	
Drought	Ice and Winter Storms
Earthquakes	Landslides
Excessive Heat	Lightning
Fires	Thunderstorm Winds and High Winds
Floods and Heavy Rains	Tornadoes
Hail	Tsunamis
Hurricanes	Volcanoes

DATA SOURCE: NOAA



winter storms in northern states. When EOCs are built in these areas, such hazards are usually unavoidable and must be taken into consideration in the physical design of the facility. Other regional hazards, however, such as flooding and landslides, are more easily avoided. For example, an EOC can be located outside the 500-year floodplain or on stable soils.

Smith County is in an area considered to be at high risk for severe tornadoes. In the past 52 years, the most frequently occurring natural hazard for the county has been high winds. Smith County has experienced approximately 200 high-wind incidents that have resulted in over 30 million dollars in damage.

Technological Hazards

The assessment of technological and human-generated hazards involves the investigation of surrounding facilities, infrastructure, and land use. Hazards include the following:

- industrial, manufacturing, or commercial facilities with the potential for industrial accidents or acts of malice
- potential terrorist targets
- hazardous materials storage facilities and transportation routes
- areas susceptible to inundation as a result of the failure of dams and levees

Sites in areas that encompass such identified potential hazards are, therefore, inappropriate locations for EOCs.

Potential Terrorist Targets

The U.S. Code of Federal Regulations defines terrorism as “the unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives.” Potential terrorist targets can be difficult to identify, but, in general, terrorists want media high-exposure and attention. They achieve this by targeting areas or facilities where damage will result in: (1) a potentially high number of casualties, (2) extensive media coverage, and (3) a disruption of everyday life. Potential targets include the following:

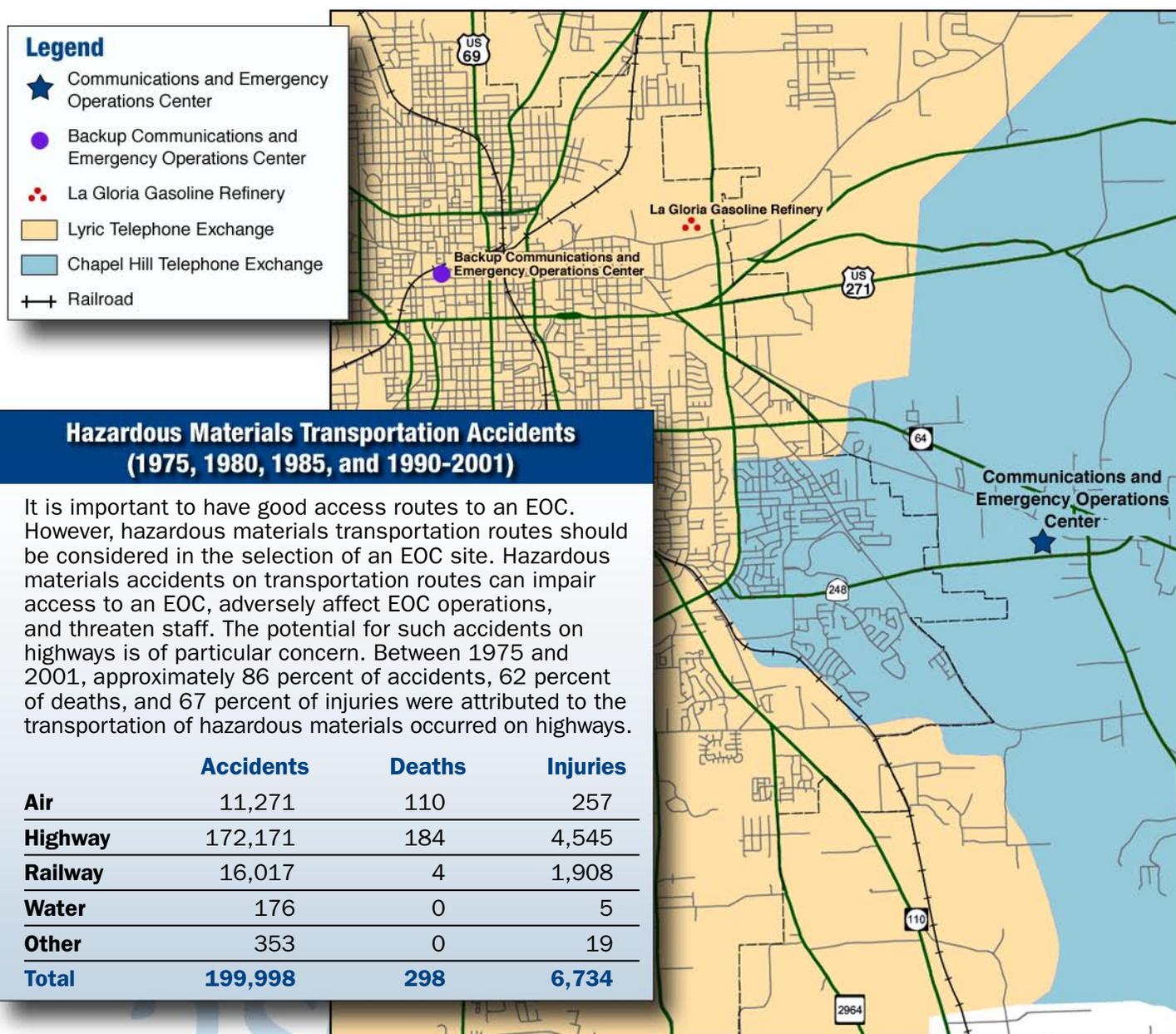
- Emergency Support Facilities**
 - Fire stations
 - Police stations
- Financial Facilities**
 - Banks
 - Credit card companies
- Government Facilities**
 - Courthouses
 - Federal/state/local offices
 - Post offices
- Health Care Facilities**
 - Clinics
 - Hospitals
- Industrial Facilities**
 - Chemical manufacturers
- Military Facilities**
 - Academies
 - Armories
 - Bases
- Political Icons**
 - Political party offices
 - Political rallies
- Research Facilities**
 - Animal testing facilities
 - Stem cell research facilities
- Tourist Attractions**
 - Concerts and theaters
 - Festivals
 - Landmarks
 - Sporting facilities
 - Theme parks
- Utilities**
 - Communications
 - Electricity (nuclear, hydroelectric)
 - Gas
 - Water supply

Potential Technological Hazards

- Fires**
- Floods (from dam and levee failures)**
- Hazardous materials releases**
- Nuclear accidents**
- Terrorism**
 - Agriterrorism
 - Armed attack
 - Arson/incendiary attack
 - Attack with biological, chemical, or radiological agent
 - Conventional bombing
 - Cyberterrorism
 - Hazardous materials release
 - Nuclear bombing

Smith County identified three major technological hazard siting considerations for its communications and emergency operations center:

1. The new facility had to be located in a different telephone exchange from the backup communications and emergency operations center so that the loss of telephone service in one exchange would not affect both facilities.
2. The La Gloria Gasoline Refinery (located within the city of Tyler) presents a major potential hazard for industrial accidents or acts of malice, so a site was chosen away from the refinery.
3. Two railways and two U.S. highways run through Smith County. Locating the EOC near any of these major transportation routes was avoided because they all may carry potentially hazardous cargo.

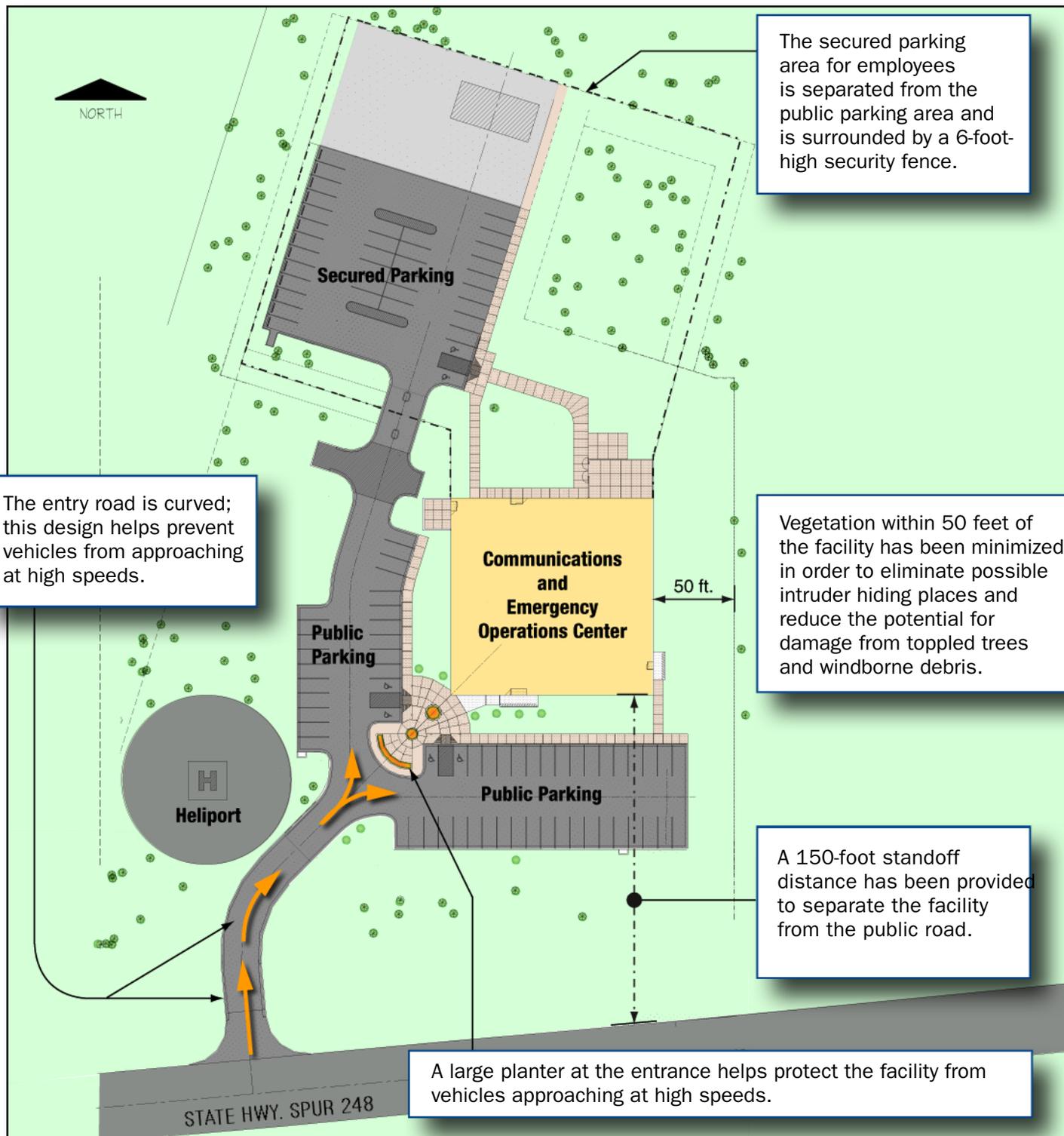


SOURCE DATA: http://www.bts.gov/publications/national_transportation_statistics/2002/

EXCEL FILE: http://www.bts.gov/publications/national_transportation_statistics/2002/excel/table_02_06.xls

Site Security Design

Once a site has been selected, the site design (e.g., building locations, access, parking, landscaping) must be developed. For an EOC, one of the main goals of site design is ensuring the security of the facility and its staff. Smith County addressed site security for its facility by providing secure parking, controlling vehicular access, locating buildings away from the site perimeter, and minimizing vegetative cover.



Structural Design

Because Smith County is in a region susceptible to severe tornadoes, the new communications and emergency operations center, including its utility and support systems, must be able to withstand the extreme wind pressures and windborne debris associated with a tornado.

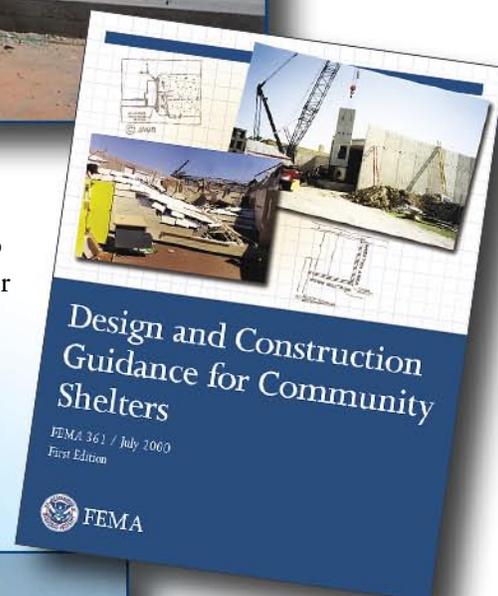
The project architects, Eubanks & Harris Architects, Inc., consulted FEMA 361: *Design and Construction Guidance for Community Shelters* to determine the specific design loads that the new communications and emergency operations center would have to be able to withstand. The facility's exterior walls and roof were designed to resist 250-mph (3-second gust) wind speeds and the impact of a 15-pound wood 2x4 traveling at 100 mph. Smith County's new facility will be eight times stronger than "typical" structures in the area built in compliance with the local building code, which requires buildings to resist 90-mph (3-second gust) wind speeds.

For the exterior walls, the architects chose to use a reinforced insulating concrete form (ICF) wall system. This type of wall system not only provides the needed strength to resist high-wind pressures and windborne debris impacts, but also has superior thermal resistance (R-rating) and sound reduction qualities.

The core of the facility contains the command center, breakout rooms, vault, and restrooms. Given the importance of the command center, the architects took the extra step of specifying ICF construction for the core area, thereby providing two layers of protection for the command center.



Erection of the reinforced ICF walls.



FEMA 361



Completed reinforced ICF walls.

The steel-truss roof system is rated to resist wind uplift pressures of 360 pounds per square foot (psf) versus the 90 psf used for general design. A reinforced concrete roof provides protection from windborne debris.

The architect's design ensured that loads would be transferred from the concrete slab roof to the roof structure, from the roof structure to the ICF supporting walls, from the ICF walls to the foundation, and from the foundation into the ground by specifying connections capable of transmitting the extreme wind loads.

All exterior windows and doors and security interior doors are bulletproof. The architects took great care to ensure that the window and door frames would be adequately connected. All exterior doors were specified to have six points of connection: three hinge points and three latching points as recommended by FEMA 361: *Design and Construction Guidance for Community Shelters*.



The lobby is designed to minimize the effects of a bomb blast in the lobby. The interior walls between the lobby and the facility will be hardened, while the exterior wall of the lobby will be of lighter, metal-stud construction. In the event of an explosion, the exterior wall would be blown out, directing the blast pressures away from the structure.



Construction of the steel-truss roof system.

Communications

An EOC serves as the central point for decision-making and coordination of response activities during and after an emergency or disaster; therefore, adequate communications capabilities are an essential part of EOC design. Required communications equipment includes telephones, radios, computers, fax machines, copiers, cellular phones, satellite phones, and supporting equipment such as batteries and chargers. Sufficient electrical, telephone, and network lines must be provided to support this equipment, and they must be protected from known threats. For example, utility lines at the EOC site should be installed in secure locations and designed to withstand the effects of hazard events. In addition, local and state Wide Area Networks (LANs and WANs) should be protected from cyber attack.

Building System Design

Four key concepts should be considered in the design of building systems for a critical facility:

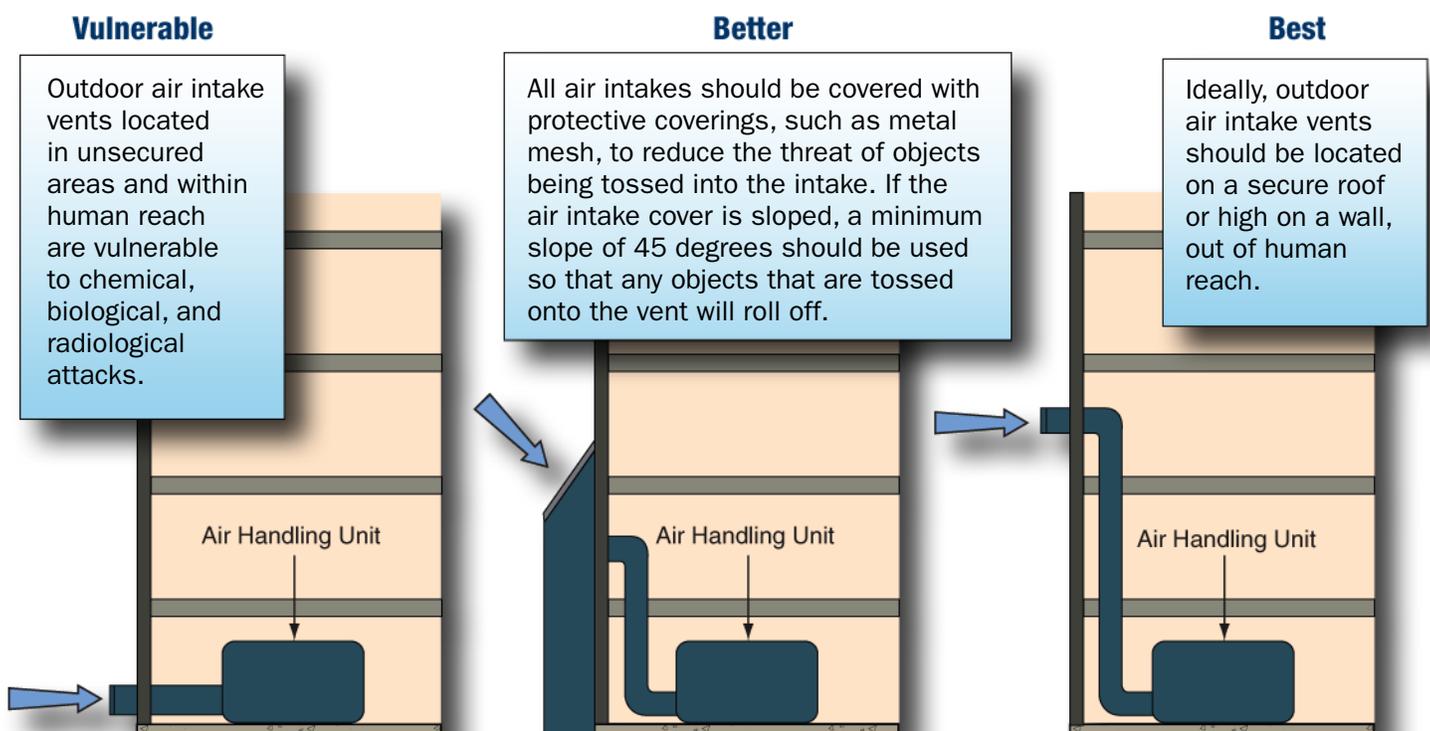
1. Backup systems should be provided.
2. All points of access to the systems – including entry points, control panels, and maintenance access – should be located in secured areas.
3. All systems should be protected from potential hazards.
4. All systems should be physically separated.

For example, Smith County's EOC will have an on-site emergency generator with the capacity to operate the entire facility and function independently from the normal electric service. The emergency generator will be housed in a secured, reinforced concrete masonry mechanical yard covered with a steel screen that will protect the generator from windborne debris impacts. In addition, external connections will be provided for portable generators that can supply power in case the backup generator fails.

A backup system will also be provided for the potable water supply. The facility will be connected to municipal water, but will also have a secured backup water well that can provide potable water if the municipal water service is interrupted or the water becomes contaminated or otherwise unusable.

The heating, ventilation, and air conditioning (HVAC) system will also include built-in redundant features to ensure that, if part of the system becomes inoperable, other units will be available to maintain the required temperature in areas of the building that contain sensitive equipment. In addition, the HVAC outdoor air intakes will be installed in secure areas.

The electrical, communications, and security systems will each have separate rigid conduits and control panels. This will minimize the likelihood of all systems being disabled by one incident.



SOURCE: DEPARTMENT OF HEALTH AND HUMAN SERVICES PUBLICATION: *Guidance for Protecting Building Environments from Airborne Chemical, Biological, or Radiological Attacks*

Controlling Access

Controlling access to an EOC is one of the most critical security concerns. The Smith County facility will have three levels of security access. The first level begins at the lobby and the employee parking area. An electronic access ID card will be needed to enter both areas. For visitors, the receptionist will be able to override the lobby security system and “buzz” them in. The second level of security access will require both an electronic ID card and an access code for entry into the facility from the lobby or the secured parking area. Entry into the command center and vault will require a third level of security access that incorporates an electronic ID card, an access code, and thumbprint recognition.

In addition to the various levels of access security, both the interior and exterior of the building will be monitored by video surveillance systems. Additional security will be provided by extensive exterior lighting, particularly at entrances and utilities, and near the limited vegetative cover allowed by the site plan.

One of the most important roles of the EOC is to disseminate information, particularly through the media. Disasters usually involve intense public interest, and EOC staff often must deal with media representatives who want updated information. Recognizing the importance of the media, Smith County included a special room for media interaction in the design of their facility. The media room will be accessible only from the secured employee parking area so that the media and general public are kept separate.

The secured employee parking area has been designed with additional space for media mobile units, and power outlets have been provided on the exterior of the building so that the mobile units can draw on the facility’s power supply. Electrical outlets have also been provided in the media room. A lounge and restrooms will be accessible to media, but access to the remainder of the building will not be allowed.

Human Factors

During a crisis, emergency workers often work 12- to 15-hour shifts at an EOC and frequently need to remain there for several days, including overnight. Additionally, an EOC can be activated for prolonged periods of time. Therefore, the Smith County facility was designed to be self-contained for 2 weeks at a time. It is equipped with enough cots and mattresses for 25 people, and is stocked with enough food to feed up to 50 people for 2 weeks. Washers and dryers are also available on site for employees, as well as showers and separate dressing rooms.

The extended EOC stays often required of emergency workers, the urgency of emergency response, and the need to deal with injuries, loss of life, damage, and destruction, all place extreme pressure and stress on emergency managers and staff. Recognizing the effects of this difficult working environment, the Research and Planning Committee put high priority on keeping the staff as comfortable as possible during their stay at the EOC. As a result, in addition to basic accommodations, several other features were included in the design of the facility.

The committee members learned from their visit to Shreveport, Louisiana, that an exercise area for employees can be extremely beneficial in helping to relieve the tension emergency workers experience during a crisis. Caddo Parish employees were overwhelmingly positive about the availability of their exercise area and the relief that physical activity offers. Therefore, a similar feature was included in the Smith County facility.

In addition, the Research and Planning Committee visited an EOC in Florida that had an interesting amenity – a secured courtyard that allowed employees access to the outside. Secured outdoor environments of this type are particularly useful when the EOC is located in a high-crime area. Although Smith County’s EOC is not in a high-crime area, a similar secured courtyard was included in its design. The open-air courtyard is adjacent to the break room and is surrounded by concrete masonry walls.

Useful References for Designing Critical Facilities

American Association of State Highway and Transportation Officials

A Guide to Highway Vulnerability Assessment for Critical Asset Identification and Protection, May 2002,
The American Association of State Highway and Transportation Officials' Security Task Force, Washington, DC
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Building Security Through Design: A Primer for Architects, Design Professionals, and their Clients, November 2001,
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Design of Blast Resistant Buildings in Petrochemical Facilities, 1997, American Society of Civil Engineers, ISBN: 0-7844-0265-5
<http://www.asce.org/bookstore/book.cfm?book=2805>

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<http://www.asce.org/bookstore/book.cfm?book=5581>

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http://engineering.tamu.edu/safety/guidelines/faclab/ASHRAE_Security_Rpt_12Jan02.pdf

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Publication No. 2002-139, *Guidance for Protecting Building Environments from Airborne Chemical, Biological, or Radiological Attacks*, May 2002, Cincinnati, Ohio
<http://www.cdc.gov/niosh/bldvent/2002-139.html>

Federal Emergency Management Agency

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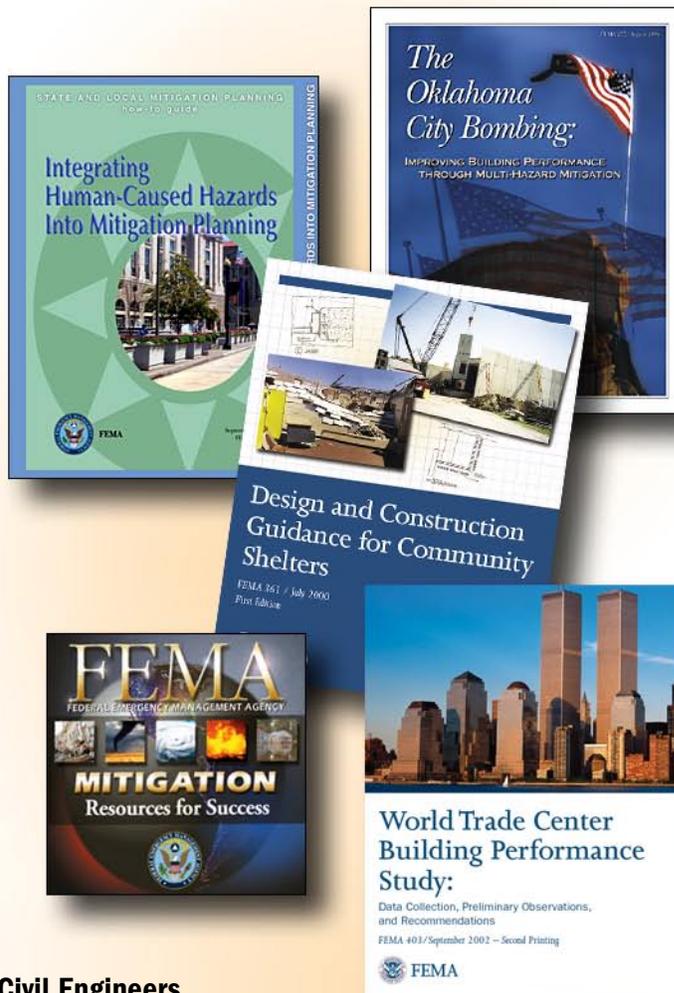
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FEMA 372, 2001. *Mitigation Resources for Success* (CD-ROM), Washington, DC

FEMA 386-7, *Integrating Human-Caused Hazards Into Mitigation Planning*, Washington, DC
<http://www.fema.gov/library/viewRecord.do?id=1915>

FEMA 403, 2002, *World Trade Center Building Performance Study: Data Collection, Preliminary Observations, and Recommendations*, Washington, DC
<http://www.fema.gov/library/viewRecord.do?id=1728>

FEMA EOC Assessment Checklist, Washington, DC
<http://www.fema.gov/library/viewRecord.do?id=1936>



Structural Engineering Institute of American Society of Civil Engineers

Structural Design for Physical Security: State of the Practice, 1999, Edward Conrath, et al., Reston, Virginia, Structural Engineering Institute of American Society of Civil Engineers
<http://www.asce.org/bookstore/book.cfm?book=3861>

U.S. Air Force

Entry Control Facilities Design Guide, October 2002, Air Force Center for Environmental Excellence
<http://www.afcee.brooks.af.mil/dc/dcd/gate/s00overview/home.html>

ESL-TR-87-57, *Protective Construction Design Manual*, November 1989; Contact Airbase Technologies Division (AFRL/MLQ) at Tyndall Air Force Base, Florida, by email at techinfo@afrl.af.mil. [Superseded by Army Technical Manual TM 5-855-1 (Air Force Pamphlet AFPAM 32-1147(I), Navy Manual NAVFAC P-1080, DSWA Manual DAHSCWEMAN-97), December 1997]

Expedient Hardening Methods for Structures Subjected to the Effect of Nonnuclear Munitions, October 1990, Wright Laboratory Report

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<http://www.wbdg.org/ccb/AF/AFDG/afinstal.pdf>

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<http://www.military-info.com/mphoto/new1j98.htm#engineer>

TM 5-855-1, *Design & Analysis of Hardened Structures to Conventional Weapons Effects*, August 1998 [Army Technical Manual TM 5-855-1 (Air Force Pamphlet AFPAM 32-1147(I), Navy Manual NAVFAC (Naval Facilities) P-1080, DSWA Manual DAHSCWEMAN-97) December 1997] [official use only]
<http://www.usace.army.mil/inet/usace-docs/armytm>

U.S. Department of Energy

DOE/TIC 11268, *A Manual for the Prediction of Blast and Fragment Loadings on Structures*, February 1992, Albuquerque NM, Southwest Research Institute

U.S. Department of Housing and Urban Development

Creating Defensible Space, April 1996, Oscar Newman, Washington, DC
<http://www.huduser.org/publications/pdf/def.pdf>

U.S. Department of the Treasury / Bureau of Alcohol, Tobacco and Firearms

Vehicle Bomb Explosion Hazard And Evacuation Distance Tables, 1999, send in a written request to the following to receive a copy: Bureau of Alcohol, Tobacco and Firearms, Arson and Explosives Programs Division, 800 K Street, NW, Tech World Suite 710, Washington, DC 20001

U.S. Navy

Design Manual (DM) NAVFAC (Naval Facilities Command), NAVFAC DM 2.08, *Blast Resistant Structures*, December 1986
http://www.wbdg.org/ccb/NAVFAC/DMMHNAV/dm_08.pdf

TechData Sheets - Naval Facilities Engineering Service Center (NFESC)

TDS-2062-SHR, *Estimating Damage to Structures from Terrorist Bombs*, September 1998 [official use only] Requests for publication can be made to Naval Facilities Engineering Service Center, Security Engineering Division (ESC66), 1100 23rd Ave, Port Hueneme, CA 93043-4370, (805) 982-1582 (Primary), (805) 982-4817 (Alternate), (805) 982-1253 (Fax)

TDS-2063-SHR, *Blast Shielding Walls*, September 1998 [official use only] Requests for publication can be made to Naval Facilities Engineering Service Center, Security Engineering Division (ESC66), 1100 23rd Ave, Port Hueneme, CA 93043-4370, (805) 982-1582 (Primary), (805) 982-4817 (Alternate), (805) 982-1253 (Fax)

TDS-2079-SHR, *Planning and Design Considerations for Incorporating Blast Mitigation in Mailrooms*.

For copies, contact Defense Printing Service, Building 40, 700 Robbins Avenue, Philadelphia, PA 19111-5094, (215) 697-2179 (Primary), (215)697-1462 (Fax)



The Smith County 911 Communications Dispatch and Emergency Operations Center nears completion.

February 1, 2018



Mtg Date: February 8, 2018
To: Planning Commission
From: Julie Johnston, AICP
Re: Adam Garland Construction Concept Plan

Adam Garland Construction is currently housed at 6825 Stadium Drive, which is zoned within the Village Commercial District and is included in the Village Form Based Codes. Mr. Garland would like to complete some improvements on his property, which include:

1. Aesthetic improvements to the existing residential home which has been converted to an office.
2. Asphalt drive from Stadium Drive moving south to terminate behind the home.
3. The development of some onsite parking for staff and the occasional client.
4. The addition of a 40-foot by 60-foot (2,400 square foot) storage building attached to the existing accessory structure on site.

The location of this parcel within the Village Fringe area of the Form-Based Codes provides some difficulties for the expansion of the accessory structure. The building is considered nonconforming to the requirements of the Form-Based Code. The following requirements apply to accessory structures:

34.420 Building Type Distribution

D. Accessory Buildings.

1. *Accessory buildings shall be permitted in the Village Overlay District as set forth in SECTION 78.800 of this Ordinance unless otherwise stated herein.*
2. *All buildings shall be approved through the site plan and special exception use process.*
3. *Accessory buildings shall not be permitted in the Village Core.*
4. ***Accessory buildings in the Village Fringe shall be permitted in the rear yard only.*** *Accessory buildings in the Corridor East sub-district shall be permitted in the side or rear yards.*
5. ***Where permitted, accessory buildings shall adhere to all location and placement standards for a primary building on that property.***
6. ***The accessory building shall be of a similar design, character, materials, and appearance as the primary structure and shall not exceed the size of the primary structure.***

The highlighted regulations are the ones that directly apply to Mr. Garland's request. The two main concerns are the requirement regarding location and placement of the accessory building and that the size shall not exceed the primary structure.

First, the regulations for placement of accessory buildings are difficult to understand. Section 34.420.D.4 indicates that accessory buildings should be in the rear yard but the later regulation (Section 34.420.D.5) states they should adhere to all location and placement standards of the primary building. According to Section 34.410.B.2, "Workplace Buildings" within the Village Fringe, similar to the converted residential home where Garland Construction is housed, should have a build-to line of five to 10 feet from the right-of-way. Per Section 34.420.D.5, the accessory building should have a similar placement. As this request is an addition to an existing structure, meeting this requirement is impossible.

The second concern relates to the limitation on size. The residential home located on this parcel, which has been converted into an office building, is approximately 1,016 square feet. There are currently two existing accessory buildings on the parcel, a garage and a storage building, totaling 672 square feet. Any accessory structure addition could not exceed 344 square feet, which would not meet the needs of the construction company.

The Form-Based Codes provide some flexibility for nonconforming structures, however the language clearly indicates that any additions should comply with the Ordinance, as follows:

34.930 Nonconforming uses and structures. *This section establishes regulations for nonconforming uses and nonconforming structures. This SECTION is intended to allow nonconforming uses and structures to continue to the extent consistent with the health, safety and public welfare purposes of this Ordinance. However, the ultimate goal is to bring such nonconforming uses and structures into compliance with the Ordinance.*

C. Nonconforming buildings or structures. Buildings or other structures that are nonconforming as to placement, frontage, height, design, or other zoning regulations contained in these Overlay standards or elsewhere in this Ordinance may be repaired, replaced, or added to, only to the extent permitted by this section:

- 1. Additions. A nonconforming building or other structure may be added to, provided that the portion of the building or other structure comprising such addition **complies with all requirements of this SECTION 34.***

Based on this regulation, Mr. Garland's addition would not be possible because of its size and location. However, the Form-Based Codes also includes a Section that allows the Planning Commission to modify the standards of the Ordinance. Per Section 34.920.B.3 and 4, build-to zone and the architectural standards of the Form-Based Code may be modified. In addition, Section 34.920.C states the following:

C. Modification due to adjacent development. The Planning Commission may consider modifications to the development standards of this Overlay District so that the proposed development will better fit with adjacent development. When considering the modification, the Planning Commission shall consider the following:

- 1. The anticipated lifespan of the adjacent development,*

2. *Whether the development with the proposed modification is of equal or better quality than without the modification, and*
3. *Whether the modification will limit the ability of the Township to achieve the goals of the Overlay District.*

Adjacent development to 6825 Stadium Drive consists of a single-family home to the immediate east of the subject parcel, Williams Distributing to the immediate west, a cell tower facility to the south and Pinehurst Apartments across Stadium Drive to the north. The general formation of parcels along the south side of Stadium Drive are narrow and exceeding long. The parcel in question has 150 feet of frontage but is 1,232 feet long. Adjacent parcels are very similar in configuration. This contributes to the limitation of development on these lots.

The concept plan proposed by Mr. Garland will improve the site tremendously from its existing condition. It is not likely that this parcel would convert back to a residential home. Therefore, any improvements to the site to bring it to current standards for development for such things as an asphalt drive and parking, resolution of storm water runoff, improved appearance of the structures, landscaping, etc., required as part of site plan review, would be an enhancement to the area.

Based on the modification allowance under Section 34.920.C, staff recommended Mr. Garland present his concept plan to the Planning Commission for consideration. At this time, Mr. Garland is looking for feedback from the Planning Commission before investing in the development of site plans and elevation drawings for a formal submittal. If the Planning Commission is amenable to the expansion of the accessory building on site, Mr. Garland would submit a formal application to be reviewed by the Planning Commission with the understanding that the request could be approved under Section 34.920.C.

Attachments: Concept Plan

Adam Garland Construction

6825 Stadium Drive

Concept Plan Review

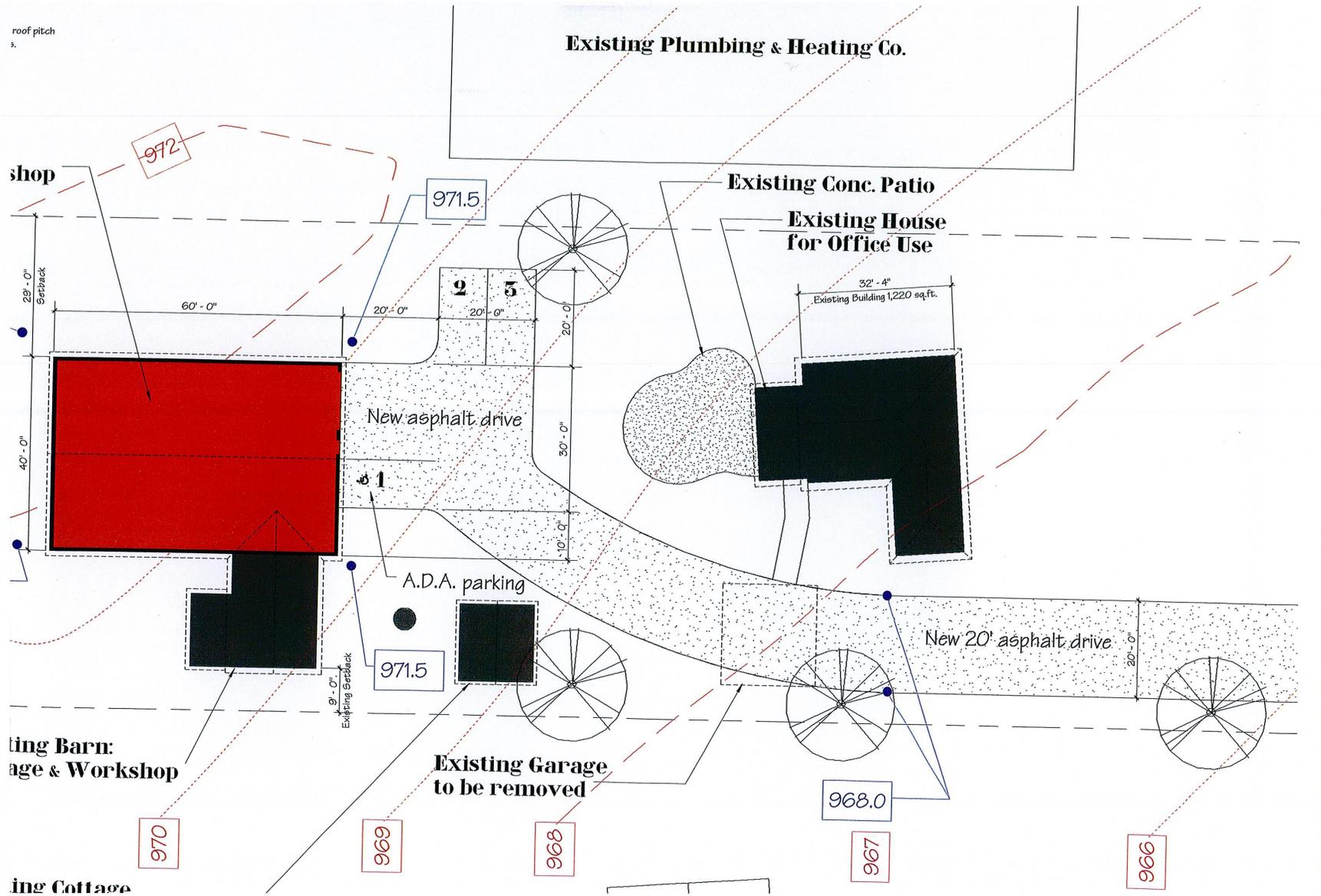


Adam Garland Construction

6825 Stadium Drive

Concept Plan Review

roof pitch
3.



Adam Garland Construction

6825 Stadium Drive

Concept Plan Review





January 31, 2018

Mtg Date: February 8, 2018
To: Planning Commission
From: Julie Johnston, AICP
RE: BTR 2.0 Street Name

Western Michigan University (WMU) would like to begin construction of the infrastructure for the new Business Technology Research (BTR) Park 2.0 in the summer of 2018. As part of that development, a new public road will be built. WMU would like to name the new road "Robert Jones Way."

According to Mr. Robert Miller, Associate Vice President for Community Outreach, the road name was chosen because Mr. Jones was an advocate for the BTR Parks and because of his position with the community as the Mayor of Kalamazoo and a State legislator. Mr. Jones' family has been apprised for the request and is in agreement with the naming.

The name has been submitted to the Road Commission of Kalamazoo County and the County Planning and Development Department. Both agencies are in agreement with the name.

Per past practices, the Planning Commission would make a recommendation to the Township Board regarding the requested name. Staff has no concerns at this time.

Attachments: Letter from County Planning and Development
BTR 2.0 Site Plan



KALAMAZOO COUNTY GOVERNMENT

In the Pursuit of Extraordinary Governance...

January 19, 2018

Robert Miller
Associate Vice President
Community Outreach
Western Michigan University
Bob.miller@wmich.edu

Dear Mr. Miller:

This letter confirms the proposed street name of **Robert Jones Way** for the new road for BTR 2.0 project in section 25, Oshtemo Township.

Please be advised that the subject street name is approved and has been reserved in the Kalamazoo County Street Name Directory.

Planning Department's recommendation is a non-binding advisory opinion. All street name recommendations by the Department of Planning and Community Development are subject to review by the municipality and/or the Kalamazoo County Road Commission.

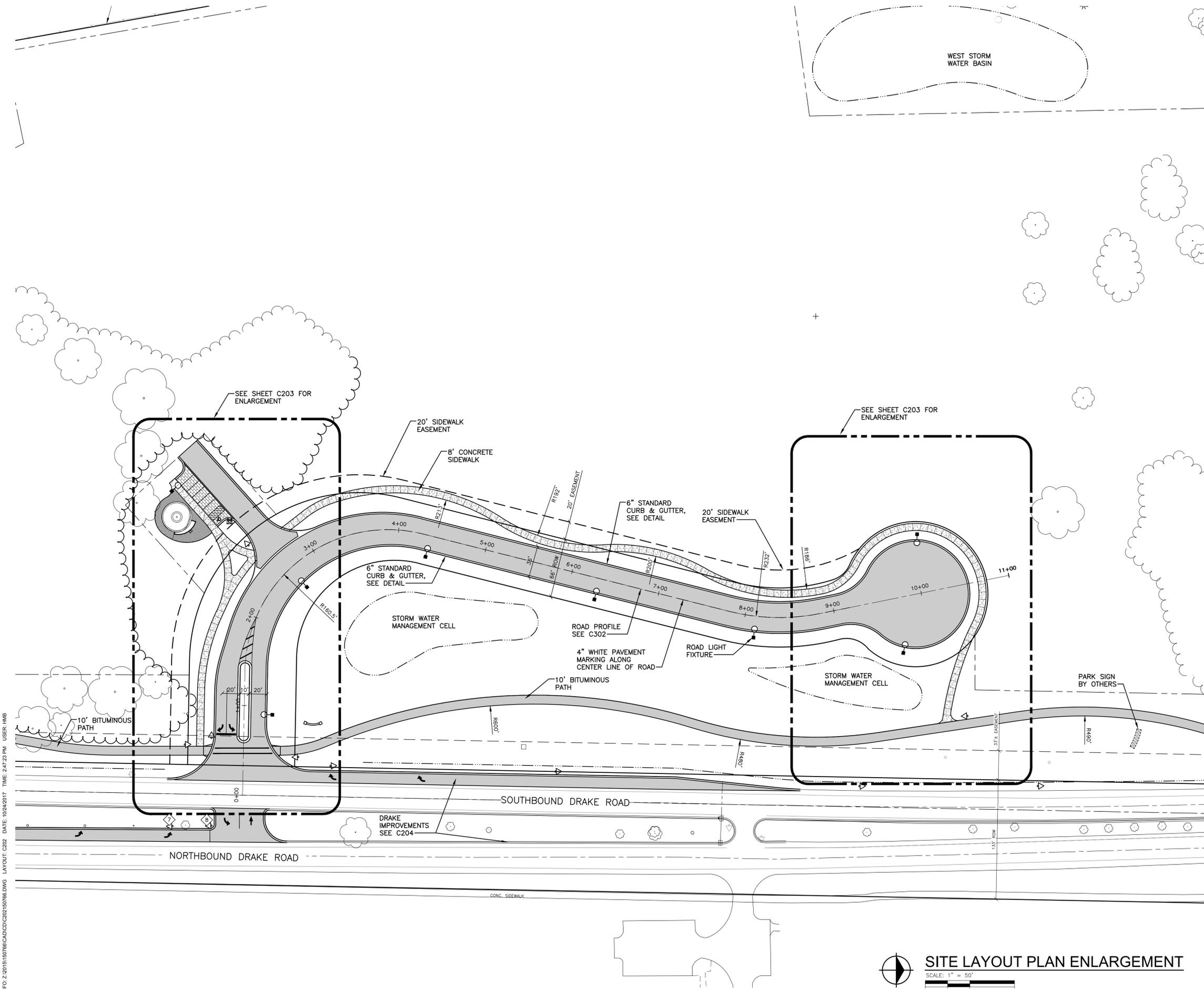
Should you need further information or have questions regarding this matter, please feel free to contact me at your earliest convenience.

Sincerely,

PLANNING & DEVELOPMENT DEPARTMENT

Lotta Jarnefelt
Director

cc: Libby Heiny-Cogswell, Oshtemo Township libbyhc@oshtemo.org
RCKC, info@kalamazooountyroads.com
USPS Kalamazoo, 49009DUCKKalamazooPOSTMASTER@usps.gov
USPS Grand Rapids, GMDAMS@usps.gov
Kalamazoo County GIS, Chris Bessert, cjbess@kalcounty.com
2002



SYMBOL LEGEND

	ASPHALT PAVEMENT
	CONCRETE PAVEMENT
	CONCRETE SIDEWALK
	EXPANSION JOINT
	PARKING SPACE COUNT
	SITE LIGHT POLE

- NOTES**
- COUNTY ROAD EXCAVATION: ALL UNSUITABLE MATERIAL MUST BE REMOVED TO A DEPTH OF 2' BELOW TOP OF SUBGRADE FOR COUNTY ROAD, OR AS DIRECTED BY THE COUNTY ENGINEER, AND BACKFILLED WITH MDOT GRANULAR MATERIAL CLASS III.
 - DIMENSIONS ARE TO BACK OF CURB, OUTSIDE FACE OF BUILDING, AND EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

- ◆ SIGN LEGEND/KEY NOTES**
- EXISTING SIGN TO REMAIN
 - NO PARKING
 - DO NOT ENTER
 - NON-MOTORIZED PATH
 - NO CROSSING; BIKE PATH CONTINUES ALONG ROAD.
 - RIGHT TURN ONLY
 - LEFT TURN ONLY
 - STOP SIGN
 - NO OUTLET



Western Michigan University
 Oshtemo Township, Michigan
 Business Technology and Research Park Phase 2

10/24/2017 90% OWNER REVIEW
 Drawn By MB2
 Designer HMB
 Reviewer
 Manager RDM

Hard copy is intended to be 24"x36" when plotted. Scale(s) indicated and graphic quality may not be accurate for any other size.

PROJECT NO.
G150766
 SHEET NO.

C202

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PLOT INFO: Z:\01\1510786\CAD\CAD\C202\1510786.DWG LAYOUT C202 DATE: 10/24/2017 TIME: 2:47:23 PM USER: HMB

SITE LAYOUT PLAN ENLARGEMENT
 SCALE: 1" = 50'
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