

L. CONSTRUCTION

1. Existing Conditions

a. Prior Construction On Site

In 2002, a 75,519 square foot multi-use commercial building was converted to a state-of-the-art Stop & Shop supermarket along with related parking, landscaping and utilities. The supermarket was located on an 8.4-acre parcel which was part of the Cross County Shopping Center.

The proposed supermarket included a bakery, delicatessen, car and book department, florist, general merchandise area, a full-service pharmacy with separate health and beauty aids section and a full-service bank.

The building which was to house the supermarket was constructed on a site that under post-excavation conditions, was approximately 30 feet below the grade of Kimball Avenue and an average of 15 feet below the grade of Vredenburg Avenue. On three sides of the site was a rock ledge wall extending along a line that is parallel to the frontage along Vredenburg Avenue to a line that is parallel to, and 275 feet from, Kimball Avenue. The wall continued along the back of the site to a point adjacent to the rear access road and approximately 450 feet from Xavier Drive. To insure stability of the site, three retaining walls were provided.

Internal improvements that were provided included the installation of new curbing, sidewalks, landscaping, signing and pavement markings along the entire length of South Drive as well as along West Drive from South Drive to northerly Sterns Driveway. The modifications were intended to provide an improved circulation road by better defining the roadway and augmenting and improving the existing landscaping, signing and pavement markings. Along Xavier Drive, new pavement markings, crosswalks, and landscaping were provided. The connecting road from

Xavier Drive to Kimball Avenue was redefined and restriped.

The project site originally consisted of paved parking rising more than 30 feet in a northeasterly direction from Xavier Drive. The top parking field along the eastern side of the site was at a grade of approximately 200 feet and was level with Kimball Avenue. The middle parking area was at a grade of about 190 feet generally at the same elevation as the balance of the Shopping Center. Also located on the site was a 3,000 square foot maintenance building, which was demolished and relocated.

On or about April 2000, Stop & Shop removed the paved surface and reshaped the contours of the site. In order to construct a building which could be integrated with the existing Shopping Center, and to provide sufficient buffering and screening from the adjacent residential properties, the average grade of the site was lowered. Because the majority of the site was composed of bedrock at or near the surface, rock removal was required. Approximately 150,000 cubic yards of rock was excavated from the site.

2. Anticipated Impacts

a. Rock Removal

There are three (3) potential areas which may require the removal of rock: Area A – the existing slope adjacent to the Sears building closest to the new Stop & Shop; Area B – Site Drive “C” at Kimball Avenue; and Area C – the existing rock face between the Cross County Parkway westbound exit ramp as it leads to Midland and Kimball Avenues. Blasting is only anticipated at Areas A and B. Please refer to Figure IV. B-4 for the Anticipated Rock Removal Location Plan, and Figure I.A-7D for the Pile Driving and Rock Removal Schedule. Prior to the start of any blasting activities, a detailed blasting plan will be established and submitted to the City of Yonkers for Building Permit approval. This blasting plan will be tailored to address each specific location and will be based on all information gathered and

approved to date, including all geotechnical reports, approved site plans, city and public comments, etc.

Blasting protection and mitigation will be provided by:

- Blasting will be undertaken by a New York State Licensed Powder Man and Licensed Blasting Contractor.
- To assure the work is performed in strict accordance with project blasting specifications, a licensed professional Geotechnical Engineer and Blasting Consultant will supervise all operations throughout the duration of the blasting process.
- A program to inform the surrounding neighborhoods about proposed blasting operations will be undertaken at the beginning of the project, prior to any blasting activities, to assure the community of the care with which blasting operations will be performed and the extent of oversight involved by the City, State and other regulatory agencies.
- Prior to the commencement of blasting, an independent blasting consultant will conduct a pre-blast survey. All adjacent structures and buildings within close proximity of the blast area will be surveyed to form a baseline of existing conditions.

Area C – Cross County Parkway westbound exit ramp as it leads to Midland and Kimball Avenues: Considering the poor condition of the weathered / fractured rock and the minimal quantity projected to be removed, approximately 600 to 1,000 cubic yards, the optimal solution to remove the rock face along Midland Avenue will be to line drill and chip away the rock face. A track mounted drill rig (approximately the size of a typical sport utility vehicle) will be utilized above the rock face, on the apartment building property, to line drill numerous boreholes in order to establish the new rock face line. Excavators with large chipping hammers will be utilized from the road side of the rock face to break and pull down the sections of the drilled and fractured rock. Based on the current phasing plan, these spoils would be loaded into trucks and hauled directly to the existing Shopping

Center to be processed and reused as fill material. In order for this chipping to occur, Midland Co-op would need to grant permission allowing construction activities to occur on the property. Meetings will be held with all residents and ownership to assure all parties are satisfied with the scope of work and measures to be in place to protect their investments.

The dedicated right turn lane will need to be closed down on Midland Avenue during the rock removal process. Midland Avenue will be temporarily restriped to shift traffic accordingly around this lane closure and to maintain both the eastbound and westbound traffic lanes. The lane closure will be required to adequately protect passing vehicular and pedestrian traffic along with the contractor employees performing the work, and to accommodate the working space required for the equipment operation.

This operation will generate minimal ground vibrations which should only disturb the immediate Midland Co-op building which lies within 100 feet of the construction area. The Sarah Lawrence Student/Residence Complex should not experience any disturbances generated by ground vibrations caused by the drilling and/or rock chipping operations as that structure is approximately 500 feet away. Contrary to vibration, both residences will be subjected to increased noise levels as produced by the intermittent use of drills, chipping equipment and construction vehicles. To help mitigate this issue, the hours of operation will be strictly enforced which are currently estimated to be between 8:00AM and 3:30PM, and/or those work hours approved by the City of Yonkers, State of New York and any other governing agencies. These hours of operation generally coincide with lowest building occupancy and should result in fewer resident distractions. Another possible sound mitigation option, if feasible, would be to place the compressor section of the drill rig (the component which creates the most noise) on Midland Avenue in lieu of on the property. The existing rock face will also help to abate the noise levels with this and other proposed options. All options and mitigation measures will be discussed with the Midland Co-op during subsequent meetings. Based on the current soil data for the area and visible rock conditions,

we anticipate the rock drilling and chipping operations to take approximately 6 – 8 weeks to complete. During this time period the rock drilling and chipping operations should not reduce the current number of onsite resident parking spaces and/ or restrict access into or out of the building property.

The dedicated right turn lane will need to be closed down on Midland Avenue during the rock removal process. Midland Avenue will be temporarily restriped to shift traffic accordingly around this lane closure and to maintain both the eastbound and westbound traffic lanes. The lane closure will be required to adequately protect passing vehicular and pedestrian traffic along with the contractor employees performing the work, and to accommodate the working space required for the equipment operation.

This operation will create minimal vibration, only disturbing residences immediately adjacent (within 100 feet) to the construction. The intermittent use of the drills and hammers will produce noise, which may disturb surrounding residences (up to a distance of 500 feet), but will be strictly monitored to maintain compliance with all regulatory standards.

Area B – Site Drive ‘C’ at Kimball Avenue: Based upon the quantity of rock projected to be removed, approximately 5,000 to 5,500 cubic yards, and the proximity of residential buildings, the optimal solution for the rock removal at the ‘knoll’ on Site Drive ‘C’ off of Kimball Avenue would be blasting. The removal of rock by means of blasting will require the complete closure of the entrance/exit driveway. In order to accommodate this closure, the remaining entrances/exits from the center located off of Kimball Avenue, Vredenburgh Avenue and Central Park Avenue will be upgraded prior to the start of work in this area. Blasting at this location would expedite the removal of rock thus allowing regrading activities to be accelerated. Based on an approved, controlled blasting program, the vibration and sound impacts associated with the blasting process would be held to a strict minimum to the surrounding neighbors.

The rock removal activities at Area B are anticipated to be the most visible for the surrounding neighborhoods, being that all work occurs at the top of the existing main entry off Kimball Avenue. Despite its exposure, the impacts to the nearest residents on Kimball Avenue should not be significant. The closest residences are located approximately 400 feet from the blasting area, however, through the implementation of approved blasting techniques (use of matting, drill hole placement, minimal explosive usage, etc.) muffling the momentary thuds resulting from the blast charges should be achievable. Additionally, work hours are anticipated to be between the hours of 8:00AM and 3:30PM when a majority of residents will be out of their households. The residents living on Midland Avenue are approximately 600 feet from the blasting activities and should be shielded not only by the elevated roadway structures of the Cross County Parkway Eastbound and Westbound, but also the continual traffic noise generated on each of these respective thoroughfares. All other neighborhoods – such as those located along Vredenburgh Avenue, Mile Square Road and Central Park Avenue – are all more than 1,000 feet from the blasting area. This distance, as well as the placement of existing retail structures (i.e. Stop & Shop, Multiplex Cinemas, the Mall at Cross County, and numerous retail buildings within the Cross County Shopping Center), should help to dissipate the noise impacts significantly from these neighborhoods. Blasting activities at Area B are anticipated to last approximately two and one half (2 ½) months based on the visible rock conditions and current soil data.

All material removed from this location would be transported via truck to the on-site rock crushing location. All truck traffic would be limited to the internal network of site roads and would not impact public traffic routes.

Area A – Hill adjacent to the southern parking lot of Sears: Based upon the quantity of rock projected to be removed, approximately 5,000 to 5,500 cubic yards, and the proximity of existing retail and residential structures, the optimal solution would be to blast at this location. The removal of rock, by means of blasting would require the periodic closure of the Sears southern most parking lot and adjacent roadway located between the Sears and Stop & Shop buildings.

Based on the current project phasing plan, these closures will not affect the traffic flow into, out of, or through the center as the upgrades to the entrances and exits to/from the center will be complete prior to the start of this work. Again, based on an approved, controlled blasting program, the vibration and sound impacts associated with the blasting process would be held to a strict minimum to the surrounding neighbors.

The residential impacts at Area A appear to be minimal despite the close proximity to the residents located on Kimball Avenue. The closest residences are approximately 300 feet from the blasting area, however, significant grade changes and existing fence lines should shield these residences from any noise impacts. Through the implementation of approved blasting techniques (use of matting, drill hole placement, minimal explosive usage, etc.) muffling the momentary thuds resulting from the blast charges should be achievable. Additionally, work hours are anticipated to be between the hours of 8:00AM and 3:30PM when a majority of residents will be out of their households. All other neighborhoods – such as those located along Vredenburg Avenue, Mile Square Road and Central Park Avenue – are all more than 1,000 feet from the blasting area. This distance, as well as the placement of existing retail structures (i.e. Stop & Shop, Multiplex Cinemas, the Mall at Cross County, and numerous retail buildings within the Cross County Shopping Center), should help to dissipate the noise impacts significantly from these neighborhoods. Blasting activities at Area B are anticipated to last approximately two (2) months based on the visible rock conditions and current soil data.

All material removed from this location would be transported via truck to the on-site rock crushing location. All truck traffic would be limited to the internal network of site roads and would not impact public traffic routes.

Based on the overall quantity of rock anticipated to be removed from the three (3) locations, approximately 12,000 cubic yards, the proposed method of disposal would be on-site crushing. Processed rock can be utilized throughout the site as

base course material, drainage stone and sub-base material under new structures and roads, along with bedding material for utilities located within trenches. By processing the rock on-site, truck traffic leaving and entering the site will be reduced. Crushing activities and associated stockpiles can be established within the recessed area remaining subsequent to the demolition of the supermarket located in the southwest corner of the site. This area is considerably set back from residential neighborhoods. The closest neighborhood, at approximately 700 feet away, is located on Central Park Avenue (Southbound) directly across from the proposed rock crushing area. However, this neighborhood is shielded not only by the elevated roadway structures of Central Park Avenue and the New York State Thruway, but also the ambient noise levels created by the continual traffic on each of these respective thoroughfares. The next closest neighborhood, at approximately 900 feet away, is located along Mildred Road. However, this neighborhood is completely shielded from the rock crushing operations by the structures at the Mall at Cross County. All of the remaining neighborhoods, such as those along Kimball Avenue, Vredenburg Avenue, Mile Square Road and Central Park Avenue (Northbound), are more than 1,000 feet away from the rock crushing activities. The overall distances from these activities aids in the noise reduction along with ambient noise levels generated by daily traffic in and around the neighborhoods. This coupled with the placement of existing buildings – such as the Mall at Cross County, the Multiplex Cinemas and the retail buildings of the Cross County Shopping Center – should help further shield the neighborhoods from the rock crushing operations. In conjunction with the rock crushing occurring below grade and the additional screening provided by the retail buildings, adjacent residential neighborhoods should not be affected adversely in any way. However, should it be needed, noise reducing screens as well as continual misting can be incorporated into the operations to aid in the reduction of ambient noise and dust creation, respectively.

Based on the current design criteria and the site wide cut and fill analysis, it is estimated that all processed and crushed rock will be utilized on-site throughout the phases of construction. We do not anticipate that any crushed rock will need

to leave the site and be disposed of at off-site locations. The rock processing and crushing activities will generate stockpiles of material. Stockpiled material will be staged in approved locations (currently projected as the recessed area created following the demolition of the existing supermarket building in the southwest corner of the site) and will be maintained in accordance with all guidelines to limit erosion and possible environmental impacts. Stockpiles will be managed accordingly and will be kept to a strict minimum, only stockpiling material that can be used within a limited timeframe.

Based on the current design criteria and the site wide cut and fill analysis, it is estimated that all processed and crushed rock will be utilized on-site throughout the phases of construction. We do not anticipate that any crushed rock will need to leave the site and be disposed of at off-site locations. The rock processing and crushing activities will generate stockpiles of material. Stockpiled material will be staged in approved locations (currently projected as the recessed area created following the demolition of the abandoned Stop & Shop supermarket building in the southwest corner of the site) and will be maintained in accordance with all guidelines to limit erosion and possible environmental impacts. Stockpiles will be managed accordingly and will be kept to a strict minimum, only stockpiling material that can be used within a limited timeframe.

b. Pile Driving

Based on the preliminary boring reports, observed conditions throughout the site, and previous foundation systems, all new structures are currently scheduled to be pile supported. Driven piles can be installed using an impact hammer, vibro driver or hydraulic press and performance is routinely monitored during operation. Modern pile driving equipment is capable of providing consistent, calibrated energy that can be easily monitored during operation.

Pile driving activities will intermittently and temporarily generate noise levels above existing ambient levels in the project vicinity over the duration of the pile

driving period. To mitigate the elevated noise levels created during the pile driving activity, the following measures may be taken: limit the hours that piles may be driven, alternate methods of driving or foundation support, use of multiple pile drivers to reduce the total time required for driving piles.

The use of drilled caissons in lieu of piles for foundation support will reduce the noise impact, however this may not be a feasible option based on future soil boring results. If caissons are deemed not feasible, the use of sonic or vibratory pile drivers, in lieu of impact pile drivers, may obtain lower operating noise levels. However, if impact pile drivers must be used, the implementation of the following measures may need to be utilized: pile drivers may be able to use engine and pneumatic exhaust controls to reduce exhaust noise and/or piles may be pre-drilled prior to their installation to accommodate lower noise levels.

Should multiple impact pile drivers be used, they would need to be arranged so that no two pile drivers are impacting piles simultaneously.

The aforementioned noise mitigation measures would be implemented and followed for the duration of pile driving activities.

Typical vibration levels from construction activities, i.e. steel erection, concrete forming and pouring, roofing, carpentry, etc. generally do not pose the potential to cause structural damage in adjacent buildings. Some construction activities, such as pile driving and blasting, can produce vibration levels that may have the potential to damage some vibration sensitive structures if performed within close proximity.

A number of controls can be implemented with respect to mitigation of vibration during construction. Threshold or limiting values may be established that account for the ability of each structure to withstand the loads and displacements due to construction vibration. Construction specifications that impose reasonable acceptance criteria can be included in construction contracts. Vibration monitoring programs at nearby sensitive receptors may also be developed and included as part

of the construction contract specifications. A feedback response procedure can be implemented to promptly address community concerns and implement additional control methods where necessary. Additionally, vibration control plans can be developed and good engineering practices (i.e. shutting off idling machinery when not in use) can be implemented to limit vibration in sensitive areas, depending on the construction methods required.

During high vibration-producing activities such as pile driving, there is a potential for settlement and small movement of nearby structures, namely the existing retail buildings within the mall complex. No vibrations from pile driving are-anticipated to impact the surrounding residential homes and off-site buildings. Design and installation of suitable shoring systems and other mitigations can reduce the potential of settlement-related damage if deemed required. Other mitigation measures include underpinning adjacent structures, installing recharge wells to reduce dewatering induced settlement and/or re-leveling and repairing impacted areas following construction. In addition, pre-construction condition surveys and during construction monitoring programs for neighboring structures may be conducted and repairs made as necessary. In all cases, when work is planned to be performed adjacent to existing structures, the design and ownership team will evaluate all conditions of the construction processes and determine appropriate courses of action.

Pile driving will occur during all three (3) phases of the construction on the site. Please refer to Figure I.A-7C for the Pile Driving Location Plan, and Figure I.A-7D for the Pile Driving and Rock Removal Schedule. During the Year 1 Phasing plan, two (2) new buildings are being constructed – the new Building 13 and the new Retail Building G. Based on preliminary soil information, it is anticipated that Building 13 can be constructed with footings and foundation systems bearing on rock which will eliminate the need for piles. Contrary to Building 13, the new Retail Building G will need to be pile supported. It is anticipated that it will take approximately one and one half (1 ½) months to drive all the piles associated with the new Retail Building G foundation. The closest residences along Kimball

Avenue are approximately 700 feet from the pile driving area, however, significant grade changes and existing fence lines should shield these residences from most noise impacts. In order to mitigate noise measures further, work will be performed between the hours of 8:00AM and 3:30PM when a majority of residents will be out of their households. All other neighborhoods – such as those located along Vredenburg Avenue, Mile Square Road and Central Park Avenue – are all more than 1,000 feet from the pile driving area. This distance, as well as the placement of existing retail structures (i.e. Stop & Shop, Multiplex Cinemas, the Mall at Cross County, and numerous retail buildings within the Cross County Shopping Center), should help to significantly dissipate the noise impacts from these neighborhoods.

During the Year 2 Phasing plan, five (5) new structures are being erected – the new Retail Building 2, the North Parking Deck and associated E Buildings, the pad for the future Macy's Expansion Building B, and the pad for Restaurant Building F. All five (5) structures will require pile supported foundations based on current soil data from borings around the site. It is anticipated that it will take approximately two and one half (2 ½) months to complete all the pile driving associated with these new structures. The closest residences on the east side of the site are along Kimball Avenue and are approximately 500 feet from the pile driving areas. Significant grade changes and existing fence lines should adequately shield these residences from any noise impacts. The closest residences on the north side of the site are on the opposite side of the Cross County Parkway and are approximately 800 feet from the pile driving activities. This neighborhood is shielded not only by the elevated roadway structures of the Cross County Parkway Eastbound and Westbound, but also the continual traffic noise generated on each of these respective thoroughfares. The closest residences on the west side of the site are on the opposite side of the New York State Thruway and are approximately 800 feet from the pile driving activities. This neighborhood is also shielded by the elevated road structures and the ambient traffic noise generated by these roadways. All other neighborhoods – such as those located along Vredenburg Avenue and Mile Square Road – are all more than 1,000 feet from the pile driving area. This distance, as well as the placement of existing retail structures (i.e. Stop & Shop, Multiplex

Cinemas, the Mall at Cross County, and numerous retail buildings within the Cross County Shopping Center), should help to significantly dissipate the noise impacts from these neighborhoods.

During the Year 3 Phasing plan, three (3) new structures are being erected – the 5 Level Parking Garage, the new Retail Building A and the extension to the existing underground tunnel servicing the retail loading docks. All three (3) structures will require pile supported foundations based on current soil data from borings around the site. It is anticipated that it will take approximately one and one half (1 ½) months to complete all the pile driving associated with these new structures. The closest residences on the west side of the site are on the opposite side of the New York State Thruway and are approximately 700 feet from the pile driving activities. This neighborhood is shielded by the elevated road structures and the ambient traffic noise generated by these roadways. The closest residences on the south side of the site are on Mildred Avenue and are approximately 900 feet from the pile driving areas. However, this neighborhood is completely shielded from these activities by the Mall at Cross County. The closest residences on the east side of the site are along Vredenburgh Avenue and are approximately 900 feet from the pile driving areas. They, too, are shielded from the pile driving activities by existing buildings, such as the Multiplex Cinemas and the existing retail buildings of the Cross County Shopping Center. All other neighborhoods – such as Kimball Avenue, Mile Square Road and Central Park Avenue – are all more than 1,000 feet from the pile driving area. This distance, as well as the placement of existing retail structures (i.e. Mall at Cross County, retail buildings at Cross County Shopping Center), should help to significantly dissipate the noise impacts from these neighborhoods.

c. Delivery Of Materials

For the duration of the construction process, the location of construction worker parking and truck deliveries can be synchronized with the phases of construction to ensure acceptable parking and haul road locations.

Clear direction to pertinent construction locations, such as the project offices, trade contractor offices, material storage areas and parking areas, will be identified and marked out via an on-site signage program.

The New York State Thruway and Central Park Avenue will be the main thoroughfares being used for the delivery of materials throughout the normal workday. All delivery truck traffic will be limited from traveling throughout the local residential street networks, by the means of a contract requirement.

d. Construction Traffic

Designated locations will be established for the entrance and egress of site construction traffic. The New York State Department of Transportation, the New York State Thruway Authority, the City of Yonkers Department of Public Works and any applicable regulatory agencies will govern the re-routing and protection required for all traffic adjacent to roadway improvement projects, dependent on their respective jurisdiction.

Construction traffic will be limited to stabilized designated haul roads and will be comprised of parcel post delivery trucks, 10-wheel and 18-wheel delivery trucks, 10- and 18-wheel dump trucks, concrete trucks, cranes and construction worker vehicles.

Temporary lots, consisting of a gravel sub-base, may be established throughout the site for construction worker vehicle parking along with the utilization of existing parking fields. All lots will be maintained regularly to ensure an orderly appearance and trash will be disposed of on a daily basis.

Should it be needed during the roadway improvement periods, construction signage will be provided to convey adjustments to traffic patterns and to establish safe

speed limits throughout work zones. The use of temporary vehicle barriers may need to be used to adequately segregate construction activities from the public.

e. **Construction Phasing and Staging**

Construction activities will be performed continuously for approximately thirty-six (36) months. Sub-grade preparation, roadway paving, sidewalk installations, roofing and miscellaneous finish work will be the only construction activities affected by extreme low temperatures and asphalt/concrete plant operating schedules. Besides the above listed operations, all other construction activities will be performed throughout the duration of the construction phases. To avoid these conflicts and to take advantage of appropriate weather conditions, the work will be sequenced accordingly. If necessary, temporary protection measures and enclosures can be employed to accomplish the schedule guidelines should there be unusual weather circumstances.

Initial goals of the project will be the designation and marking of existing interior roadways and the installation of required site services. These services will include the establishment of a construction office complex with associated sanitary facilities and potable water. To minimize the accumulation and dispersal of construction debris, the site will be managed such that the debris is directed to a series of both intermediate waste receptacles and central dumpsters strategically placed around the site. These containers will be removed and replaced as required for disposal. The implementation of existing or temporary facilities will provide the continual operation of the utility services for all of the existing office and retail buildings. These facilities will be utilized throughout the construction phases until the new permanent utility services are completed.

Earthwork operations such as excavation, milling of parking surfaces and roads, ripping of weathered rock and minor blasting will be needed in each construction phase to provide a graded construction platform for the new roads and structures. Based on the existing site topography and new site layout, the majority of new

parking fields and structures will require some level of cutting and/or filling. All usable millings and existing subbase cut material will be transported within the site perimeter to approved stockpile locations for use in future construction phases as fill material.

Major road and infrastructure work includes:

1. A new slip ramp off of the Cross County Parkway eastbound ramp along with improvements to Site Drive 'C' off of Kimball Avenue.
2. Reconfiguration and improvements to the intersection of South Drive and Central Park Avenue.
3. Improvements to the hardscape and landscape along Xavier Drive and other interior site drives.
4. Improvements to the hardscape and landscape of the pedestrian walkways within the mall complex.

Sequencing the road and infrastructure activities is a central part of the overall project. All construction work will be performed so as to minimize the impact to existing traffic flows in and around the area, as well as on and off-site. For instance, prior to impacting the access to the site from Site Drive 'C' off of Kimball Avenue, all improvements to the other major site driveways can be completed. Additionally, access and parking can be maintained for the existing retail buildings and newly erected structures.

In addition to the road improvements, this construction sequence includes the development and installation of new utilities throughout the site. All of the existing underground utilities will be abandoned in place except in areas where these utilities are uncovered by site excavation and/or grading. A loop for the primary utility services (gas, water, drainage, electric, telephone, cable) will be installed

throughout the site to feed all of the buildings. Construction of the utility upgrades throughout the site will take approximately thirty (30) months from commencement.

All active tenants can remain in full operation at their existing retail buildings throughout the course of construction. Access for normal and emergency conditions will be maintained for these tenants, as well as adequate parking for their employees and clientele. To assure this condition, the construction of roads, buildings and parking structures have been sequenced accordingly. In addition, the utility services to these existing structures (gas, electric, water, sewer and telephone) will be maintained. While the existing utilities are being replaced, upgraded and/or relocated, stand-alone services will be established and utilities re-routed to facilitate ongoing operations. Shutdowns may be required to facilitate switchovers but these shutdowns will be thoroughly coordinated with all building tenants and mall management to limit potential impacts.

The construction of new buildings and the modernization of the existing building facades will also occur within the construction process. The construction of new retail buildings will occur throughout the three (3) year construction period. The modernization of existing building facades will occur throughout the course of two (2) construction seasons and will be phased to minimize customer and tenant disturbances.

The majority of the construction activities that occur within the Year 1 Phasing plan deal with the demolition of abandoned or non-leased structures and the renovation of existing building facades. Please refer to Figure IV.L-1 for the Year 1 Phasing Plan. The abandoned Stop & Shop supermarket, located in the southwest corner of the site, will be demolished and will serve as the center for rock crushing operations and stockpile storage. The abandoned Sizzler restaurant building, located in the northeast corner of the site, will be demolished and the new Retail Building 13 will be constructed in its place. The demolition of this building will be sequenced accordingly such that the blasting needed to remove the 'knoll' from

Site Drive 'C' is occurring at the same time. The entire site drive from Kimball Avenue will need to be shut down during this blasting process, however, all of the remaining entrances and exits to the site will remain in operation. Meanwhile, in the existing parking lot directly east of Building 6, the new Retail Building G will be constructed. The remaining work in this phase is dedicated to the renovation of the existing building facades. Buildings 3, 5 and 5A will be renovated during this phase. Façade renovation work will be phased in a manner that limits distractions to mall tenants and potential shoppers.

During the course of this construction phase, approximately 7,600 to 8,500 cubic yards of earth, asphalt millings, subbase materials and rock will be removed or cut from the existing center to accommodate the new grading requirements. This total cut amount is derived from the following areas: 2,000 cubic yards from the Retail Building G pad area, 5,000 to 5,500 cubic yards from the Site Drive 'C' knoll area, and 600 to 1,000 cubic yards from Midland Avenue. No areas will require fill during this construction phase, however, the fill created will be temporarily stockpiled for future use in the recessed area created following the demolition of the abandoned Stop & Shop supermarket located in the southwest corner of the site. During this phase, it is not anticipated that any cut or additional fill material will be required to leave or enter the site.

During the second year of construction, the largest overall site area will be affected and the majority of the parking areas on the north side of the site will be impacted. Please refer to Figure IV.L-2 for the Year 2 Phasing Plan. During this phase, existing Building 2 will be demolished and reconstructed. The reconstruction of Building 2 will be phased concurrent with the milling and excavation of the north parking lots and the construction of the North Parking Deck. In the parking area directly north of Buildings 2 and 3, new Retail Buildings E-1, E-2, E-3 and E-4 will be constructed. These new retail buildings will be constructed above parking areas, not only to add to the overall site parking count but also to maintain retail floor grades equal to the existing grades of the pedestrian walkways. The parking area located directly north of the existing Macy's building will be utilized for the

Macy's expansion. This lot will be regraded to accommodate under retail parking similar to the E Buildings. A similar construction process will occur in the parking lot located directly south of the existing Sears building where Sears is proposing to put their new expansion. This lot will also be regraded and expanded to accommodate the new building square footage. In conjunction with the Sears expansion and the parking lot regrading, the pad for Restaurant Building F will be prepared directly east of new Retail Building G. The remaining work in this phase will be dedicated to the renovation of the existing building facades. Buildings 1, 6 and 8 and the Office Tower will be renovated during this phase. Façade renovation work will be phased in a manner that limits distractions to mall tenants and potential shoppers.

During the course of this construction phase, approximately 128,000 cubic yards of earth, asphalt millings, subbase material and rock will be removed or cut from the existing center to accommodate the new grading requirements. This total cut amount is derived from the following areas: 123,000 cubic yards from the existing parking fields located to the north of the site which will ultimately house the Macy's Expansion, North Parking Deck and Retail Buildings E1 through E4, and 5,000 to 5,500 cubic yards from the hill adjacent to Sears. Two areas will require fill during this construction phase. In order to bring the pad area at Restaurant Building F to proposed elevations, approximately 2,000 cubic yards of material will be required. The existing parking fields surrounding the Sears building will utilize approximately 6,000 cubic yards of material to meet the new grading requirements. All fill required for these areas will be taken from the on-site stockpiled material created during Year 1 construction. Based on the site wide cut and fill analysis and the requirements for future construction phases, approximately 17,000 cubic yards of material, scheduled to be removed from the North Parking Deck areas, will be stockpiled during this phase. This will be required during the Year 3 Phasing Plan and will be described below.

Based on current soil borings, the excavated material created during this phase will consist of loose to dense existing fill and organic soils with no structural capacity.

These spoils will need to be trucked off-site to approved disposal facilities. The largest amount of truck traffic on public roadways will occur during this construction phase. All truck traffic on public roadways will occur during this construction phase. All truck traffic into and out of the site will be directed, through contract requirements, to the main thoroughfares (i.e. Central Avenue, New York State Thruway). Truck traffic on residential roads (i.e. Kimball Avenue, Vredenburg Avenue, Midland Avenue) will be restricted.

Construction activities planned for the third and final year of the project are of a much smaller magnitude when compared to the Year 2 Phasing Plan. Please refer to Figure IV.L-3 for the Year 3 Phasing Plan. The majority of work in this final year of construction will be associated with the preparation and construction of a five-level parking garage in the parking lot located directly south from Building 8. A new interior site road will be constructed around the perimeter of the garage and will serve as access to the new structure as well as access to the unloading areas for Buildings 5A, 6 and 24. During this phase, the rock crushing operations located in the southwest corner of the site, which used to house the abandoned Stop & Shop supermarket, will be transported offsite in preparation for the new Retail Building A in future construction. The parking area located directly south of the existing Macy's building will be regraded to accommodate the proposed grade change to allow for direct pedestrian access to Macy's, Retail Building A and the existing mall walkways. The western end of the existing underground service and loading tunnel servicing Buildings 1, 2, 3 and 8 will need to be extended underground to accommodate the new road that runs around the perimeter of the garage. The remaining work scheduled to be completed during this phase will be dedicated to the hardscape and landscape improvements throughout the site. The walkways servicing the mall complex will be reconfigured and redone with new sidewalks, retaining walls, planting beds, and landscaping treatments. Xavier Drive along with several other interior access roads will be reconfigured at key intersections with beautification taking place along the entire length of the roadways.

It is anticipated that no earth, asphalt millings, subbase materials nor rock will be removed or cut from the existing center during this phase of construction. The only areas requiring fill during this last construction phase will be at the 5 Level Parking Garage and Macy's south lot. Approximately 17,000 cubic yards of material will be required to regrade both areas. The stockpiled material created in Year 2, will be utilized for these areas. Through proper management of the site wide cut and fill requirements and diligent planning, it is anticipated that there will not be a need for additional trucking of stockpiled, cut or fill material into or out of the site during this last construction phase.

Pending final site plan approval and subsequent borings and geotechnical data at new building pad locations and infilled parking areas, the extent of reuse of existing cut material may need to be re-evaluated. The potential may exist, depending upon the final soil conditions, that imported lightweight and/or structural fill may be required to reduce future settlements. If this type of material is required, it will need to be imported from off-site locations, but as stated previously, traffic will be routed through main thoroughfares in lieu of residential neighborhoods.

Prior to the initiation of each phase of construction, proper controls for erosion, sedimentation and stormwater management and control will be implemented. The measures will be continually maintained throughout the duration of the construction activities. The modification of these controls as construction progresses will ensure suitable protection of potentially impacted areas. As required, specific areas may employ several methods to limit potential exposure. To help reinforce the effectiveness of the employed system, the construction team will monitor the potential for adverse weather and will inspect and reinforce measures as required. After the phases are completed, proposed landscaping will be installed in accordance with the Preliminary Landscaping Plan (Figure IV.C-1).

f. Noise and Dust Impacts

The project construction will consist of site work, foundation work, steel erection and finishing work. Work activities on most phases will overlap. The sound levels generated from the construction activities can vary greatly depending on such factors as the type of equipment, the specific equipment model, the operations being performed, and the overall condition of the equipment. Typical noise levels will be generated by an assortment of mechanical operations throughout the construction processes. Examples of these operations may include, delivery and internal trucking, excavation activities, drilling operations, blasting, pile driving, mechanical fastening and the use of small gasoline powered motors.

Two major highways abut the site – the New York State Thruway along the west side and the Cross County Parkway along the north side. Wheel noise generated at the pavement level by the existing vehicles along these corridors will be dispersed to adjacent areas and will serve to mask construction related noise within the site. This condition, along with general vehicular traffic in and around the center, currently exists and may serve to reduce and/or muffle construction noises. The natural change in grade as the site progresses from west to east will also help to shield the residences located along Kimball and Midland Avenues from noise generated during the redevelopment activities.

The majority of rock removal will be done by controlled blasting. Given the muffled sound and the short duration of a blast, this will not be a significant noise impact. However, some areas will require the rock to be removed by mechanical means. The intermittent use of drills and hammers can produce noise above ambient levels, but will be strictly monitored to maintain compliance with all regulatory standards.

Dust on-site will be controlled in accordance to the provisions of the Sediment and Erosion Control Plan (Figure IV.B-6) approved by the City of Yonkers and in

accordance with New York State Department of Environmental Conservation (NYSDEC) SPEDES General Permit for Construction Activities, Permit No. GP 02-01. The General Permit also limits the area of the site that may be disturbed at any one time to 5 acres. Stabilization mechanisms such as tarping, geotechnical fabrics, natural ground coverings, seed bed establishments and stone ballast may be utilized to minimize dust. Exposed areas that are under construction, as well as roadway and tracking pads, can employ these techniques in order to comply with regulations.

In order to prevent the tracking of dirt onto pavement, tracking pads can be installed at the points where trucks move from construction areas to established roadways. A contract requirement would oblige all trucking vehicles to utilize the wash stations set up at these tracking pads prior to leaving a disturbed area.

Demolition activities, if performed without controlled provisions, have the potential to generate and transmit dust and debris to surrounding areas. Building and structure demolition will be performed in a systematic fashion, starting with the removal of building interiors. Demolition would then proceed to the removal of the building skin, structure, foundation systems and ending with the removal of underground utilities. During the course of demolition, protective measures will be taken to limit the potential for dust generation, specifically through use of misting water and/or other systems. Protective measures are specifically important when addressing the removal and break-up of concrete foundation systems. As an added benefit to the site and surrounding community, the current plan is to process and reuse concrete debris as suitable fill material, rather than truck the material off-site for disposal.

Possible additional locations with a higher potential for dust creation may be the rock processing area, areas of stockpiled material, regraded but unpaved roadways and areas under demolition. Each of these types of areas may utilize a variation of one or more of the above listed stabilization mechanisms to minimize the dust that is produced.

g. Days and Times of Construction

The sensitive receptors in the project area are residential uses. The surrounding residential neighborhood consists of single family and multi-family residences to the south and east, with mid-rise condominiums on the east side of the northern portion of Kimball Avenue.

The City of Yonkers Municipal Code expects the majority of construction activities to be restricted to a starting time of 7:00 AM and a completion time of 6:00 PM. Should an activity need to occur past 6:00 PM, approval will be requested with the City of Yonkers Department of Housing & Buildings prior to the activity proceeding. Construction that needs to occur outside the regular work week will be limited to low noise producing activities which include, but are not limited to: interior construction, roofing, waterproofing, building façade renovations and installation of the building skin. Operations that may involve major noise or dust impacts, such as blasting, pile driving and steel installations, will be strictly limited to regular work hours.

3. Mitigation

a. Traffic Control

Should there be any changes in traffic patterns during the roadway improvement construction period, construction signage will be provided as necessary to redirect both the pedestrian and vehicular traffic to the new traffic pattern. To isolate non-construction related traffic from construction activities, temporary vehicle barriers may also be installed.

Trained flag personnel will control the movement of truck and heavy equipment traffic into and off of the site. Any safety devices required and mandated by local

and state authorities to ensure safe travel on public roadways will be equipped on all construction vehicles.

Should any roadways fall under the jurisdiction of the State of New York or the City of Yonkers, plans for traffic management and control, which meet their required criteria, may be submitted for approval. The approved plans will be implemented prior to the commencement of construction related activities.

b. Phased Construction

Throughout the course of construction, all existing tenants can remain operational. To assure that access for normal and emergency conditions will be maintained for these tenants, as well as adequate parking for its employees and clientele, construction will be sequenced to ensure these conditions are met at all times.

Traffic control will also need to be considered when phasing the construction activities. Roadwork improvements will need to be sequenced accordingly such that the flow of traffic both on and off the site is uninterrupted.

c. Air and Noise Mitigation Measures

Construction-generated dust can be controlled by: minimizing the extent of soil that is left without vegetation at any time (which is a maximum of 5 acres per the SPDES General Permit GP-02-01), through the use of fast-germinating seed in addition to mulch or other temporary soil cover, application of water on unpaved areas when required and through the covering construction vehicles being used to transport soil.

Every reasonable effort will be made to minimize the impact of noise resulting from construction activities. The following general list of noise mitigation

measures, where feasible, may be incorporated in the trade contractor's equipment specifications:

- Construction activities that produce significant noise levels are limited to daytime hours
- Properly designed engine enclosures are required.
- Regular equipment maintenance and lubrication are required.
- All exhaust mufflers are maintained in good work order.

Reducing trucking off-site through the installation of an on-site rock processing operation will also further improve the off-site noise conditions by eliminating truck trips from the construction operations. The rock processing operation is proposed to be located at the recessed area created following the demolition of the abandoned Stop & Shop supermarket in the southwest portion of the site, using subgrade elevations and existing retail buildings to help screen the noise levels from the residences outside the site.