

# THE NEW **W. EDWARD BALMER SCHOOL**

## WHITINSVILLE, MASSACHUSETTS



## SCHOOL BUILDING COMMITTEE MEETING

JUNE 12, 2019



Massachusetts School Building Authority  
*Funding Affordable, Sustainable, and Efficient Schools in Partnership with Local Communities*



# AGENDA

- CD Progress Report
- Follow up to VE Pricing – Won-Door
- Proprietary Items – *no new update*
- Existing Balmer Electrical Issues
- Emergency Mass Notification System
- Construction Logistics Plan Update
- 60% CD Cost Estimate Update



# CD PROGRESS REPORT

- 5/30 Code Officials Meeting
- 6/3 Electric Vehicles Telecon
- 6/4 Teachers and Parents Information Meetings - Construction
- 6/4 60% Cost Estimates submitted – Fontaine and PM&C
- 6/5 Conservation Commission – closed hearing, approved project with conditions
- 6/7 60% CD Estimate Reconciliation at SMMA
- 6/8 Neighborhood Information Meeting
- 6/10 Site Subcontractor De-Scoping Meetings
- 6/11 Foundation coordination conference call with Fontaine
- 6/12 MSBA Design Status Meeting

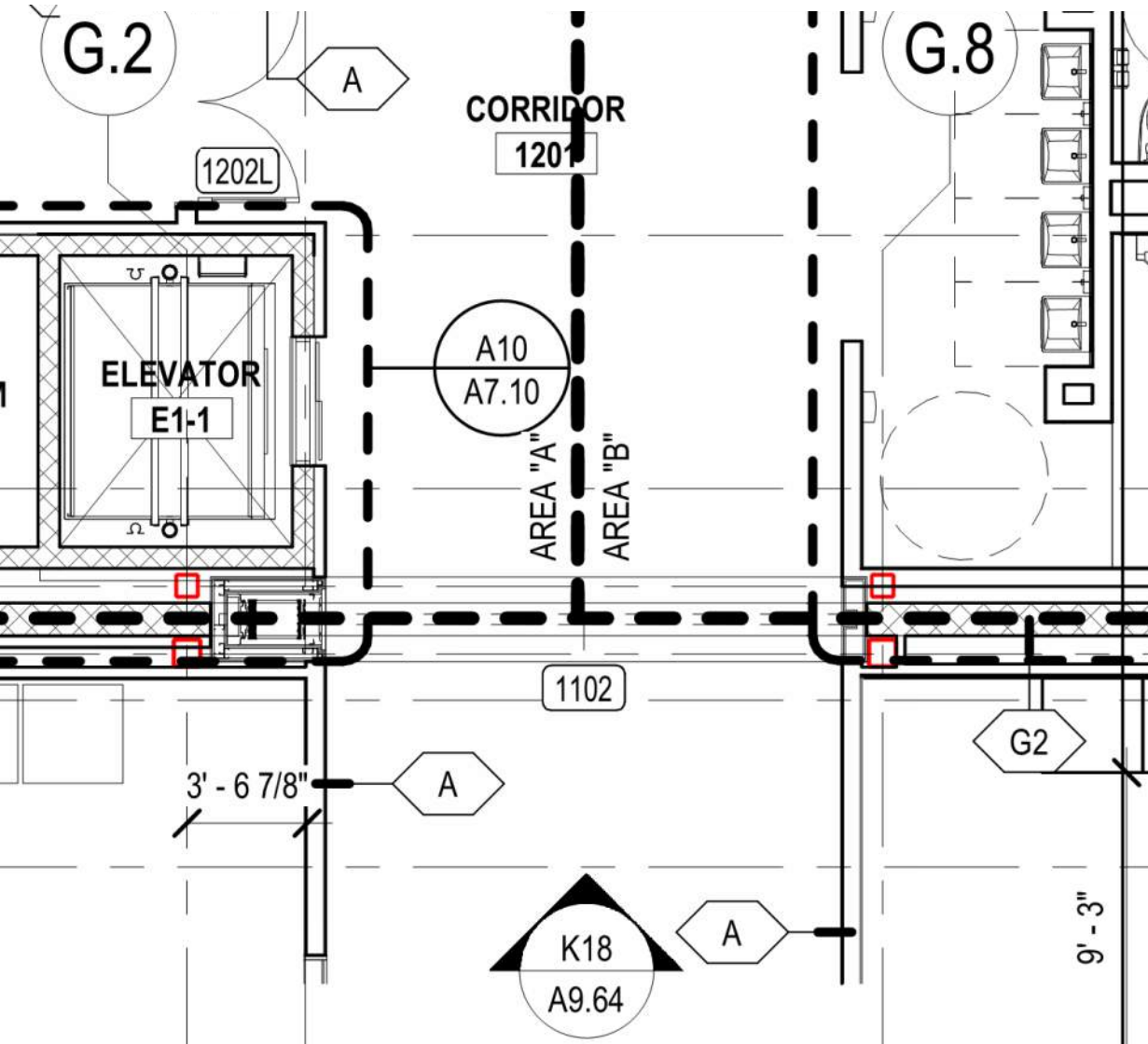
**Ongoing:** Internal coordination, consultant coordination, conference calls. Drawing & Specification progress.

**Next Deadline: 6/18/19 – 60% CD MSBA submission**





# VE LIST: "WON-DOOR"



Double egress  
fire doors in  
open position



Won-Door  
open position

- Accepted by Fire Chief and Building Inspector



# VE LIST: “WON-DOOR”

	Architectural, Interior Items:		
A09	Provide swinging full-height fire doors [(2) pairs @ 4' w x 9' tall] ILO "Won-Door" sliding fire door (3 levels)	(\$66,932)	DW TO PROVIDE MAINTENANCE INFO

- Annual maintenance estimate ~\$650-\$700
- Typical repair cost - service call average <\$500.
- Won-door offers maintenance agreements
- Annual testing required – part of maintenance
- Life expectancy 25-30 years – similar to major mechanical equipment

# “WON-DOOR” OWNER COMMENTS

Holbrook School, Holbrook, MA

Michael Bolger, Director of Facilities

- Non-fire rated horizontal door, used for security
- Same push-to-egress function, opens 4'-0" with green push par
- Need to manually reset
- This door is wired to open when the alarm is activated, opposite of our design, but similar circuitry
- Very reliable, used 60-70 days/year, no trouble
- Service yearly, about \$400/ year
- Advice: write master key system into Hardware spec
- Happy to have anyone come and see it



# THE NEW NORTHBRIDGE ELEMENTARY SCHOOL

WHITINSVILLE, MASSACHUSETTS



## NEIGHBORS INFORMATION PRESENTATION

JUNE 8, 2019



Massachusetts School Building Authority  
*Funding Affordable, Sustainable, and Efficient Schools in Partnership with Local Communities*





# AGENDA

- **Site Plan Overview**
- **Exterior Design Images**
- **Site Safety**
- **Schedule & Logistics**
- **Project Phasing & Site  
Circulation Diagrams**
- **Project Management**
- **Communication Channels**



# SITE & LANDSCAPE DESIGN PLAN

- Two site entrances
- Two-way circulation
- Emergency access behind school
- 246 parking spaces
- All athletic amenities reconstituted on-site – no net loss of fields





# SITE DESIGN PLAN (DETAIL)

- Separate bus and parent drop-off loops, Pre-K park-and-drop lot
- Protected pedestrian circulation, minimal crossings
- Lower and Upper age-specific playgrounds
- Outdoor learning spaces





# EXTERIOR MATERIALS



APPROACH TO  
MAIN ENTRANCE





AERIAL VIEW OF GRADES PK-2 PLAYGROUND





VIEW OF GRADES 3-5 PLAYGROUND





OVERALL SOUTHWEST AERIAL VIEW



# WE WILL ENSURE

- o SAFETY WILL BE A TOP **PRIORITY**
- o CONSTRUCTION WILL BE **SEPARATED** FROM SCHOOL **ACTIVITIES**
- o CURRENT **SCHOOL TRAFFIC** WILL CONTINUE **UNINTERRUPTED**
- o DAILY **COMMUNICATION** WITH THE SCHOOL AND NEIGHBORS
- o WE WILL **CLOSELY MONITOR** AND **MINIMIZE THE IMPACT OF ALL** DUST, NOISE, AND VIBRATION FOR THE  
NEIGHBORS AND THE SCHOOL
- o ALL **CONSTRUCTION TRAFFIC** AND **DELIVERIES** WILL BE **PROHIBITED** DURING SCHOOL DROP OFF AND  
PICK UP HOURS
- o ALL CONSTRUCTION PARKING WILL BE **ON-SITE, WITHIN THE CONSTRUCTION ZONE**
- o ONLY **CORI APPROVED** WORKERS WILL BE ON-SITE



# CONSTRUCTION TIMELINE

## June 2019

- o Mobilize
- o Install erosion controls, site fence
- o Begin clearing and grubbing
- \*\* Please relocate any items beyond property line by June 28, 2019

## July 2019

- o Continue earthwork, logistics work around existing school

## August 2019

- o Complete logistical reconfiguration, continue earth moving

## September 2019 – December

- o Earthwork, foundations

## December 2019 – March 2020

- o Foundations, steel erection

## March 2020 – April 2021

- o Complete Phase 1 Construction / New Building

## June 2021 – December 2021

- o Abate / demolish Balmer, complete Vail Restoration

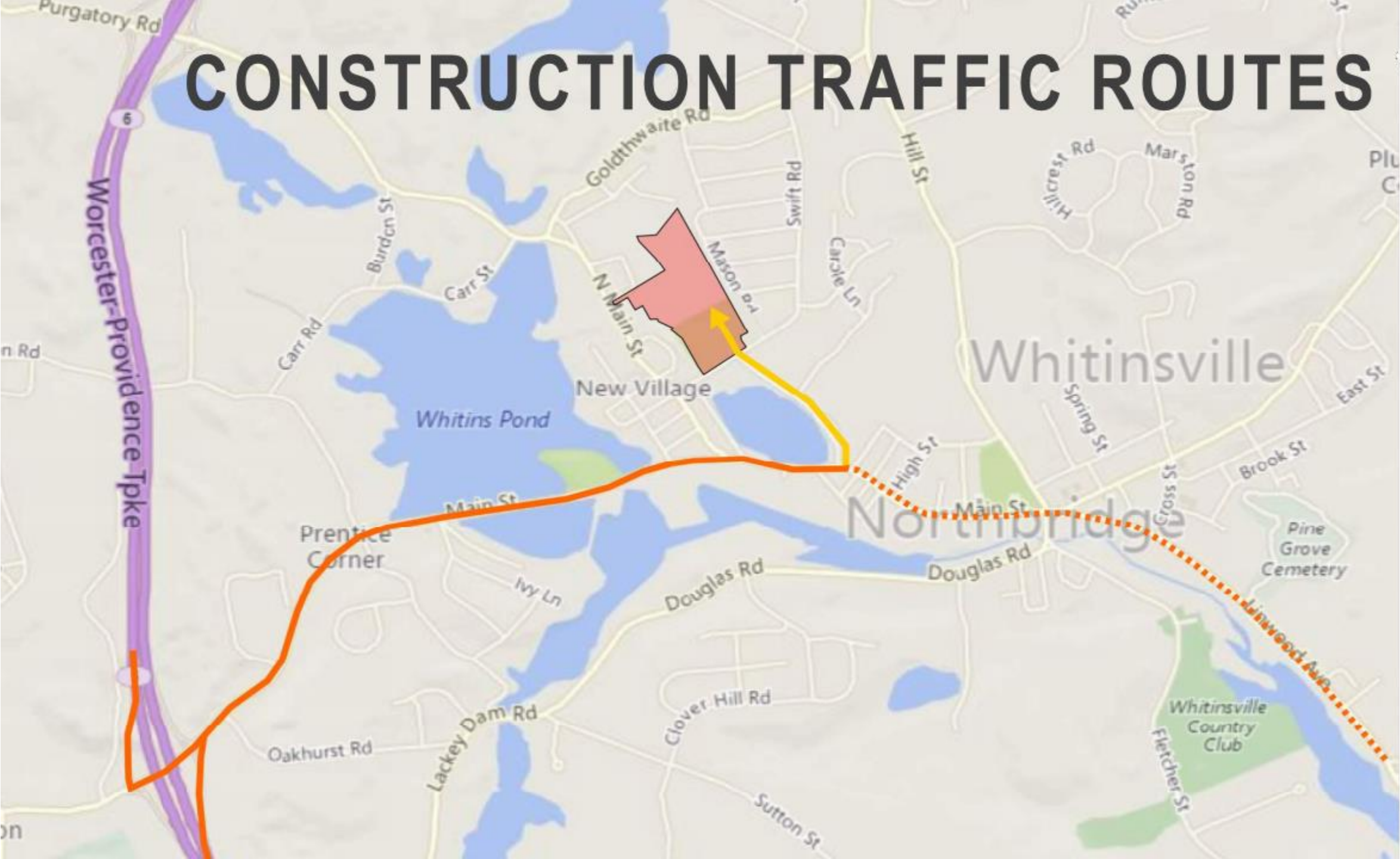
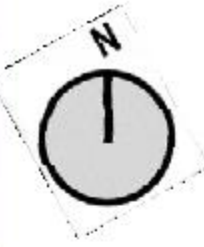
## Spring 2022

- o Plant final fields





# CONSTRUCTION TRAFFIC ROUTES

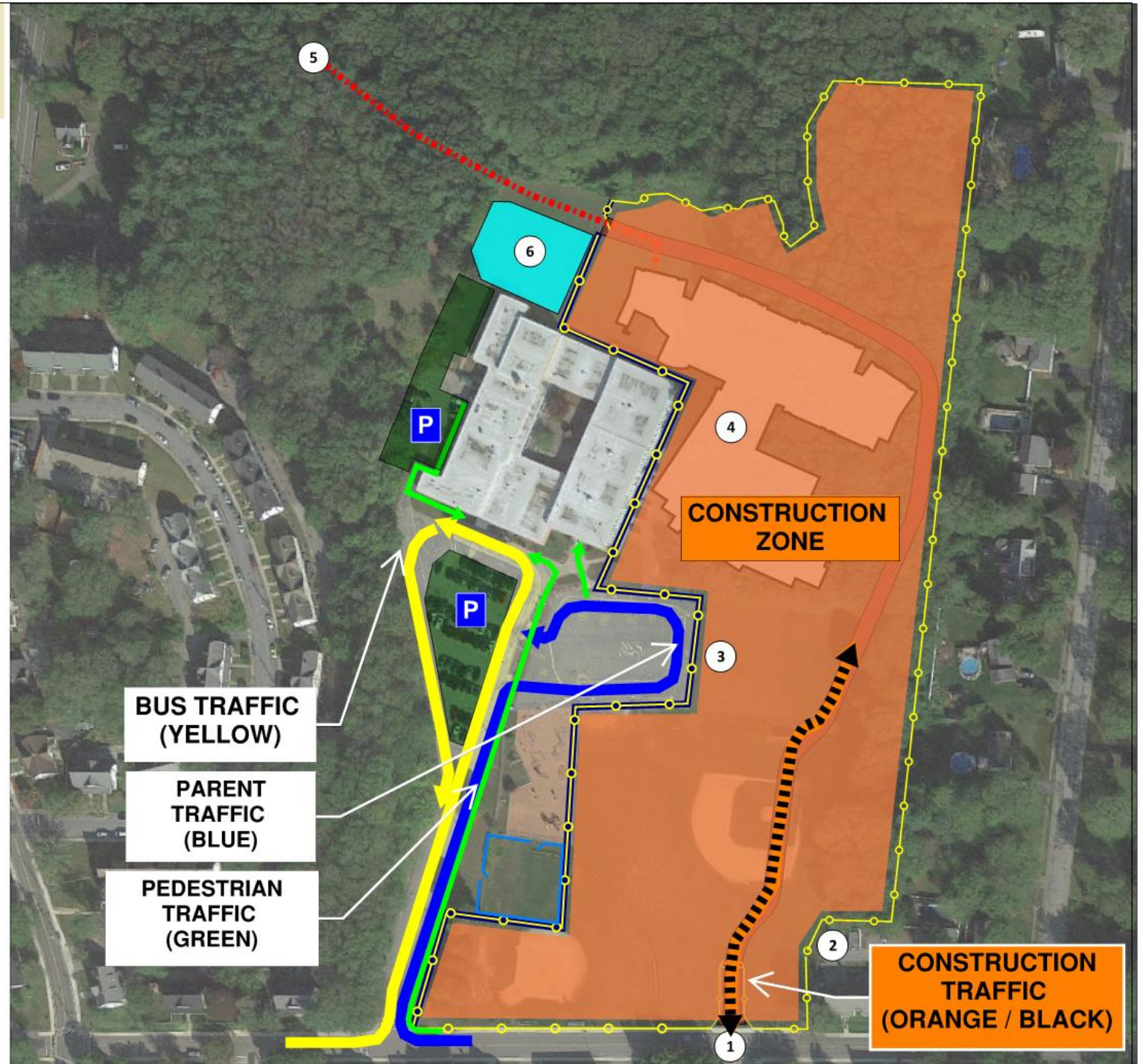




**Town of Northbridge  
Northbridge Elementary School  
Logistics Setup 1: New Building Construction  
Summer 2019 - Spring 2021**

**LEGEND**

- 1 - Main construction entrance**
- 2 - 8' Construction fence w/ scrim**
- 3 - 6' Construction fence w/ scrim on top of jersey barriers**
- 4 - New school building footprint**
- 5 - Connection pathway for electrical and tel/com**
- 6 - School muster area**





**Town of Northbridge  
Northbridge Elementary School  
Logistics Setup 2A: New School Substantial  
Completion & Existing School Demo  
Start of Summer 2021**

**LEGEND**

- 1 - Main construction entrance**
- 2 - Construction fence**
- 3 - 6' Construction fence w/ scrim on top of jersey barriers**
- 4 - Temporary school parking**
- 5 - Existing school abatement / demolition**
- 6 - Secondary / emergency access gate**
- 7 - New school building footprint**

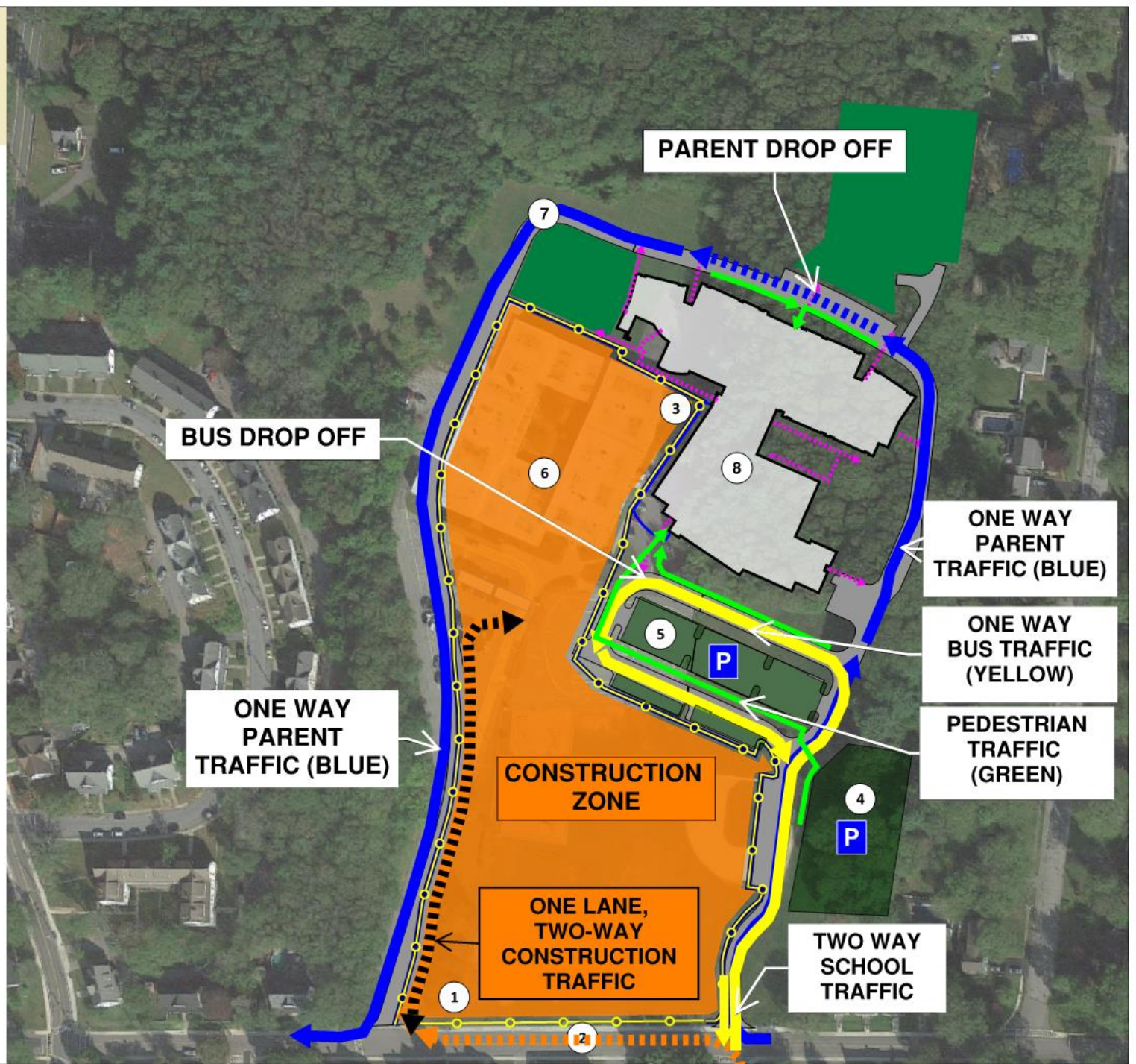




**Town of Northbridge  
Northbridge Elementary School  
Logistics Setup 2B: School Opening &  
Continuation of Site Finishes  
End of Summer into Early Fall 2021**

### LEGEND

- 1 - Main construction entrance**
- 2 - Construction fence**
- 3 - 6' Construction fence w/ scrim on top of jersey barriers**
- 4 - Temporary school parking**
- 5 - West side of south parking lot completes to provide full loop for start of school year**
- 6 - Existing school building is demolished**
- 7 - New loop road is complete for start of school year**
- 8 - New school building footprint**





Town of Northbridge  
Northbridge Elementary School  
Logistics "Mini" Setup 3: Small U8 Fields at  
Former Temp. Parking  
Fall 2021 / Spring 2022

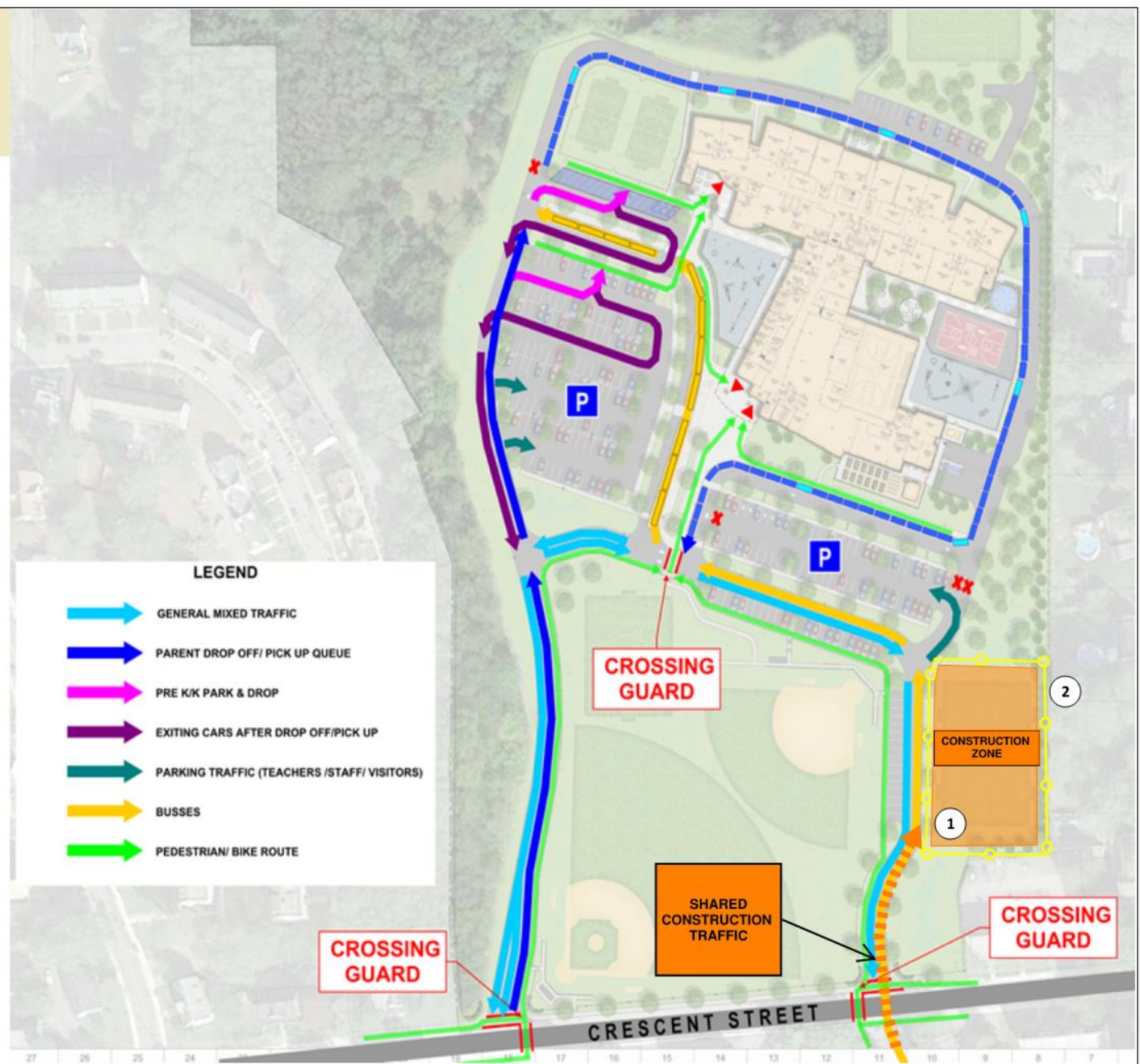
LEGEND

1 - Construction Entrance

2 - Construction fence around U8  
soccer fields

SEPARATED PATHS:

- Parent Drop-off
- Bus/Van
- Pre-K/ K
- Cars parking
- Pedestrian/ Bike



# ESTIMATED CONSTRUCTION COST COMPARISON – 60%CD

	DD PHASE FONTAINE BROS. INC. (CM)	60% CD PHASE PM&C INC. (Designer's Estimator)	60% CD PHASE FONTAINE BROS. INC. (CM)
AREA (GSF)	167,352	167,352	167,352
BUILDING	\$50,767,822	\$53,812,348	\$54,179,110
SITE WORK	\$12,554,970	\$11,054,306	\$11,257,934
MARK-UPS	\$16,157,650	\$13,848,285	\$13,680,562
Post-DD VE	(\$629,476)		
<b>TOTAL</b>	<b>\$78,850,968</b>	<b>\$78,714,975</b>	<b>\$79,117,606</b>
Unit Cost (\$/SF)	\$471	\$470	\$473





# ESTIMATED CONSTRUCTION COST COMPARISON – SD / DD / 60%CD

	SD PHASE FONTAINE BROS. INC. (CM)	DD PHASE FONTAINE BROS. INC. (CM)	60% CD PHASE FONTAINE BROS. INC. (CM)
AREA (GSF)	167,352	167,352	167,352
BUILDING	\$47,191,265	\$50,767,822	\$54,179,110
SITE WORK & DEMO	\$10,956,995	\$12,554,970	\$11,257,934
MARK-UPS	\$21,344,403	\$16,157,650	\$13,680,562
Post-DD VE		(\$629,476)	
<b>TOTAL</b>	<b>\$79,492,663</b>	<b>\$78,850,968</b>	<b>\$79,117,606</b>
Unit Cost (\$/SF)	\$475	\$471	\$473

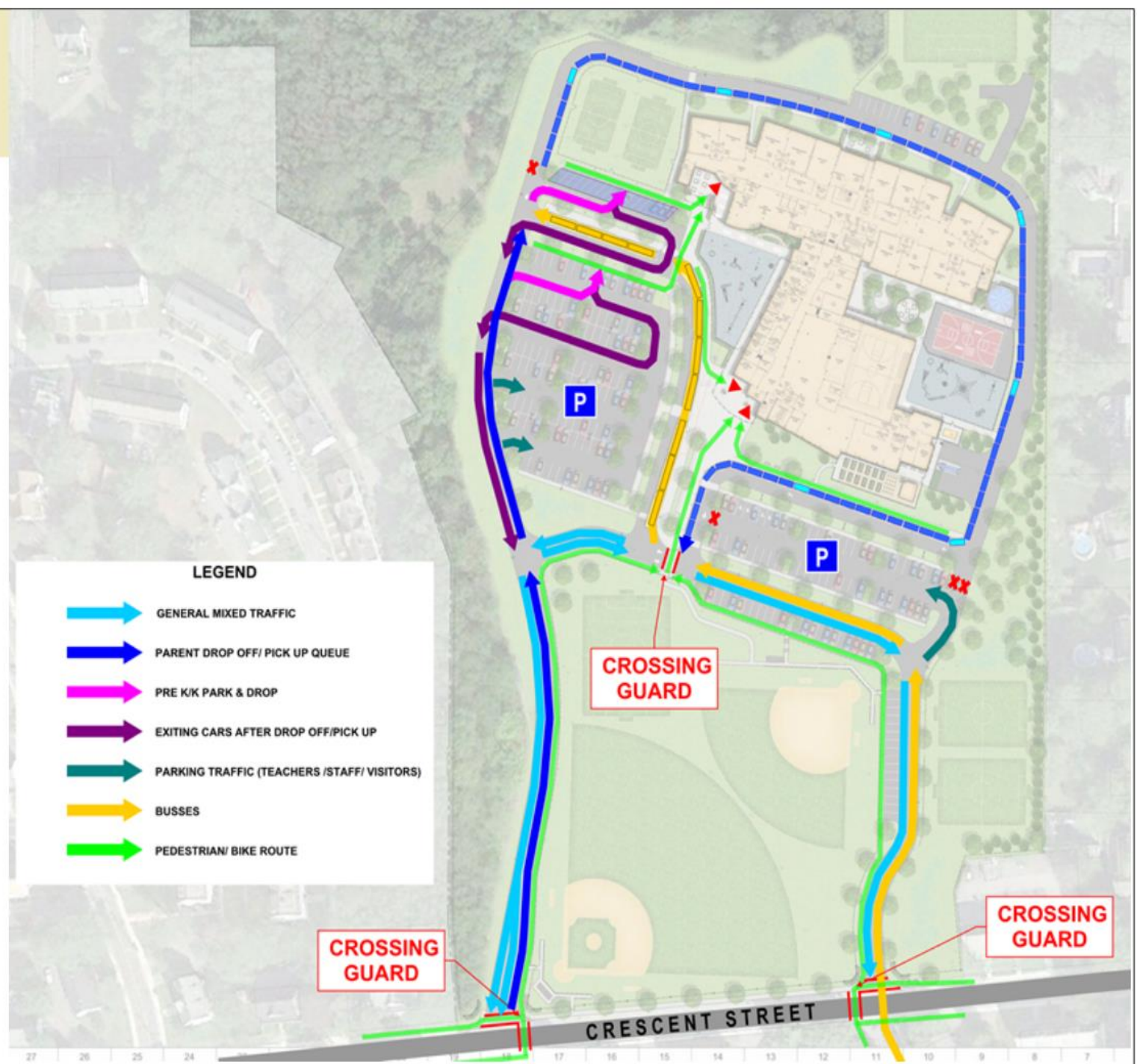




## SEPARATED PATHS:

- Parent Drop-off
- Bus/Van
- Pre-K/ K
- Cars parking
- Pedestrian/ Bike

2





# POINTS OF CONTACT

## **Fontaine Bros., Inc. – Construction Manager**

Mike Cavanaugh – Lead Superintendent

[MCavanaugh@FontaineBros.com](mailto:MCavanaugh@FontaineBros.com) || 413-246-4007

## **SMMA – Owner's Project Manager**

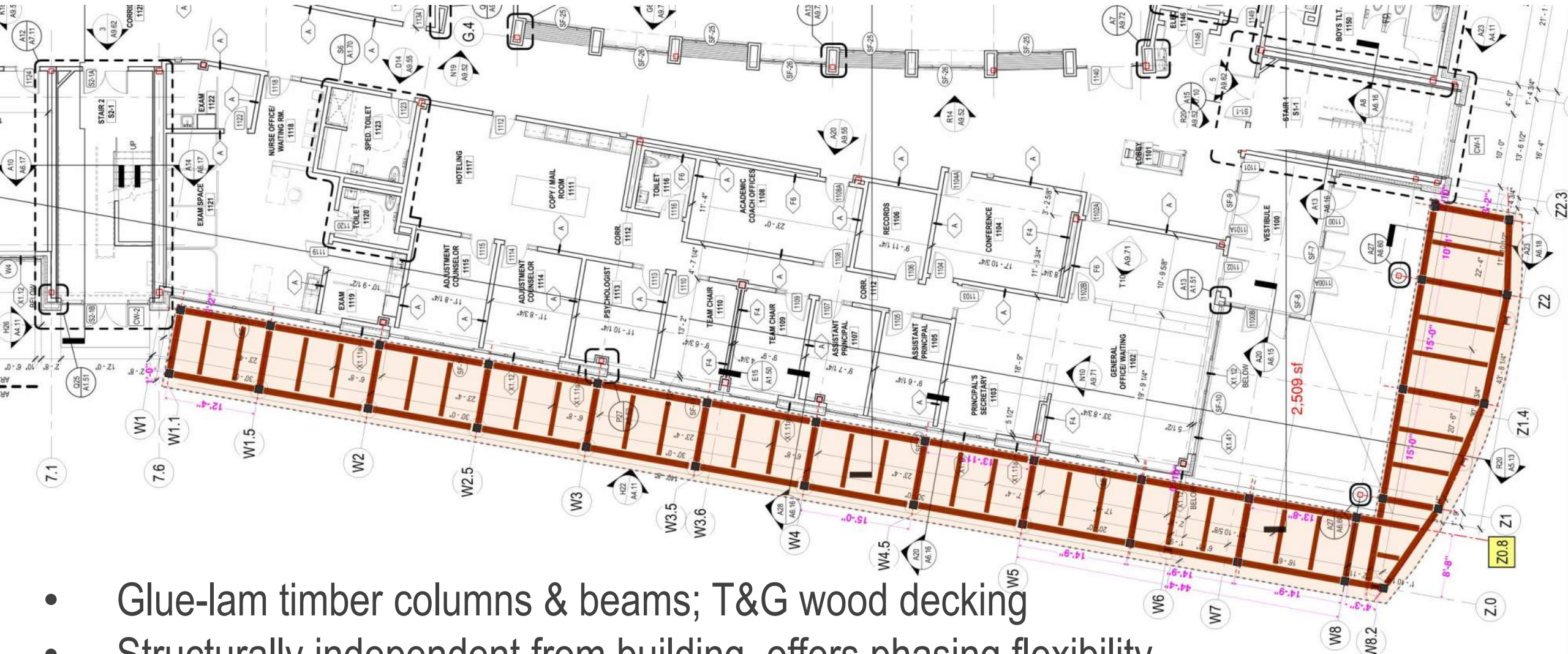
Tony Dias - On Site Representative

[adidas@smma.com](mailto:adidas@smma.com) || 508-951-2229





# ALTERNATE: WOOD CANOPY OPTION



- Glue-lam timber columns & beams; T&G wood decking
- Structurally independent from building, offers phasing flexibility
- **Timber Canopy Alternate - DEDUCT (\$47,673.00)**



# ALTERNATE: WOOD CANOPY OPTION

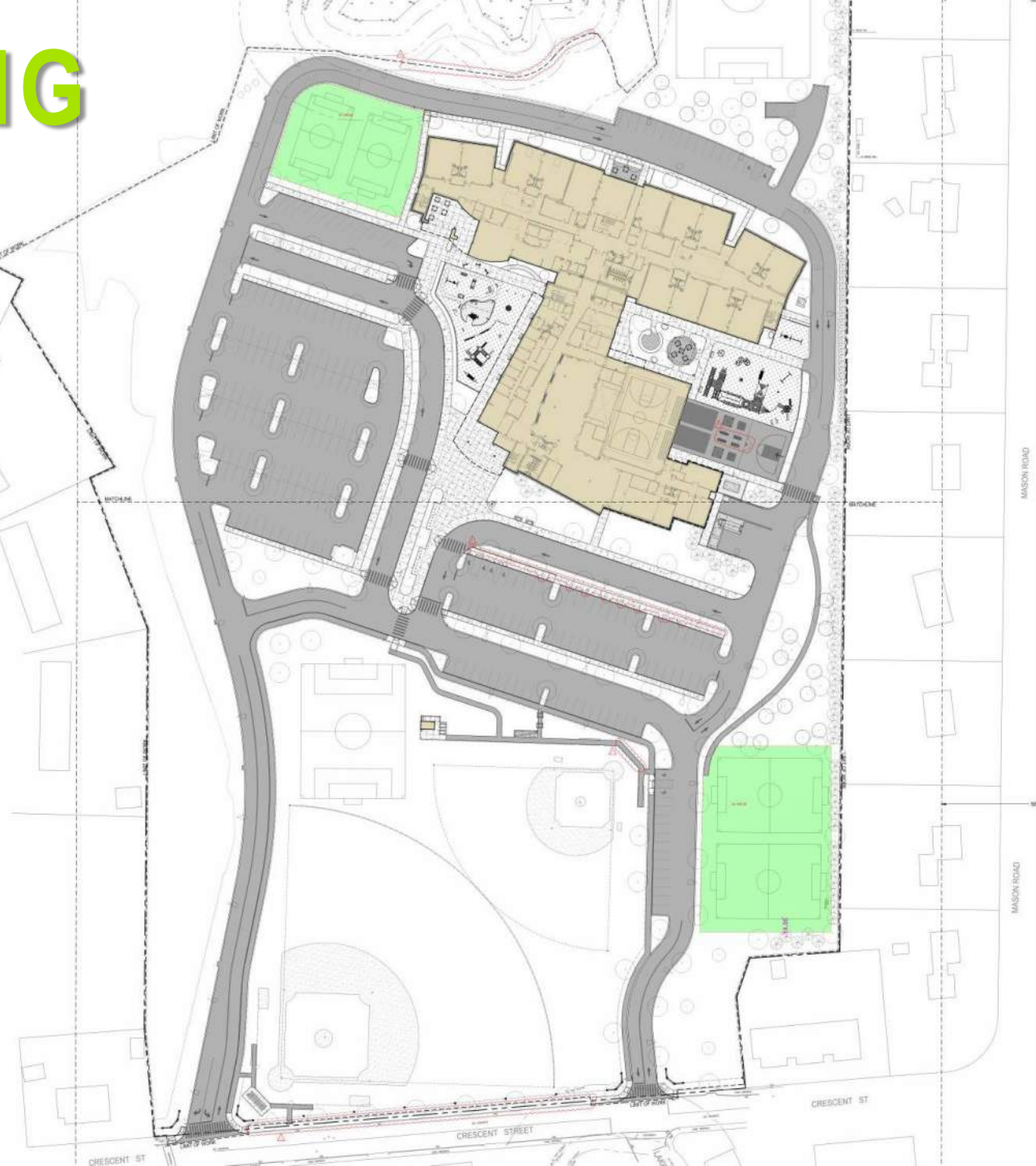


**West Parish School, Gloucester**



# ALTERNATE: SODDING SOCCER FIELDS

- Ready in 1 growing season, **BUT DEPENDS HEAVILY** on season planted, weather, wetness, etc.
- Not able to guarantee success without landscape sub on board
- (2) U-6 Fields – for Phase 2B play area for PK-K – **ADD \$10,650**
- (2) U-8 Fields – for speedier finish to job, save General Conditions: **ADD \$22,500**
- **ADD \$33,150 TOTAL**





# EXISTING BALMER ELECTRICAL UPDATE

## TRANSFORMER FAILED ON 4/28

- Generator blew as a result
- While replacing the transformer, existing conductors were too old to be re-used
- Utility and contractor had to run temp power overhead to new poles, trees needed to be cleared. Significant funds spent.
- Generator has problems with radiator and thermostat – being repaired, but confidence not high in success – will require hour-long test at full load. If it fails, the school is without backup power.
- The existing generator is a 50KW 120/208 3phase.





# EXISTING BALMER ELECTRICAL UPDATE

## POSSIBLE SCENARIOS:

- **PRE-PURCHASE THE NEW BUILDING GENERATOR**
  - costs to connect and relocate
  - phasing issue - need the new generator connected to the new building in advance of the existing building demo.
  - generator lead time is approximately 12-15 weeks.
  - A temp generator will be required for a period of time in this scenario to cover phasing. All-in ROM estimate would be:
    - Install pad and provide temp wiring to existing ATS - \$14,000 (12-15 week lead time)
    - Rigging and coordination for relocation - \$5,000
    - Temp gen for 3 months - \$10,700
    - **Total = \$29,700**
- **RENT A GENERATOR FOR BALMER:** Recent pricing for a 60KW unit, included connecting and disconnecting the wiring - \$1400 per month, plus connect/disconnect cost, so for two years the cost would be roughly **\$40,000** (not including fuel).
- **INSTALL A NEW GENERATOR FOR BALMER:** new exterior pad mounted generator would be approximately **\$75,000** construction cost (may require design services and will also have lead time issues)
  - The generator would have some value in the used market afterwards, but cost not justified.
- **PURCHASE A MOBILE GENERATOR ON A TRAILER:** temp gen on a trailer, town could use afterwards in emergency scenarios. A 50KW trailer mounted generator would cost approximately **\$33,000**



# EMERGENCY MASS NOTIFICATION SYSTEM

## WHAT IT IS:

- A Mass Notification System has been specified and is currently part of the project – cost is included in CD60 estimate ~\$22,000 for devices.
- Basically an adjunct to the Fire Alarm system
- Allows PA-like notification in the event of an emergency/ crisis situation.
- Definition:

“The capability to provide real-time information to all building occupants or persons in the immediate vicinity of a building during emergency situations.

To reduce the risk of mass casualties, there must be a timely means to notify building occupants of threats and what should be done in response to those threats.

Pre-recorded and live-voice emergency messages tell occupants what to do in the event of an emergency.”





# EMERGENCY MASS NOTIFICATION SYSTEM

## HOW IT WORKS:

- System has an autonomous control unit, used to monitor and control the notification network, and provides consoles for local operation.
- Using a console, personnel in the building can:
  - initiate delivery of pre-recorded voice messages,
  - provide live voice messages and instructions, and
  - initiate visual strobe and (optional) textual message notification appliances.
- The autonomous control unit will temporarily deactivate audible fire alarm devices while delivering voice messages to ensure they are intelligible.
- Different messages can be broadcast to different areas of the building or campus based on the proximity to the emergency.





***Thank You!***