

CHAGRIN HIGHLANDS ORANGE SOUTH

Orange Village, Ohio

Preliminary Land Use Plan Submission

Developer
CHAGRIN HIGHLANDS, LTD.

Submitted by
The Richard E. Jacobs Group LLC
Cleveland, Ohio



October 2015

Introduction

This Preliminary Land Use Plan Submission is presented to the City of Orange Village to reaffirm and update the *Preliminary Land Use Plan Submittal for Chagrin Highlands* approved by Orange Village March 3, 1998. Chagrin Highlands, Ltd. intends to continue the development of high quality corporate office and mixed-use commercial projects in the Orange South District made possible by the Interstate 271 Interchange at Harvard Road and the related transportation and utility infrastructure improvements completed in support of the Chagrin Highlands project.

This submittal remains consistent with the original planning for the area as guided by the Planned Mixed-Use Development District (PM-UD) zoning with emphasis on offering a superior location for development of office buildings, hotels, full-service restaurants and similar allowed uses.

The Orange South District of Chagrin Highlands presents a unique opportunity to provide highly-visible, easily accessed, well served, and attractive real estate sites.

The overall project will continue to preserve significant environmental features while incorporating lawns, street trees, street lights, setbacks, open space, and generous landscaping to create an appealing and desirable setting for new development. A carefully planned and thoughtfully designed, phased development strategy is intended.

Existing Conditions

The existing conditions of the Orange South District remain substantially unchanged since the original plan submittal. A copy of the current Overall Existing Conditions Survey for Orange South Phase 1 prepared by Bramhall Engineering and Surveying is included with the attached Drawings.

Chagrin Highlands, Ltd. has completed reevaluation of current wetland conditions and related environmental investigations and surveys in preparation of this submittal.

The Orange North District of Chagrin Highlands across Harvard Road has been fully developed. The Orange Place roadway and related utility infrastructure has been completed generally as planned. Development access to Orange South will be opposite the Orange Place intersection at Harvard Road as previously envisioned.

The adjacent property to the east of the Orange South District remains undeveloped.

More recent rezoning of single family residential land east of the Orange North District has allowed for progress on development of the large, retail and mixed-use Pinecrest project. Demolition and site preparation for this project has commenced. Primary access to this project is planned from the Orange Place intersection of Harvard Road.

Development Plan

The Preliminary Land Use Plan for Orange South is presented on Drawing 01-LU. Of the 77.8 acre district, 12.1 acres are anticipated to be used for roadways, easements, and stormwater areas; 4.9 acres will be used for restaurants; 2.8 acres for a hotel; 27.6 acres for office development; and 30.4 acres will remain open space and conservation areas. These proposed areas conform with general regulations of the PM-UD zoning limiting hotels to 25% of the total developable area and requiring that 20% PM-UD are be maintained as open space.

Phase 1 development includes initial roadway development, two restaurants fronting on Harvard Road, a select service hotel, and access improvements to cross Hawthorne Creek. The Hawthorn Creek crossing will make available a corporate office site fronting I-271, planned for Phase 2 of the Orange South District. Future Development phase(s) may extend the new roadway for additional office development east of Hawthorne Creek. Drawing 02-DP illustrates an overall Conceptual Development Plan.

For planning purposes, a yield of 20,000 square feet of restaurant space, a 170 room hotel , and 450,000 square feet of office space is considered – 250,000 square feet in Phase 2 and 200,000 square feet in a Future Phase.

The new road will intersect Harvard Road opposite Orange Place. The Phase 1 roadway segment will follow a straight alignment along the eastern side of the property to preserve developable land resources east of Hawthorne Creek and to help maintain setback and buffer requirements to the adjacent residential zoned property. This alignment will also accommodate future roadway connection(s) to the undeveloped property to the east as requested by Orange Village.

The restaurant and hotel buildings comprising Phase 1 will conform with all height and yard requirements of the PM-UD zoning and will continue to reference the Chagrin Highlands Design Guidelines to establish

appropriate architectural , landscaping, and signage character and materiality.

Parking fields will also conform with all size, yard, landscape, and buffer requirements of the PM-UD zoning. Access and arrangement of parking fields will be integrated to provide clear, organized internal circulation with limited connections to the new road. Parking field setbacks from Harvard Road are proposed to exceed PM-UD requirements as requested by Orange Village.

A shared stormwater management facility is planned for all of Phase 1. Drawing 03-SP illustrates the Preliminary Site Plan for Phase 1 of Orange South. A Preliminary Parcel Plan, Drawing 04-PP, illustrates the preliminary subdivision plan for Phase 1 of Orange South along with parking and building zoning setbacks. A full Zoning Code Analysis for the Phase 1 Site Plan is included in Appendix A.

Traffic

New traffic trips generated by development in Orange South will access Harvard Road by the proposed new road forming the southern leg of the Orange Place intersection. Traffic volumes and patterns for all of Chagrin Highlands were incorporated into the original comprehensive traffic planning for the I-271/Harvard Road interchange, Harvard Road Improvements, and Orange Place Extension including development of Orange South.

Verification that current traffic conditions are consistent with original projections and incorporation of signal modification and lane configuration of the new road as recommended by traffic engineers was anticipated for development of Orange South. However, with the addition of the large Pinecrest development, a more thorough analysis of the overall impact of new traffic trips is required.

At the request of Chagrin Highlands, Ltd. and Orange Village, the developer of Pinecrest has engaged TMS Engineers to complete studies of both projects. The Orange South study is expected to consider some future traffic potential for the undeveloped land east of Orange South as requested by Orange Village.

The Orange South study analyzed the Harvard Road intersections at the southbound and northbound Interstate 271 Ramps, Orange Place (adding the south leg of the intersection), and Brainard Road.

The study recommends that no road improvements are required to serve existing traffic conditions nor to serve future traffic conditions

without the development. The study also recommends that no road improvements are required at the adjacent intersections to mitigate traffic associated with development of Phases 1 and 2 of Orange South.

The recommendations for Development Access at the Orange Place/Harvard Road intersection include upgrading the traffic signal to add the new north bound approach, constructing a dedicated left turn lane and shared through/right turn lane for the new northbound approach, and modifying eastbound, westbound, and southbound approach pavement markings and signage to correlate with new through and turn movements. At full project build-out, the need for a second northbound left turn lane is forecast, however TMS suggests that traffic conditions be re-evaluated after completion of the first two project phases.

The study projects the westbound through and left turn lane stacking lengths on Harvard Road at Orange Place. With the original road improvements, pavement was constructed to accommodate a Harvard Road westbound left turn lane into Orange South. While the required signal stacking length is available, the current analysis now indicates that the through traffic queues could limit access to this left turn lane during peak traffic hours. Resolving this modest conflict would require modification of the median island, signage, and landscaping in Harvard Road east of Orange Place. Chagrin Highlands requests that this condition also be re-evaluated after completion of the first two project phases.

While the accessibility provided by the I-271/Harvard Road interchange allows for easy commuting, planned office development concentrates morning traffic arrival and evening departure trips at peak hours as a function of commuting patterns. In addition to retail and restaurant development, Pinecrest proposes to add 150,000 square feet of office development to the general area. The Orange South study indicates that at full build-out the I-271 ramp terminals may require improvements – specifically addition of a second left turn on the southbound exit ramp. This excess demand could be attributed to the new office space projected for Pinecrest, which was not considered with the original traffic planning for Chagrin Highlands.

TMS notes that any modifications to the interstate exit ramps will require an interchange Modification Study coordinated with the Ohio Department of Transportation.

The Executive Summary from the Traffic Impact Study for Proposed Orange South dated October 09, 2015 is included in Appendix B.

Utilities

Utility infrastructure planning for the 630 acre Chagrin Highlands property has been ongoing since the project inception. Numerous improvement projects have been planned and completed to coordinate with roadway or other improvements and to facilitate various developments.

Various utility provisions to serve the Orange South District were included with the original improvements made to Harvard Road and for Orange North. Consideration of each of these individually is below:

Storm Sewer

Closed storm sewers were included along the Harvard Road frontage improvements to drain adjacent portions of the Harvard Road, Orange Place, and Pinecrest right of way along with some of the adjacent land areas to the north. This system discharges through open and closed drainage systems in ODOT right of way at the NB I-271 ramps into Hawthorne Creek.

Separate closed storm sewer systems will be constructed for both the new road and the Phase 1 development sites conveying runoff to a shared stormwater management pond. The stormwater management system will be designed to meet current OEPA NPDES permit requirements and Orange Village ordinances to address runoff quantity and quality criteria before discharging stormwater runoff to Hawthorne Creek.

Sanitary Sewer

Sanitary sewerage treatment for all of Chagrin Highlands including Orange South is provided by the Northeast Ohio Regional Sewer District (NEORS) Southerly Wastewater Treatment Plant. Conveyance of wastewater from Orange Village sanitary sewers to the treatment facility is through trunk sewers operated and maintained by the Cuyahoga County Public Works Sewer Maintenance Division.

As part of the Chagrin Highlands development, a 21" sanitary trunk sewer was extended from Richmond Road to Harvard Road on the west side of I-2171 through Warrensville Heights. A 15" branch of this County sewer project was extended under I-271 in Harvard Road to serve Orange North and adjacent areas. This sewer main was further extended as part of the Orange Place road improvements.

While portions of Orange South could also be served by this gravity sewer extension in Harvard Road, initial planning suggested that due to

topographic constraints of the property, a new gravity sewer branch extension should be made to the south. Several alternatives have been reviewed and the most practical route was back to the Richmond Road trunk sewer where it crosses east under I-271 at Taylor Road. County officials indicate that future improvements may be needed to the existing downstream 18" sewer segments in Taylor Road.

This alignment would require approximately 950 lineal feet of off-site sewer line from the Taylor Road manhole to reach the southern boundary of the Orange South District. An easement to cross adjacent private property for this sewer extension has been recorded. At least 2,500 lineal feet of additional sewer would be required to reach Phase 1 development areas. The significant expense and difficulty of extending and improving sewers along this route has been a lingering obstacle to development in Orange South.

As an alternative, current utility planning for Orange South proposes to extend gravity sewer from Harvard Road for Phase 1 development as previously considered and utilize private lift stations for Phase 2 and Future Phase office projects. This connection location would simply be to an upstream branch of the same trunk sewer system.

An analysis of sanitary sewer demand for Orange South by Osborn Engineering is included in Appendix C.

During their analysis of the capacity of the existing sanitary sewer in Harvard Road, Osborn Engineering coordinated with Hugh Blocksidge at the Cuyahoga County Department of Public Works to determine the most accurate assessment possible. Not having recent flow or capacity information available, the Department of Public Works installed flow meters in the area of the Orange South development to gather real-time data. The result of this flow metering stated that the available capacity (average daily design flow) for future development is 0.287 MGD. Based on the proposed Land Use Plan, Phases 1-3 of Orange South will have an average daily design flow sewer demand of 0.09 MGD. This existing capacity of the sewer in Harvard Road is well above the proposed demand generated from Orange South and provides additional capacity for other future developments in the immediate vicinity.

The Pinecrest project is also being planned to connect to the Orange Place/Harvard Road sanitary sewer. While the impacts of this new demand are still being analyzed, preliminary discussions with the Village Engineer and County Public Works officials indicate that both Pinecrest and Orange South may be accommodated in the 15" sewer in Harvard Road, however these additions could limit other previously considered service areas without future improvements to the 15" sewer.

Water

Water service is provided to Chagrin Highlands by the City of Cleveland Division of Water (CWD).

As part of the Chagrin Highlands development, a new 16-inch water main was constructed in Harvard Road between Richmond Road and Orange Place. A 12-inch main was constructed within Orange Place to serve Orange North and a 12-inch water main was also stubbed across Harvard Road for future expansion into Orange South. Impacts of new demand imposed by the Pinecrest project are still being analyzed.

The stubbed 12-inch main will be extended with the Phase 1 roadway improvements. Previous system analysis and discussions with CWD have indicated that ultimately, as development of Orange South progresses, looping of this main to the south would be desirable. Again, several alternatives have been reviewed and the most practical route was an off-site loop to the 12" water main in Renaissance Parkway. An easement for this water main has also been recorded.

Gas

Gas service is provided to Chagrin Highlands by East Ohio Gas. Preliminary plans are to extend a new gas main for Orange South internally within an easement adjacent to the east side of the new road.

Electric

Electric service is provided to Chagrin Highlands by First Energy. Conduit systems for underground distribution were included with Harvard Road improvements and conduits were stubbed across Harvard Road for expansion into Orange South. Preliminary plans are to extend this underground system within an easement on the west side of the new road.

Communications

Telephone and cable communications services are provided to Chagrin Highlands by AT&T and Time-Warner. Conduit systems for underground distribution were included with Harvard Road improvements. Preliminary plans are to extend these systems within an easement on the west side of the new road.

Transmission Lines

In addition to the utility distribution systems discussed above, the Orange South property is traversed by two major transmission systems

– a 26-inch high pressure gas main owned by East Ohio Gas and 135kV high voltage electric transmission lines owned by First Energy. No modification of these transmission facilities is planned within Orange South at this time.

Drawing 05-US illustrates a Utility Study and Drawing 06-GS illustrates a Grading Study for Phase 1 of Orange South.

Conservation Easement

As part of the original wetland permitting for Chagrin Highlands a conservation easement was recorded over significant environmentally sensitive areas including Hawthorne Creek in Orange South. The current easement holder for Chagrin Highlands is Western Reserve Land Conservancy.

Gaps in these easement areas were left for stream crossings to provide access and to allow for development of areas that otherwise would have been land locked. As detailed development and engineering plans were not available for these crossing in all of Chagrin Highlands, the easement allows for future modification with certain restrictions including replacement of any removed easement areas.

Site planning for Phase 1 of the Orange South project includes area for an entrance and access driveway to the Phase 2 office site fronting I-271. The existing gap in the conservation easement in this vicinity was found to be impractical for developing the necessary access and a modification to the conservation easement is required.

An initial meeting with Western Reserve earlier this year indicated that they would be accepting of any changes permitted by the Army Corps of Engineers. Environmental permitting for both Phase 1 and Phase 2 is currently underway.

Drawing 07-EM illustrates the Proposed Easement Modification Map showing areas removed and added to the conservation easement.

Conclusion

This Preliminary Land Use Plan Submission provides a more detailed supplement for the Orange South District to the 1998 Plan previously approved by Orange Village.

With this guidance, Chagrin Highlands can continue carefully executed, high quality projects in compliance with Village codes and zoning regulations. Expansion into the Orange South District with an efficient use of land resources will continue to bring integrated economic development to Orange Village while respecting the environment.

As a part of the master-planned Chagrin Highlands project, this new development will incorporate the strong streetscape, architectural, and landscape design required by the Design Guidelines.

The comprehensive information contained in this submittal provides the framework for conformance with the design and development standards intended by the Planned Mixed-Use Development District.

Drawings

Orange South Phase 1 - Overall Existing Conditions

01 – LU: Preliminary Land Use Plan

02 – DP: Conceptual Development Plan

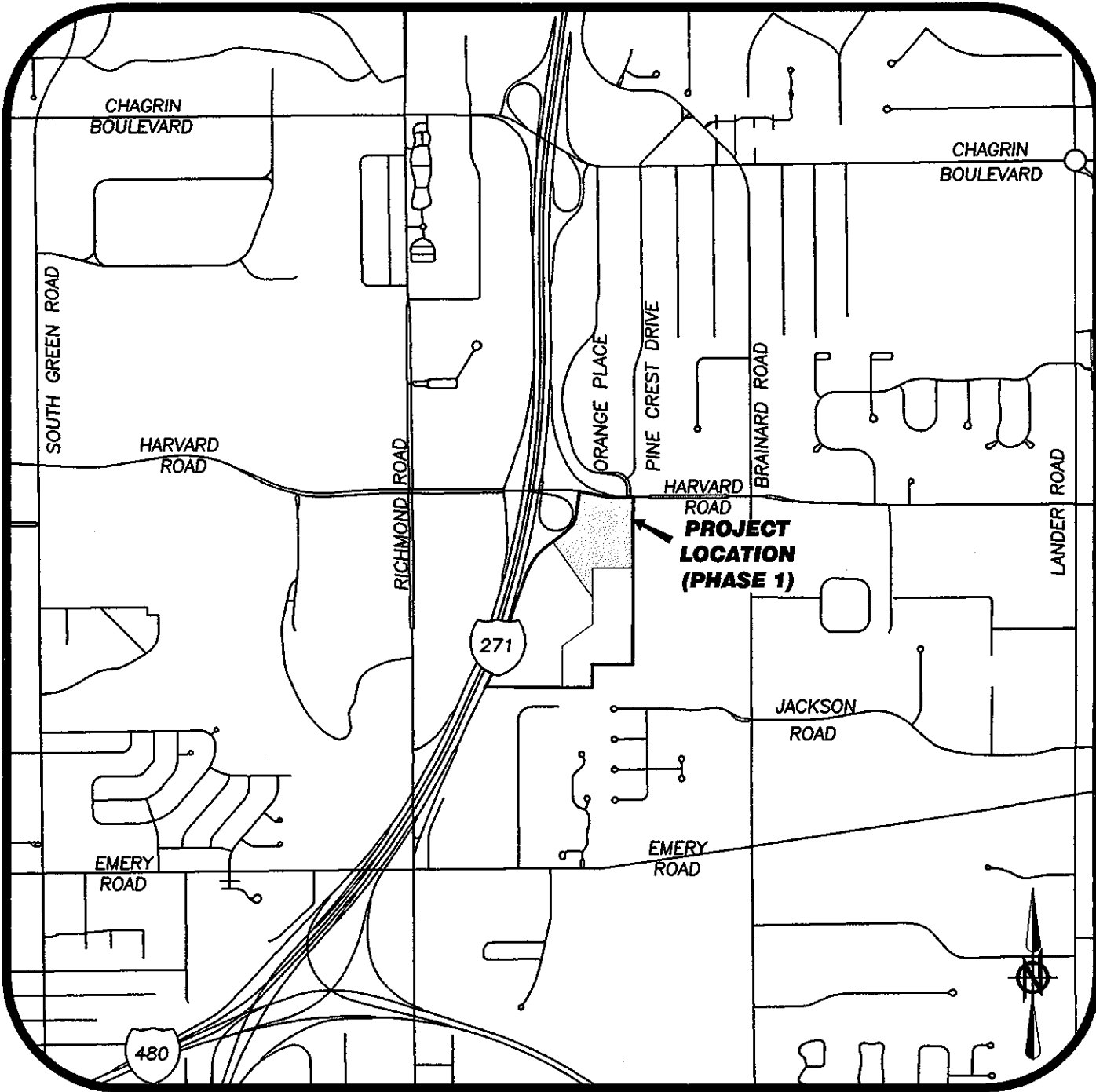
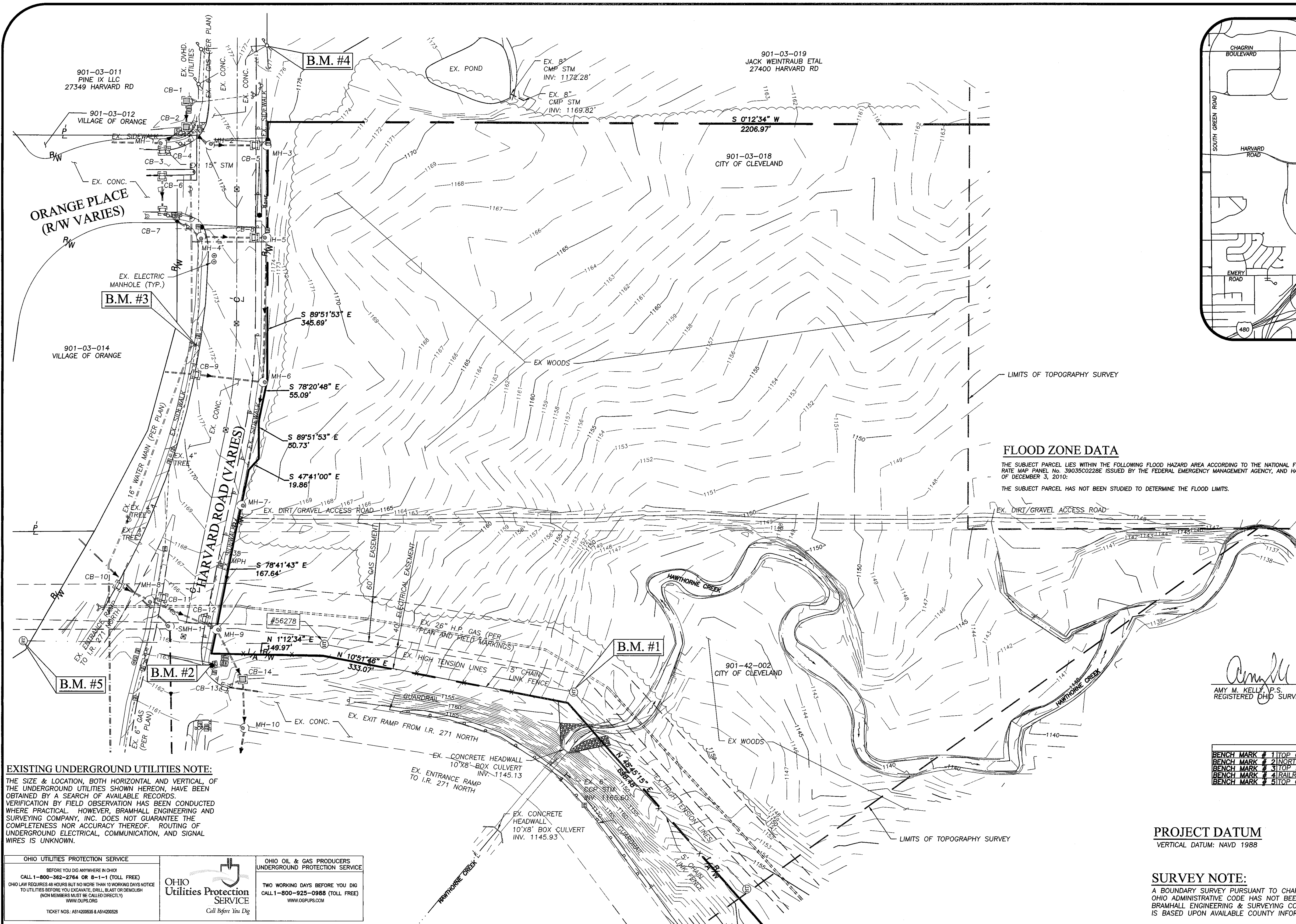
03 – SP: Preliminary Site Plan – Phase 1

04 – PP: Preliminary Parcel and Setback Plan

05 – US: Utility Study

06 – GS: Grading Study

07 – EM: Proposed Easement Modification Map



LOCATION MAP
-NOT TO SCALE-

FLOOD ZONE DATA

THE SUBJECT PARCEL LIES WITHIN THE FOLLOWING FLOOD HAZARD AREA ACCORDING TO THE NATIONAL FLOOD INSURANCE PROGRAM RATE MAP PANEL No. 39035C0228E ISSUED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, AND HAVING AN EFFECTIVE DATE OF DECEMBER 3, 2010:
THE SUBJECT PARCEL HAS NOT BEEN STUDIED TO DETERMINE THE FLOOD LIMITS.

NOTES

1. TOPOGRAPHIC SURVEY FIELD WORK COMPLETED IN MAY & JUNE 2015.
2. SEE SHEET 2 FOR DETAIL OF HARVARD RD.
3. SEE SHEET 2 FOR LEGEND AND STRUCTURE TABLES.
4. THE LIMITS OF THE LIMITED ACCESS ON HARVARD ROAD IS UNKNOWN AT THIS TIME.

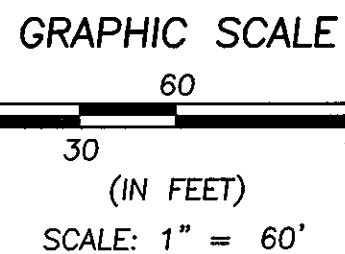
STATE OF OHIO
REGISTERED PROFESSIONAL LAND SURVEYOR
AMY M. KELLY
S-9489
July 8, 2015
DATE

BENCH MARK TABLE	
BENCH MARK # 1	TOP OF NORTHERLY BOLT OF HIGH TENSION TOWER 1150.55'
BENCH MARK # 2	NORTHEAST NUT AT TRAFFIC POLE 1164.00'
BENCH MARK # 3	TOP NUT OF HYDRANT 1175.32'
BENCH MARK # 4	RAILROAD SPIKE IN UTILITY POLE 1178.71'
BENCH MARK # 5	TOP OF WESTERLY BOLT OF HIGH TENSION TOWER 1165.49'

PROJECT DATUM
VERTICAL DATUM: NAVD 1988

SURVEY NOTE:

A BOUNDARY SURVEY PURSUANT TO CHAPTER 4733-37 OF THE OHIO ADMINISTRATIVE CODE HAS NOT BEEN PERFORMED BY BRAMHALL ENGINEERING & SURVEYING COMPANY, INC. THIS PLAN IS BASED UPON AVAILABLE COUNTY INFORMATION.



EXISTING UNDERGROUND UTILITIES NOTE:
THE SIZE & LOCATION, BOTH HORIZONTAL AND VERTICAL, OF THE UNDERGROUND UTILITIES SHOWN HEREON HAVE BEEN OBTAINED BY A SEARCH OF AVAILABLE RECORDS. VERIFICATION BY FIELD OBSERVATION HAS BEEN CONDUCTED WHERE PRACTICAL. HOWEVER, BRAMHALL ENGINEERING AND SURVEYING COMPANY, INC. DOES NOT GUARANTEE THE COMPLETENESS NOR ACCURACY THEREOF. ROUTING OF UNDERGROUND ELECTRICAL, COMMUNICATION, AND SIGNAL WIRES IS UNKNOWN.

OHIO UTILITIES PROTECTION SERVICE
BEFORE YOU DIG ANYWHERE IN OHIO
CALL 1-800-362-2764 OR 8-1-1 (TOLL FREE)
OHIO LAW REQUIRES 48 HOURS BUT NO MORE THAN 10 WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH (NON MEMBERS MUST BE CALLED DIRECTLY)
WWW.OUPSS.ORG
TICKET NOS: A51420053 & A51420052

OHIO OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE
TWO WORKING DAYS BEFORE YOU DIG
CALL 1-800-925-0988 (TOLL FREE)
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OHIO Utilities Protection Service
Call Before You Dig

DATE	BY	DESCRIPTION
06-26-2015	AMK	ISSUED TO CLIENT FOR PRELIMINARY REVIEW
07-08-2015	AMK	ISSUED TO CLIENT

BRAMHALL
ENGINEERING AND SURVEYING CO., INC.
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

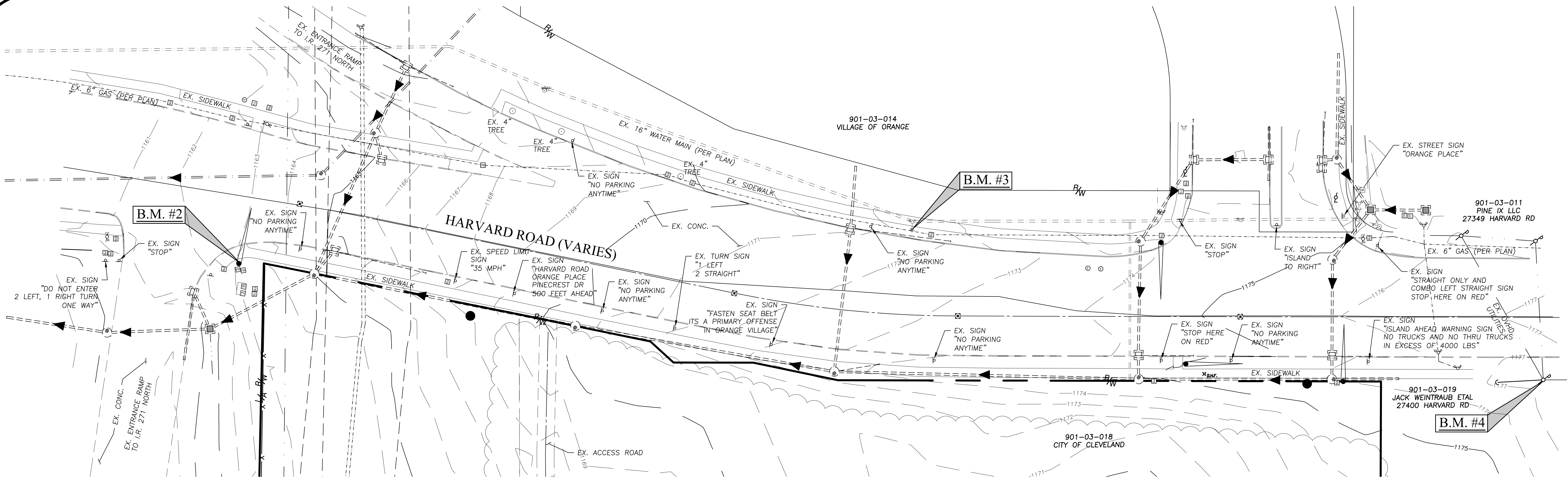
DRAWN BY:
CAT

CHECKED BY:
AMK

PREPARED FOR:
THE RICHARD E. JACOBS GROUP LLC
25425 CENTER RIDGE ROAD
WESTLAKE, OHIO 44145

CHAGRIN HIGHLANDS- ORANGE SOUTH PHASE 1
OVERALL EXISTING CONDITIONS
VILLAGE OF ORANGE, COUNTY OF CUYAHOGA, STATE OF OHIO

SHEET
1 OF 2
JOB NO.
15-4155



LEGEND

	BOLLARD		MANHOLE		EXISTING PIN FOUND
	EX. SIGN		ELECTRIC BOX		EXISTING MONUMENT BOX
	CATCHBASIN		ELECTRIC MANHOLE		EX. TREE
	POWER POLE		ELECTRIC TRANSFORMER		MAST ARM
	LIGHT POLE		GAS VALVE		
	GUY ANCHOR		GAS SERVICE VALVE		
	TELEPHONE BOX		WATER VALVE		
	TRAFFIC SIGNAL BOX		WATER METER		
	PULL BOX		HYDRANT		
	HIGH TENSION TOWER		SPRINKLER BOX		
	CROSSWALK POLE				
	CENTERLINE		EX. GAS		
	PROPERTY LINE		EX. OVERHEAD WIRES		
	RIGHT OF WAY		EX. SANITARY		
	CENTERLINE DITCH/CREEK		EX. STORM		
	EX. MINOR CONTOUR		EX. WATER		
	EX. MAJOR CONTOUR		EX. FENCE		
			EX. GUARDRAIL		

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NOTES

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DRAWN BY:
CAT

CHECKED BY:
AMK



PREPARED FOR:

THE RICHARD E. JACOBS GROUP LLC
25425 CENTER RIDGE ROAD
WESTLAKE, OHIO 44145

EXISTING STORM STRUCTURE TABLE

Structure Name	RIM	INVERT(S)
EX-CB-1	RIM = 1175.63	10" PVC W INV.: 1170.53
EX-CB-2	RIM = 1175.98	10" PVC E INV.: 1170.13 12" RCP SW INV.: 1170.03 15" RCP NW INV.: 1170.48
EX-CB-3	RIM = 1173.74	15" RCP E INV.: 1170.62 15" RCP S INV.: 1170.62 6" N INV.: 1170.72
EX-CB-4	RIM = 1173.21	15" RCP N INV.: 1170.61
EX-CB-5	RIM = 1175.17	15" N INV.: 1169.42 15" S INV.: 1169.37 6" CPP E INV.: 1171.47
EX-CB-6	RIM = 1173.50	15" RCP W INV.: 1169.36 8" CPP N INV.: 1170.26 8" CPP S INV.: 1170.31
EX-CB-7	RIM = 1173.37	15" RCP E INV.: 1168.93 6" N INV.: 1170.13 15" RCP SW INV.: 1168.98
EX-CB-8	RIM = 1174.31	12" HDPE S INV.: 1167.58 15" N INV.: 1167.53 6" E INV.: 1169.83
EX-CB-9	RIM = 1170.69	21" RCP S INV.: 1164.64 24" HDPE N INV.: 1164.64 6" E INV.: 1166.39
EX-CB-10	RIM = 1164.65	15" SW INV.: 1159.65 6" NW INV.: 1160.40 6" SE INV.: 1160.40
EX-CB-11	RIM = 1165.13	15" N INV.: 1159.62
EX-CB-12	RIM = 1164.99	15" SW INV.: 1159.23 6" E INV.: 1159.73
EX-CB-13	RIM = 1160.85	15" SE INV.: 1155.55 6" S INV.: 1156.05
EX-CB-14	RIM = 1159.43	24" HDPE W INV.: 1154.03 15" NW INV.: 1155.08 24" HDPE NE INV.: 1153.98
EX-MH-1	RIM = 1174.42	15" RCP SE INV.: 1170.56 15" RCP N INV.: 1170.56 15" RCP W INV.: 1170.56
EX-MH-2	RIM = 1175.18	12" RCP NE INV.: 1169.70 15" S INV.: 1169.70
EX-MH-3	RIM = 1176.00	15" N INV.: 1169.23 15" W INV.: 1169.38 15" E INV.: 1169.38
EX-MH-4	RIM = 1174.36	15" S INV.: 1167.63 15" RCP NE INV.: 1168.38
EX-MH-5	RIM = 1174.97	18" HDPE W INV.: 1167.24 15" E INV.: 1167.29 12" HDPE N INV.: 1167.24
EX-MH-6	RIM = 1173.74	18" HDPE E INV.: 1164.13 24" RCP W INV.: 1163.53 21" RCP N INV.: 1163.63 6" E INV.: 1168.33
EX-MH-7	RIM = 1170.60	24" RCP E INV.: 1160.02 24" RCP W INV.: 1160.02
EX-MH-8	RIM = 1165.79	15" S INV.: 1158.85 15" SW INV.: 1158.85 15" NE INV.: 1159.00
EX-MH-9	RIM = 1165.02	24" RCP E INV.: 1156.38 15" NE INV.: 1159.08 15" NE INV.: 1158.18 24" HDPE SW INV.: 1156.38
EX-MH-10	RIM = 1160.18	24" HDPE E INV.: 1153.09 24" HDPE W INV.: 1153.09

EXISTING SANITARY STRUCTURE TABLE

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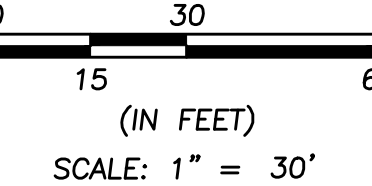
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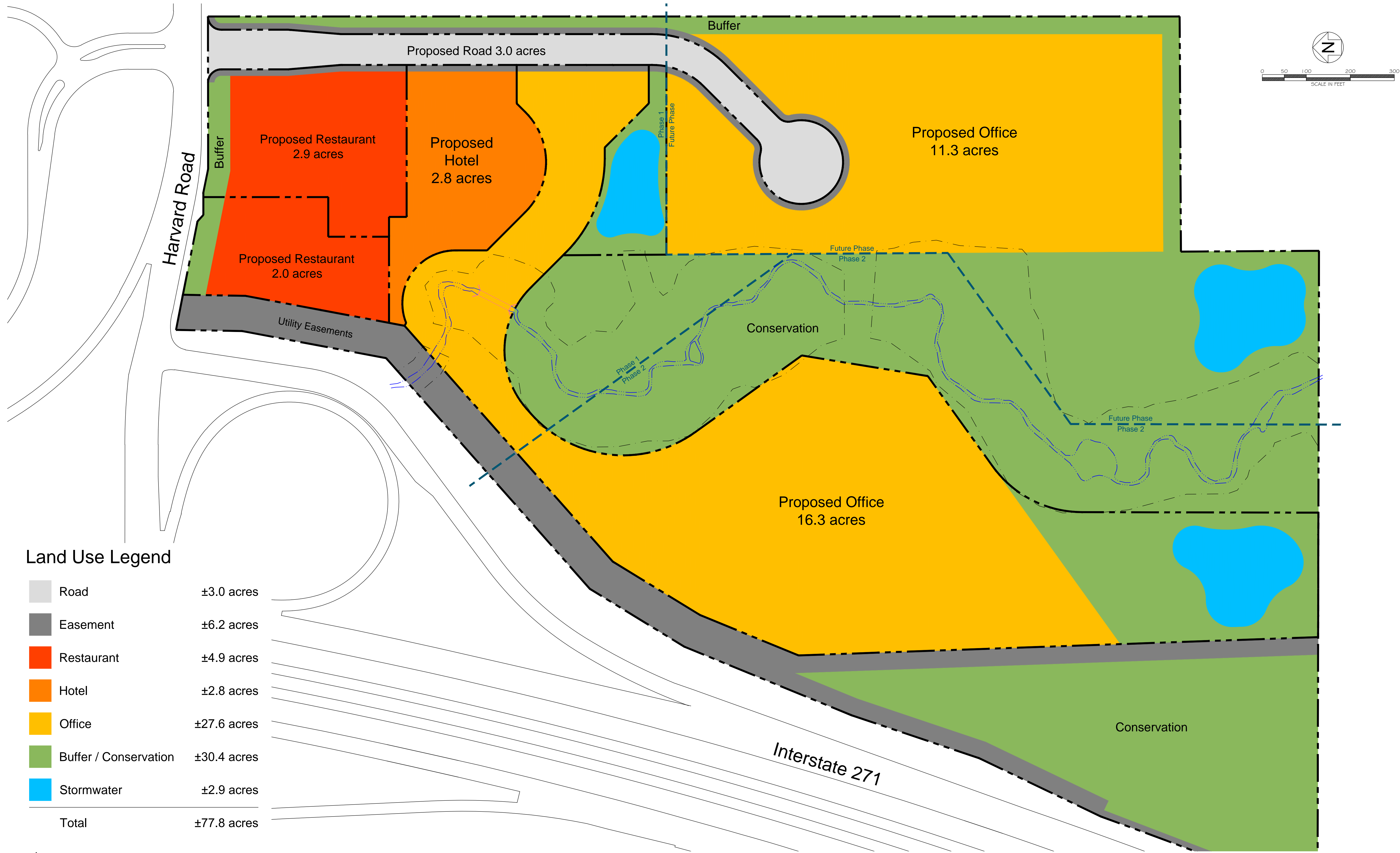
THE SUBJECT PARCEL HAS NOT BEEN STUDIED TO DETERMINE THE FLOOD LIMITS.

GRAPHIC SCALE



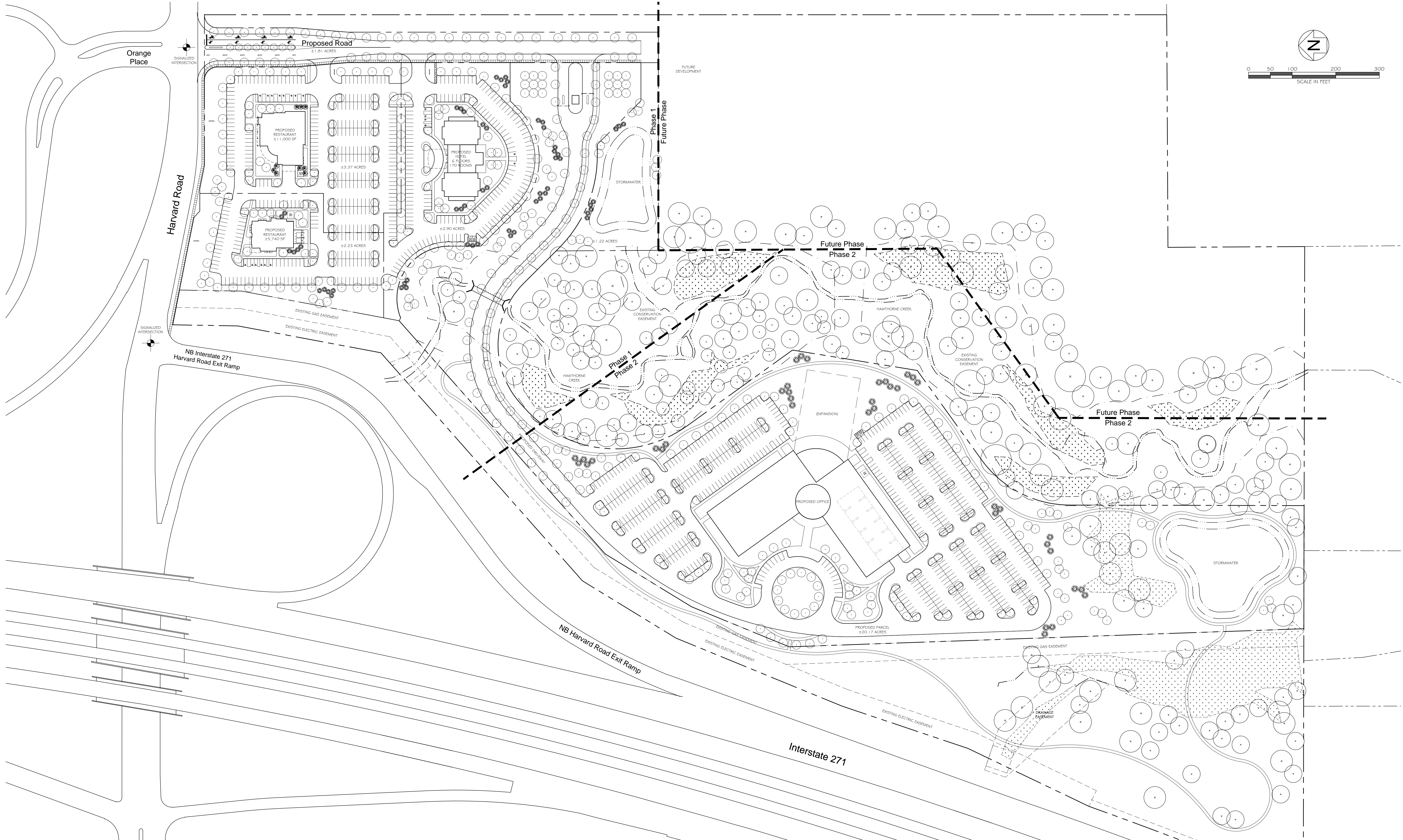
CHAGRIN HIGHLANDS- ORANGE SOUTH PHASE 1
HARVARD ROAD EXISTING CONDITIONS
VILLAGE OF ORANGE, COUNTY OF CUYAHOGA,
STATE OF OHIO

SHEET
2 OF 2
JOB NO.
15-4155



Land Use Legend

Road	±3.0 acres
Easement	±6.2 acres
Restaurant	±4.9 acres
Hotel	±2.8 acres
Office	±27.6 acres
Buffer / Conservation	±30.4 acres
Stormwater	±2.9 acres
Total	±77.8 acres

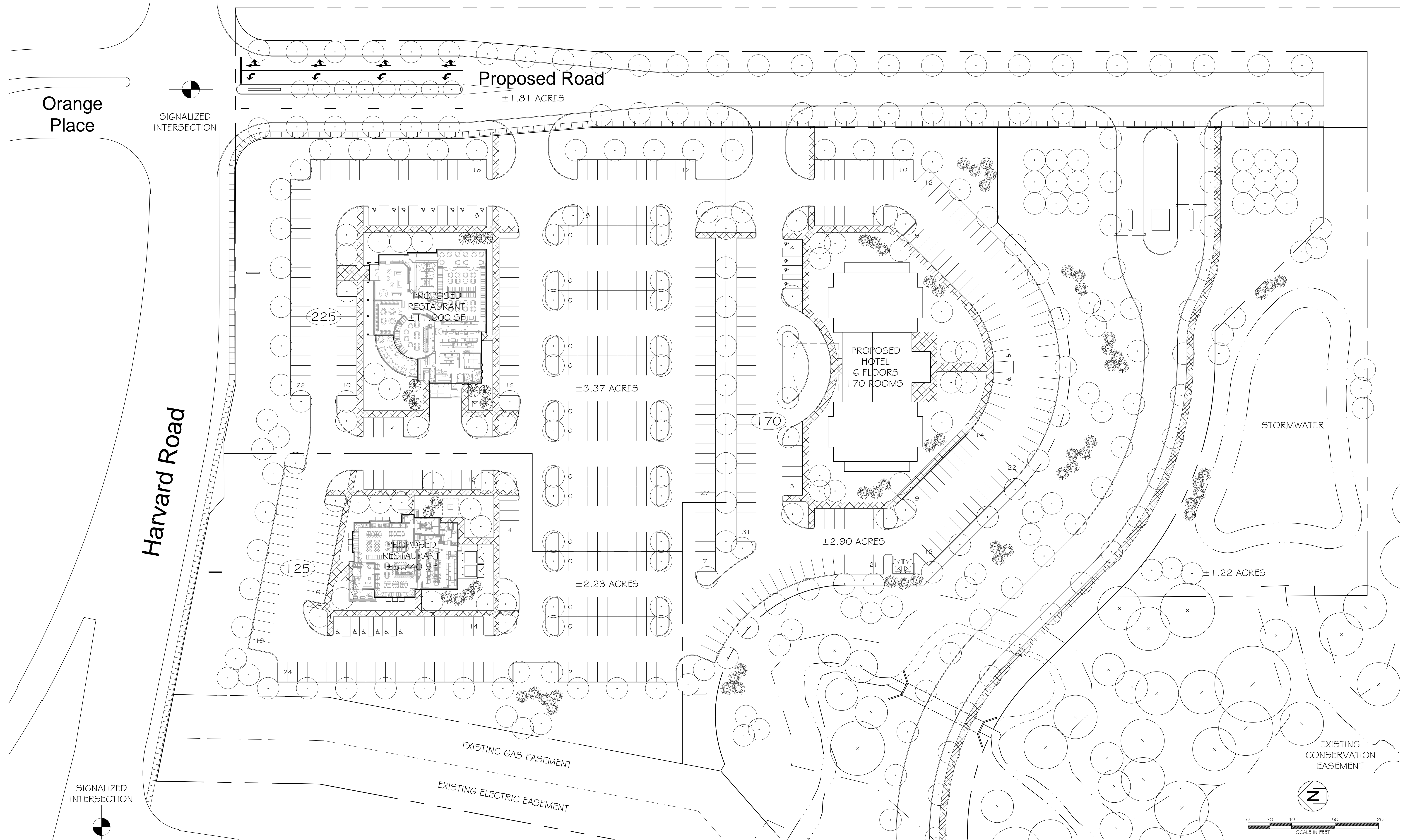


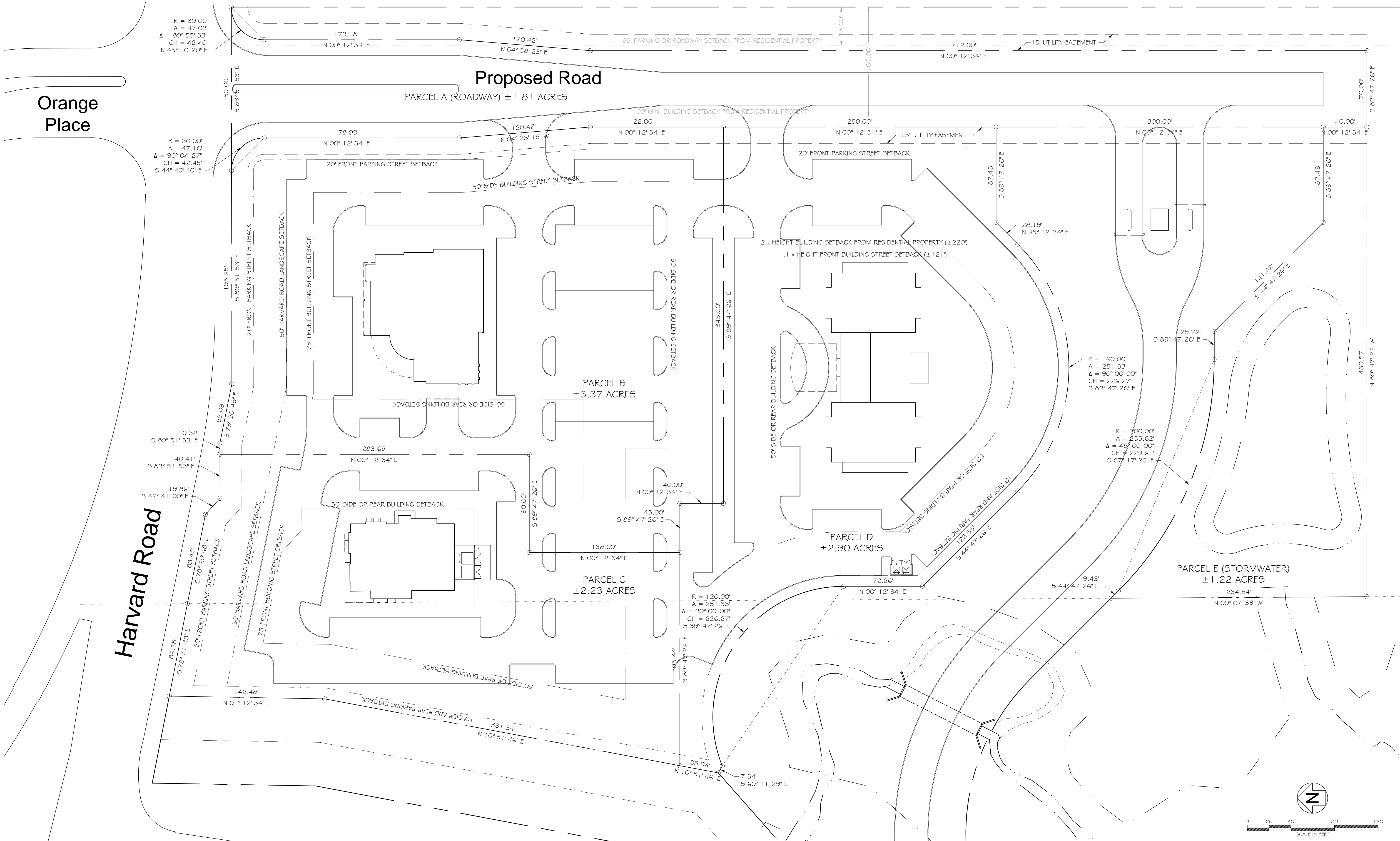
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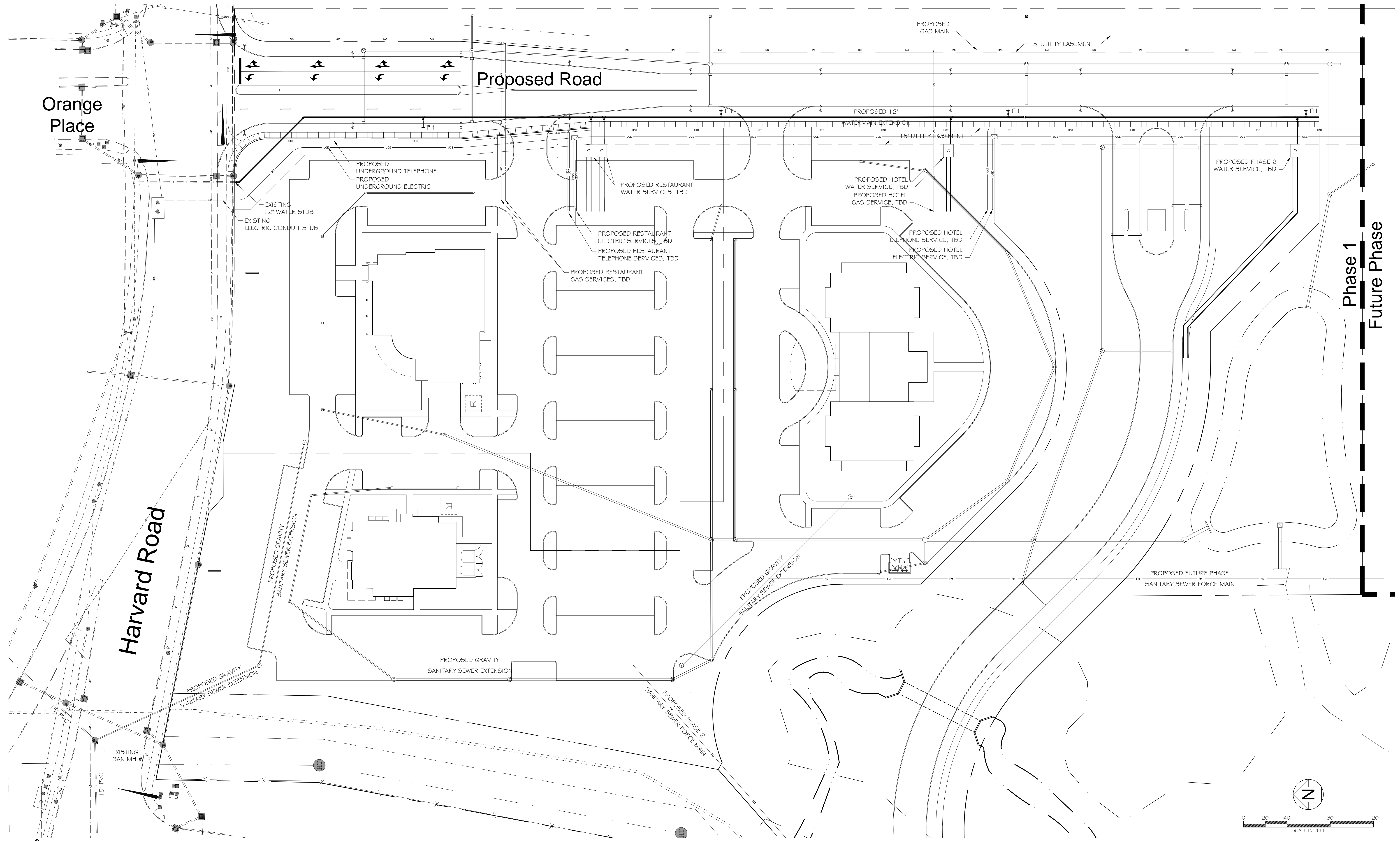
Chagrin Highlands ~ Orange South ~ Orange Village, Ohio

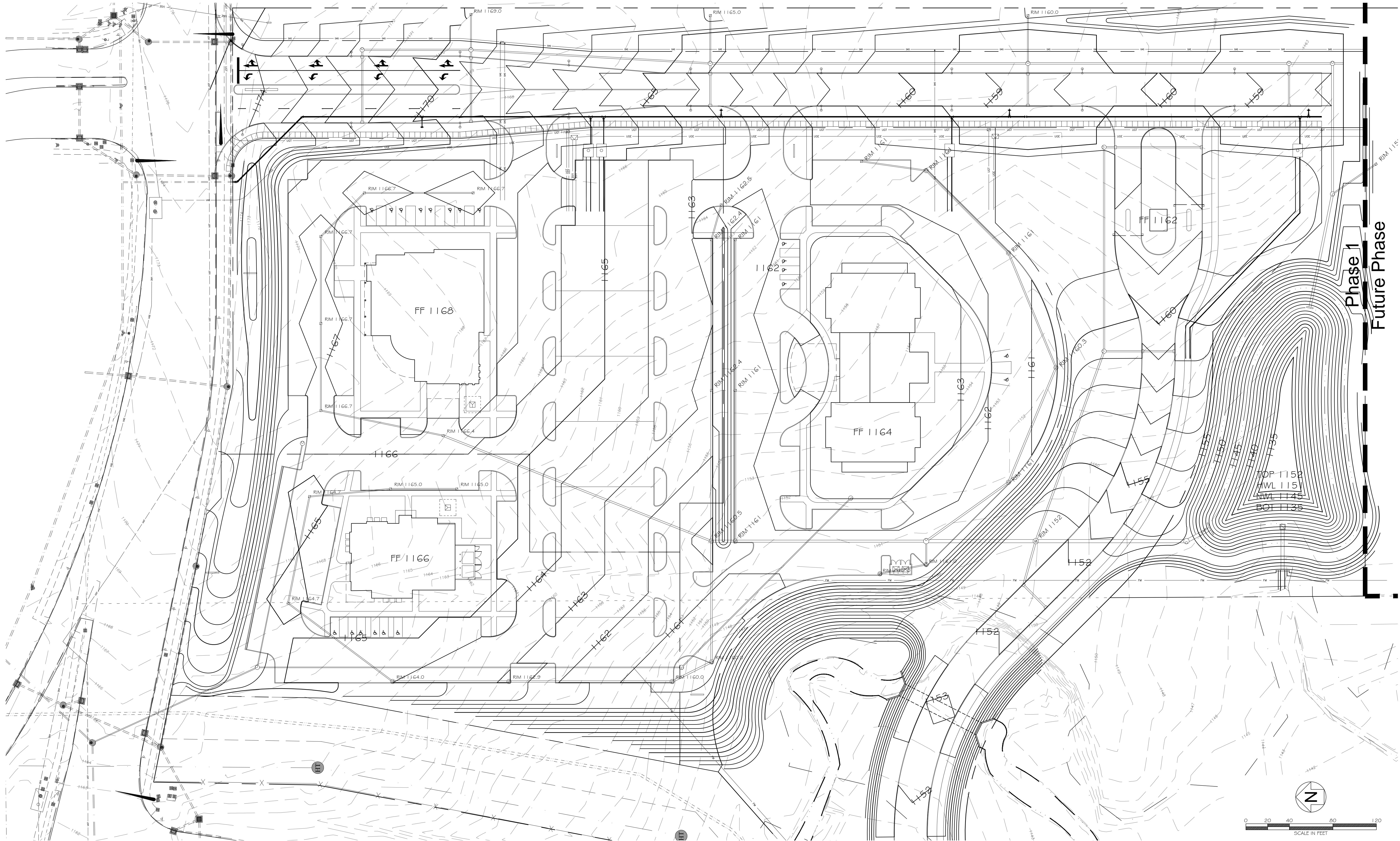
02-DP

DRAWN BY: CFF
DATE: 09-OCT-2015







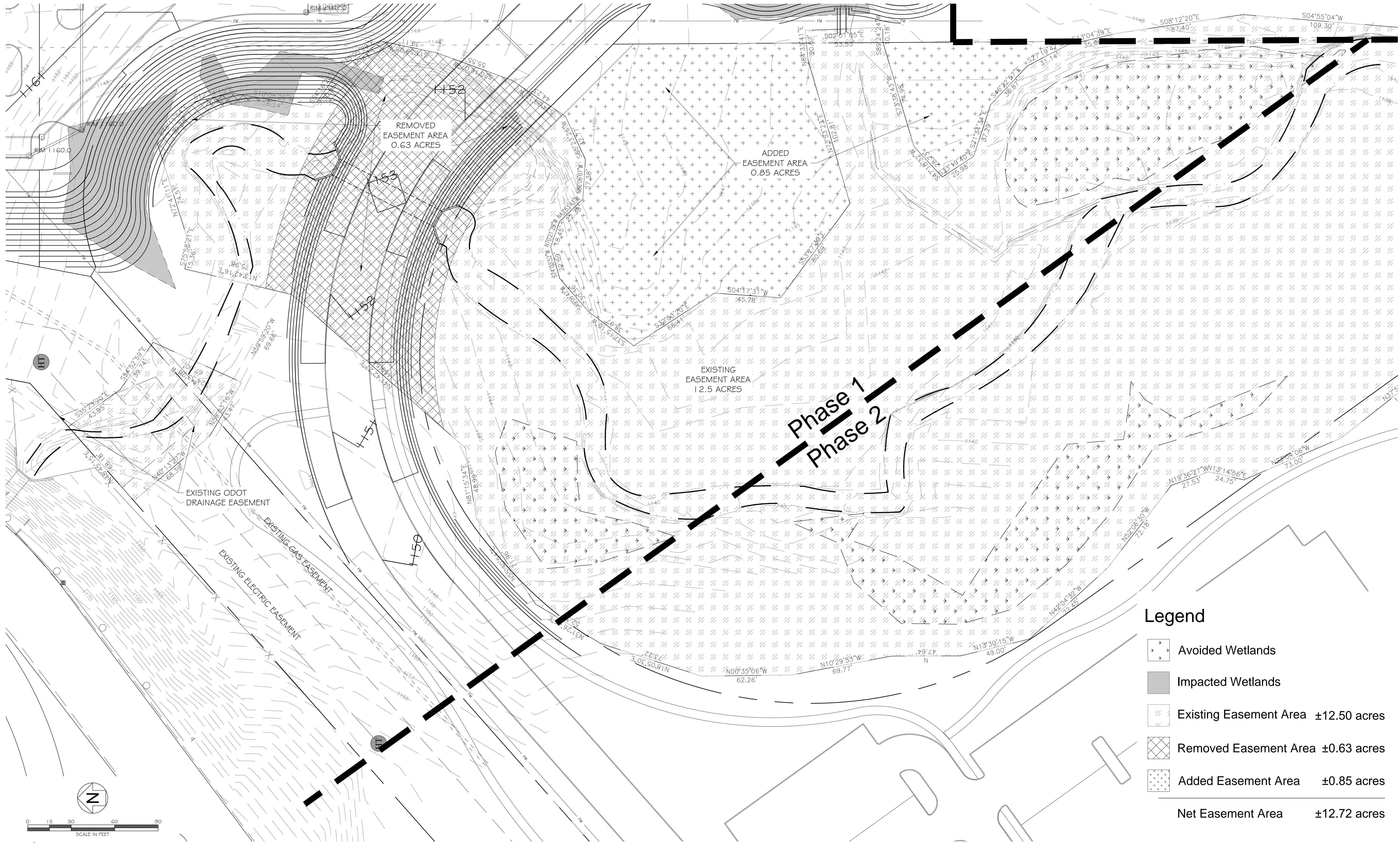


Grading Study

Chagrin Highlands ~ Orange South ~ Orange Village, Ohio

06-GS

DRAWN BY: CFF
DATE: 09-OCT-2015



Proposed Easement Modification Map

Chagrin Highlands ~ Orange South ~ Orange Village, Ohio

07-EM

Appendix A – Zoning Code Analysis

Chapter 1173 Planned Mixed-Use Development District

Section

Compliance

1173.01 PURPOSES AND INTENT.

- | | |
|--|-----------------|
| (a) The Planned Mixed-Use Development (PM-UD) District is established to encourage the comprehensive design and integrated development of large tracts of land suitable for a variety of mutually supportive office, commercial and transient residential uses. | <i>accepted</i> |
| (b) The general purposes of this District are served by the following basic principles: | |
| (1) Comprehensive planning of large tracts promotes more ordered urban growth, providing opportunities for the integration of various development projects in clearly identifiable growth centers throughout the region. | <i>accepted</i> |
| (2) With comprehensive planning, different uses can be successfully integrated to provide functional convenience, efficiencies in the provision of public services and infrastructure and more consistent levels of activity in an area throughout the day, at night and on weekends. | <i>accepted</i> |
| (3) With comprehensive planning and integrated design, higher densities of development can be accommodated while maintaining environmental quality. The general benefits of density include greater productivity of land; more efficient utilization of transportation and utilities systems; more convenient access between developments; the provision of a higher level of pedestrian and open space amenities; and the concentration within a limited area of people necessary to support retail, convenience service and entertainment functions. | <i>accepted</i> |
| (4) Comprehensive planning and design of large tracts provides for the more detailed definition and administration of architectural and landscape design controls, producing a visually harmonious and pleasing development environment. | <i>accepted</i> |
| (c) These various advantages of comprehensively planned and designed mixed-use developments cannot be achieved by application of existing standards for individual use types. The PM-UD District, therefore, is a special zoning classification, providing for a variety of development types under special development standards that are only appropriate to the uses in planned combination. | <i>accepted</i> |

1173.02 PERMITTED MAIN USES.

- | | |
|---|-----------------|
| (a) <u>Intent</u> . The intent of the PM-UD District is not to limit the variety of potential uses in the development, but to insure that only uses of a compatible and mutually supportive nature are included, at sufficient density, and with sufficient architectural landscape design conformity to achieve the overall benefits of mixed-use development. | <i>accepted</i> |
| (b) <u>Permitted Main Uses</u> . The following main uses are permitted in a PM-UD District: | |
| (1) Office buildings and offices including business, financial, professional, governmental, public utility, executive and administrative. | <i>complies</i> |
| (2) Hotels and motels subject, however, to the restrictions contained in Section 1173.04(a). | <i>complies</i> |
| (3) Full service restaurants. | <i>complies</i> |
| (4) Banks and other financial services. | <i>n/a</i> |

<p>(5) Park land use which shall be the designated use within the PM-UD District until such time as a request is made and approved for another permitted main use.</p>	<p><i>complies</i></p>
<p>(6) Other uses similar to those enumerated above as determined by the Planning and Zoning Commission and confirmed by Council.</p>	<p><i>n/a</i></p>
<p>(c) <u>Full Service Restaurant</u>. As used in this Chapter, "Full Service Restaurant" means a place where food and beverages are sold and consumed on-premises within a completely enclosed building; provided, however, that limited outdoor seating and carry-out service may be permitted. A Full Service Restaurant shall have a host and/or hostess to seat customers, provide table service to customers with food orders taken and food delivered to tables by waiters and/or waitresses, and shall offer alcoholic beverages for consumption on premises.</p>	<p><i>will comply</i></p>
<p>1173.04 AREA REGULATIONS.</p>	
<p>The following area regulations shall apply to each development site in a PM-UD District:</p> <p>(a) <u>Site Area</u>. A minimum of one hundred twenty-five (125) acres in the Village is required for each Planned, Mixed-Use Development District. This area may, however, be separated by interstate freeways, local highways or existing public right-of-way or utilities easements, but shall otherwise be comprised of contiguous acreage. No more than twenty-five percent (25%) of the developable area in the Village may be devoted to motel and/or hotel usages. "Developable area", as used in this subsection, shall be deemed to include all required setback areas including but not limited to parking and building setbacks. To provide greater flexibility to the development and implementation process, the overall Planned Mixed-Use Development District may be subdivided subsequent to overall plan approval. Individual parcels thus created, however, shall remain subject to the development requirements and design standards established in the overall plan for the development district.</p> <p>(b) <u>Site Coverage</u>. Total impervious coverage throughout the development site is limited to a maximum of eighty percent (80%) of the overall site area in the Village. Impervious coverage includes building footprints, all paved vehicular surfaces such as access drives, parking, service and loading area, and paved pedestrian facilities including pathways and plazas.</p> <p>(c) <u>Open Space</u>. A minimum of twenty percent (20%) of the development site area in the Village shall be maintained as permeable surface open space, including areas of preservation of the existing natural landscape and new planting areas. Landscaped portions of off-street parking areas shall qualify as part of the open space requirements.</p>	<p><i>complies</i> <i>Gross Area ±126 ac</i> <i>Total Area ON and OS = 104.7 acres</i> <i>Net Assessment Area = 86.0 acres</i> <i>Allowable Hotel Area = 21.5 acres</i> <i>Current Hotel Area = 5.6 acres</i> <i>Proposed Additional Hotel Area = 2.8 acres</i></p> <p><i>complies</i></p> <p><i>complies</i></p>
<p>1173.05 HEIGHT REGULATIONS.</p>	
<p>Considering the varying building types in a mixed-use development, different height regulations are proposed for each of the primary uses.</p> <p>(a) <u>Office Buildings</u>. No office building in a Planned Mixed-Use Development shall be more than one hundred twenty (120) feet.</p> <p>(b) <u>Hotel Development</u>. The maximum height of buildings containing hotel functions shall be no more than one hundred twenty (120) feet. This height limit is to be maintained, regardless of the mixture of supporting or independent functions, such as meeting rooms, restaurants or rentable office space, included in the same structure.</p>	<p><i>will comply</i></p> <p><i>will comply</i></p>

1173.06 YARD REGULATIONS.

Considering a Planned Mixed-Use Development is initially planned as a total entity, without necessarily specifying subdivision into individual development parcels, these yard regulations apply only to the entire development site. If the site is subdivided subsequent to overall planned approval, boundary setbacks and design requirements must be maintained in all affected parcels, but internal parcels created by subdivision are not subject to these yard regulations.

(a) Street Setbacks. The location of buildings and off-street parking areas within a PM-UD District shall be in accordance with the following schedule:

Harvard Road and Other Dedicated Streets

Front Building Setback From Right-of-Way Line

(Building height 60 feet or less): 75 feet

(Building height greater than 60 feet): 100 feet or building height x 1.1, whichever is greater.

Front Parking Setback: 20 feet

complies
complies
complies, 50+ feet provided along
Harvard Road

Side Building Setback

(Building height 60 feet or less): 50 feet

(Building height greater than 60 feet): Equal to height of building

Side/Rear Parking and/or Roadway Setback: 10 feet except where adjoining residential property in which case parking and/or roadway shall be set back a minimum of 35 feet.

complies
complies
complies

(b) Side and Rear Yard Setbacks. All side and rear yards of a Planned Mixed-Use Development site are to be adequately buffered from adjacent development, with setback requirements varying according to the nature of such development:

(1) Yards adjoining residential property shall be the greater of 100 feet; or

A. Equal to the height of the building times 1.1 if north of Harvard Road;

B. Equal to the height of the building times 2 if south of Harvard Road.

(2) For yards adjoining commercial and institutional property, the minimum building setback is 50 feet; and

(3) For yards adjacent to an interstate highway rights of way, the minimum building setback is 50 feet; however, the wall of a parking garage may be set back a minimum of ten feet from such right of way.

complies
n/a
n/a
complies
complies

1173.07 CIRCULATION AND ACCESS TO STREETS.

Successful planning of an integrated Mixed-Use Development will depend, to a large extent, on the definition of an efficient vehicular circulation system. The basic elements of such a system are:

(a) Direct access to the regional transportation network;

(b) Appropriate connection to existing streets through and around the site that maintains the designed capacity of these streets; and

(c) A clear pattern of internal circulation that provides adequate access to all functions within the development and appropriately distributes site generated traffic to the existing street system of the area.

complies
complies
complies

1173.08 OFF-STREET PARKING AND LOADING.

Off-street parking in a PM-UD District shall be in accordance with the following schedule:

Building Use: Required Parking Spaces

Office buildings and offices including business, financial, professional, governmental, public utility, executive and administrative: 3.5 spaces for each 1,000 square feet of gross floor area, excluding atrium, basement or penthouse areas used for storage, maintenance or mechanical facilities.

Warehouse, showroom, research facility, or similar “flex” type development: 1.25 spaces for each 1,000 square feet of gross floor area.

Retail, restaurant, hotel and commercial entertainment uses: 5 spaces for each 1,000 square feet of gross leasable area for defined retail “centers” within the development.

4 spaces for each 1,000 square feet of gross leasable area for retail development over 10,000 gross square feet combined with other main uses in a single structure.

Retail of less than 10,000 gross square feet combined with other main uses requires no additional space.

Hotel, 1 space for each guest room or 0.75 spaces for each guest room when combined with or immediately adjacent to other main uses.

will comply

n/a

complies

n/a

n/a

complies

1173.09 DESIGN AND PERFORMANCE STANDARDS.

Detailed architectural and landscape design guidelines shall be prepared for each Planned Mixed-Use Development which shall respond specifically to the environmental character of the area, the form of existing development surrounding the site, and the particular nature of the development proposed. These guidelines shall be based on the following general requirements and standards:

(a) Architectural Character. A Planned Mixed-Use Development is to achieve a high level of architectural design, with strong visual relationships between buildings throughout the development. Architectural guidelines shall describe the proposed formal design principles for each building type and specify appropriate proportions materials, finishes, colors, window type, decorative features, and other relevant stylistic elements.

(b) Landscape and Open Space. Outdoor spaces throughout a Planned Mixed-Use Development are to be organized in an integrated system of focused activity places and interconnecting pedestrian pathways that serve to encourage pedestrian movement between buildings and to strengthen visual and functional connections between different areas of the development. Landscape design guidelines shall describe the proposed general character of elements of critical dimensions, and shall specify appropriate varieties of plant materials, paving types, lighting, signage, and other open space furnishings.

(c) Streets and Access Drives. New streets proposed within the planned development site and connections to existing streets shall be designed to accepted engineering standards for the projected traffic volumes and intended design speeds.

(d) Parking Facilities. Parking spaces in surface lots shall be designed to the following standards:

(1) At least seventy percent (70%) of the required spaces are to be a minimum size of 9 feet by 18 feet. The remaining spaces may be designated for compact cars only and shall measure 7.5 feet by 18 feet.

(2) At least five percent (5%) of the total area designed for 50 or more cars shall be reserved for planting islands. Landscaped islands shall be at least five feet in width.

(3) In addition to the internal landscaping requirement, parking areas are to be screened to a height of 30 inches from adjacent street rights of way.

will comply

complies

will comply

complies

complies

will comply

<p>(4) Parking areas are to be visually screened to a minimum height of five (5) feet above pavement where adjoining a residential district. A combination of earth berms and landscape plantings can be used.</p>	<p><i>n/a</i></p>
<p>1173.10 PLANNING AND ZONING COMMISSION ADMINISTRATION.</p> <p>In order to administer and carry into execution the provisions of Chapter 1173, the Planning and Zoning Commission shall have full power and authority to do or perform any and all acts provided for herein and necessary or incident to the successful administration and execution of the Zoning Code. Such powers so granted are subject to the powers reserved to Council by Charter or ordinance. "Commission" means the Planning and Zoning Commission.</p>	<p><i>accepted</i></p>
<p>1173.11 PRELIMINARY LAND USE PLAN.</p> <p>The owner of any parcel of land which has been placed in a Planned Mixed-Use Development District (PM-UD) may submit to the Planning and Zoning Commission a preliminary land use plan for use of all of that parcel of land. If the parcel is part of contiguous undeveloped land belonging to the same owner, the preliminary plan shall include all such undeveloped land. Proof of ownership shall be filed with the plan. The preliminary plan shall show evidence of unified ownership or control of the area applied for and evidence of financial capability of such owner to carry out the general type of development contemplated for the area. The preliminary plan shall set forth the proposed streets and areas to be devoted to specific land uses. The Commission shall act in approving or disapproving any such preliminary land use plan not later than forty-five (45) days after its receipt by the Commission, unless the Commission extends the time for a reasonable period for good cause. Following action by the Commission, the land use plan shall be submitted to the Village Council for its review and approval by motion.</p>	<p><i>provided</i></p>
<p>1173.12 PROPOSAL FOR DETAILED DEVELOPMENT PLAN.</p> <p>(a) The owner of any parcel of land for which a preliminary land use plan has been approved pursuant to Section 1173.11 may submit a proposal for a detailed development plan of the land.</p> <p>(b) Such proposal shall be accompanied by and supported by development drawings, including site plans showing proposed roads, and streets, portions of the parcel to be devoted to specific land uses, locations of buildings, off-street parking areas, loading and unloading areas, architectural sketches and plans for landscape improvements. The developer shall submit a sewer and water plan expected to form the basis for approval by governmental and regulatory entities. The developer shall also submit data showing the average and maximum volume of traffic expected to be generated by the development, together with a plan for handling such traffic. When the plan provides for only a partial development of a parcel, sufficient tentative planning for the remainder of the parcel shall be submitted to permit evaluation of the probable development of the entire parcel. The Village Engineer and the Law Director shall advise the Planning and Zoning Commission regarding engineering and legal requirements to comply with all applicable engineering standards and municipal laws.</p>	<p><i>will comply</i></p> <p><i>will comply</i></p>

1173.13 APPROVAL BY COMMISSION.

(a) Before giving its approval to a final proposal for a detailed development plan, the Planning and Zoning Commission may request such changes in the proposal as it deems necessary to make such planned development in keeping with the spirit and intent of this zoning district and within the limitations of the preliminary land use plan that has theretofore been approved by the Commission. The Commission may also add requirements necessary to comply with the spirit and intent of this Zoning Code.

accepted

(b) If the Commission finds that such proposed detailed development plan is in accordance with the preliminary land use plan theretofore approved, and is in keeping with the spirit and intent of this zoning district and meets all the conditions which the Commission in its discretion may have imposed, the Commission may approve or disapprove the detailed development plan and certify its approval or disapproval and recommendations to Council. The Commission shall act in approving or disapproving any such detailed development plan proposal not later than forty-five (45) days after its receipt by the Commission, unless the Commission extends the time for a reasonable period for good cause.

accepted

1173.14 ARCHITECTURAL REQUIREMENTS.

The Planning and Zoning Commission shall require substantially uniform architectural treatment within the development in order to achieve a harmonious and consistent blend of improvements.

accepted

Appendix B – Traffic Impact Study, Executive Summary



TRAFFIC IMPACT STUDY

PROPOSED ORANGE SOUTH

ORANGE VILLAGE, OHIO

OCTOBER 9, 2015

Prepared For:

PINE ORANGE, LLC
1138 WEST 9TH STREET, 2ND FLOOR
CLEVELAND, OHIO 44113

Prepared By:

TMS ENGINEERS, INC.
2112 CASE PARKWAY SOUTH #7
TWINSBURG, OHIO 44087

EXECUTIVE SUMMARY

This Traffic Impact Study (TIS) has been prepared at the request of Pine Orange LLC for the proposed Orange South multi-use development. The project site is bordered by Harvard Road to the north and Interstate 271 to the west in Orange Village, Cuyahoga County, Ohio. **Figure 1, Page 2** shows the proposed location of the development.

The proposed development is expected to consist of restaurants, a hotel, and office space. The full build out analysis of the development will include 20,000 square feet of restaurants, 450,000 square feet of office space, and a 170 room hotel. The development of 320 residential units on the Weintraub site will also be included in the analysis.

The site plan details three phases of development for the site. The first phase will include the 20,000 square feet of restaurants and the 170 room hotel. The second phase will include 250,000 square feet of office space. The third phase or future phase as labeled on the site plan will include the Weintraub residential component and an additional 200,000 square feet of office space.

Development access is proposed via a new roadway that would line up directly across from Orange Place. The proposed roadway would become the south approach of a four-way signalized intersection at Harvard Road and Orange Place. **Figure 2, Page 3** shows the proposed preliminary land use plan for the Orange South development.

The year 2016 will be analyzed as the opening year and include phase 1 generated traffic. The year 2018 will analyzed with the phase 2 portion of the site generated traffic. The year 2036 will be analyzed as the design year for the twenty year analysis and will include the full build out of the site.

The Pinecrest multi-use development is proposed to be built on the north side of Harvard Road. The Pinecrest development has been analyzed in a series of Traffic Impact Studies. The most recent version of the Pinecrest TIS was dated June 24, 2015. This TIS for the proposed Orange South development includes the traffic forecast data and recommendations from the June 24, 2015 Pinecrest TIS.

The study analyzed the following existing intersections located within the study area:

1. Harvard Road & I-271 Southbound Entrance/Exit Ramp
2. Harvard Road & I-271 Northbound Exit Ramp
3. Harvard Road & Orange Place
4. Harvard Road & Brainard Road

The weekday AM peak hour of traffic was determined to be 8:00 AM to 9:00 AM and the weekday PM peak hour of traffic was found to be 5:00 PM to 6:00 PM. These periods will be analyzed since they reflect the period of the highest volume of traffic flow for both the roadway and the development. Current AM and PM peak hour traffic volumes were shown in **Figure 5**.

The proposed development will generate additional traffic which may impact the area roadways. This traffic impact study presents an assessment of the impact of the traffic generated by the proposed development on the existing road network adjacent to the site. The results of the analysis have been used to determine what improvements will be required to handle the traffic which will be associated with this use.

The proposed Orange South development is expected to generate the following average hourly traffic during the AM and PM peak periods in 2016:

ITE TRIP GENERATION RESULTS ORANGE SOUTH MULTI-USE DEVELOPMENT PHASE 1	TRIPS END			
	Peak Hour Between 7-9 AM (Enter/Exit)		Peak Hour Between 4-6 PM (Enter/Exit)	
	167	129	159	117
TOTAL NEW TRIPS	296		276	

The proposed Orange South development is expected to generate the following average hourly traffic during the AM and PM peak under the full build Year 2018 conditions:

ITE TRIP GENERATION RESULTS ORANGE SOUTH MULTI-USE DEVELOPMENT PHASE 1 & 2	TRIPS ENDS			
	Peak Hour Between 7-9 AM (Enter/Exit)		Peak Hour Between 4-6 PM (Enter/Exit)	
	449	109	216	410
TOTAL NEW TRIPS	558		626	

The proposed Orange South development is expected to generate the following average hourly traffic during the AM and PM peak under the full build Year 2036 conditions:

ITE TRIP GENERATION RESULTS ORANGE SOUTH MULTI-USE DEVELOPMENT PHASE 1 & 2 & Future	TRIPS ENDS			
	Peak Hour Between 7-9 AM (Enter/Exit)		Peak Hour Between 4-6 PM (Enter/Exit)	
	651	214	326	612
TOTAL NEW TRIPS	865		938	

Recommended Improvements to Serve Existing Conditions

No improvements were found to be necessary to accommodate the existing 2015 traffic at the study area intersections.

Recommend Improvements to Serve Future Conditions without the Development

No improvements were found to be necessary to accommodate the expected 2016, 2018, and 2036 No Build traffic at the study area intersections.

Recommended Improvements to Mitigate the Traffic Associated with the Development

The following lane use and traffic control are recommended at the intersection of Harvard Road and the I-271 Southbound Ramps to accommodate the 2036 site generated (Build) traffic:

- Construct a second southbound left turn lane.

No additional improvements were found to be necessary to accommodate the expected 2016, 2018, 2036 Build traffic at the remaining study area intersections.

Development Access Recommendations

The following lane use and traffic control are recommended at the intersection of Harvard Road and Orange Place/Proposed Roadway to accommodate the 2016 and 2018 site generated (Build) traffic:

- Install a westbound left turn lane.
- Construct the proposed northbound approach to consist of a left turn lane and a shared through/right turn lane.
- Upgrade the traffic signal installation to include the proposed northbound approach.

The following lane use and traffic control are recommended at the intersection of Harvard Road and Orange Place/Proposed Roadway to accommodate the 2036 site generated (Build) traffic:

- Install a westbound left turn lane.
- Construct the proposed northbound approach to consist of two left turn lanes and a shared through/right turn lane.
- Upgrade the traffic signal installation to include the proposed northbound approach.

The following improvements are also recommended to improve the operation of the traffic signal control installations at the intersections of Orange Place with Harvard Road and the proposed Pinecrest Site Driveway under all development phases.

- Update the intersection traffic signal timings to ensure the timing and coordination of the two intersections is optimized for the additional traffic generated from the proposed Orange South and Pinecrest developments.

Conclusions

The 2036 improvements are based on twenty year predicted traffic volumes determined from historical traffic data and anticipated development generated traffic for the full build out of the Orange South development. It should also be noted that before any improvements can be implemented at the I-271 Southbound Ramps it would also be necessary to prepare an Interchange Modification Study to be reviewed and approved by the Ohio Department of Transportation.

It is our opinion that based on these factors the need for improvements to the I-271 Southbound Ramps and Orange Place should be re-analyzed at a time after the development has reached the Phase 2 level of build out and prior to the full build out of the remaining office space and the residential development.

A secondary access point to the development that would allow vehicles to enter and exit the site without using Harvard Road would likely lessen the likelihood of the recommended improvements at Orange Place and the I-271 Southbound Ramps.

We conclude that the surrounding roadway network can accommodate the future development traffic with the recommended improvements at the study area intersections based upon the results from the analyses in this study.

Appendix C – Sanitary Sewer Capacity Analysis

Orange South - Sanitary Sewer Demand

	Use	Area							Units					Flow (GPD)	Flow (MGD)	Peak Factor	Peak Daily Flow (MGD)	Average Daily Flow to Harvard Road (MGD)	Peak Daily Flow to Harvard Road (MGD)	Notes
Phase 1	Restaurant 1	12,000	SF	/	30	SF	=	400	Seats	X	35	GPD	=	14,000	0.01	3.70	0.05	0.09	0.32	
	Restaurant 2	8,000	SF	/	30	SF	=	267	Seats	X	35	GPD	=	9,333	0.01	3.70	0.03			
	Hotel							170	Rooms	X	100	GPD	=	17,000	0.02	3.70	0.06			
Phase 2	Office	250,000	SF	/	200	SF	=	1,250	Employees	X	20	GPD	=	25,000	0.03	3.70	0.09			Forcemain
Phase 3	Office	200,000	SF	/	200	SF	=	1,000	Employees	X	20	GPD	=	20,000	0.02	3.70	0.07			Potential Forcemain