



Orange Township Fire Department

Fire Prevention Bureau

Commercial Site Plan Requirements

All supporting documentation showing items listed below are based on the 2025 Ohio Fire Code with Orange Township Fire Department specific provisions and applicable NFPA Standards

ADD TO STANDARD NOTES

- ☐ **Pre-Construction Conference note:** All prime contractors shall attend a pre- construction meeting. This meeting shall take place at least fifteen (15) business days prior to any work on the site. At that time, contractors will be given a copy of the Orange Twp. Fire Protection Regulations, required State of Ohio Fire Marshal licenses will be checked, inspection process will be addressed and any questions answered.
- ☐ **Traffic Light Priority Control System note:** In the event that a traffic light is required for any development, an Applied Information Field Monitoring Unit FMU/2 with Glance Integration (AI-500-050 Series FMU Field Monitoring Unit) manufactured by Applied Information. Antennas for both the cellular and 900MHZ radios shall be mounted to the top of the traffic enclosure and sealed to prevent water intrusion into the cabinet.
Shall be installed at the developer's expense and shall be compatible with Orange Township's equipment without modifications.
- ☐ **All Buildings – Landscaping, EMS, Fire, Aerial Access Roads and around existing or proposed Fire Protection Equipment note:** The following shall be added to the general and landscaping notes: "No landscaping at maturity shall encroach on the EMS, Fire or Aerial access road, which is either Twenty Feet (20') or Twenty-Six Feet (26') in width, and Thirteen-Six Feet (13'6") in height.
- ☐ Landscaping shall be of a type that will not encroach within three-foot (3') radius at maturity of any fire hydrant, fire pump test header, fire department connection for fire protection systems, or fire suppression system control valve. 2025 Ohio Fire Code, Section 507.5.4 Obstructions
- ☐ **All buildings - shall have a "Knox Box(s)®" note:**
The following shall be added to the general notes on plans:
"An approved key box shall be provided for the proposed building in accordance with the 2025 Ohio Fire Code, Section 506.1 A minimum Knox Box® 3200 series hinged door key box shall be located at the right side of the main front door (public entrance)[facing the door from the outside] for all A,B,E,I,M,S,F,H,U, each tenant space and sprinkler room doors. The Knox Box® shall be mounted forty-eight inches (48") to the top of the box. The Orange Township Fire Prevention shall approve the box and location prior to installation.
- ☐ **All Structures and Buildings – Hydrant note:**

Prior to above ground level construction, permanent fire hydrants shall be installed, in service, and a letter received from Del-Co Water Company. 2025 Ohio Fire Code

☐ **Buildings with Sprinkler Systems - Acceptance note:**

The following shall be added to the general notes on plans for buildings equipped with an automatic fire sprinkler system and/or standpipe system: "Approval of site plan does not include the design of the fire sprinkler system underground piping from backflow prevention device to one foot (1') above finish floor level. A separate detail sheet(s) shall be submitted to the Orange Township Fire Prevention Bureau for review and approval"

WATER / HYDRANT INFORMATION

☐ **Minimum Required Fire Flow Note:** The minimum required fire flow for protection purposes shall be One Thousand Five Hundred Gallons per minute (1500GPM). The approved method that shall be used is Appendix B Table 105.1 of the 2025 Ohio Fire Code. 2025 Ohio Fire Code, Section 507.3

☐ **Water Flow Test Data note:**

Provide water flow test data, obtained from the Del-Co Water Company verifying the required water flow for fire protection is available at the site. The water flow test results and graph shall be shown on the submitted plan. The minimum required fire flow for all buildings, with the exception of one and two-family dwellings, is 1500 gpm (sprinkler protected or non-sprinkler protected) in accordance with the 2025 Ohio Fire Code, Section 507.4 Show the node map and results table for the proposed or existing hydrants on site showing the maximum fire flow can be achieved.

☐ **Fire Hydrants**

- The submitted plan shall clearly indicate the location all required and/or existing fire hydrants.
- Fire hydrant(s) located on a fire apparatus access road, shall be located not less than Forty Feet (40') from the building to be protected. 2022- NFPA-24 Section 7.2.3
- Vehicle parking or other obstructions, shall not be permitted in front of the access to fire hydrants, fire pump test headers, fire department sprinkler system connections, fire department standpipe connections or fire protection system control valves, these parking stalls shall be bollard blocked. 2025 Ohio Fire Code, Section 507.5.4
- The MAXIMUM SPACING between fire hydrants for all commercial and multifamily buildings is four hundred feet. (400').
- Fire hydrants shall not require the opening of a valve for the fire hydrant to provide the required fire flow.
- Fire hydrants shall be of an approved type and have not less than a Six-inch (6") diameter connection with the main. 2022 NFPA 24 Section 7.1.1.1
- Fire Hydrants shall be per Del-Co Water Co. specifications.
- Fire Hydrant Nozzles shall be 2 -2.50 NST and 1-5inch Storz w/blind cap.
- Stortz adapters are Not Permitted

- Del-Co Water Co. fire hydrants shall be Safety Yellow
- Private fire hydrants shall be Safety Green
- Both shall have a One and One half (1-1/2") inch white reflective band installed around the bonnet flange.

Site Access

☐ **Timing of Installation note:**

During the construction phase of all A,B,E,I,M,S,F,H and U use groups structures, AND PRIOR TO CONSTRUCTION ABOVE GROUND LEVEL EMS, Fire and Aerial Access Road(s) Shall be provided to within one hundred fifty feet (150') of all portions of the first story as measured by approved route around the exterior of the facility or building that were submitted and approved. 2025 Ohio Fire Code Section 503.1.1. During the construction phase these road(s) they shall be constructed of hard packed gravel, asphalt or concrete, and be capable of supporting an aerial ladder weighing eighty thousand pounds (80,000 lbs) under all weather conditions. The 4 aerial ladder stabilizing jacks must be supported by the sub pavement surface of 90 pounds per square inch (2 to total 240 and 2 to total 154) 788 total square inches of jack pads under all weather conditions.

The professional engineer, the installing contractor and the owner shall complete the roadway Certification of Approval (Original, stamped and sealed). This road(s) shall be maintained throughout construction. These apparatus access roads shall be kept clear of construction material, debris, dumpsters, and vehicles.

Certification of Approval form can be obtained from (www.orangetwp.org).

☐ **Fire Apparatus Access Roads**

Buildings or facilities having a gross building area of more than 62,000 square feet shall be provided with two separate and approved fire apparatus access roads.

Fire access roads shall be constructed of an all-weather surface and the minimum road design weight bearing capacity for EMS. Fire and Aerial Apparatus travel shall be eighty thousand (80,000) pounds. The (base road of hard packed gravel) road design shall be confirmed by submittal of the original

☐ **Aerial Access**

Buildings or portions of buildings or facilities exceeding thirty (30) feet in height above the lowest level of fire department vehicle access shall be provided with an aerial fire apparatus access road. The aerial fire apparatus access road shall be a minimum of twenty-six (26) feet unobstructed clear width in the immediate vicinity of the building. Overhead obstructions in form of utility or power lines shall not be located within the aerial fire apparatus access roadway. At least one aerial fire apparatus access roadway shall be located a minimum of fifteen (15) feet and a maximum of thirty (30) feet from the building and positioned parallel to one entire side of the building.

Grade



The grade shall be a maximum of Five (5) percent for all apparatus access roads. 2025 Ohio Fire Code, Section 503.2.7

Angles of approach and departure for fire apparatus access roads shall be Ninety Degrees (90°) for all roads



Turning Radius

The minimum turning radius to be provided for emergency EMS, Fire and Aerial apparatus to travel, including cul-de-sacs, shall be the current ladder truck radius. The turning radius shall be demonstrated on the plan by template

Emergency EMS, Fire and Aerial Apparatus access roadways and fire lanes in excess of One Hundred Fifty Feet (150') dead end shall be provided with an approved turn-round. Dimensions of the approved turn-around shall be in accordance with 503.2.5 Figure D103.1 of the 2025 Ohio Fire Code of the Orange Township Fire Protection Regulations, and 2025 Ohio Fire Code, Section 503.2.5

All dimensions of the turn-round shall be shown on the plan.



Fire Lane Markings

The approximate location of all required fire lane signs marking shall be indicated on the plan. Fire lanes that are twenty feet (20') in width shall be posted and marked on both sides of the roadway. Aerial Fire Lanes of Twenty-Six feet (20') in width shall also be posted on both sides. The location of and method of marking fire lanes shall be clearly indicated on the submitted site plan. All fire lane signs shall be double faced.

The fire official shall designate fire lane on public streets and on private property, devote to public use such as, but no limited to, commercial, industrial or residential buildings, for the purpose of preventing parking in front of or adjacent to fire hydrants or providing access for firefighting equipment.

Signs to delineate fire lanes as designated by the fire official shall be provided and installed by the owner or his agent of the property involved.

All buildings less the thirty feet (30') in height shall have and all-weather EMS, Fire and Aerial Access Road at least twenty feet (20') in width, within thirty feet (30') of the building or as required to provide access for firefighting activities and equipment or as specified on an approved site plan.

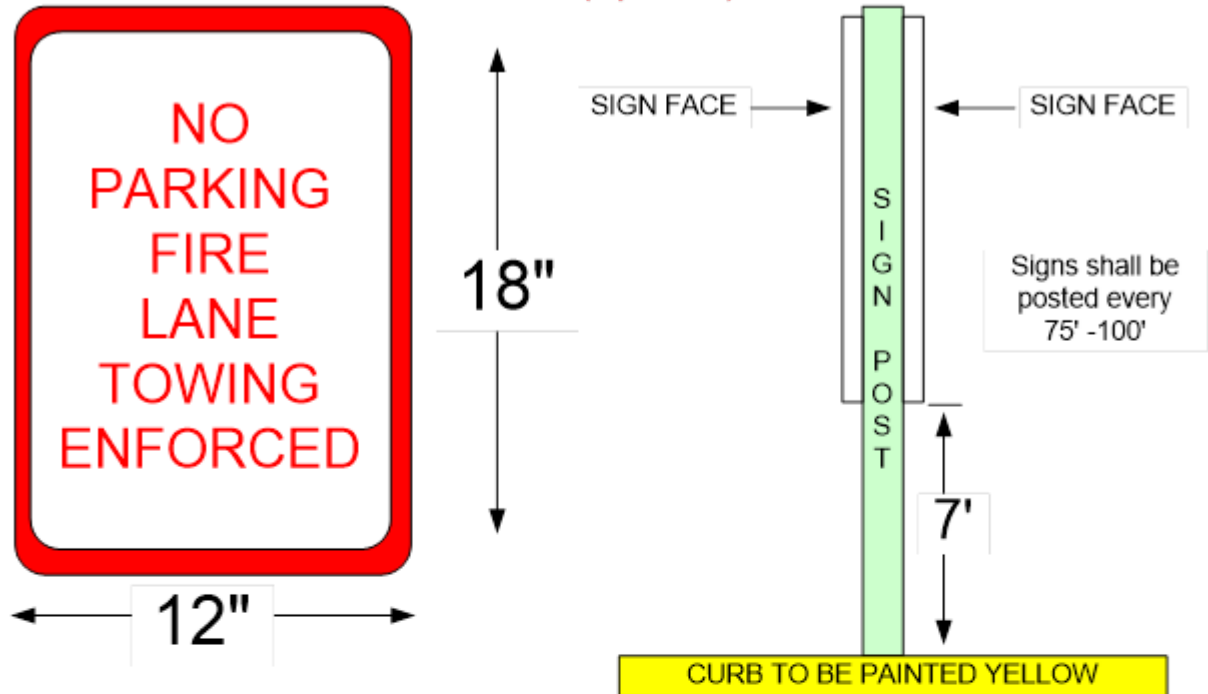
All buildings thirty feet (30') or more in height shall have an all-weather EMS, Fire and Aerial Access Road twenty-six feet (26') in width parallel to the side of the building no closer than fifteen Feet (15') and no further than thirty feet (30') from the building or as required to provide access for firefighting activities and equipment or as specified on an approved site plan.

Specifications:

1. Fire lanes shall be a minimum of twenty feet (20') in width and signs notifying the ordinarily observant person of the regulations shall be posted at intervals not less than two hundred feet (200'), or as directed by the code official.
2. A twelve inch (12") wide by eighteen inch (18") high white aluminum sign with red letters stating "NO PARKING FIRE LANE" shall be installed as directed by the fire official.

Fire Lane Parking Signs

(Option A)



SIGN COLORS: RED LETTER AND BORDER ON A REFLECTIVE WHITE BACKGROUND

LETTERS: TWO (2) INCH "C" SERIES

NOTE: THIS DRAWING IS FOR GUIDANCE ONLY. REFER TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS FOR SPECIFICATIONS.

20'-26' MARK BOTH SIDES OF STREET
OVER 26' to 32' MARK ONLY ONE SIDE
APPLIES TO BOTH OPTIONS

Pavement Markings

(Option B)

