



Warrensville/Van Aken Station Area Plan



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Prepared for:



SHAKER
HEIGHTS

RMS
INVESTMENT CORPORATION



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Executive Summary

The City of Shaker Heights, the Greater Cleveland Regional Transit Authority (GCRTA) and RMS Investment Corporation (RMS) joined together to further study the new end-of-the-line Warrensville Station on the RTA Blue Line and prepare a plan for the site. The purpose of the Warrensville/Van Aken Station Area Plan and Traffic Analysis (Plan) is to coordinate RTA light rail station and bus circulation needs with private development to create a vibrant, walkable mixed-use district within a functional transportation network. The desired outcome of the Plan is to enhance public transportation and maintain roadway traffic operations while maximizing developable land and customer experience, considering the immediate development opportunities and long-term development as well. Implementation of this Plan, along with the preceding plans and projects, is expected to revitalize the community by successfully integrating bus and rail transit within the new development and increasing the accessibility and circulation of existing vehicular traffic, bicyclists and pedestrians, with the provision of a safe intermodal site.

Existing Conditions

The Warrensville/ Van Aken Station Area is one of two primary commercial districts in the City of Shaker Heights (City). The Van Aken District was built in the late 1940s and has a significant retail and office presence, but is out of character with the high-quality residential areas in Shaker Heights. The predominant existing land use around the station is retail commercial. The City has identified the station area as a primary redevelopment opportunity, supported by the site's commercial mixed-use district zoning designation.

The Warrensville/Van Aken Station is the current terminus of RTA's Blue Line and acts as a de facto intermodal hub between the Blue Line and bus Route 5 (Chagrin Boulevard to Lander Circle), Route 14 (Downtown Cleveland to Warrensville / Van Aken via Kinsman Road/Chagrin Boulevard) and Route 41-41F (East Cleveland to Noble Road via Warrensville Center Road). The Warrensville / Van Aken Station is one of the highest transfer activity locations in RTA's system with 1,400 total weekday transfers. This high volume of transfers is particularly significant because it represents high volumes of both bus-rail and bus-bus transfers. The bus terminal at the Warrensville / Van Aken Station is inadequate and undersized, and is currently only capable of accommodating four buses. The facility cannot be expanded at its current location due to constraints of both the Blue Line infrastructure to the south (the third track) and private development to the north. RTA needs a minimum of six, and ideally would have eight, bus bays at the site for loading/unloading passengers and parking buses during layovers. Overlaps between arriving and departing buses, and potential increases in service frequency on the routes, mean that at least two bays are required for each of the three routes.

Plan Development

The Warrensville/Van Aken Station Plan was developed over the course of two, two-day workshops held in November and December 2014 followed by a full project team meeting in January 2015 to determine the specific recommendations. The plan development workshops included key members and technical staff from the project sponsor organizations including the City of Shaker Heights, RTA and RMS. As a nexus of transportation and development activity, the Van Aken District and the Warrensville/Van Aken Station Area have specific design considerations, parameters and constraints. These parameters are defined by the main components of the station area:



- **Bus Operations** - With the clear importance of the Warrensville/Van Aken Station for three bus routes and as a bus transfer hub, the bus design parameters focused on three key elements: bus parking capacity (bus stops), site geometry, and bus ride/transfer experience (proximity of transfer points, walkability, convenience, ease of access, and minimizing pedestrian-vehicle conflicts).
- **Rail Operations** - Rail design considerations, parameters, and constraints focused on maintaining rail operations at the Warrensville/Van Aken Station while using the configuration of the rail infrastructure to integrate RTA operations within the Van Aken District. Specific considerations are locations of the substation, third track and crossover as well as the platform. Replacement of the substation is in RTA's Capital Plan with design beginning in 2015 and construction occurring in 2016.
- **Site Development** - Development design parameters focused on creating a high-quality, livable and walkable development with a transit-friendly public realm that integrates well into the surrounding neighborhood. Specific parameters include maintaining the integrity of the street grid; accommodating minimum parcel dimensions to maintain buildable envelopes on lots; incorporating public realm and urban design upgrades that integrate transit and development; and ensuring transit is an integral part of the site that is visible from the street.

Traffic Operations

A review of previously completed traffic studies was performed as part of the traffic assessment included in the development of the Warrensville/Van Aken Station Area Plan. The purpose of this review is to ensure traffic volumes previously developed for the proposed site are comparable to the expected traffic volumes for the current, more refined development plan. Comparable trip generation results indicate that previously completed intersection operation analysis within the study area will likely operate as expected. However, it is recommended that a traffic impact study be developed for the site since all of the previous studies anticipated a single access point along Farnsleigh Road. An updated traffic study that incorporates the more refined site layout plans that depict multiple access points along Farnsleigh Road, Warrensville Center Road and Chagrin Boulevard should be evaluated to more accurately assess the site impact and integration within the surrounding roadway network

Van Aken District Development and Station Plan

Redevelopment of the Van Aken district, as envisioned, will transform the area into a vibrant, walkable, mixed-use neighborhood destination that integrates into the surrounding Shaker Heights community. Key goals of the site redevelopment are to create an iconic transit station experience that serves as a connector to existing neighborhoods; provides diverse retail, educational, arts and civic opportunities; and serves as a central gathering place for the Van Aken District and broader Shaker Heights communities. The redevelopment will occur in three main phases, based on construction, transit and development opportunities and constraints.



Interim Phase

The Interim Phase includes the site's infrastructure that will be in place in December 2015, which coincides with the completion of the Warrensville/Chagrin intersection reconfiguration. The transportation infrastructure, notably the roads to accommodate the bus routes and the transfer area, will, for the most part, reuse existing pavement and stay within the existing right-of-way. The current rail infrastructure will remain in place. Retaining the roadway and rail infrastructure in place minimizes utility impacts while providing acceptable site function. Key construction elements for the Interim Phase of the station area plan include:

- Warrensville/Chagrin intersection reconfiguration (currently under construction)
- Bus roadway infrastructure essentially contained within existing Van Aken right-of-way
- East-west bus access road to Warrensville (for #41S) from the bus transfer location
- Bus access road to Chagrin Boulevard (for #41S)

Phase 1

Phase 1 is the initial phase of the Van Aken District redevelopment, located in the area to the north of the existing Blue Line rail lines. The transportation infrastructure for Phase 1 will build from the Interim Phase and the current rail infrastructure will continue to remain in place. Phase 1 is driven by site development, construction of the east-west access road to Warrensville and signalization of that intersection, and relocation of the substation. Planned completion of Phase 1 is expected in 2017. Key construction elements for Phase 1 of the station area plan include:

- Substation relocation (expected in 2016)
- East-west site access road to Warrensville
- Traffic signal at east-west road/Warrensville intersection

Phase 2

Phase 2 completes redevelopment of the site bounded by Warrensville Center Road, Chagrin Boulevard, and Farnsleigh Road, focusing on the area to the south of the RTA tracks. The transportation infrastructure includes reconfiguration of the RTA track, with relocation of the crossover and third track to the west of the Van Aken/Farnsleigh intersection and the consolidation of the Blue Line's Warrensville and Farnsleigh Stations with the construction of a new transit station and the relocation of the station platform. Relocation of the rail facilities will require substantial utility relocation. Additionally, the bus road will be realigned along the reconstructed station platform and new internal roads to provide internal circulation will connect with the Farnsleigh/Winslow and the Chagrin/Lomond intersections. This realignment also necessitates significant relocation of utilities and RTA catenary poles. The schedule for completion of Phase 2 is projected as potentially 2020-2025. Key construction elements for Phase 2 of the station area plan include:

- Relocation of rail crossover
- Relocation of third track
- Consolidation of the Warrensville/Van Aken and Farnsleigh stations with construction of a new station and platform close to the Van Aken/Farnsleigh intersection
- New bus roadway aligned with the rail lines and immediately adjacent to the new station and platform
- Pedestrian infrastructure, including sidewalks and related features, to facilitate transit transfer connectivity



Bicycle and Pedestrian Accommodations

The Van Aken District development and the Warrensville/Van Aken Station play an important role in continuing the City's efforts and connecting bicycle and pedestrian access to other transport modes. The Van Aken District will serve as a center of activity that attracts people from the surrounding neighborhoods as well as a busy intermodal hub. Given its location within Shaker Heights, pedestrian features are necessary on both sides of all streets within the site, along with provision of safe, well-designed pedestrian crossings and streetscape elements to add to the walkability of the area.

RMS does not plan to provide bike lanes within the site, however, bicycle amenities such as bike racks, and possibly bike lockers should be provided within the site and particularly near the transit hub. Such features would encourage bicycle use for people traveling to the site as their final destination as well as to the bus and rail transit for continuation of their trip to their ultimate destinations elsewhere in the county.

Parking

Parking facilities are an integral part of the overall transportation system. It is important to provide appropriately sized and properly designed parking facilities to accommodate the needs of the district, including the mixed-use development as well as transit.

Given the variability in the estimating process, the parking projections should not be interpreted as precise numbers but as an indication of the possible demand level. The actual parking demand may be reduced as a result of transit use, pedestrian and bicycle trips, and an effective parking management program. Additionally, the peak demand for each of the land uses may not overlap (particularly office and residential). For those reasons, the total parking demand is estimated to be 1,570 parking spaces. Potential reductions of 10%, 20% and 40% may be reasonable based upon alternate mode and parking management reductions.

Cost Estimate

As part of this study, a planning level cost estimate has been prepared for various phases of site build out. The costs shown in this estimate represent an estimate of probable planning level construction costs provided in good faith and with reasonable care. The plan does not take into account changes or escalation factors in the costs of labor, materials, or equipment, nor over competitive bidding. The provided cost estimate does not include right of way, utility relocation costs (other than noted) or construction engineering and inspection costs. The planning level cost estimates are **Phase 1 - \$4,682,200** and **Phase 2 - \$18,170,700**. Costs for the Interim Phase will be completed by others. A breakdown of costs identified for the major elements within each phase are shown in **Table 9-1**.

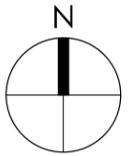
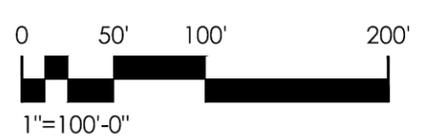
Funding Plan

The City of Shaker Heights, RTA, and other governmental entities, together with the developer of the site, will seek funding from a variety of public and private sources to provide funding for the infrastructure changes that are proposed to support the development. The City, RTA and the developer have begun exploring funding options with funding agencies and sources. The City, RTA and the developers will develop a funding package, likely including funding from a variety of Federal, state, local, and private sources, to complete funding of the proposed infrastructure improvements.



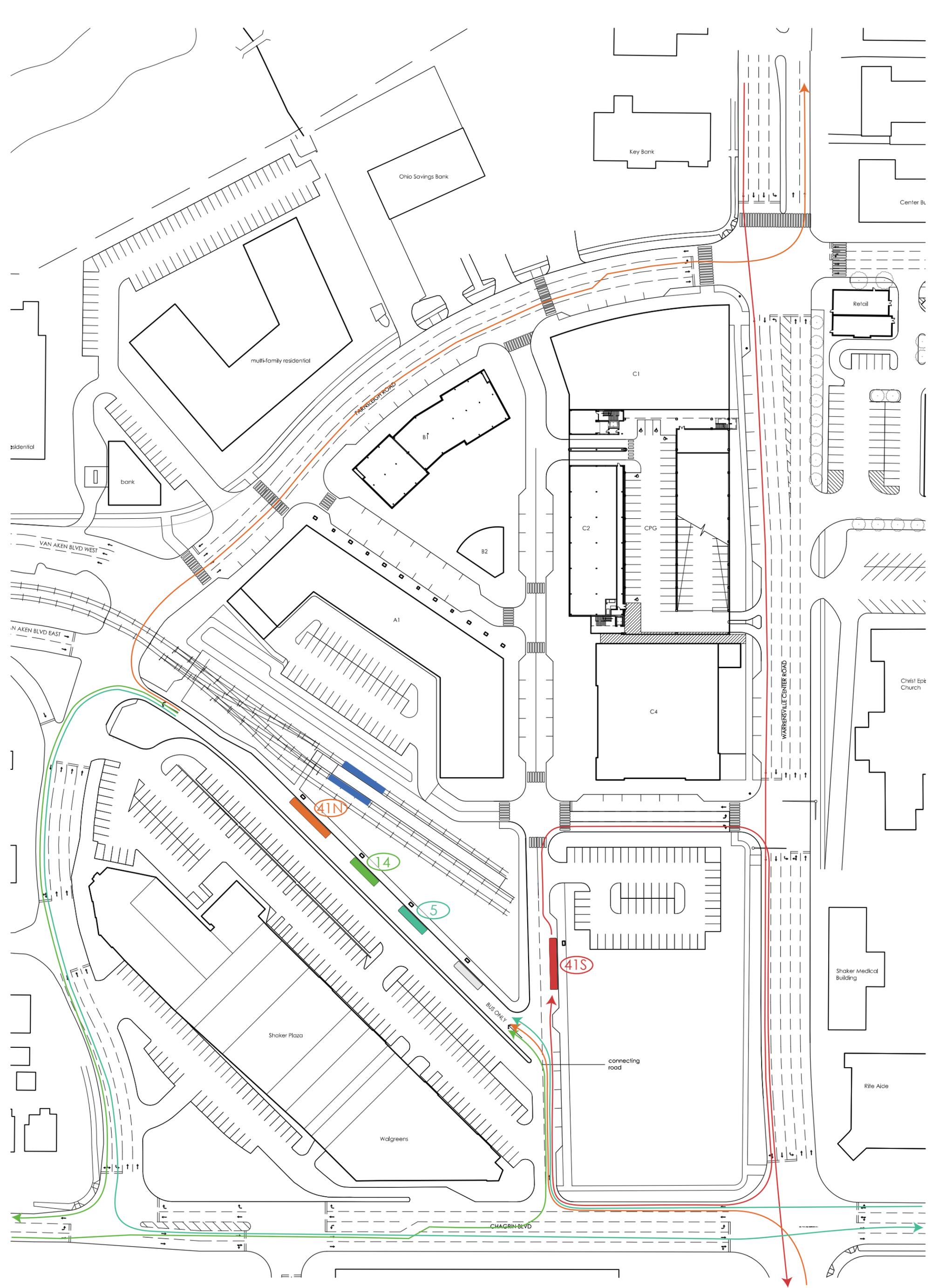
INTERIM SITE PLAN

VAN AKEN SITE PLAN



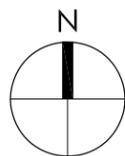
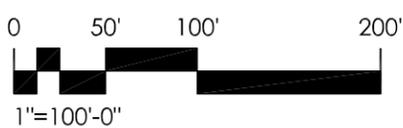
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 Drawing Title:

03.26.2015
Van Aken District
Shaker Heights, OH
1"=100' Interim Site Plan



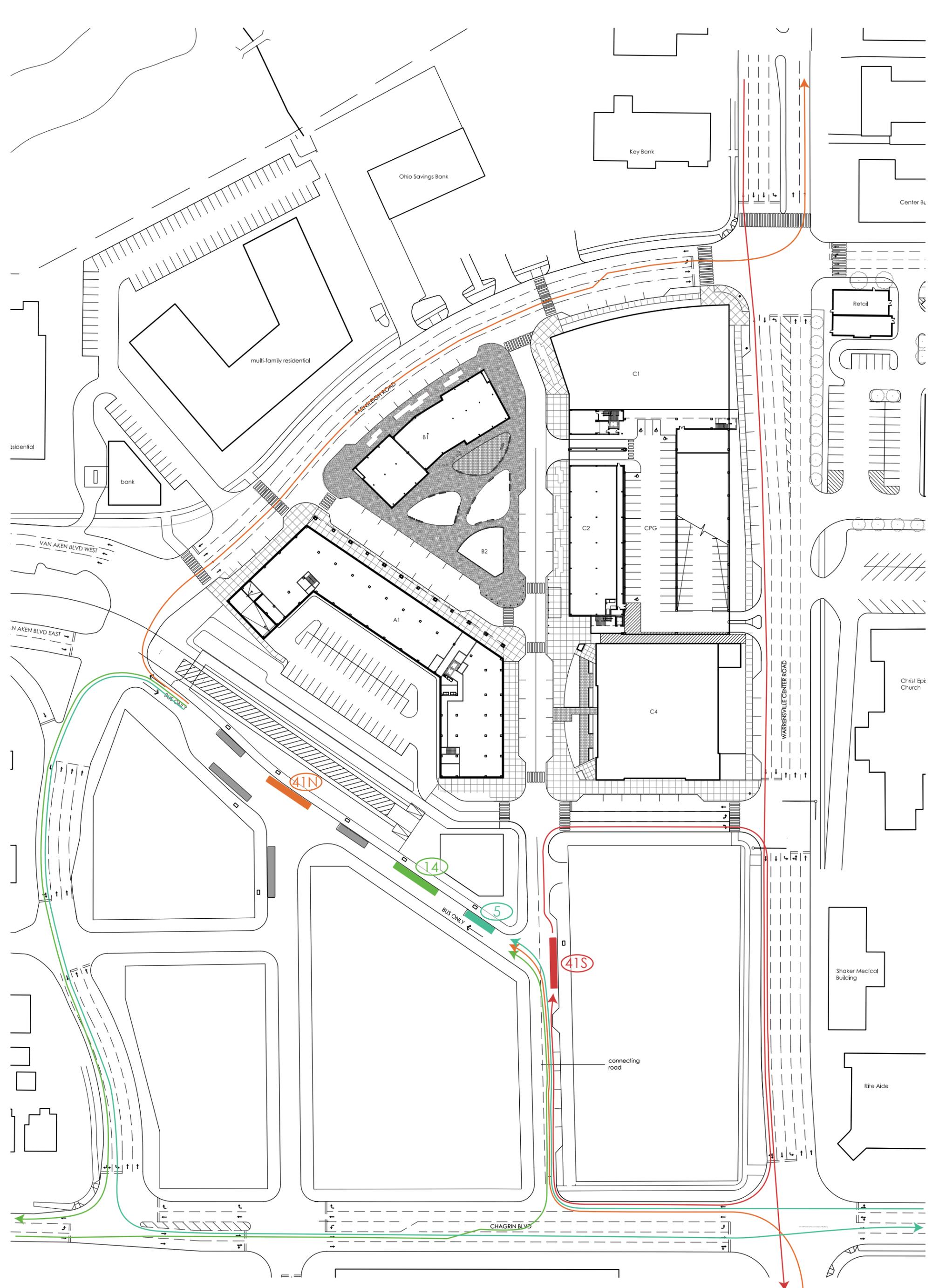
Phase 1 Site Plan

VAN AKEN SITE PLAN



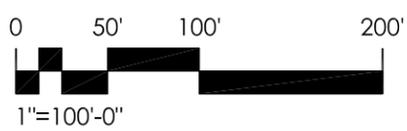
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Van Aken District
Shaker Heights, OH
1"=100' Phase 1 Site Plan



Phase 2 Site Plan

VAN AKEN SITE PLAN



Issue/Date:
Project Title:
Project Location:
Drawing Title:

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Van Aken District
Shaker Heights, OH
1"=100' Phase 2 Site Plan