

**PEARLAND LOGISTICS CENTER - PEARLAND PLANNED DEVELOPMENT**

## Exhibit A – Planned Development Regulations

### A. Introduction

1. Legal Description
  - a. This PD shall comprise a total of 13.147 acres (the “Property”) across two tracts of land being 10.594 acres in the H T & B R R Survey, Abstract No. 542 as recorded in Vol. 17, Pg.21&22 of the Map Records of Brazoria County, Texas and 2.553 acres in the H T & B R R Survey, A-542, Brazoria County, Texas.
2. Description of Subject Property
  - a. The Property is undeveloped with frontage on SH 35 (N. Main Street) and Knapp Road. The site is generally flat and bordered on the east by Hickory Slough
  - b. The sites immediately adjacent to the property are currently zoned for M-1 Light Industrial or GC General Commercial and are being used for light industrial purposes to include auto repair and mechanical contracting.
3. Description of Proposed Development
  - a. The proposed development consists of a single 173,100 SF building for light industrial use to include indoor product storage, indoor showroom and product sales, and light indoor manufacturing
  - b. The building will include screened outdoor loading docks and ramps, and will be served with access along SH35(Main St) and Knapp Rd.
  - c. Sufficient space will be provided internal to the site to allow for truck cueing, eliminating the need for any cueing along public roadways.
  - d. The proposed development will feature architectural variations and glass in accordance with the Corridor Overlay District requirements, providing a functional building that meets the design and development intent of the city.
4. Purpose Statement
  - a. The purpose of this PD is to entitle the Property to permit light industrial development. Development standards have been proposed in the PD to accommodate a light industrial building that could not otherwise be permitted with the current GC zoning classification, but that align with surrounding uses, future zoning designations and COD requirements.
5. Compliance with the Comprehensive Plan
  - a. The Pearland2040 Comprehensive Plan designates the Property as a M-1 light industrial site. This PD will align with the designation while preventing undesirable uses.
  - b. According to the Highway 35 Redevelopment Plan the vision for a redeveloped SH 35 Corridor is a business park environment with business and industry being the dominate land uses. Commercial, retail/restaurants, and possibly institutional facilities are identified as secondary uses.
6. Applicability
  - a. This PD adheres to the applicability guides of UDC Section 2.2.2.1 in that:
    - i. The Property is located in an area where conventional zoning classifications may not adequately address city concerns regarding the quality or compatibility of the adjacent development, and where it may be desirable to the city or developer to develop and implement mutually-agreed, enforceable development standards;
    - ii. The Property is proposed for development as a major office, retail, commercial or industrial employment center, and special design standards may be warranted; and
    - iii. Property is of such a character that it is in the community's best interest to encourage high quality development through flexible development standards to further the goals and objectives of the City's Comprehensive Plan.

**B. Zoning and Land Use**

1. Existing Zoning
  - a. The Property is currently zoned GC, General Commercial.
2. Proposed Zoning
  - a. The base zoning of all property within this PD shall be M-1, Light Industrial. Except where modified by this PD, development within the PD shall generally comply within all standards of the M-1 district.
  - b. The Property shall also be subject to the standards of the Corridor Overlay District (COD) as it applies along the SH 35 frontage. Except where modified by this PD, development within the PD shall generally comply with all standards of the COD.

<b>Table B.2 – Land Use Summary</b>			
<b>Use</b>	<b>Estimated Acres</b>	<b>Percentage of Total Acres</b>	<b>Zoning District</b>
Light Industrial Uses	±4.5	±35%	M-1
Landscape	±2	±15%	M-1
Detention	±2	±15%	M-1
Internal Streets/Vehicular Circulation	±4.6	±35%	M-1

- a. Permitted & Prohibited Uses
  - i. Uses within shall comply with those permitted in the M-1 district except as modified herein.
  - ii. The following uses shall be additional permitted uses within the PD in addition to those uses permitted in the M-1 District:
    1. Animal Hospital (No outside pets)
    2. Auto Glass Repair/Tinting (indoor facilities only)
    3. Auto Repair Major (indoor facilities only)
    4. Auto Repair Minor (indoor facilities only)
    5. Auto Sales (indoor showroom only)
    6. Auto Rental (indoor showroom only)
    7. Commercial Amusement, Indoor
    8. Feed & Grain Store/Farm Supply Store (indoor only)
    9. Office/Clinic, Veterinarian (No Animal Hospital or Outside Pens)
  - iii. The following uses shall be prohibited within the PD:
    1. Agricultural Animal Husbandry
    2. Agricultural Field Crops or Orchards
    3. Airport
    4. Animal Processing
    5. Asphalt/Concrete Batching plant
    6. Astrology, Hypnotist or Psychic Arts
    7. Auto Wash
    8. Auto Wrecker Service
    9. Barber/Cosmetology School/College - indoor
    10. Boat Sales/Personal Watercraft Sales/repair
    11. Cattle Feedlot (CAFO)
    12. Cigars, Tobacco or E-Cigarettes Shop (Retail Only)

13. Cleaning Drying or Laundry Plant
14. Commercial Extraction of Soil, Sand or Gravel
15. Commercial Transit Terminal
16. Credit Agency
17. Drag Strip/Racetrack
18. Dumps, Landfills and Sanitary Landfill
19. Dwelling, HUD Code Manufactured Home
20. Electric Power Generating Plant
21. Electrical Substation
22. Exhibition Hall or Public Assembly (Auditorium, Gymnasium, Stadiums etc.)
23. Fairgrounds or Rodeo Grounds
24. Financial Institution
25. Flour and Other Grain Mills
26. Franchised Private Utility
27. Funeral Home/Mortuary/Crematorium
28. Gaming Establishment
29. Garage and/or yard sales
30. Gasoline Station
31. Laundromat
32. Limousine/Taxi Service
33. Livestock Sales, Wholesale
34. Manufactured Home Display, Sales or Rental
35. Market – Open Air (i.e., Flea Market)
36. Milk Depot - Wholesale
37. Mini-Warehouse/Self Storage
38. Minor Concrete Batching Operation
39. New Printing/Book Binding
40. Office, Parole-Probation, Bail Bonds
41. Office/Clinic, Veterinarian (Animal Hospital, with Outside Pens)
42. Off-site Detention Facility
43. Penal or Correctional Institutions
44. Pet Shop-Small Animals, Birds or Fish
45. Piano and Musical Instruments (Retail Only)
46. Private Club
47. Radio or Television Tower
48. Rehabilitation Care Facility (Halfway House)
49. Resale/Consignment Shop
50. Satellite Dish (greater than 4' diameter)
51. Stable/ Riding Facility, Commercial
52. Studio or Learning Center for Fine or Performing Arts
53. Studio for Radio and/or Television (No Tower[s])
54. Studio - Tattoo or Body Piercing
55. Taxidermist
56. Telephone Exchange Switching Relay
57. Telemarketing Agency
58. Tire Retreading and Capping
59. Transfer Station

**C. Design Standards Applicable to the Development**

1. Dimensional Standards

- a. All development within the PD shall comply with the dimensional standards of the M-1 district except as modified by Table C.1.

<b>Table C.1 – Dimensional Standards Summary</b>		
	<b>M-1 Standard</b>	<b>PD Standard</b>
<b><i>Size of Lots (Section 2.4.4.7-(c))</i></b>		
Minimum Lot Size	40,000-square feet	40,000-square feet
Minimum Lot Width	150-feet	150-feet
Minimum Lot Depth	150-feet	150-feet
<b><i>Size of Yards (Section 2.4.4.7-(c))</i></b>		
Minimum Front Yard	35-feet	30-feet Landscape buffer and setback along COD and Knapp Rd
Minimum Side Yard	25-feet	50-feet with paving & detention allowed within
Minimum Rear Yard	25-feet	50-feet with paving & detention allowed within
<b><i>Height Restrictions (Section 2.4.4.7-(d))</i></b>		
Maximum Building Height	45-feet plus 1-foot of height for each additional foot of setback over the minimum (except within 100-feet of a residential district)	45-feet plus 1-foot of height for each additional foot of setback over the minimum (except within 100-feet of a residential district)
<b><i>Landscaped Open Area (Section 2.4.4.7-(h)) and 2.4.5.1-(g))</i></b>		
Minimum Area of Gross Site to be Landscaped (M-1/COD)	15%	15% to include landscape islands and screening

<sup>1</sup> No vertical encroachments are permitted in any setback. Flatwork or operational areas such as auto parking, truck/trailer parking, truck courts, drive aisles, dumpster enclosures, mechanical equipment, open space, detention and recreational areas may be permitted within any setback so long as they do not encroach into the required screening or other vegetative buffers.

2. Landscape
  - a. A minimum of 15% of the gross lot area shall be devoted to landscape.
  - b. N. Main Street Corridor Landscape:
    - i. To complement the ornamental trees planted in the SH 35 right-of-way planted by the Pearland Economic Development Corporation as a part of the SH 35 Redevelopment Project one (1) large shade tree shall be provided every thirty (30) linear feet and ornamental trees provided every ten (10) linear feet of the provided frontage of frontage along N. Main Street.
  - c. Knapp Rd Landscaping:
    - i. A continuous row of evergreen shrubs shall be provided along all detention areas along Knapp Rd frontage, 1 shade tree shall be provided every 30-feet of frontage, and 1 ornamental tree shall be provided for every 15-feet of frontage along Knapp Rd.
  - d. Parking Lot Screening to SH 35 (N. Main Street)
    - i. Parking areas within one hundred (100) feet of N. Main Street shall be screened by a continuous row of evergreen shrubs provided along all parking areas abutting N. Main Street. Shrubs shall be maintained at a height of no more than thirty-six inches (36") nor less than twenty-four inches (24") as measured from the surrounding soil line and at a minimum thirty-six inch (36") spacing.
  - e. Parking Area Interior Landscape
    - i. 1 shade tree shall be provided within the parking area for every fifteen (15) parking spaces designed and intended for the parking of passenger vehicles driven by customers, patrons, or employees. Tree islands will be a minimum size of nine (9) feet by eighteen (18) feet in size.
  - f. Tree plantings shall be a minimum of a three-inch (3") caliper in diameter for large trees along the COD and small trees measuring two-inch (2") in all other required areas. Trees will be measured at twelve inches (12") above the root ball.
  - g. Where existing trees or vegetation are to be credited for any requirement of this section the Tree Protection requirements (see Exhibit D) shall apply. If in the event of loss of a tree or existing vegetation due to disease, impact of construction, or other cause, then the plantings otherwise required by the requirement for which credit was sought shall be provided.

<b>Table C.2 – Landscape Standards Summary</b>		
	<b>M-1 Standard</b>	<b>PD Standard</b>
<b><i>Required Landscape (Section 2.4.4.7-(h)(1)(1), 2.4.5-(g)(4), &amp; 4.2.2.4-(b))</i></b>		
Required Minimum Percentage of Gross Lot Area	15%	15%
<b><i>Corridor Overlay District Landscape (Section 2.4.5-(g)(3))</i></b>		
Tree Requirements	Shade trees and ornamental trees shall be required along the N. Main Street frontage at a ratio of 1-caliper inch of tree per every 10-feet of frontage and 15-feet of frontage, respectfully.	1 shade tree shall be provided every 30-feet of frontage along N. Main Street and Knapp Rd. 1 ornamental tree shall be provided for every 15-feet of frontage along N. Main St and Knapp Rd.
Landscape Buffer and Setback	30 Feet	30' for parking and maneuvering areas or 25' per COD

<b>Screening (Section 4.2.4.1-(a))</b>		
Screening Required for detention area facing roadways	N/A	A continuous row of evergreen shrubs shall be provided along all detention areas fronting N. Main Street and Knapp Rd frontage. Plants to be installed and maintained at 24 to 36-inches tall. Large (3") and small (2") ornamental trees provided every ten (10) liner feet of the provided frontage
<b>Parking Area Screening (Section 4.2.2.4-(d) &amp; 4.2.4.1-(b))</b>		
Required screening	Continuous screening hedge at 24 to 36-inches tall for at least 35% of the length of the parking area	A continuous row of evergreen shrubs shall be provided along all detention areas fronting N. Main Street and Knapp Rd frontage. Plants to be installed and maintained at 24 to 36-inches tall. Large (3") and small (2") ornamental trees provided every ten (10) liner feet of the provided frontage of roadway along N Main St and Knapp Rd.
Side Yard Screening Required to Abutting Non-Residential	No screening required	A continuous row of evergreen shrubs shall be provided along all detention areas fronting Knapp Rd frontage. Plants to be installed and maintained at 24 to 36-inches. Small (2") ornamental trees provided every ten (10) liner feet of the provided frontage for up to 150'.
<b>Interior Parking Lot Plantings (Section 2.4.5.1-(g))</b>		
Distance from Parking Space to Tree	Exempt from the requirement for each parking space to be within 50-feet of a tree except in the M-1 district when overall landscape requirements are met.	One shade tree shall be provided in the parking area for every 15 parking spaces placed within an island.

### 3. Fencing & Screening

- a. Decorative metal fences up to 8-feet in height may be permitted when interior to the site as security fencing.
- b. All truck courts, loading docks, truck or trailer parking areas, and outside storage areas must be screened from view from adjacent streets and residential districts.
  - i. Screening may be achieved through any combination of the following methods:
    - (a) Preservation existing trees or vegetation,
    - (b) Extension of wing walls off of primary structures,

- (c) Privacy fences or walls,
- (d) Landscape plantings
- (e) Decorative wrought iron fencing
- ii. Regardless of the method of screening, the screening shall comply with the standards of UDC Section 4.2.4.1-(d)(1)).

<b>Table C.3 – Fencing and Screening Standards Summary</b>		
	<b>M-1 Standard</b>	<b>PD Standard</b>
<b><i>Fencing (Section 4.2.4.3-(a)(1))</i></b>		
Materials Permitted	Fences or walls in the COD District may not use chain-link or certain other materials when visible from a public street.	Fences or walls in the COD District may not use chain-link or certain other materials when visible from a public street. Areas not in the view of a public ROW and located greater than 150' from a public ROW may use black cyclone fencing
<b><i>Screening (Section 4.2.4.1-(d)(1))</i></b>		
General Screening	Screening must be provided for certain features such as loading docks, mechanical equipment, etc. with any combination of walls, evergreen plantings etc.	Screening must be provided from main street for certain features such as loading docks, mechanical equipment, etc. with the same material and look as the building

- 4. Building Design
  - a. Building articulation shall be provided along exterior façades facing N. Main Street so that:
    - i. The material, finish, texture, or color of the exterior façade varies at least every thirty (30) linear feet of façade facing N Main St.
    - ii. Architectural variation of at least one foot (1) in depth is provided for every thirty (30) linear feet of façade facing N Main St. This variation may be distributed throughout the façade so long as the minimum amount of variation required is met across the facade cumulatively.
  - b. At least 15% of the area of an external façade facing N. Main Street shall be transparent. Transparent materials may include glass, spandrel glass, or other similar materials.
  - c. Primary building entries facing N Main Street shall incorporate at least three architectural features from the following list:
    - i. Awnings or canopies
    - ii. Recessed entries
    - iii. Decorative light fixtures
    - iv. Decorative reveal patterns
    - v. Variation in façade height and color
    - vi. Other similar feature as approved by the Director of Community Development
  - d. No overhead doors shall face a residential district except when located more than

fifty (50) feet away from the residential district.

<b>Table C.4 – Building Design Standards Summary</b>		
	<b>M-1 Standard</b>	<b>PD Standard</b>
<b><i>Building Façade Standards (Section 2.4.5.1-(d))</i></b>		
Articulation	A variation in depth of at least 1-foot is required every 25-feet.	A variation in material finish or height is required every 30-feet. A variation in depth of 1-foot is required every 30-feet.
Building Materials	15% of the wall area shall be transparent.	15% of the wall area shall be transparent facing N Main St. Transparent materials may include glass, spandrel glass, or other similar materials.
Primary Entries	No standards exist	Primary entries facing N Main St shall incorporate at least three architectural features.

5. Lighting

- a. The maximum lighting level at the property line abutting a residential zoning district or uses is zero (0) foot-candles at the property line.
- b. Any lighting used to illuminate any off-street parking area shall be designed and constructed to be reflected downward and away from any adjoining property of street.

<b>Table C.5 – Lighting Standards Summary</b>		
	<b>M-1 Standard</b>	<b>PD Standard</b>
<b><i>Corridor Overlay District Lighting (Section 2.4.5.1-(h))</i></b>		
Lighting Levels	Maximum illumination adjacent to a residential zoning district is one (1) foot candle at the property line.	Maximum illumination adjacent to a residential zoning district is zero (0) foot candle at the property line.

6. Vehicular (Non-Truck) Traffic Circulation

- A. Vehicular Traffic Traveling South along N. Main from Beltway 8 will enter the site through Knapp Rd. Vehicles will travel south from the Beltway to the lighted intersection at Knapp Rd and proceed East along Knapp Rd to the site entrance.
  - a. A monument sign on-site along Knapp Rd will identify the site and guide vehicles to their destination.
  - b. Vehicular traffic that misses the turn at Knapp Rd will proceed to McHard Rd, travel east on McHard Rd to Old Alvin Rd, North on Old Alvin Rd to Knapp Rd, and West on Knapp Rd to the site.

- c. Site access along N. Main will have directional striping and directional no access signage to prevent vehicles from traveling south in northbound lanes to access the site from the median cut that currently services Pearland Alternator (1221 N Main St Pearland, Tx 77588).
- d. No U-Turn Signage will be added to the existing raised and hooded median cut south of the site to prevent vehicular U-Turns along N. Main.

B. Vehicular Traffic traveling North Along N. Main Street will enter the site through the provided access along N. Main.

- a. A monument sign on-site along N. Main will identify the site and guide vehicles to their destination.
- b. Vehicles that miss the site access along N. Main will proceed to the lighted intersection at Knapp Rd, East on Knapp Rd, and enter the site through the Knapp Rd Entrance.

C. Vehicular Traffic approaching the site from East Knapp Rd will enter the site through the Knapp Rd Entrance.

- a. A monument sign along Knapp Rd will identify the site and guide vehicles to their destination.
- b. Vehicular traffic that misses the turn at Knapp Rd will proceed to the lighted intersection at N. Main. They will then travel south on N. Main to McHard Rd, travel east on McHard Rd to Old Alvin Rd, North on Old Alvin Rd to Knapp Rd, and West on Knapp Rd to the site.
- c. Site access along N. Main will have directional striping and no directional access signage to prevent vehicles from traveling south in northbound lanes to access the site from the median cut that currently services Pearland Alternator.
- d. No U-Turn Signage will be added to the existing raised and hooded median cut south of the site to prevent vehicular U-Turns along N. Main.

## 7. Truck Traffic

A. Truck Traffic Traveling South along N. Main from Beltway 8 will enter the site through Knapp Rd. Vehicles will travel south from the Beltway to the lighted intersection at Knapp Rd and proceed East along Knapp Rd to the site entrance.

- a. A monument sign on-site along Knapp Rd will identify the site and guide vehicles to their destination.
- b. Trucks will not queue along Knapp Rd but will queue on the site internal drive if required.
- c. Signage instructing "No Queuing" will be added along the Knapp Rd ROW to reinforce no queueing along Knapp Rd.
- d. Truck traffic that misses the turn at Knapp Rd will proceed to 518, travel West on 518 to Mykawa Rd, North on Mykawa Rd to the McHard Rd, East on the McHard Rd to N. Main, and then North on N. Main and enter off N Main St.
- e. Site access along N. Main will have directional striping and no directional access signage to prevent vehicles from traveling south in northbound lanes to access the site from the median cut that currently services Pearland Alternator.
- f. No U-Turn Signage will be added to the existing raised and hooded median cut south of the site to prevent vehicular U-Turns along N. Main.

- B. Truck Traffic traveling North Along N. Main Street will enter the site through the provided access along N. Main.
  - a. A monument sign on-site along N. Main will identify the site and guide vehicles to their destination.
  - b. Trucks will not queue along N. Main Rd but will Cue on the site internal drive if required.
  - c. Signage instructing “No Queuing” will be added along the Knapp Rd Row to reinforce no queuing along N. Main.
  - d. Vehicles that miss the site access along N. Main will proceed to the lighted intersection at Knapp Rd, East on Knapp Rd, and enter the site through Knapp Rd Entrance.
  - e. A monument sign on-site along Knapp Rd will identify the site and guide vehicles to their destination.
  - f. Truck Traffic that misses the N. Main entrance and the turn at Knapp Rd will proceed to the Beltway, head West on the Beltway 8 service road to Telephone Rd, cross under the Beltway, and head east on the Beltway Service Rd to N. Main.

#### 8. Vehicular (Non-Truck) Exits

- A. Vehicular Traffic that will travel north along N. Main will exit the site through the provided access along N. Main.
  - a. Signage will be provided at the exit along N. Main to reinforce no left turns onto N. Main from the site.
  - b. A raised median will also prevent left hand turns onto N. Main.
- B. Vehicular Traffic that will travel south along N. Main will exit the site through the Knapp Rd Access, head west along Knapp Rd, and south onto N. Main from the lighted intersection.
- C. Vehicular traffic desiring to travel east along Knapp Rd to other destinations within the city will be permitted.

#### 9. Truck Exits

- A. Truck Traffic that will travel north along N. Main will exit the site through the provided access along N. Main.
  - a. Signage will be provided at the exist along N. Main to reinforce no left turns onto N. Main from the site
  - b. A raised median will also prevent left hand turns onto N. Main St.
- B. Truck Traffic that will travel south along N. Main will exit the site through the Knapp Rd Access, head west along Knapp Rd, and south onto N. Main from the lighted intersection.
- C. Truck Traffic will not be permitted to travel East from the site along Knapp Rd. Signage indicating “No Trucks Right Turn” on the site and “No Trucks” along Knapp Rd will be installed to prevent truck traffic from traveling East from the site along Knapp Rd.

#### **D. Required Dedications of Land or Public Improvements**

- 1. No public land dedications or public improvements are required except as may be required by a Traffic Impact Analysis.

#### **E. Phasing Schedule**

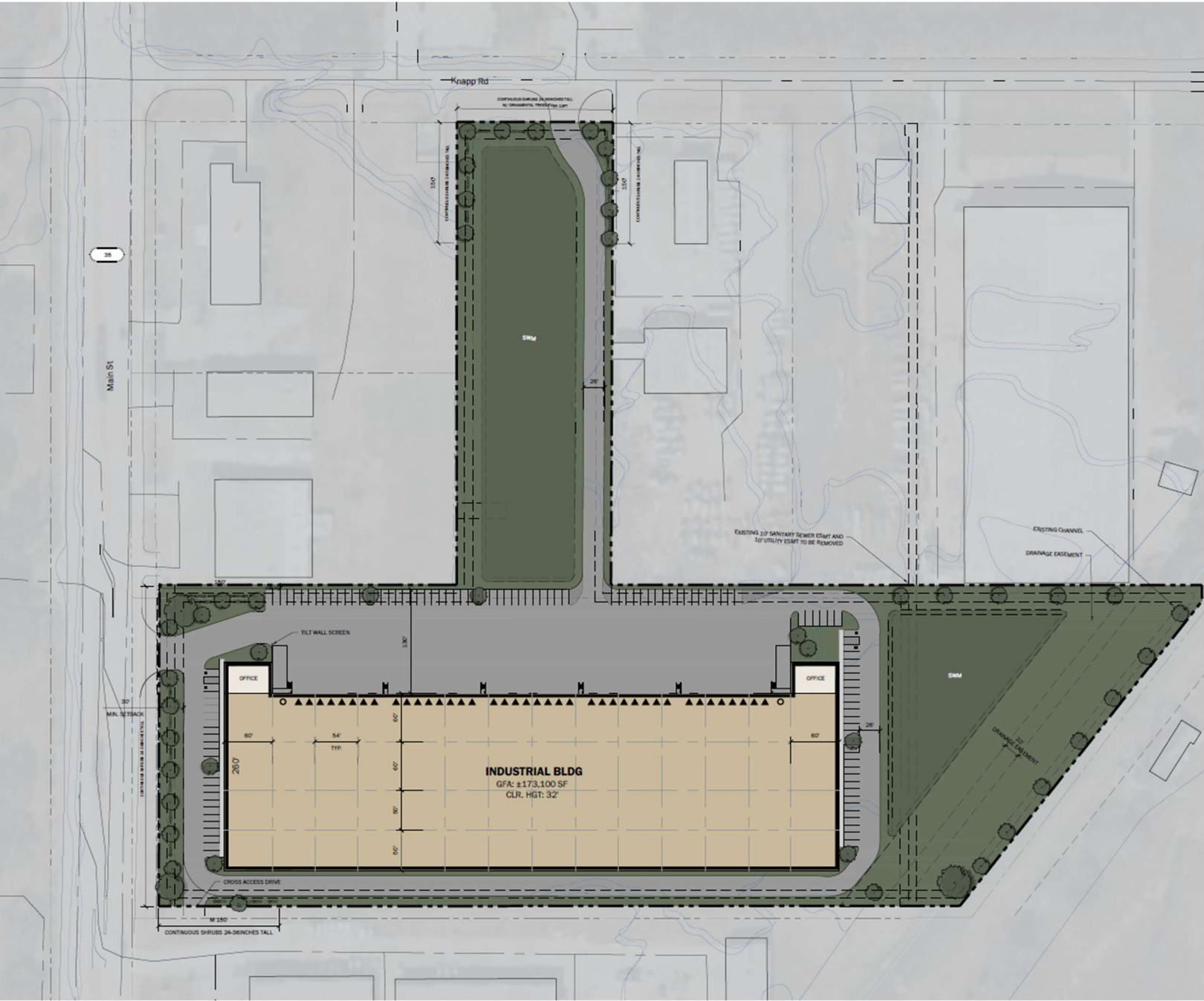
- 1. The proposed site development will be completed as one phase. Future tenant

improvements may be designed and permitted as applicable so long as they comply with the guidelines set forth in this PD.

**F. Exhibits**

1. These exhibits illustrate the land use and design intent for the property. The Design Plans are intended to serve as a guide to illustrate the general vision and design concepts and are not intended to serve as a final document. Unless explicitly stated in the Development Plan all internal circulation, driveway locations, building design, and plantings are conceptual, however; while flexibility is the intent, the final product should be largely reflective of these plans.
  - Exhibit A – Design Plan
  - Exhibit B – Site Renderings
  - Exhibit C – Site Signage
  - Exhibit D – Tree Protection

# Exhibit A – Design Plan



## Exhibit B – Site Renderings



Exhibit C – Site Signage



## Exhibit D – Tree Protection

### Section 4.2.3.8 Tree Protection

- (a) A major purpose of this division is to protect all trees which are not removed and to allow approved construction to occur. The following procedures shall apply to all types of construction projects which involve development around trees.
- (b) The following procedures are deemed appropriate in the situations noted; however, unique circumstances may allow modifications if deemed necessary by the City Manager or his/her designee.
  - (1) Prohibited Activities: The following activities shall be prohibited within the Critical Root Zone of any Protected Tree which is subject to the requirements of this division.
    - a. Material Storage - No materials intended for use in construction or waste materials accumulated due to excavation or demolition shall be placed within the Critical Root Zone of any tree.
    - b. Equipment Cleaning/Liquid Disposal - No equipment may be cleaned or other liquids deposited within the Critical Root Zone of any tree. This would include but not limited to, paint, oil, solvents, asphalt, concrete, mortar or other materials.
    - c. Tree Attachments - No signs, wires or other attachments, other than those of a protective nature shall be attached to any tree.
    - d. Vehicular Traffic - No vehicle, construction equipment or parking is allowed within the Critical Root Zone of any tree.
    - e. Trespassing - Trespass into protective fencing is prohibited.
  - (2) Pre-Construction Activities: The following procedures shall be followed prior to construction.
    - a. Tree Flagging - All Protected Trees to be removed from the construction site shall be flagged with bright red vinyl tape wrapped around the main trunk and painted with an orange "X" at a height of four feet (4') or more. Tape and paint must be visible to workers on foot or operating heavy equipment.
    - b. Protective Fencing - Unless otherwise specified in the applicable Tree Disposition Conditions, each Protected Tree to be preserved must be fenced during Development or Pre-Development Activity.
      - 1. Fencing Criteria - The Tree Disposition Plan shall specify protective fencing of the Critical Root Zone whenever reasonably practicable, unless a different area is prescribed in accordance with the Criteria Manual. Unless the Tree Disposition Conditions specify otherwise:
        - A six-foot or higher fence must surround each protected tree or group of protected trees, effectively preventing persons, machinery, trash, material and other items from occupying the area within the protective fencing;

- The fence must be constructed of durable, high visibility materials supported on poles or fence posts set firmly in the ground;
  - The fence must be able to resist intrusions and impacts likely to be encountered on a construction site;
  - The fence may incorporate existing fences or walls as well as temporary fencing; and
  - Each fence must display a prominent bilingual warning sign as set forth in the Criteria Manual.
2. Fence Permit - A separate fence permit is not required for construction of a fence under this section, if a building permit for the work is in effect and a Tree Disposition Plan has been approved.
  3. Trash, Storage Prohibited - It shall be unlawful for any person to use the area within the protective fencing, required by this section, for trash disposal, storage, vehicle parking or any other use that could adversely affect tree roots.
- c. Trunk Protection - In situations where a Protected Tree remains within six feet (6') of intended construction, the tree shall be protected by enclosing the entire circumference of the tree's trunk with lumber encircled with wire or other means that does not damage the tree.
  - d. Construction Pruning - In cases where a tree has a low canopy or limbs may be broken during the course of construction, the obtrusive limb(s) may be cut. Trees must be pruned according to the specifications set forth by ANSI A300.
  - e. Mulch - In Critical Root Zone areas where vehicles or equipment must pass, the addition of six inches (6") of shredded mulch or wood chips covered by a sheet of three-quarter-inch plywood is necessary to reduce the risk of severe soil compaction. The mulch and plywood shall be spread on-site or removed following the completion of the project.
  - f. Watering - Trees which are being protected should receive supplemental water during times of drought or low rainfall. As a rule of thumb a weekly application of approximately fifty (50) gallons of water per one-inch diameter applied slowly to the root zone will be sufficient.
- (3) Improvement Within the Critical Root Zone of a Protected Tree: Design constraints dictate that trees slated for preservation have some encroachment on their Critical Root Zone. The following is the minimum design criteria which is allowed within the Critical Root Zone of a Protected Tree. Development exceeding the criteria would put the tree at risk and therefore it could no longer be considered a Protected Tree. In such a case, Replacement Trees shall be required.

- a. Grade Changes - In the event that grade changes must be made around a Protected Tree or group of trees, the following shall be implemented in order to maintain oxygen and water exchange within the tree's Critical Root Zone.
  - 1. A minimum of seventy-five (75) percent of the Critical Root Zone shall be preserved at natural grade with natural ground cover or landscaping for the tree to be considered a Protected Tree.
  - 2. No cut or fill greater than two (2) inches shall be located closer to the tree trunk than one-half of the radius of the Critical Root Zone radius distance.
  - 3. Increase grade: Soil grade within the Critical Root Zone of trees should not be increased more than two (2) to three (3) inches using clean bank sand. Any increase above this can be detrimental to the tree. Any attempts to protect trees from the detrimental effects of increased grade must be approved by the City Manager or his/her designee.
- b. Boring of Utilities – Boring may be permitted under Protected Trees in certain circumstances. The minimum length of the bore shall be the width of the tree's Critical Root Zone and shall be a minimum depth of forty-eight (48) inches.
- c. Trenching - Irrigation systems shall be designed to avoid trenching across the Critical Root Zone of any large tree.
- d. Paving - A maximum of twenty-five (25) percent of the Critical Root Zone of a Protected Tree may be covered with impervious material. The pavement and the cut and fill for the pavement shall not exceed one-half of the Critical Root Zone radius distance.