



AGENDA FOR REGULAR MEETING VILLAGE OF TINLEY PARK PLAN COMMISSION

October 5, 2023 – 7:00 P.M.
Council Chambers
Village Hall – 16250 S. Oak Park Avenue

Regular Meeting Called to Order

Pledge of Allegiance

Roll Call Taken

Communications

Approval of Minutes: Minutes of the September 21, 2023 Regular Meeting

ITEM #1 WORKSHOP – SPLISH SPLASH CAR WASH – 7130 171st STREET – SPECIAL USE, VARIATION, FINAL PLAT, PLAT OF DEDICATION, SITE PLAN/ARCHITECTURAL APPROVAL

Consider recommending that the Village Board grant Iftekhar Syed of Tinley Park Properties LLC (dba Splish Splash Car Wash) a Special Use for an Automobile Car Wash and a Variation from Section III.H.2. (Permitted Encroachments in Required Yards, Commercial Zoning District, Driveways) of the Zoning Code. The petitioner is requesting the Special Use and Variation to permit site improvements to convert an existing nonconforming manual bay car wash to an automated tunnel car wash at 7130 171st Street in the B-3 (General Business & Commercial) zoning district. Site Plan and Plat approvals will also be considered at the meeting.

ITEM #2 PUBLIC HEARING – WEST POINT AT HARMONY SQUARE, 67TH CT. & NORTH ST. SPECIAL USE, VARIATIONS, REZONING, TEXT AMENDMENT, FINAL PLAT, AND SITE PLAN/ARCHITECTURAL APPROVAL

Consider recommending that the Village Board grant West Point Builders, Inc. on behalf of Tinley Park Main Street, LLC a Special Use, Final Plat of Subdivision, Plat of Vacation, Rezoning, and Variations for the mixed-use development West Point at Harmony Square. A Text Amendment to the Zoning Ordinance is also proposed to facilitate the development by relocating a segment of the “Street-Level Commercial Required” designation in the Legacy Downtown Core Regulating Plan. The project includes a five-story mixed-use building on North Street with commercial space on the first floor and 63 residential units located above. Additionally, the development includes 63 townhome units at the former site of Central Middle School. Site Plan and Final Plat approval are also being considered at the meeting.

Receive Comments from the Public

Good of the Order

Adjourn Meeting



**MINUTES OF THE REGULAR MEETING OF THE
PLAN COMMISSION, VILLAGE OF TINLEY PARK,
COOK AND WILL COUNTIES, ILLINOIS**

September 21, 2023

The meeting of the Plan Commission, Village of Tinley Park, Illinois, was held in the Council Chambers located in the Village Hall of Tinley Park, 16250 Oak Park Avenue, Tinley Park, IL on September 21, 2023, 2023.

CALL TO ORDER – ACTING CHAIR GATTO called to order the Regular Meeting of the Plan Commission for September 21, 2023 at 7:00 p.m.

Jason Engberg, Planning Manager, called the roll.

Present Plan Commissioners: Acting Chair Angela Gatto
Steve Sepessy
Terry Hamilton
James Gaskill
Eduardo Manu
Kehla West

Absent Plan Commissioners: Chairman Garrett Gray
Andrae Marak
Kurt Truxal

Village Officials and Staff: Jason Engberg, Planning Manager
Michael Coleman, Building Official
Jarell Blakey, Management Analyst

Petitioners:

Members of the Public:

COMMUNICATIONS – None

APPROVAL OF THE MINUTES - Minutes of the September 7, 2023, Regular Meeting of the Plan Commission were presented for approval. A motion was made by COMMISSIONER, seconded by COMMISSIONER to approve the September 7, 2023 minutes. ACTING CHAIR GATTO asked for a voice vote; all were in favor. She declared the motion carried.

TO: VILLAGE OF TINLEY PARK PRESIDENT AND BOARD OF TRUSTEES

FROM: VILLAGE OF TINLEY PARK PLAN COMMISSION

SUBJECT: MINUTES OF THE SEPTEMBER 21, 2023 REGULAR MEETING

ITEM 1: PUBLIC HEARING – WEST POINT AT HAMRONY SQUARE, 67TH CT. & NORTH ST. SPECIAL USE, VARIATIONS, REZONING, TEXT AMENDMENT, FINAL PLAT, AND SITE PLAN/ARCHITECTURAL APPROVAL

Consider recommending that the Village Board grant West Point Builders, Inc. on behalf of Tinley Park Main Street, LLC a Special Use, Final Plat of Subdivision, Plat of Vacation, Rezoning, and Variations for the mixed-use development West Point at Harmony Square. A Text Amendment to the Zoning Ordinance is also proposed to facilitate the development by relocating a segment of the “Street-Level Commercial Required” designation in the Legacy Downtown Core Regulating Plan. The project includes a five-story mixed-use building on North Street with commercial space on the first floor and 63 residential units located above. Additionally, the development includes 63 townhome units at the former site of Central Middle School. Site Plan and Final Plat approval are also being considered at the meeting.

Present Plan Commissioners: Acting Chair Angela Gatto
Steve Sepessy
Terry Hamilton
James Gaskill
Eduardo Manu
Kehla West

Absent Plan Commissioners: Chairman Garrett Gray
Andrae Marak
Kurt Truxal

Village Officials and Staff: Jason Engberg, Planning Manager
Michael Coleman, Building Official
Jarell Blakey, Management Analyst

Petitioners: None

Members of the Public: None

ACTING CHAIR GATTO introduced Item 1.

COMMISSIONER TRUXAL made a motion to open and continue the public hearing on this item to the regularly scheduled October 5th Plan Commission meeting. COMMISSIONER GASKILL seconded the motion. ACTING CHAIR GATTO asked for a voice vote; all were in favor. She declared the motion carried and opened and continued the October 5th public hearing.

DRAFT

TO: VILLAGE OF TINLEY PARK PRESIDENT AND BOARD OF TRUSTEES

FROM: VILLAGE OF TINLEY PARK PLAN COMMISSION

SUBJECT: MINUTES OF THE SEPTEMBER 21, 2023 REGULAR MEETING

ITEM 2: PUBLIC HEARING – TINLEY BOWL – CONCESSIONS BUILDING ADDITION – 7601 183RD STREET – SPECIAL USE, SITE PLAN/ARCHITECTURAL APPROVAL

Consider recommending that the Village Board grant Cassie Beno on behalf of Tinley Bowl a Special Use for a Substantial Deviation of the Hickory Creek Business Center for the development of a concessions building and athletic courts at 7601 183rd Street. Site Plan/Architectural Approval is also being considered at the meeting.

Present Plan Commissioners: Acting Chair Angela Gatto
Steve Sepessy
Terry Hamilton
James Gaskill
Eduardo Manu
Kehla West

Absent Plan Commissioners: Chairman Garrett Gray
Andrae Marak
Kurt Truxal

Village Officials and Staff: Jason Engberg, Planning Manager
Michael Coleman, Building Official
Jarell Blakey, Management Analyst

Petitioners: None

Members of the Public: None

CHAIR GATTO introduced Item 2.

Jason Engberg, Planning Manager explained to the commission that the petitioner requested to continue this item to the regularly scheduled October 19 Plan Commission meeting.

A commissioner made a motion to open and continue the public hearing; The motion received a second. CHAIR GATTO asked for a roll call vote; all were in favor. She declared the motion carried and continued the public hearing to the October 19 regularly scheduled Plan Commission Meeting.

TO: VILLAGE OF TINLEY PARK PRESIDENT AND BOARD OF TRUSTEES

FROM: VILLAGE OF TINLEY PARK PLAN COMMISSION

SUBJECT: MINUTES OF THE SEPTEMBER 21, 2023 REGULAR MEETING

**ITEM 3: PUBLIC HEARING – 9306 WALNUT LANE ACCESSORY STRUCTURE –
9306 WALNUT LANE – VARIATION APPROVAL**

Consider recommending that the Village Board grant Mahmoud Abuhamdeh (Petitioner) Variations from Section III of the Tinley Park Zoning Ordinance to increase the maximum floor area of an accessory structure and to increase the maximum width of an accessory structure within the R-2 (Single-Family Residential) Zoning District. The Petitioner is proposing to erect a canopy and paver patio in the required rear yard at 9306 Walnut Lane.

Present Plan Commissioners: Acting Chair Steve Sepessy
Angela Gatto (Recused)
Terry Hamilton
James Gaskill
Eduardo Manu
Kehla West

Absent Plan Commissioners: Chairman Garrett Gray
Andrae Marak
Kurt Truxal

Village Officials and Staff: Daniel Ritter, Community Development Director
Jason Engberg, Planning Manager
Michael Coleman, Building Official
Jarell Blakey, Management Analyst

Petitioners: Mahmoud Abuhamdeh, Owner of 9306 Walnut Lane

Members of the Public:

CHAIR GATTO introduced item 3 then introduced a motion to recuse herself from the proceedings and allow COMMISSIONER SEPESSY to act as chair of the meeting. COMMISSIONER GASKILL seconded the motion. The motion carried by way of a unanimous roll call vote.

CHAIR SEPESSY certified the publication of item 3 in the local newspaper in accordance with state law. Then invited staff to give their presentation.

CHAIR SEPESSY entertained a motion to open the public hearing for item #3. COMMISSIONER WEST made the motion, COMMISSIONER HAMILTON seconded. The motion was declared

carried via unanimous voice vote.

Jason Engberg, Planning Manager presented the staff report.

CHAIR SEPESSY swore in all members of the public wishing to speak on the matter.

Andrea Beloit noted concerns with the development due to the fact that the project was done without the necessary permitting and work was continued during the issuance of a stop work order. She continued to note that if the proposed variances are approved without the petitioner going through the necessary zoning process prior to construction it would be setting a dangerous precedent. Andrea concluded by raising concerns with drainage as a result of the project.

Susan Arvance began her commentary by stating her proximity to the project and provided a description of the project from her point of view noting that the petitioner has constructed an outdoor kitchen with multiple gas grills, a warming shelter, a large screen television, and improperly placed utilities have been supplied to these items. Susan then asked if there was a requirement to provide a plat of survey during the building permitting process.

Jason Engberg responded that the petitioner did submit a plat of survey with the project.

Susan then asked about the proximity of the gas lines ran to the project noting concerns with potential overloading of the utility lines as placed. Susan continued to note that the construction of this project has caused her to have diminished use of her yard due to nuisances that have accompanied the construction of the project specifically noting noise concerns from the television and lighting disturbances from the lights in the pavilion. She continued to note that the project was built outside of Village standards referencing the height of the structure against the shed in her rear yard which stands at 15 feet, 3 feet below the 18-foot code for accessory structures. Susan then noted concerns with the construction of the project in regards to the durability of the pavilion and asked if the project has been inspected.

Mike Coleman, Building Official answered that a rough building inspection has been completed and clarified that it is an enclosed roofed structure which has requirements that are specified in span tables that the Village uses. He continued to note that the drawings that were received were less than desirable to be approved due to the load that the structure is bearing. Mike noted that there are ways to address the load bearing concerns on the project that can be used depending on the outcome of the Plan Commission and Village Board meeting. Mike explained to Susan that if the project is approved, the Building Department will work with the petitioner to make any necessary corrections and if the project is denied, the Building Department will begin enforcement procedures in accordance with the municipal code.

Susan commented that she is strongly opposed to the proposed project and feels that variances should not be granted when the variance will negatively impact other neighbors in the region. She continued to note that due to the construction of the project she can no longer utilize her property as she wishes to due to noise and light complaints. Susan continued by addressing concerns with improper drainage of waste water from the project's outdoor kitchen in the Village storm sewer.

COMMISSIONER WEST asked Susan if the drainage was going into a street gutter or a manhole.

Susan confirmed that the drainage was going into the storm sewer in the drainage easement.

COMMISSIONER WEST asked Susan to clarify the current drainage materials on the project.

Susan confirmed that the petitioner installed PVC Piping that is connected to the outdoor sink on the patio. She then noted the presence of an unpleasant odor that is coming from the improper drainage on the project. Susan continued her commentary by citing the zoning code, informing the commission that residences in the Village are only allowed one accessory structure and the construction of this project is a violation due to the petitioner having a shed as the principal accessory structure. She then noted a concern with flooding in her rear yard due to the construction of this project.

CHAIR SEPESSY commented that the commission hears her concerns and understands the issues that she has.

Susan concluded her commentary by citing that the project is beyond the 34% lot coverage requirement.

A member of the public commented that she has been through the zoning entitlement process and was previously denied although the proposed project was to address an ADA concern. She continued to note that she lives near Bulldog Field so she sympathizes with the concerns of Susan Arvance in regards to noise complaints. She concluded her commentary by saying that the petitioner should not be granted a variance due to the lack of conformance to the stop work order and lack of uniformity to the neighborhood.

CHAIR SEPESSY swears in Mahmoud Abuhamdeh, petitioner and owner of 9306 Walnut Lane.

Mahmoud Abuhamdeh began his commentary by stating that he and his team submitted the appropriate documentation for the proposed project. He then explained that he built the entire patio/pavilion structure due to safety concerns for his children. He continued by stating that the gas lines in the project were approved and admitted that he was unaware of the need for a permit if electrical work was being completed by the homeowner and then he proceeded to apply for the permit. Mahmoud continued by stating that the footprint of the project is the same as the previous pool and deck that he had in the yard. He then noted that Susan is the only neighbor that has complained about the structure and that the structure was built to code.

Mahmoud continued his commentary by stating that he did not ignore a stop work order but that he was out of town and the company that did the work utilized a workforce of individuals who do not speak English fluently. This issue caused a breakdown in communication that led to the continuing of work during the stop work order. Mahmoud also commented that once he was aware of the situation he informed the crew to stop working but wanted to do so at a point that was safe to do so. Mahmoud stated that at the time he was aware of the stop work order the roof was incomplete and implied that stopping at this point would be unsafe.

2 grills – Tracer wire (58:30)

Mahmoud Abuhamdeh noted that he has attempted to work with his neighbor Susan to address any concerns she may have specifically mentioning that he is willing to turn off lights and mitigate excess noise. He continued by stating that the work he has been doing on the project has been minimal and does not produce excess noise.

Mahmoud Abuhamdeh then addressed the drainage concern that was mentioned by Susan. He stated that there has been a drainage issue on his property since he first purchased it and the structure is not the cause of the excess water pooling in the drainage easement. He concluded his commentary by stating that all work done is up to code.

CHAIR SEPESSY opened the floor up to questions from the commissioners.

COMMISSIONER WEST asked if gas companies are allowed to install gas lines in opposition to Village code.

Mike Coleman clarified that the gas company does not install gas lines, all they provide is service to the meter. Anything beyond the meter is private contract. He continued to note that the Village plumbing inspector noticed the gas line when inspecting a different part of the project and noted the supply lines were undersized for the proposed use and that inspections for this project are currently incomplete as the project is still in review.

COMMISSIONER WEST asked about the relevance of the review of gas lines if utilities are not allowed to be ran to accessory structures.

Mike Coleman agreed with COMMISSIONER WEST.

COMMISSIONER WEST then asked the petitioner to clarify whether the sink was on.

Mahmoud Abuhamdeh stated that it was not currently on.

COMMISSIONER WEST asked the petitioner to clarify whether the sink was currently tied into the existing sewer system for the home.

Mahmoud Abuhamdeh stated that the sink is draining to the sewer.

COMMISSIONER WEST clarified that the sink was draining to the storm sewer.

Mahmoud Abuhamdeh stated that it was connected to the home sewer. Then stated it is the sewer to the rear of the house located near the structure.

COMMISSIONER GASKILL informed the petitioner that is a storm sewer not a sanitary sewer.

Mahmoud Abuhamdeh noted that he was unaware of the difference and stated that there was no waste in that water.

COMMISSIONER WEST noted that the water is still considered “gray water” and is not suitable to be drained into the storm sewer.

COMMISSIONER HAMILTON noted he had no questions at this time.

COMMISSIONER MANI asked the petitioner if he submitted all the necessary documents at the time of permit submission.

Mahmoud Abuhamdeh stated that he supplied all necessary documents including drawings and a copy of the contract then asked Jason Engberg if he had the permit submission.

Jason Engberg stated that the permit application cited the construction of a paver patio which caused the permit application to be routed to zoning only analyzing the paver patio which was permitted. Jason clarified that the focus of the proposed variances are primarily for the structure not the outdoor kitchen and patio.

Mike Coleman informed the commission that the permit submittal was reviewed by the zoning administrator and another village inspector for approval. He clarified that during review the zoning administrator approved the project for what the application stated and the inspector noticed that the scope of work provided was indicative of more than just a paver patio then informed the petitioner that he would need to revise the permit application. Mike continued to note that the village was not in possession of any of the necessary documents for a raised structure at the time of permit submission. Mike also clarified that the Village had no information on the sink that was placed in the structure and that it is considered a plumbing fixture that will need to be tied into the home sanitary sewer due to it producing waste water.

COMMISSIONER WEST noted the stop work order was issued on August 17, 2023 and the petitioner stated they were out of town. She asked the petitioner when he returned.

Mahmoud Abuhamdeh stated that he returned the following week and that all substantive work was completed prior to the issuance of a stop work order. Then stated that any work that was completed was minor work.

COMMISSIONER WEST clarified asking if there was any structural work occurring after the stop work order.

Mahmoud Abuhamdeh stated that no additional structural work was completed.

COMMISSIONER WEST asked the petitioner when the roof was completed.

Mahmoud Abuhamdeh responded that he was unsure.

Mike Coleman noted that it was after August 17, 2023 based on the pictures provided in the staff report that showcased the roof on the date of the stop work order and the condition of the structure on September 21, 2023.

COMMISSIONER WEST asked the petitioner if the roof was put on after the stop work order Mahmoud Abuhamdeh stated that he did not believe so and is under the impression that it was completed the same day as the contractors he hired continued to work.

COMMISSIONER WEST asked the petitioner to confirm that no one on the construction team spoke English.

Mahmoud Abuhamdeh stated that the only person that he knows speaks English is the owner of the company.

COMMISSIONER WEST stated that someone on the project should have some knowledge of a stop work order if they are able to understand English on a business-level.

Mahmoud Abuhamdeh stated that code enforcement came by the property after the time the manager of the company was on-site.

COMMISSIONER WEST asked the petitioner if he was the only adult in his home.

Mahmoud Abuhamdeh stated that his wife was present but she does not speak English.

COMMISSIONER MANI asked if the petitioner included all necessary documents in the permit submittal.

Mahmoud Abuhamdeh stated that he supplied all the necessary documents with dimensions and all other necessary components.

COMMISSIONER WEST asked why the petitioner diverted from the plan as shown.

Mahmoud Abuhamdeh stated that the Village was aware of the change.

Mike Coleman stated that he does not believe the project was approved with 8 pillars instead of 9. He stated that the Village has been made aware but it was not approved.

Mahmoud Abuhamdeh stated that he believes the structure is fortified.

COMMISSIONER GASKILL asked how far along the project was at the time of the stop work order.

Jason Engberg referenced the pictures in the staff report that showcased the roof on the date of the stop work order and the condition of the structure on September 21, 2023. Jason informed the commission that there are additional pictures as well.

CHAIR SEPESSY asked staff to clarify how a stop work order is issued.

Mike Coleman stated that a stop work order is issued in person by talking to an adult on the property and then a sticker is applied to the project.

COMMISSIONER WEST then asked Mike to clarify the stickering process.

Mike Coleman informed her that there are actual stop work stickers that are placed on site informing them of the need to cease work.

COMMISSIONER GASKILL asked if gas and electric were installed prior to August 17, 2023.

Mahmoud Abuhamdeh stated that he was not sure.

COMMISSIONER WEST interjected and stated that the grills were there at that point.

Mahmoud Abuhamdeh agreed and stated that the grills were on-site so the cutouts for them would be accurate.

COMMISSIONER GASKILL clarified that his question was specifically concerning gas and electric.

Mahmoud Abuhamdeh stated that the gas and electric were installed after he revised the permit application.

COMMISSIONER WEST asked if the village approved the gas line.

Mahmoud Abuhamdeh stated that a third-party company inspected and approved the gas line.

Mike Coleman informed the commission that the Village uses Lakeside Consulting for building inspections during times of increased activity. He stated that the inspector that completed the inspection only did so based on the building code not the zoning code and informed the petitioner that the supply lines were too small for the intended use. Mike continued to clarify that without the spec sheets for the gas grills that were not supplied, the Village could not make an adequate assessment of the supply lines. However, he stated that if the placement of the gas lines are in conflict with the zoning ordinance then the gas lines would need to be removed.

COMMISSIONER WEST stated that the gas lines being evaluated was irrelevant to the request because gas lines are not permitted in accessory structures.

Mike Coleman clarified that if the petitioner had an outdoor grill that was not covered by the pavilion, it would be an allowed use.

Jason Engberg clarified that the zoning ordinance specifically states that residential accessory structures cannot have sanitary, plumbing, or gas in them.

Mahmoud Abuhamdeh noted that there was a gas line installed previously because his pool had a heater installed.

COMMISSIONER GASKILL noted that the pool heater was considered an appliance so it was allowed.

Mike Coleman clarified that the reason accessory structures cannot have plumbing, gas, or sanitary utilities is because it becomes occupiable space.

COMMISSIONER GASKILL asked if August 17 the roof was added and the rear wall to the patio was completed.

Mahmoud Abuhamdeh noted that there were no issues noted with the patio.

Jason Engberg clarified that the petitioner's property slopes downward so it is possible the patio portion was completed but he is unsure.

COMMISSIONER WEST asked if any work was done on the patio after August 17.

Mahmoud Abuhamdeh stated that he was unsure.

COMMISSIONER GASKILL noted that the petitioner should have some knowledge of a project happening at his home.

Mahmoud Abuhamdeh noted that he works 16 hours per day and did not actively pay attention to the progress of the project.

COMMISSIONER GASKILL asked if he had taken any time to track the progress of the project.

Mahmoud Abuhamdeh stated 'absolutely' then asked the commissioners to clarify their questions so he could adequately answer.

COMMISSIONER WEST clarified and asked if any work was done on the patio or pavilion structure after the stop work order was issued.

Mahmoud Abuhamdeh stated 'yes'

COMMISSIONER WEST asked the petitioner why.

Mahmoud Abuhamdeh stated that the patio was not part of the stop work order and that it was only for the gazebo.

Jason Engberg clarified that the stop work order was for the entire project to his understanding.

Mike Coleman concurred and stated it was a stop work order on all work included on the permit. He continued to note that on the date of the stop work order it was an open-air structure to a fully roofed structure by the date of the meeting.

COMMISSIONER GASKILL commented that if the petitioner notes that his property is located on the highest lot in the area how does he expect the commission to believe that everyone else's water goes into his yard.

Mahmoud Abuhamdeh stated that this has been an issue since he purchased the home. He continued to state that he thought it was the pool but after further evaluation it was determined it was not the pool.

COMMISSIONER GASKILL asked about the location

Mahmoud Abuhamdeh stated that the drain is located behind his home.

CHAIR SEPESSY asked if the petitioner if he ever contacted the Village regarding the drainage issue.

Mahmoud Abuhamdeh stated he did one time.

CHAIR SEPESSY asked what happened as a result.

Mahmoud Abuhamdeh stated that he did not remember.

Mike Coleman noted that the storm sewers are performing as intended and explained that pooling water in a drainage easement is not uncommon unless the water sits for an extended period of time.

CHAIR SEPESSY noted that he is familiar with this as he is located near a detention pond that fills and drains.

Mahmoud Abuhamdeh stated that he is not the only person who thought it was an issue with the pool.

CHAIR SEPESSY asked if there was anything else the petitioner wanted to add.

Mahmoud Abuhamdeh reiterated his rationale for constructing the patio and pavilion then stated that there would be no major parties happening at his home as a result of this project.

COMMISSIONER WEST stated that the petitioner should call the police if speeding cars are an issue.

COMMISSIONER HAMILTON commented that it appears that there was a miscommunication in the permitting process.

Jason Engberg clarified that the initial submission did not include all the necessary documentation, the description did not include the pavilion or pillars, and the mistake was caught during the review stage. The permit was advanced to issuance due to the revised plans being submitted on a plat of survey that was previously stamped as approved.

COMMISSIONER HAMILTON noted that it doesn't appear to be any gross negligence to the permitting process but rather a miscommunication in the permitting process.

COMMISSIONER GASKILL commented that not all the necessary information was included on the original submittal.

COMMISSIONER WEST commented that what was actually constructed is not reflected by the plat that was submitted.

COMMISSIONER HAMILTON clarified that his point is that the information was available at the time of the original submittal.

Mahmoud Abuhamdeh agreed with the commissioner and conceded that he did not provide drawings for the structure but did include the materials and the scope of work.

COMMISSIONER HAMILTON commented that it appears there was a good faith effort to provide the information and there was a breakdown in the permitting process.

Jason Engberg commented that if a building permit was issued and there was a zoning error that was caught after issuance, it does not supersede the zoning code. That is the reason for the requested variance.

COMMISSIONER WEST clarified that she did not intend to imply malfeasance.

Mike Coleman clarified that when a building permit is reviewed it is initially review for code compliance but a project is not approved until all necessary inspections are completed. He stated that it was reviewed from a building code perspective not a zoning.

Mahmoud Abuhamdeh stated that he understands a stop work order was issued and that work was stopped. He contended that any other work completed was done as maintenance to his home. He continued to state that it was not a danger.

COMMISSIONER WEST asked the petitioner to confirm that no additional work on the structure was completed after the stop work order on August 17, 2023.

Mahmoud Abuhamdeh stated that if any work was done it was within two to three days after the stop work order. He continued to state that when he was back in town he informed the construction crew to stop working. Mahmoud then stated that the crew has multiple projects and that may have caused some confusion.

COMMISSIONER WEST asked “They have multiple projects and are unfamiliar with a stop work order?”

Mahmoud Abuhamdeh stated that he believes they are aware of what a stop work order is but they might be so busy that there was confusion.

Susan Arvance approached the commission with video and photographic evidence of work occurring after the stop work order. She also contended that she had proof of the petitioner being home during the time that he claimed to be out of town.

Susan Arvance continued to show a video of work being completed on September 7, 2023. After showing the video she contended that the petitioner has not been working good faith.

CHAIR SEPESSY asked if there was any additional public comment.

Jason Engberg clarified for the commission that code enforcement entered pictures dated September 15, 2023 showing work being completed.

COMMISSIONER WEST made a motion to close the public hearing. Second by COMMISSIONER GASKILL. The motion carried by unanimous voice vote.

Jason Engberg presented the standards.

COMMISSIONER GASKILL asked if the motion could be amended to be read in the negative.

Jason clarified that all motions are written in the affirmative and if the commission wishes to vote against they must signify so with a “no” vote.

COMMISSIONER WEST asked if she made the motion would she be obligated to vote in the affirmative.

Jason Engberg informed her that she would just be making the motion and can still vote either in the affirmative or negative.

COMMISSIONER WEST made a motion to recommend that the Village Board grant the Petitioner, Mahmoud Abuhamdeh, a Variation from Section III.I.2.b of the Zoning Ordinance, to permit a residential accessory structure to be constructed which has a maximum floor area of one-thousand two-hundred square feet and a maximum width of forty feet at 9306 Walnut Lane, in the R-2 Single-Family Residential Zoning District, consistent with the Submitted Plans and adopt Findings of Fact as proposed by Village Staff in the September 21, 2023 Staff Report.

CHAIR SEPESSY noted that the motion died due to the lack of a second.

COMMISSIONER GASKILL asked what happens next.

Jason Engberg explained the process moving forward.

Daniel Ritter, Community Development Director informed the commission that the need to make the motion and second it is to advance the motion to a vote. He continued to inform the commission that if they choose not to vote it would still go before the board without a recommendation. However, if the commission wishes to recommend denial they will need to vote against the motion. He further explained that the motions are written in the affirmative because it is clearer to the board what the intentions of the commission are.

COMMISSIONER GASKILL asked if all variations are combined into one. Jason Engberg clarified that they are all in one motion.

COMMISSIONER GASKILL seconded the motion made by COMMISSIONER WEST. The motion was not carried by unanimous votes in the negative.

Receive Comments from the Public

There were no additional comments from the public.

Good of the Order

Jason Engberg informed the commission of the appointment of Kehla West and that the Tinley Dental variation passed the Village Board.

CHAIR SEPESSY asked if there were any updates on the Amazon Fresh Project.

Mike Coleman informed the commission that plans for a tenant buildout were submitted prior to the meeting.

COMMISSIONER GASKILL asked if the Amazon Lease was able to be subleased.

Staff informed him that that information is not privy to the Village at this time.

CHAIR SEPESSY asked for an update on Pete's Fresh Market.

Mike Coleman provided an update.

Adjournment

CHAIR SEPESSY requested a motion to adjourn the meeting.

COMMISSIONER GASKILL made a motion to adjourn the meeting; COMMISSIONER GATTO seconded the motion. ACTING CHAIR SEPESSY requested a voice vote; all were in favor. She declared the meeting adjourned at 9:00p.m.

PLAN COMMISSION STAFF REPORT

October 5, 2023 – Workshop

Petitioner

Iftekhar Syed of Tinley
Park Properties LLC

Property Location

7130 171st Street

PIN

28-30-112-004-0000

Zoning

B-3 (General Business &
Commercial)

Approvals Sought

Special Use Permit
Variation
Plat Approvals
Site Plan Approval

Project Planner

Lori Kosmatka, AICP
Associate Planner

Splish Splash Car Wash

7130 171st Street



EXECUTIVE SUMMARY

The Petitioner, Iftekhar Syed of Tinley Park Properties LLC is requesting Site Plan/Architectural Approval, a Special Use Permit for a car wash, a Variation, and Plat approvals for the proposed Splish Splash Car Wash at 7130 171st Street (former Montego Bay manual car wash). The granting of these requests will allow for an automated car wash use, along with architectural and site improvements.

The owner proposes to convert the existing nonconforming manual car wash with individual bays to a single automated tunnel with a new drive path. Site work includes removing and replacing the existing pavement, adjusting site access to one curb cut, installation of new drive aisles, parking, and vacuum parking spaces, as well as landscaping and lighting. Architectural changes include building additions to the south and west, façade and roofing updates, adjusting building entries (vehicular and pedestrian), as well as providing canopied pay stations. Landscape waivers are requested.

Per Zoning Ordinance Section 6.E, a nonconforming use (car wash in the B-3 zoning district) may be converted to a Special Use.

The Variation request will be to increase the maximum curb cut width from 30 feet permitted by code to a maximum of 41.3 feet.

Plat approvals are proposed for dedication to right-of-way (southern frontage along 171st Street), and for a future cross access easement.

EXISTING SITE & HISTORY

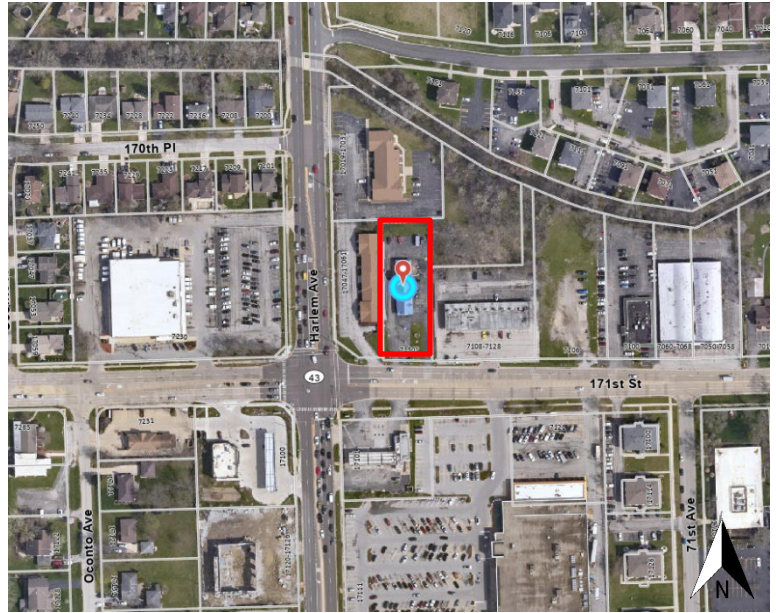
The subject property is the former Montego Bay car wash, located on the north side of 171st street, one property east of the intersection with Harlem Avenue. There are two curb cuts to the property along 171st Street. The property is approximately 30,000 sq. ft. 100 feet wide. It was annexed into the Village in 1964. The business recently ceased operations, and is currently vacant. The Petitioner purchased the property last year.

The property has an existing 1 1/2 story masonry building, containing six self-service manual car wash bays accessed on the east/west sides of the building. There are three vacuum stalls on site and a nonconforming pole sign along the 171st Street frontage.

ZONING & NEARBY LAND USES

The property is located in the **B-3 (General Business & Commercial) Zoning District**. The Zoning Ordinance states the B-3 zoning district “is designed to accommodate a wide range of specialized commercial uses, including highway-oriented services and commercial types of establishments to serve the needs of motorists. This district is intended to include those uses which would not be compatible in a neighborhood or community-type shopping center”.

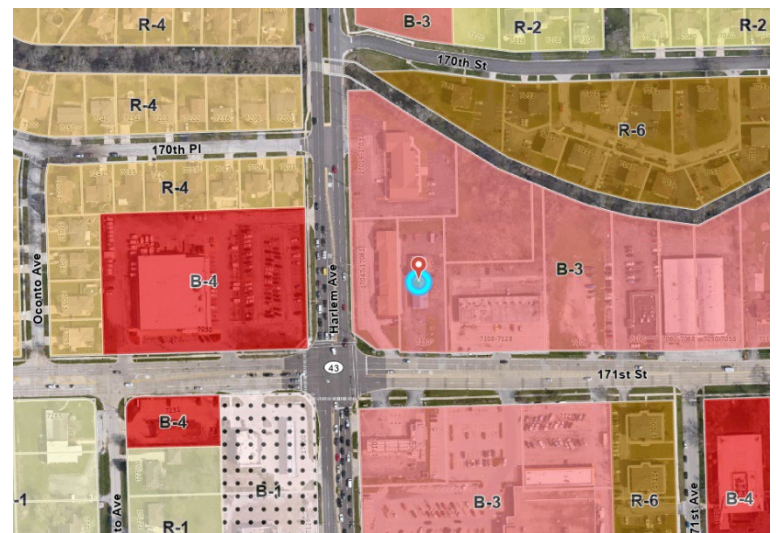
Automobile Car Washes, not attached to a service station, are prohibited except for by-right allowances in the B-5 Automotive Service Business zoning district and the MU-1 (Mixed Use Duvan Drive) overlay district. The existing car wash use on the subject property thus is nonconforming.



Location Map



Existing Building



Zoning Map

The table below indicates the surrounding zoning and land uses in the area:

| Direction | Zoning | Land Use |
|------------------|--|---|
| North | B-3 General Business & Commercial District | South Suburban Hearing Health Center |
| East (northerly) | B-3 General Business & Commercial District | (vacant) |
| East (southerly) | B-3 General Business & Commercial District | Currency Exchange, Dragon Palace restaurant |
| South | B-3 General Business & Commercial District | Shell gas station |
| West | B-3 General Business & Commercial District | Tinley Park Dental Care, Peter Francis Geraci Law LLC |

PROPOSED USE

The Petitioner proposes to convert the existing nonconforming car wash with manual bays to a single automated tunnel with a new drive path. Vacuum stalls will also be available for use. Two employees and a manager will be on-site. Employee #1 will check incoming traffic and monitor the flow into the facility and car wash. Employee #2 will guide the traffic flow through the tunnel. Both employees also help customers with the pay station. The manager will oversee the facility operations and manage the employees on site. The proposed building will be two stories. The ground floor consists of the tunnel, mechanical/electrical rooms, utility sink, and stairs. The second floor will have a 441 sq. ft. accessible storage room with the water heater and furnace, and the remainder of that floor is existing attic not for storage.

The Petitioner's narrative indicates they have relevant experience of over 30 years in gasoline and car wash retail operations. The narrative lists some of the car washes which the Petitioner has operated: 1100 Corliss Avenue, Chicago (operator), 7455 West Archer Summit II (operator, new construction), and 11900 South Marshfield Ave Calumet Park (operator, renovation, expansion).

SPECIAL USE & VARIATION APPROVALS NEEDED

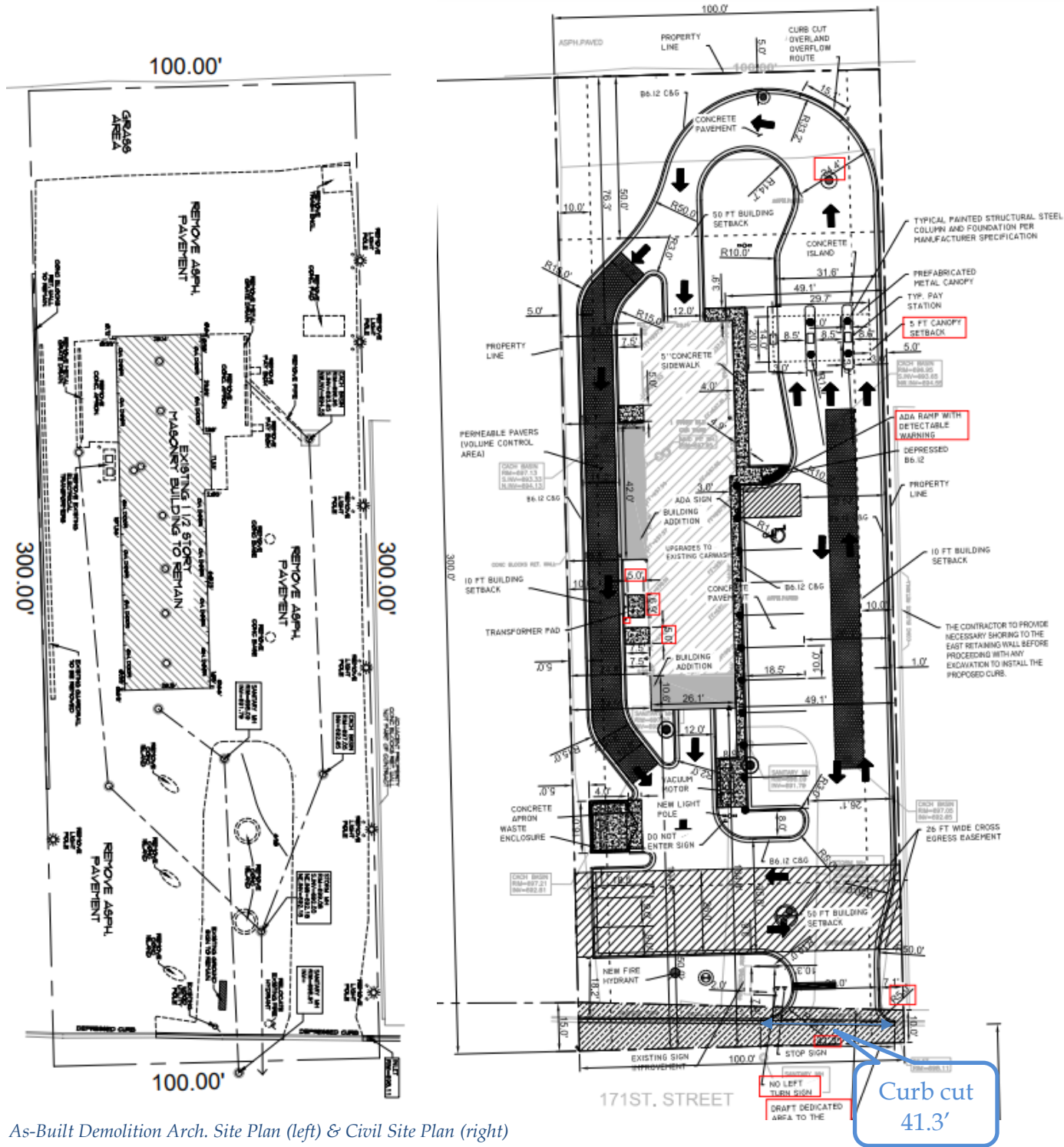
A Special Use approval is required for the proposal, along with Site Plan and Architectural Review. Section 6.E. of the Zoning Code states any nonconforming use may be converted to a permitted Special Use by the granting of a Special Use Permit. The code further states the conversion may only occur when it is shown that the nonconforming use is providing a particular service to the residents of Tinley Park and that the use is not detrimental to the Village as a whole or to adjacent properties.

Additionally, a Variation approval is required. Section III.H.2. of the Zoning Code (Permitted Encroachments in Required Yards, Commercial Zoning Districts, Driveways) states driveways shall be no greater than thirty (30) foot in the apron at its intersection with the Village Right of Way. Village Engineering has reviewed the proposed Variation request of 41.3 feet width at the apron (*see blue on in the Civil Site Plan Figure*), and is supportive of the design which will facilitate fire truck access, including maneuvers from the east. The KLOA traffic study contains an autoturn exhibit depicting a fire truck maneuvering from the east. Though the Petitioner's original narrative does not reference the Variation, but their latest submittal states they *"revised the curb cut but we still did not comply fully with the ordinance and we need a variance"*.

SITE PLAN

The subject property's redevelopment includes removal of existing elements including asphalt & concrete (surface, pads, islands, bases, etc.), light poles, transformers, grate drains, payboxes, trash enclosure, and guardrail. The fire hydrant and gas meter will be relocated.

Building modifications and site improvements are proposed to convert the site to an automated car wash. Two additions are proposed to the south and east parts of the existing building to accommodate the length of the automated tunnel and associated mechanicals (see gray shading in Civil Site Plan Figure).



As-Built Demolition Arch. Site Plan (left) & Civil Site Plan (right)

Access/Circulation

Access to the site is proposed as one curb cut on 171st Street. The curb cut will serve as the access drive with one inbound lane and one outbound lane. Vehicles will enter the site going north. They may either use the adjacent row of vacuum stalls on the left (along the east edge of the building), or else continue straight to the pay stations. Three pay stations are proposed separated by concrete curb islands. The drive aisle is two-way, 26 ft. wide to allow vehicles to travel southbound to exit the site after using the vacuum stalls. Vehicles follow the rounded path and proceed south by either entering the automated tunnel or using the bypass lane if needed, which then merges at the end of the tunnel. A Do Not Enter sign oriented is proposed at that tunnel/bypass exit area to deter any vehicles from heading north. The trash enclosure is also located in that area. South of the trash enclosure & tunnel & bypass exits is a short two-way aisle to serve as a future cross access easement, currently shown with three parking spaces to the west. Leaving the site at the south end, a Stop Sign and a No Left Turn sign are proposed at the curb cut per requirement by Village Engineering. Throughout the site, directional arrows on the pavement are indicated on both the Architectural and Civil Site Plans, however they are not coordinated. The directional arrows will need to be corrected on the Architectural Site Plan.

The Petitioner has provided an autoturn analysis of a fire truck and an "SU-30" truck vehicle (to meet the required size for a garbage truck). Fire Department has confirmed that access around the entire building is not required as long as the building is fully sprinklered and with a fire alarm system installed.

A single curb cut is proposed approximately 240 feet east of Harlem Avenue. The proposed curb cut width is 41.3 feet wide at the apron including flares at the south end of the site (see *blue on in the Civil Site Plan Figure*). This will require Variation approval. Section III.H.2. of the Zoning Code driveways shall be no greater than thirty (30) foot in the apron at its intersection with the Village Right of Way. Village Engineering has reviewed the proposal and is supportive of the request to facilitate fire truck access into the development, including maneuvers from the east. The civil site plan notes an obscured dimension of the neck (narrowest point) of the site's drive access. Also, no dimension is shown for the drive access's curb cut along the northern boundary of the area proposed for dedication to right-of-way, but since that location does not include the full flares, it is smaller than the 41.3' requested Variation (with the full flares, located within the proposed area for dedication).

Other Site Improvements

Per the Civil Site Plan, the site will also have Unilock permeable pavers to help with volume control, within the east drive aisle as well as the west bypass lane. A recommended condition states that the selection of the permeable pavers within the east drive aisle and the west bypass lane will be subject to Village staff review and approval in the permitting process.

Exterior mechanical equipment is shown. Ten vacuum hoses will be at the stalls with three trash receptacles. The vacuum motor will be in front of the building near the exit of the tunnel. The transformer will be on a concrete pad between the building and bypass lane, with gas & electrical meters nearby. Three bollards will protect the transformer.



Open Item #1: Discuss access and circulation around the site.

PLATS

Cross access and dedication to the Village will be provided for the site. The Village has required these associated plats be provided for review and approval within this zoning entitlement process.

The plans identify these (see *diagonal hatching in the Civil Site Plan Figure above*) as:

- 26 ft. wide cross egress easement
- Dedicated area to the right-of-way

The properties to the east and west have drive aisles with opportunity to connect. Village staff has suggested the cross-access to help achieve this connection. Per Section III.H.2. of the Zoning Code, driveways may be shared between adjoining properties with an approved site plan and cross-access easement recorded.

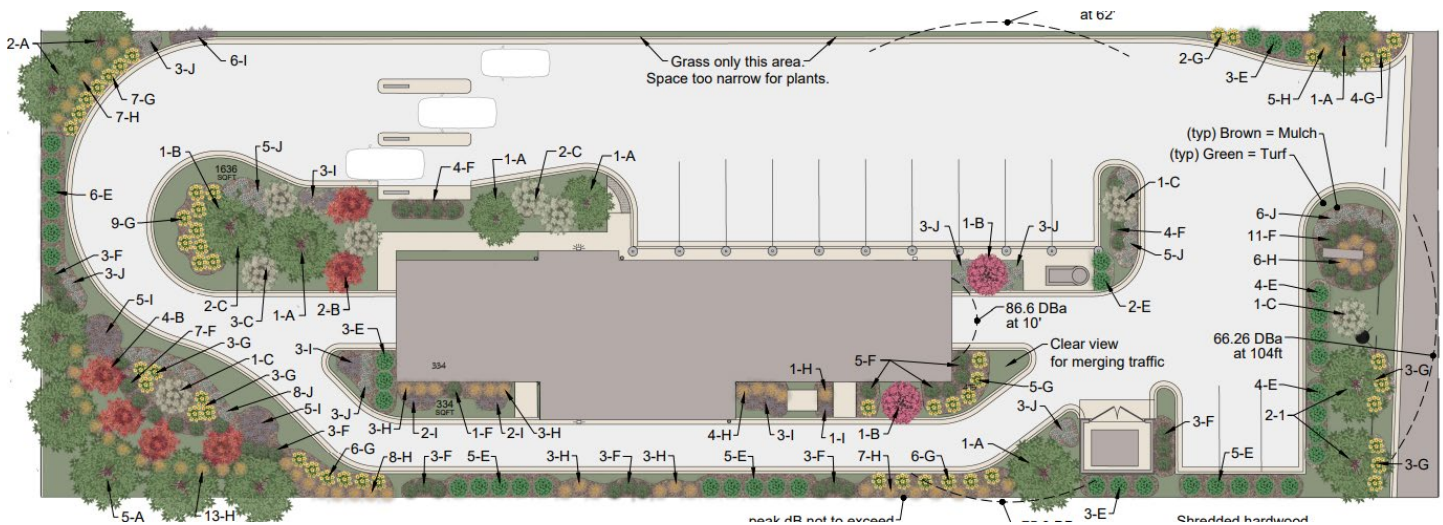
The area to be dedicated is shown as 100 ft. on the south edge, 15 ft. on the west edge, and 10 ft. on the east edge. The plat of survey shows that part of the 171st Street roadway is in this area. The Petitioner has noted that the depth of the dimensions are to align with the adjacent properties to the west and east, respectively.

The Petitioner is preparing the plats, and noted they are forthcoming.

Open Item #2: Provide Plat of Cross-Access Easement and Plat of Dedication.

LANDSCAPING

The proposal is landscaped to a great extent within the proposed layout constraints of the site, and largely meets code with some waivers requested. Staff is supportive of the requested waivers. The Petitioner will need to provide correct labels on the plan and table calculations. The Petitioner has worked with Staff on improving the landscaping from previous review submittals. The Petitioner has stated they plan to increase the size of certain trees to a four inch caliper to help reduce the impact of the waiver requests, however the landscape plan does not identify the caliper. A recommended condition may state that all the canopy trees will require four inch caliper at installation.



Proposed Landscape Plan

Bufferyards – Waivers

Bufferyards are classified based on the adjacent land use type per the Landscape Code, where the north, west, and east southerly (177') sides are each class "B", and the south and east northerly (118') are each class "C". Bufferyard waivers notably include deficiencies in minimum widths on the east, as well as some canopy tree deficiencies. Firstly, code requires widths of the east northerly (class "C") be at least ten feet, and the east southerly (class "B") be at least five feet. Though there is substantial widths at the corners of the east side, the majority of the east length of the site is only one foot wide. The Petitioner has noted there is only grass in this area as it is too narrow for plants to assure survival.

Secondly, regarding bufferyard planting counts: canopy tree deficiencies are 1 (north), 5 (east northerly), 7 (east southerly), and 7 (west), while south meets code. The calculations assume the two large trees in the south bufferyard toward the west are canopy trees (labeled as "2-1"). The Petitioner noted that root systems do not have

enough room for canopy trees along the west property line. The only understory tree deficiency is 3 (east northerly), while the other bufferyards meet or exceed code. The understory surpluses are 4 (north), 8 (south), and 14 (west). Shrub deficiencies are 15 (north), 11 (east northerly), 34 (east southerly), and 20 (west), while south exceeds code by four.

Parkway - Waiver

Code requires 1 tree per 25 lineal feet (excluding drive aisle), thus requiring three trees. The Petitioner is already providing three south bufferyard trees in this area along 171st Street. Due to the narrow parkway and existing utility lines and ground sign, there is not space available to locate additional trees for the Parkway requirement.

Parking Lot – Waiver

Code requires at least 15% of the parking lot to be landscaped. The Village Landscape Architect calculated the parking lot area as 14,552 sq. ft. thus requiring 2,183 sq. ft. to be landscaped. At least 1,395 sq. ft. is provided.

Screening – Waivers

Code requires screening for parking lots and exterior mechanical equipment. Continuous screening of adjacent properties and streets is required for parking lots. Notably, the south/front side of the three parking spaces and row of vacuum stalls have screening from 171st Street, as well as screening on the west side of the three parking spaces to the neighboring property, however there is no screening on the east side of the site. The vacuum motor and transformer are both screened.

Foundational, Interior Lot, Parking Lot Islands

Foundational plantings, interior lot landscaping, and parking lot island meet/exceed code. Code requires at least 70% of landscape coverage on the building foundation facing the public right-of-way at 10' minimum width, and plans indicate more than 70% coverage. Code requires at least one tree per 10,000 sq. ft. of lot area, thus three trees are required for the 30,000 sq. ft. lot. The Petitioner agreed to provide four canopy trees in the large island on the northeast corner of the building. The plan image appears to indicate four canopy trees plus seven understory trees, assuming the northernmost tree is a canopy tree (label is tagged as understory - red buckeye). The parking lot island requires at least 1 tree and 1 shrub per 200 sq. ft. of island area. One understory tree and four shrubs are provided along the stall depth.

Ground Sign Plantings

Ground sign plantings exceed code. Zoning Code requires at least two sq. ft. per one sq. ft. of sign face area, but in no case shall the total landscaping area be less than 20 sq. ft. and need not be greater than 200 sq. ft. The table in the landscape plan identifies 275 sq. ft. of ground sign landscaping.

Open Item #3: Discuss landscape waiver requests, including 4" caliper condition for canopy trees and lack of bufferyard to the east.

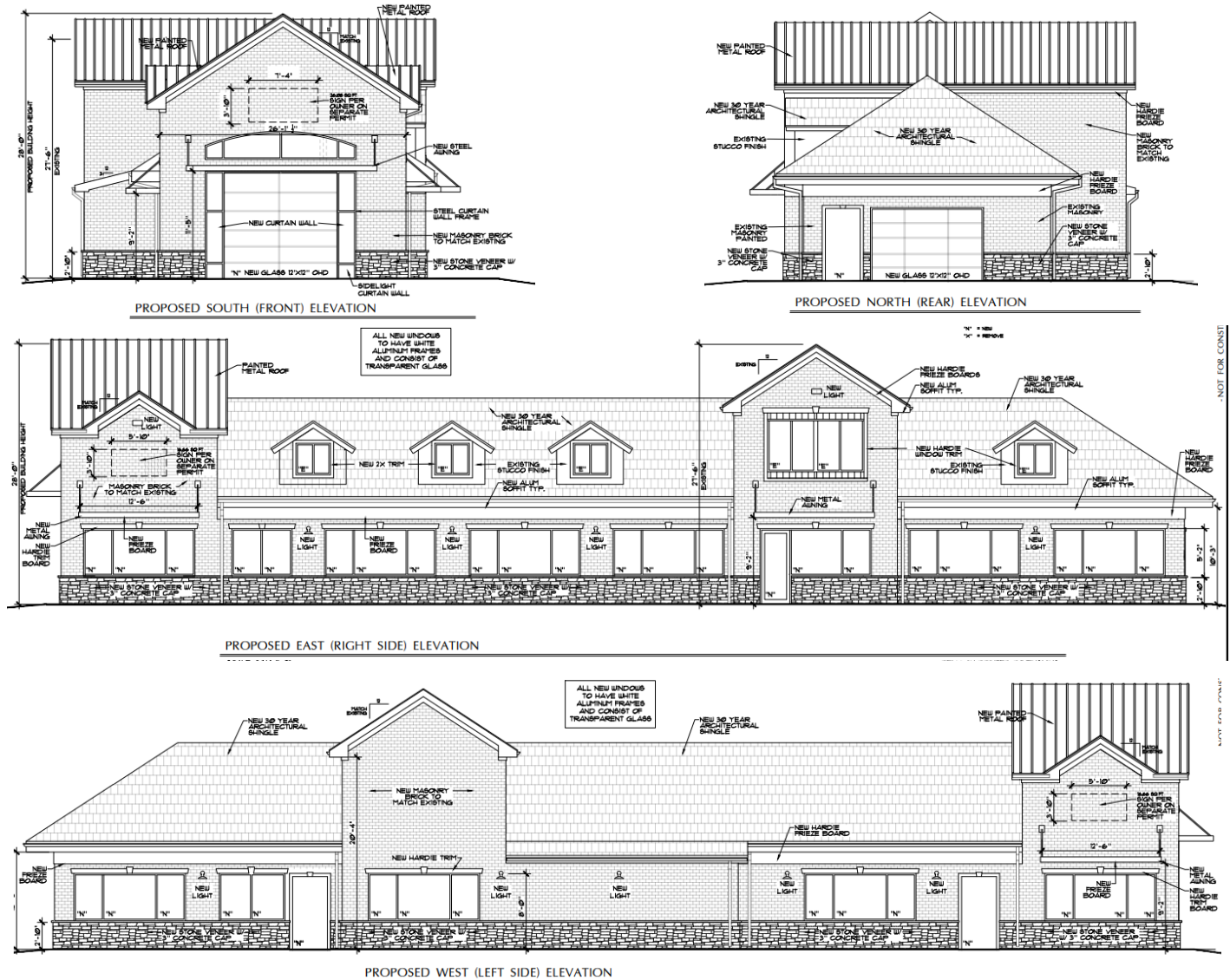
ARCHITECTURE

The existing building will remain and be modified to accommodate the tunnel and mechanicals. The existing doors and frames (bays) will be removed, and closed off with windows, while the double wythe masonry façade will remain. The existing roof will be removed and replaced with new architectural shingles. To allow for connection to proposed additions, part of the roof toward the north will be replaced with a pitch to match the rest of the building, and the existing south end dormer will be removed.

The building will have two additions, with a proposed building footprint of 3,442 sq. ft. and two stories. The height will minimally increase from existing 27'-6" to 28'-6" (per the Bulk Regulations table in the architectural site plan). This complies with the Zoning Code's maximum allowances of 35 ft. height and 3 stories. The west addition (for

mechanicals) will be a projection 8' in depth by 42' wide, and the south addition (for tunnel) will extend out 10'-6" in depth by 26'-1" (the general building width). A portion of the west addition will be single story with a new shed roof.

Other building improvements are shown. The building will have two overhead doors (north & south) as well as four man doors (1 north, 1 east, 2 west). Four new awnings are proposed 9'-2" high: one over the south exit of the tunnel (building frontage to 171st Street), two at the adjacent west and east southern building corners, and one further north over the east man door.



In addition to the building, a canopy measuring 29.7' x 20.0' is proposed over the three new pay stations according to the civil site plan. The architectural drawings identifies it as "canopies" (multiple) with an image as an "example to match for reference purposes only" (see *Figure in Signage section*). The civil site plan notes it will be five feet from the east property line, which meets Zoning Code.

Materials/Details:

There will be new masonry brick on the new construction, stating it will match the existing brick (which appears off-white). Existing stucco will remain on the dormers. The windows will have white aluminum frames and transparent glass. The awnings will be red metal. The roofing will have a combination of architectural 30 year shingles and red painted metal. Other façade details include sconce lights, downspouts, aluminum soffits, Hardie trim boards and Hardie frieze boards



(depicted brown). Physical material samples have not yet been provided, but the Petitioner has stated they will be provided prior to the Plan Commission meeting.

Material percentages, excluding glazing, are largely brick and stone, including 88.4% (east), 96.2% (south), 100% (west), and 98.4% (north). There is 2'-10" of new stone veneer with a 3" concrete cap at the base of the building. This complies with the Village's masonry code requirements, Section V.C.7.F.2. where structures greater than 3,000 sq. ft. and less than 40,000 sq. ft. have at least 75% of each façade with face brick and optionally 25% of that area be decorative stone.

| Material Ratios | | | | | |
|-----------------|--------------|----------------|----------------|---------------------|--------------|
| | Stone Veneer | Brick Proposed | Brick Existing | Total Brick & Stone | Paint/Stucco |
| North | 70 | 350 | 0 | 420 | 7 |
| | 16.39% | 81.97% | 0.00% | 98.36% | 1.64% |
| East | 330 | 217 | 561 | 1108 | 145 |
| | 26.34% | 17.32% | 44.77% | 88.43% | 11.57% |
| South | 54.5 | 500 | 0 | 554.5 | 22 |
| | 9.45% | 86.73% | 0.00% | 96.18% | 3.82% |
| West | 330 | 217 | 815 | 1362 | 0 |
| | 24.23% | 15.93% | 59.84% | 100.00% | 0.00% |

Material Ratios Table per Architectural sheet A7

Open Item #4: Discuss architectural design and materials and colors, including red metal and how new brick will match.

SIGNAGE

The petitioner has provided conceptual exterior signage. Signage will require a separate sign permit.

Wall Signs: Three Wall signs are proposed with dimensioned conceptual bounding boxes (spaces) on the building's elevation line drawings. Sign Code requires a maximum one sq. ft. per one lineal foot of building frontage not to exceed 120 sq. ft. Staff has discussed the Village's Sign Code requirements with the Petitioner. The Petitioner plans to meet code.

Freestanding/Ground/Monument Sign: The petitioner currently proposes for the existing "pole" sign to remain, but with new design and color which was not provided. The existing "pole" sign does not comply with code, but may remain and be requested to reface, as long as no structural changes are proposed. If the Petitioner wishes to propose structural changes or a new ground sign, it will either need to comply to code or else a Variation will be required. One code provision requires ground signs be at least ten feet from property lines and at least two feet from drive aisles, parking stalls or sidewalks.



Existing "Pole" Sign

Pay Station Area Signage: No specific proposed signage details were provided. A photograph of another pay station canopy area was provided, but is noted as "example to match for reference purposes only". All signage will need to conform to Sign Code or else a Variation will be required. The "Pay here" sign would not be permitted as it would be considered a Roof Sign due to its location on top of the canopy (accessory structure). Menu board(s) and clearance bar(s) are considered Signs Accessory to Drive-Thru Uses per Sec. IX.3.L.3. The "Open/Closed" signage is considered "Directional Signs On a Wall" per Sec. IX.L.2.c. The image presented does not provide dimensions to identify if they are code compliant. The Civil Site Plan states "the canopy signs and details are part of the canopy package and will be provided to the Village for review and approval."



A condition is recommended to state that proposed signage (including but not limited to Wall Signs on building and canopy) are not approved with the zoning entitlement, and will require code compliance or future Variation request and approval.

PARKING

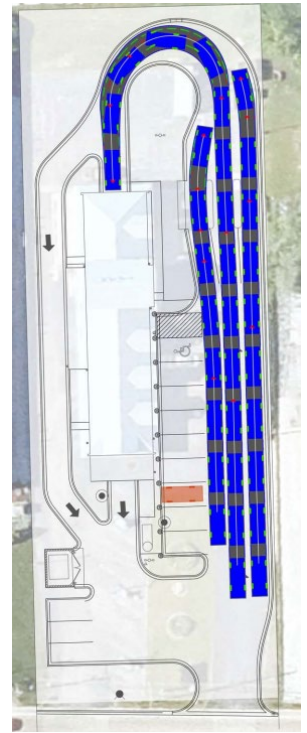
The proposed site plan provides twelve total parking spaces (however listed as 13 on the architectural site plan's Parking Calculations table). There will be nine vacuum stalls, eight of which are standard, and one as an accessible stall plus an access aisle. Three stalls are also currently proposed at the southwest area of the site. The Petitioner identified that two employees plus a manager will be on-site. Zoning Code requires one space for each employee (*per the related use of an Automobile Service Station*).

A condition is recommended to state if the three southwest parking stalls are removed to utilize the cross-access easement in the future, then the three southern stalls in the main row shall be for the three employees. The Petitioner has stated they are in agreement. The Civil Site Plan states "the parking stalls located within the cross easement access will be relocated in the future to the east parking stalls designated for vacuums when the access is open". The plat of easement will provide this future cross-access to the adjacent sites.

Stacking & Traffic

The KLOA traffic study identifies a total of approximately 19 vehicles to stack without blocking the vacuum stalls. Approximately nine of the 19 vehicles will queue before the pay stations without blocking the vacuum stalls, and ten vehicles queue between the pay stations and the tunnel. The KLOA stacking exhibit (see Figure) shows these queues as well as maximum stacking of an additional 14 vehicles if blocking the vacuum stalls.

The study's recommendations included wayfinding/directional signage and a Do Not Enter sign at the tunnel exit. At peak demand, the study recommends providing staff at the pay stations and exit of the car wash, increasing the stacking to 33 vehicles limiting vacuum access, and increasing service rate of the tunnel. No roadway or traffic signal modifications were recommended. The traffic study noted the access drive will be adequate to accommodate traffic estimated to be generated by the proposed car wash.



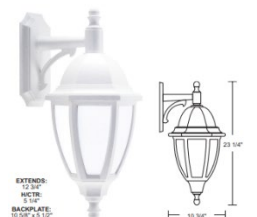
Traffic Study Stacking

Open Item #5: Discuss stacking capacity.

LIGHTING

The Petitioner proposes three types external lights. The proposal meets the Zoning Code's maximum 2.0 foot candles (horizontal) requirement at the property line. The Petitioner has stated all light fixtures (building and parking area) will have no uplight (rating U0) with no light above a 90 degree plane. The lighting fixtures are noted below and meet Zoning Code glare requirements:

- Two light poles with two fixtures each are proposed (Type "A"); one south of the building near the vacuum motor, and the other north of the building. The mounting height will be 25 feet.
- Two wall pack fixtures are proposed on the upper portion of the east side of the building (Type "B"). The northerly one is proposed as mounted 22' high, and the southerly is proposed as 20' high. Zoning Code Section V.3.1. states "*floodlighting and wallpack lighting fixtures are discouraged, and if used, shall be rated U0. . . with no light above a 90 degree plane to prevent disability glare for drivers or pedestrians and light trespass beyond the property line*". Though wallpacks are discouraged, they are located toward the middle of the site. The Petitioner will need to confirm the package



Types A, B, & C Exterior proposed lights

specifications at time of permitting; the 90CRI specification on the lighting schedule is not listed as an option in the manufacturer’s spec sheet, and the finish color is not selected.

- Nine architectural lantern wall sconces are proposed (Type “C”); four on the east, and five on the west. They will be mounted 8’ high. Finish color is not selected.

Open Item #6: Discuss proposed lighting fixtures including wallpacks.

SUMMARY OF OPEN ITEMS

Staff identified the following open items for discussion at the workshop:

1. **Discuss access and circulation around the site.**
2. **Provide Plat of Cross-Access Easement and Plat of Dedication.**
3. **Discuss landscape waiver requests, including 4” caliper condition for canopy trees and lack of bufferyard to the east.**
4. **Discuss architectural design and materials and colors, including red metal and how new brick will match.**
5. **Discuss stacking capacity.**
6. **Discuss proposed lighting fixtures including wallpacks.**

RECOMMENDATION

Following a successful workshop, proceed to a Public Hearing at the October 19, 2023 Plan Commission meeting.

LIST OF REVIEWED PLANS

| Submitted Sheet Name | | Prepared By | Date On Sheet |
|----------------------|--|-------------|-----------------|
| | Application | Petitioner | |
| | Narrative and Response to Standards | Petitioner | 8/31/2023 |
| | ALTA Plat of Survey | MJE * | 1/18/2023 |
| | Architectural, Landscaping, Photometric Drawings | Damas * | 9/13/2023 |
| | Civil Drawings | Damas * | 8/31/2023 |
| | Traffic Study | KLOA | 9/15/2023 |
| | Light Fixture Manufacturer Cut Sheet – Site Light | Lithonia | Rec’d 9/15/2023 |
| | Light Fixture Manufacturer Cut Sheet – Wall Pack | Lithonia | Rec’d 9/15/2023 |
| | Light Fixture Manufacturer Cut Sheet – Architectural Lantern | Wave | Rec’d 9/15/2023 |

* MJE = Michael J. Emmert Surveys, Inc.

* Damas = Damas Consulting Group

* KLOA = Kenig, Lindgren, O’Hara, Aboona, Inc.



PL-2023-04-00386

Village of Tinley Park
Community Development Dept.
16250 S. Oak Park Ave.
Tinley Park, IL 60477
708-444-5100

VILLAGE OF TINLEY PARK, ILLINOIS
PLANNING AND ZONING GENERAL APPLICATION

REQUEST INFORMATION

*Additional Information is Required for Specific Requests as Outlined in Specific Addendums

- ☒ **Special Use for:** _____
- ☐ **Planned Unit Development (PUD)** ☐ **Concept** ☐ **Preliminary** ☐ **Final** ☐ **Deviation**
- ☒ **Variation** ☐ **Residential** ☒ **Commercial** for _____
- ☐ **Annexation**
- ☐ **Rezoning (Map Amendment) From** _____ **to** _____
- ☐ **Plat (Subdivision, Consolidation, Public Easement)** ☐ **Preliminary** ☐ **Final**
- ☒ **Site Plan**
- ☒ **Landscape Change Approval**
- ☐ **Other:** _____

PROJECT & PROPERTY INFORMATION

Project Name: UPGRADES TO EXISTING CARWASH

Project Description: Addition and upgrades to existing facility, new drives and new landscaping

Project Address: 7130 171st Street **Property Index No. (PIN):** 28-30-112-004-0000

Zoning District: B 3 **Lot Dimensions & Area:** 300'x100' ; 30,000 SF

Estimated Project Cost: \$ 300,000.

OWNER OF RECORD INFORMATION

Please supply proper documentation of ownership and/or designated representative for any corporation.

Name of Owner: Ifktekhar Syed **Company:** Tinley Park Properties, LLC

Street Address: _____ **City, State & Zip:** _____

E-Mail Address: _____ **Phone Number:** _____

APPLICANT INFORMATION

- ☒ **Same as Owner of Record**

All correspondence and invoices will be sent to the applicant. If applicant is different than owner, "Authorized Representative Consent" section must be completed.

Name of Applicant: _____ **Company:** _____

Relation To Project: _____

Street Address: _____ **City, State & Zip:** _____

E-Mail Address: _____ **Phone Number:** _____

VILLAGE OF TINLEY PARK, ILLINOIS
PLANNING AND ZONING GENERAL APPLICATION

Authorized Representative Consent

It is required that the property owner or his designated representative be present at all requests made to the Plan Commission and Zoning Board of Appeals. During the course of a meeting, questions may arise regarding the overall project, the property, property improvements, special conditions attached to recommendations among other aspects of any formal request. The representative present must have knowledge of the property and all aspects of the project. They must have the authority to make commitments related to the project and property. Failure to have the property owner or designated representative present at the public meeting can lead to substantial delays to the project approval. If the owner cannot be present or does not wish to speak at the public meeting, the following statement must be signed by the owner for an authorized representative.

John C Schiess

I hereby authorize _____ (print clearly) to act on my behalf and advise that they have full authority to act as my/our representative in regards to the subject property and project, including modifying any project or request. I agree to be bound by all terms and agreements made by the designated representative.

Property Owner Signature:

Property Owner Name (Print): Ifktekhar Syed

Acknowledgements

- Applicant acknowledges, understands and agrees that under Illinois law, the Village President (Mayor), Village Trustees, Village Manager, Corporation Counsel and/or any employee or agent of the Village or any Planning and Zoning Commission member or Chair, does not have the authority to bind or obligate the Village in any way and therefore cannot bind or obligate the Village. Further, Applicant acknowledges, understands and agrees that only formal action (including, but not limited to, motions, resolutions, and ordinances) by the Board of Trustees, properly voting in an open meeting, can obligate the Village or confer any rights or entitlement on the applicant, legal, equitable, or otherwise.
- Members of the Plan Commission, Zoning Board of Appeals, Village Board as well as Village Staff may conduct inspections of subject site(s) as part of the pre-hearing and fact finding review of requests. These individuals are given permission to inspect the property in regards to the request being made.
- Required public notice signs will be obtained and installed by the Petitioner on their property for a minimum of 10 days prior to the public hearing. These may be provided by the Village or may need to be produced by the petitioner.
- The request is accompanied by all addendums and required additional information and all applicable fees are paid before scheduling any public meetings or hearings.
- Applicant verifies that all outstanding fees and monies owed to the Village of Tinley Park have been paid.
- Any applicable recapture, impact, engineering, contracted review or other required fees and donations shall be paid prior to issuance of any building permits, occupancy permits, or business licenses.
- The Owner and Applicant by signing this application certify that the above information and all supporting addendums and documentation is true and correct to the best of their knowledge.

Property Owner Signature:

Ifktekhar Syed

Property Owner Name (Print):

Applicant Signature:
(If other than Owner)

Applicant's Name (Print):

Ifktekhar Syed

Date:

February 7, 2023

SITE PLAN ADDENDUM

Narrative

The applicant and owner of the property (owner-applicant) wishes to apply for a Site Plan Addendum to allow for an addition and renovation of an existing car wash. The current car wash operates as a self-serve car wash. The owner-applicant will operate the new facility as an automatic car wash.

By way of introduction, Mr. Syed Iftekhar, the owner and applicant, has been in the Gasoline and carwash retail operations for 30 years. Listed below are some of his operations and investments:

Carwash 1100 Corliss Avenue, Chicago - operator
7455 west Archer Summit II – operator, new construction
11900 South Marshfield Ave Calment Park - operator, renovation, and expansion

Mr. Syed will employ two persons as on site persons to assist in the operations of this facility.

Employee #1 responsible for checking incoming traffic and monitoring the traffic flow through flow into the facility and into the carwash. Also helps customers with the pay station.

Employee #2 guides the traffic flow through the tunnel of the carwash. Also helps customers with the pay station.

Additionally, a manager responsible for overseeing the facility operations and managing the employees will be on site.

The owner-applicant has hired a design team that has reviewed the conditions of the existing facility, including a traffic consultant, civil engineer, architect, and landscape architect. This team has developed a set of drawings, plans, renderings, and other materials that have been incorporated into this application.

Once reviewed by Village staff and consultants for the Village, the owner-applicant believes that they will concur with the assessment that the development proposed here will have a positive impact on the Tinley Park community.

As such, the owner-applicant hereby submits the necessary drawings, plans, renderings, and other materials necessary for the approval process. After such approvals, the owner-applicant will apply for any necessary permits to construct the facility as approved.

As part of this application, we seek a Site Plan and Landscape approval.

We look forward to starting the approval process.

SPECIAL USE ADDENDUM

Narrative

The applicant and owner of the property (owner-applicant) wishes to apply for a special use permit to allow for an addition and renovation of an existing car wash. The current car wash operates as a self-serve car wash. The owner-applicant will operate the new facility as an automatic car wash.

The owner-applicant has hired a design team that has reviewed the conditions of the existing facility, including a traffic consultant, civil engineer, architect, and landscape architect. This team has developed a set of drawings, plans, renderings, and other materials that have been incorporated into this application.

Once reviewed by Village staff and consultants for the Village, the owner-applicant believes that they will concur with the assessment that the development proposed here will have a positive impact on the Tinley Park community.

As such, the owner-applicant hereby submits the necessary drawings, plans, renderings, and other materials necessary for the approval process. After such approvals, the owner-applicant will apply for any necessary permits to construct the facility as approved.

As part of this application, we seek a Special Use Approval.

We look forward to starting the approval process.

Standards and Responses

1. That the establishment, maintenance, or operation of the Special Use will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare.

The existing facility is not detrimental to or endanger the public health, safety, morals, comfort, or general welfare. The Owner-Applicant proposes a similar use with certain operational characteristics that will improve the facility. See architectural and engineering plans for existing conditions and proposed plans, elevations, and renderings. Additionally, see the traffic consultant's conclusions relating to the impact of traffic on nearby roadways and intersections.

Therefore, it can reasonably be concluded based on the evidence listed above that the proposed development will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare.

2. That the Special Use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood.

As similarly stated in Standard #1, the existing facility is not injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood. The Owner-Applicant also proposes a similar use with certain operational characteristics that will improve the facility. See architectural plans for existing conditions and proposed plans, landscape plans, elevations, and renderings. Additionally, see the photometric plan on Sheet E1 and the sound Note on Sheet A1 that assures compliance with zoning established standards for light and sound transmission beyond property lines.

Therefore, it can reasonably be concluded Proposed use is the same.

3. That the establishment of the Special Use will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district.

The current facility does not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district. The Owner-Applicant also proposes a similar use with certain operational characteristics that will improve the facility while not negatively impacting normal and orderly development and improvement of surrounding property for uses permitted in the district. See architectural and engineering plans for existing conditions and proposed plans, landscape plans, elevations, and renderings. The Owner-Applicant also proposes a similar use with certain operational characteristics that will improve the facility. See architectural plans for existing conditions and proposed plans, landscape plans, elevations, and renderings.

Therefore, it can reasonably be concluded Proposed use is the same.

4. That adequate utilities, access roads, drainage, and/or other necessary facilities have been or are being provided.

The Owner-Applicant's design team has reviewed the existing conditions at the subject property and has reviewed Village records of existing infrastructure and concluded that adequate utilities, access roads, drainage, and/or other necessary facilities have been or are being provided. See the site plan, utility plan and other engineering plans provided as part of this application.

5. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.

The Owner-Applicant's design team has reviewed the existing conditions at the subject property including a traffic report with conclusions that support the conclusion that adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.

6. That the Special Use shall in all other respects conform to the applicable regulations of the district in which it is located, except as such regulations may in each instance be modified by the Village Board pursuant to the recommendation of the Plan Commission.

Applicant will accept reasonable regulations that may be modified by the Village Board pursuant to the recommendation of the Plan Commission.

7. The extent to which the Special Use contributes directly or indirectly to the economic development of the community as a whole.

Anticipated additional real estate tax revenue \$ 3,000 times 8% year over year is \$1,500 in 5 years

VARIATION ADDENDUM

The owner-applicant believes that the development as presented in this application is compliant with all applicable zoning metrics except for Use, and further believes that the Special Use Addendum portion of this application addresses that portion. Specifically, the applicant's design team submits a zoning table that demonstrates the following:

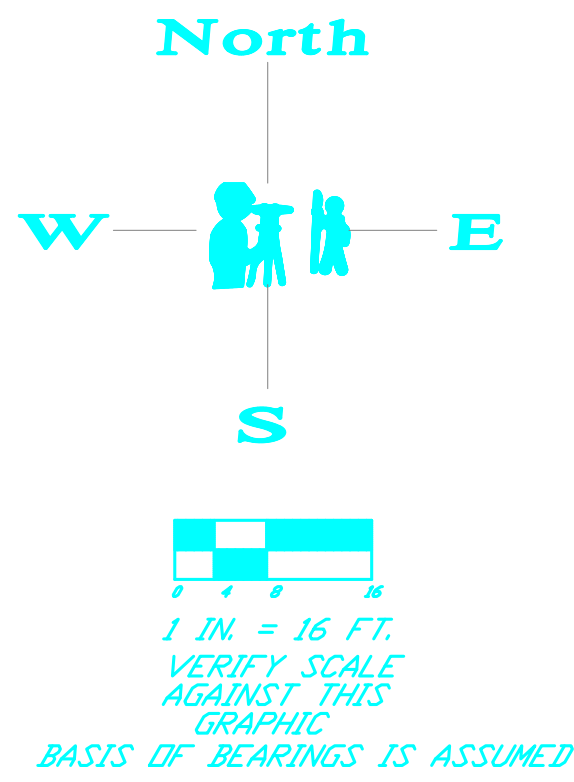
- Use – special use permit covers this
- Density – FAR, compliant
- Building Height, compliant
- All setbacks, compliant
- Lot coverage, compliant
- Required parking spaces, compliant

PLAT OF SURVEY
ALTA \NSPS LAND TITLE SURVEY
by
Michael J. Emmert Surveys, Inc.

Legally described as:

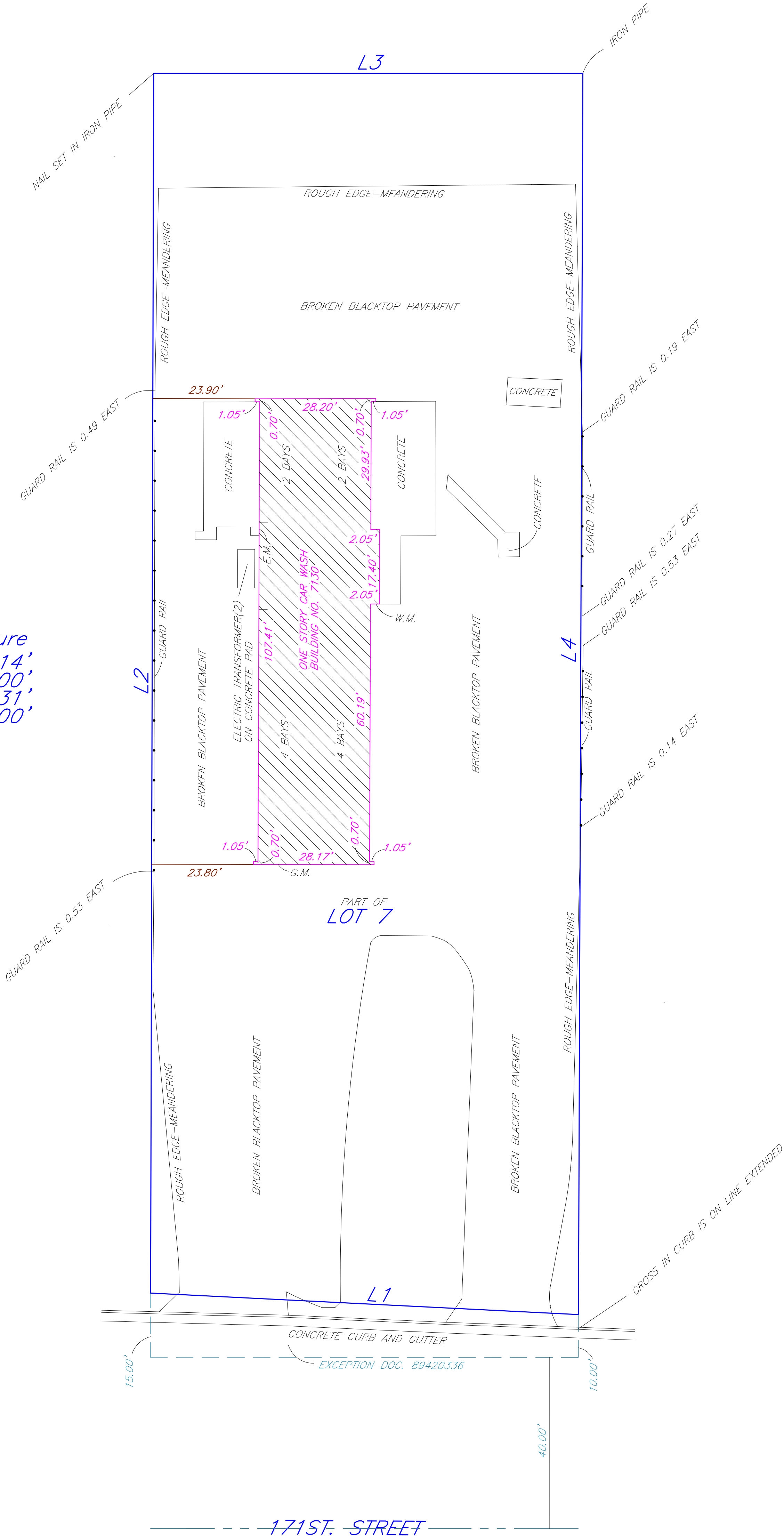
LEGAL DESCRIPTION AS SHOWN ON TITLE COMMITMENT NUMBER 22CSC013446HH AS PREPARED BY CHICAGO TITLE INSURANCE COMPANY

LOT 7 IN BLOCK 10 IN ELMORE'S OAK PARK AVENUE ESTATES, BEING A SUBDIVISION OF THE NORTHWEST FRACTIONAL QUARTER OF SECTION 30, TOWNSHIP 36 NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN, (EXCEPT THAT PART TAKEN FOR ROAD PURPOSES BY DOCUMENT 89420336) , AS PER PLAT OF SUBDIVISION RECORDED APRIL 25, 1929 AS DOCUMENT NUMBER 10351098, IN COOK COUNTY, ILLINOIS.



LINE TABLE

| Line | Bearing | Distance | Measure |
|------|---------------|----------|---------|
| L1 | N.87°07'35"W. | 100.14' | 100.14' |
| L2 | N.00°08'29"E. | 285.00' | 285.00' |
| L3 | S.89°59'21"E. | 100.00' | 100.31' |
| L4 | S.00°12'05"W. | 290.00' | 290.00' |



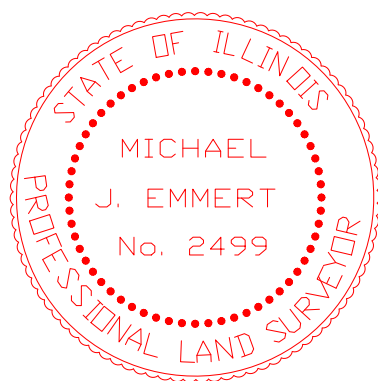
| | 1/8 | 1/4 | 3/8 | 1/2 | 5/8 | 3/4 | 7/8 | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----------------|
| 0 AND | .01 | .02 | .03 | .04 | .05 | .06 | .07 | .08 = 1 INCH |
| 1 AND | .09 | .10 | .11 | .12 | .14 | .15 | .16 | .17 = 2 INCHES |
| 2 AND | .18 | .19 | .20 | .21 | .22 | .23 | .24 | .25 = 3 INCHES |
| 3 AND | .26 | .27 | .28 | .29 | .30 | .31 | .32 | .33 = 4 INCHES |
| 4 AND | .34 | .35 | .36 | .37 | .39 | .40 | .41 | .42 = 5 INCHES |
| 5 AND | .43 | .44 | .45 | .46 | .47 | .48 | .49 | .50 = 6 INCHES |
| 6 AND | .51 | .52 | .53 | .54 | .55 | .56 | .57 | .58 = 7 INCHES |
| 7 AND | .59 | .60 | .61 | .62 | .64 | .65 | .66 | .67 = 8 INCHES |
| 8 AND | .68 | .69 | .70 | .71 | .72 | .73 | .74 | .75 = 9 INCHES |
| 9 AND | .76 | .77 | .78 | .79 | .80 | .81 | .82 | .83 = 10 INCHES |
| 10 AND | .84 | .85 | .86 | .87 | .89 | .90 | .91 | .92 = 11 INCHES |
| 11 AND | .93 | .94 | .95 | .96 | .97 | .98 | .99 | 1.0 = 1 FOOT |

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA\NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS.

THE FIELD WORK WAS COMPLETED ON 18TH. JANUARY, 2023.

DATED THIS 18TH. DAY OF JANUARY, 2023

BY: MICHAEL J. EMMERT SURVEYS, INC.
MICHAEL J. EMMERT PRESIDENT
PROFESSIONAL ILLINOIS LAND SURVEYOR NO. 2499



mike@mjesurveys.com
Michael J. Emmert Surveys, Inc
185 East Vallette Street
Elmhurst, Illinois 60126
Office 630-516-0383

A.C. - AIR CONDITIONER
W.M. - WATER METER
G.M. - GAS METER
T.I. - TELEPHONE INTERFACE
C.S. - CABLE SERVICE
E.M. - ELECTRIC METER

7130 171ST. STREET
TINLEY PARK, ILLINOIS

| | |
|------------------------|------------------------|
| SCALE: 1" = 16' | CHKD. / AP'VD: |
| DATE: JANUARY 18, 2023 | APPROVED: |
| DWN. BY: MJE | LAST REVISED: 2-9-2023 |
| CHKD. BY: ADE | |

Upgrades to existing Carwash for:
Damas Consulting Group
7130 171st Street
Tinley Park, IL 60477

REVISION 1 - 6/26/23
REVISION 2 - 9/13/23

| | |
|--------------------------|-------------------------------|
| CONSULTANT | ARCHITECT |
| Damas Consulting Group | LaPage Architects, Ltd. |
| Khaled Mansour | Ronald N. LaPage, AIA, ALA |
| 2208 Arbor Circle, Apt 6 | 951 W. Liberty Drive |
| Downers Grove, IL 60515 | Wheaton, IL 60187 |
| khaled@damascc.com | 630.665.0006 |
| | R.LaPage@LaPageArchitects.com |
| CONTRACTOR | CIVIL ENGINEER |
| TBD | Damas Consulting Group |
| | Khaled Mansour |
| | 2208 Arbor Circle, Apt 6 |
| | Downers Grove, IL 60515 |
| | khaled@damascc.com |

BUILDING DATA
Parcel ID Number: 28-30-112-004
Existing Property Zoning/Use Group: B-3
Proposed Property Zoning/Use Group: B-3 / B-5
Existing & Proposed Occupancy:
Previous use: Business
Proposed use: Business
Existing Construction Type: II-B

Fire Sprinklers: Yes
Fire Alarm System: Yes

Proposed Building Height: South (Front) Addition = 28'-6"

SCOPE OF INTERIOR REMODELING
PROPOSED RENOVATION AND ADDITION TO AN EXISTING CARWASH TO INCLUDE STRUCTURAL, PLUMBING, AND ELECTRICAL MODIFICATIONS. BUILDING ADDITIONS INCLUDE A MECHANICAL ROOM ON THE WEST SIDE AND A LENGTHENING OF THE BUILDING ON THE SOUTH SIDE TO HOUSE THE REQUIRED CAR WASH EQUIPMENT LINE WHILE CREATING A NEW DECORATIVE FRONT FACADE. SITE WORK INCLUDES REMOVING AND REPLACING THE EXISTING PARKING PAVEMENT AND PROVIDE ENTRY INTO THE REAR OF THE BUILDING, NEW VACUUM PARKING SPACES, AND A DRIVE PATH AROUND THE BUILDING. SITE WORK ALSO INCLUDES REVISED LIGHTING AND WATER RECLAMATION.

| SHEET | DESCRIPTION |
|-------|---|
| T1 | Title Sheet, Project Site Map, Location Map |
| D1 | As-Built / Demolition Site Plan |
| D2 | As-Built / Demolition Floor Plan |
| D3 | As-Built / Demolition Second Floor Plan |
| D4 | As-Built / Demolition Elevations |
| A1 | Architectural Site Plan |
| A2 | Landscape Plan |
| A3 | First Floor Plan |
| A4 | Second Floor Plan |
| A5 | South and East Elevations (Renderings) |
| A6 | North and West Elevations (Renderings) |
| A7 | South and East Elevations (Line Drawings) |
| A8 | North and West Elevations (Line Drawings) |
| A9 | Landscaping Details |
| E1 | Photometric Plan |

CERTIFICATION
I HEREBY CERTIFY THAT THESE DRAWINGS WERE PREPARED UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY KNOWLEDGE COMPLY WITH ALL APPLICABLE CODES & ORDINANCES FOR THE CITY OF TINLEY PARK.

RONALD LAPAGE, AIA, ALA
ILLINOIS LICENSED ARCHITECT
ARCHITECT'S LICENSE No. 001-009836
PROFESSIONAL DESIGN FIRM: 184-006116

DATE:



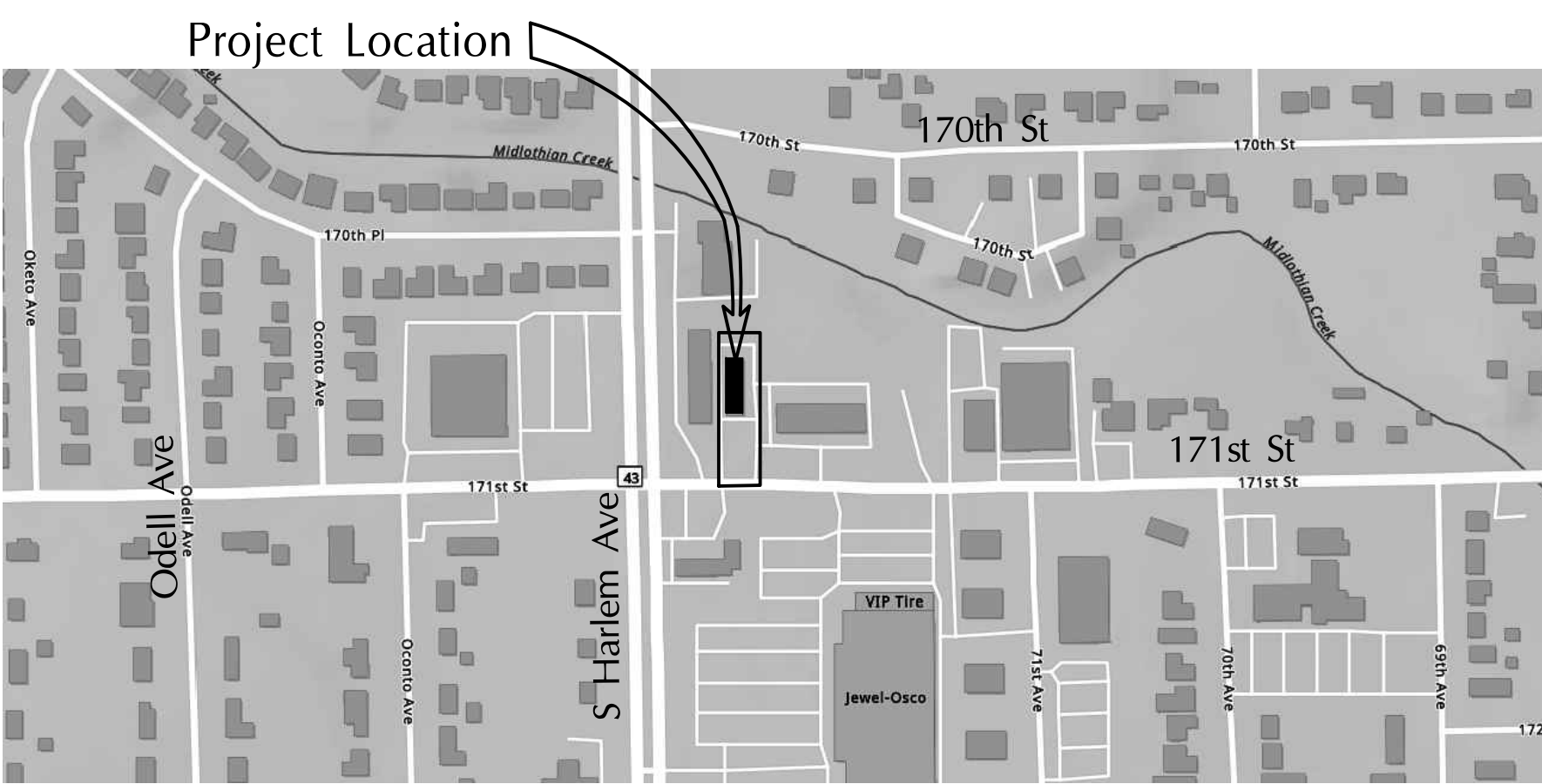
EXISTING FRONT NORTHEAST ELEVATION



PROPOSED FRONT NORTHEAST ELEVATION



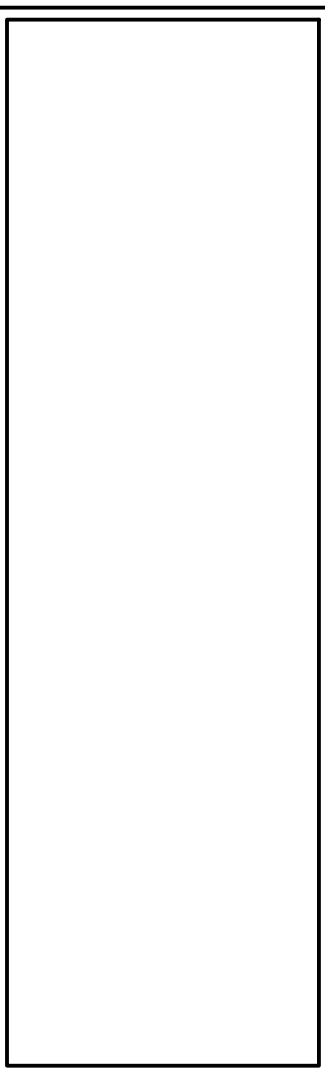
EXISTING SITE PHOTOGRAPH - BIRD'S EYE VIEW
RELY ON PRINTED DIMENSIONS ONLY - DO NOT SCALE



LOCATION MAP
RELY ON PRINTED DIMENSIONS ONLY - DO NOT SCALE

- BUILDING CODES**
- Village of Tinley Park Building Codes 2016
 - 2012 International Building Code
 - 2012 International Mechanical Code
 - 2012 International Fire Gas Code including Appendix A
 - 2012 International Fire Code including Appendix B and D
 - 2021 International Property Maintenance Code
 - 2012 International Swimming Pool and Spa Code
 - 2015 International Energy Conservation Code
 - 2014 Illinois State Plumbing Code
 - 2017 National Electric Code (NEC)

| | |
|------------------|---------|
| Project # | 22032 |
| Drawn: | JMP |
| Date: | 9-12-22 |
| Issue/Revision | Date: |
| Preliminary | 8-20-22 |
| Permit Submittal | 3-14-23 |
| Rev 1 | 7-06-23 |
| Rev 2 | 9-13-23 |



Damas Consulting Group
3625 MIDDAUGH AVE
Downers Grove, IL 60516
Ph 630-991-3299 FAX 630-541-2382

- NOT FOR CONSTRUCTION -

Upgrades to Existing Carwash
Damas Consulting
7130 171st Street
Tinley Park, IL 60477

Drawing

COVER
SHEET &
SPECIFICATIONS

Sheet
T1

| | |
|------------------|---------|
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Upgrades to Existing Carwash
Damas Consulting

7130 171st Street
Tinley Park, IL 60477

Drawing

AS- BUILT/
DEMO
FLOOR PLAN

Sheet

D2

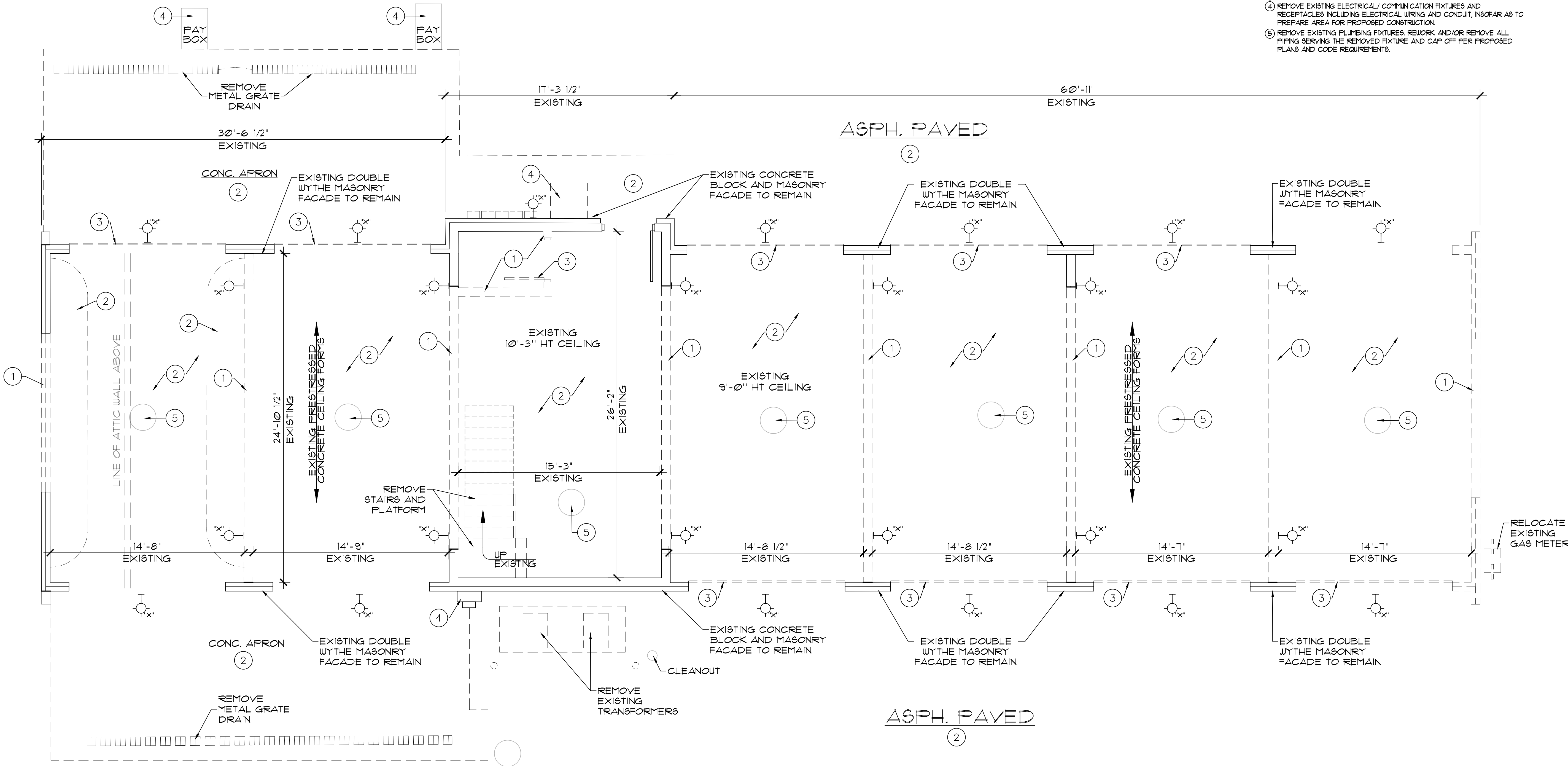
DEMOLITION LEGEND

TO BE REMOVED. SHORE UP EXISTING STRUCTURE PRIOR TO DEMOLITION. PATCH WALLS, CEILING, FLOOR, ETC. AS REQ'D., TYP.

NOTE: PRIOR TO THE DISPOSAL OF ANY REUSABLE ITEMS SUCH AS (BUT NOT LIMITED TO) LIGHT FIXTURES, DOORS, SUPPLY/RETURN GRILLES, PLUMBING FIXTURES, FURNITURE, ETC. VERIFY WITH OWNER IF THOSE ITEMS ARE TO BE REUSED, RELOCATED OR SOLD.

DEMOLITION LEGEND

- REMOVE ENTIRE WALL STRUCTURE, INCLUDING, BUT NOT LIMITED TO, GYPSUM, STUDS, INSULATION, ELECTRICAL WIRING, CONDUIT AND BASE TRIM, INsofar AS TO PREPARE AREA FOR PROPOSED CONSTRUCTION.
- AREA OF EXISTING CONCRETE/ASPHALT SLAB & CURE TO BE REMOVED TO PREPARE FOR NEW CONSTRUCTION. CONTRACTOR TO VERIFY AND COORDINATE EXTENT OF DEMOLITION REQUIRED FOR PROPOSED EQUIPMENT.
- REMOVE EXISTING DOOR AND FRAME.
- REMOVE EXISTING ELECTRICAL/ COMMUNICATION FIXTURES AND RECEPTACLES INCLUDING ELECTRICAL WIRING AND CONDUIT, INsofar AS TO PREPARE AREA FOR PROPOSED CONSTRUCTION.
- REMOVE EXISTING PLUMBING FIXTURES; REWORK AND/OR REMOVE ALL PIPING SERVING THE REMOVED FIXTURE AND CAP OFF PER PROPOSED PLANS AND CODE REQUIREMENTS.



AS-BUILT / DEMOLITION FLOOR PLAN

SCALE: 1/4"=1'-0"

RELY ON PRINTED DIMENSIONS ONLY - DO NOT SCALE

- NOT FOR CONSTRUCTION -

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Downers Grove, IL. 60516
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Upgrades to Existing Carwash
Damas Consulting
7130 171st Street
Tinley Park, IL 60477

Drawing
AS- BUILT/
DEMO
SECOND
FLOOR PLAN

Sheet
D3

TO BE REMOVED. SHORE UP EXISTING STRUCTURE
PRIOR TO DEMOLITION. PATCH WALLS, CEILING,
FLOOR, ETC. AS REQ'D, TYP.

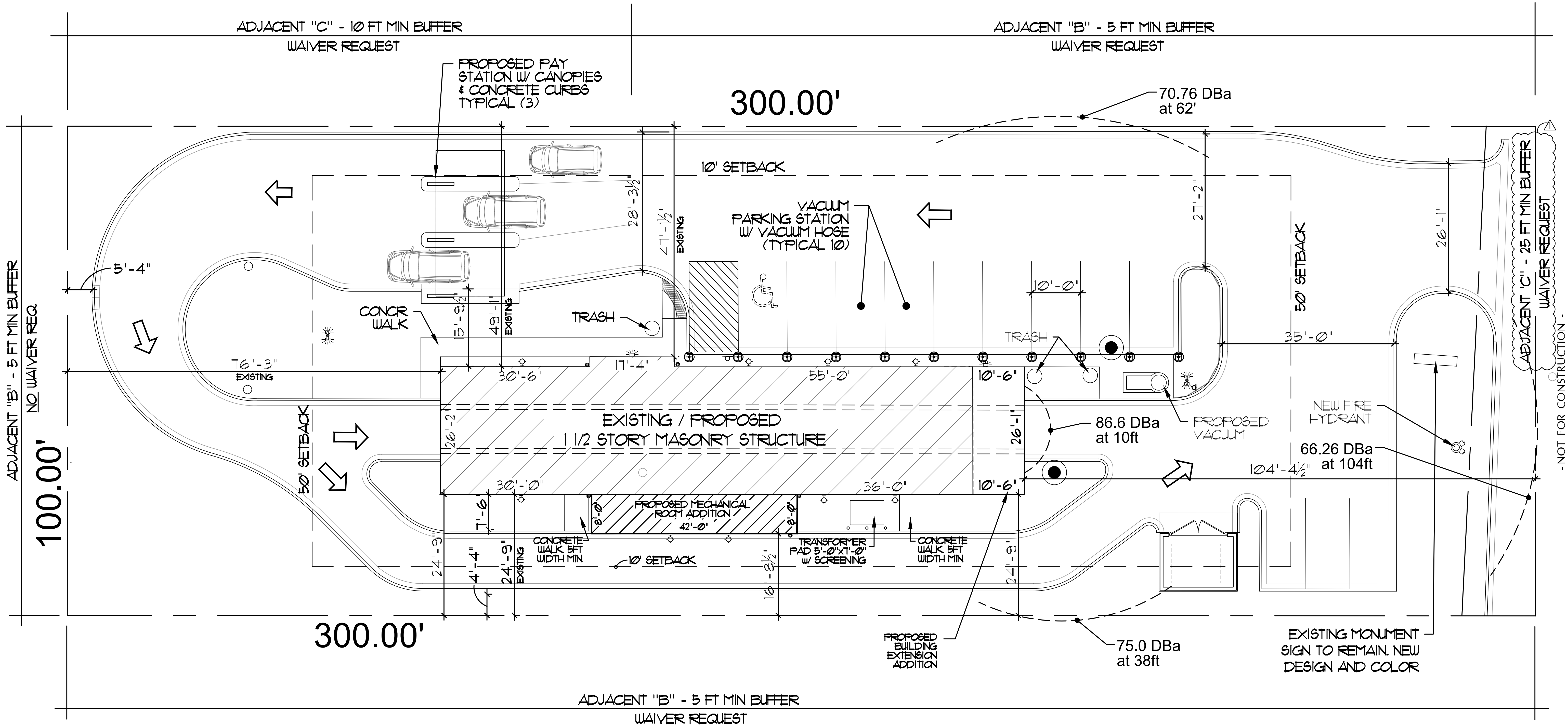
- ① REMOVE ENTIRE WALL STRUCTURE, INCLUDING, BUT NOT LIMITED TO, GYPSUM, STUDS, INSULATION, ELECTRICAL WIRING, CONDUIT AND BASE TRIM, INSOFAR AS TO PREPARE AREA FOR PROPOSED CONSTRUCTION.
- ② AREA OF EXISTING CONCRETE/ASPHALT SLAB CURB TO BE REMOVED TO PREPARE FOR NEW CONSTRUCTION. CONTRACTOR TO VERIFY AND CORRECT THE EXISTING CURB TO THE EXTENT OF NECESSITY FOR PROPOSED EQUIPMENT.
- ③ REMOVE EXISTING DOOR AND FRAME.
- ④ REMOVE EXISTING ELECTRICAL COMMUNICATION FIXTURES AND RECEPTACLES INCLUDING ELECTRICAL WIRING AND CONDUIT, INSOFAR AS TO PREPARE AREA FOR PROPOSED CONSTRUCTION.
- ⑤ REMOVE EXISTING PLUMBING FIXTURES, REWORK AND/OR REMOVE ALL PIPING SERVING THE REMOVED FIXTURE AND CAP OFF PER PROPOSED PLANS AND CODE REQUIREMENTS.

| Setback & Buffer Requirements | | | | | | |
|-------------------------------|----------------------|-------------|------------------|------------------|-----------------------|-------------------------------|
| Property Line | Adj. Property Zoning | Setback Min | Setback Provided | Buffer Depth Min | Buffer Depth Provided | Waiver Request (Buffer Depth) |
| North - Rear | (B) | 50' | 76'-3" | 5' | 5'-4" w/ Fence | NO |
| East (North) - Right Side | (C) | 10' | 47'-1 1/2" | 30' | 1'-0" | Yes |
| East (South) - Right Side | (B) | 10' | 47'-1 1/2" | 5' | 1'-0" | Yes |
| South - Front | (C) | 50' | 104'-4 1/2" | 5' | Partial 30'-0" | Yes |
| West - Left Side | (B) | 10' | 16'-8 1/2" | 5' | 5'-0" | NO |

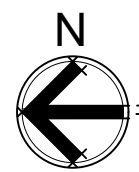
| Proposed Building Use Areas | |
|-----------------------------|------------|
| Existing Building Footprint | 2,878 Sqft |
| Proposed Building Footprint | 3,442 Sqft |
| Proposed Utility Room | 291 Sqft |
| Proposed Belt Room | 2,832 Sqft |
| Proposed Storage Area | 441 Sqft |

| Parking Calculations | |
|---------------------------------------|-------------------------|
| Maximum 2 Employees on-site per owner | |
| Required Parking Spaces | Provided Parking Spaces |
| 2 | 13 |
| | 1 Handicap Space |
| | 3 Regular Space |
| | 9 Vacuum Area Spaces |

| Bulk Regulations | | | | | |
|------------------|---------------------------|---------------|--------------------------|----------|--|
| | Existing | Allowed | Proposed | Change | |
| Total Area | 29,342 sqft 0.67 acres | -- | 29342 sqft 0.67 acres | -- | |
| Impervious Area | 23,794 81.09% | -- | 18,028 61.44% | - 19.69% | |
| Greenspace | 5,545 18.90% | -- | 8,253 28.13% | + 9.22% | |
| F.A.R. | 2,880 9.82% | 23,474 80% | 3,329 11.35% | + 1.53% | |
| Building Height | 27'-6" | 30'-0" | 28'-6" | + 1'-0" | |



NOTE:
As required by Tinley Park Zoning Ordinance 9.A.1.
Peak dB not to exceed 85 dB at property line.
The maximum sound level from the
proposed carwash equipment, coming from the
blowers, is 86.6 dB at a location 10'-0" radial
distance from the blowers.



PROPOSED ARCHITECTURAL SITE PLAN

SCALE: 1:10

RELY ON PRINTED DIMENSIONS ONLY - DO NOT SCALE

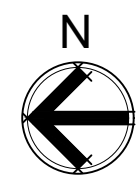
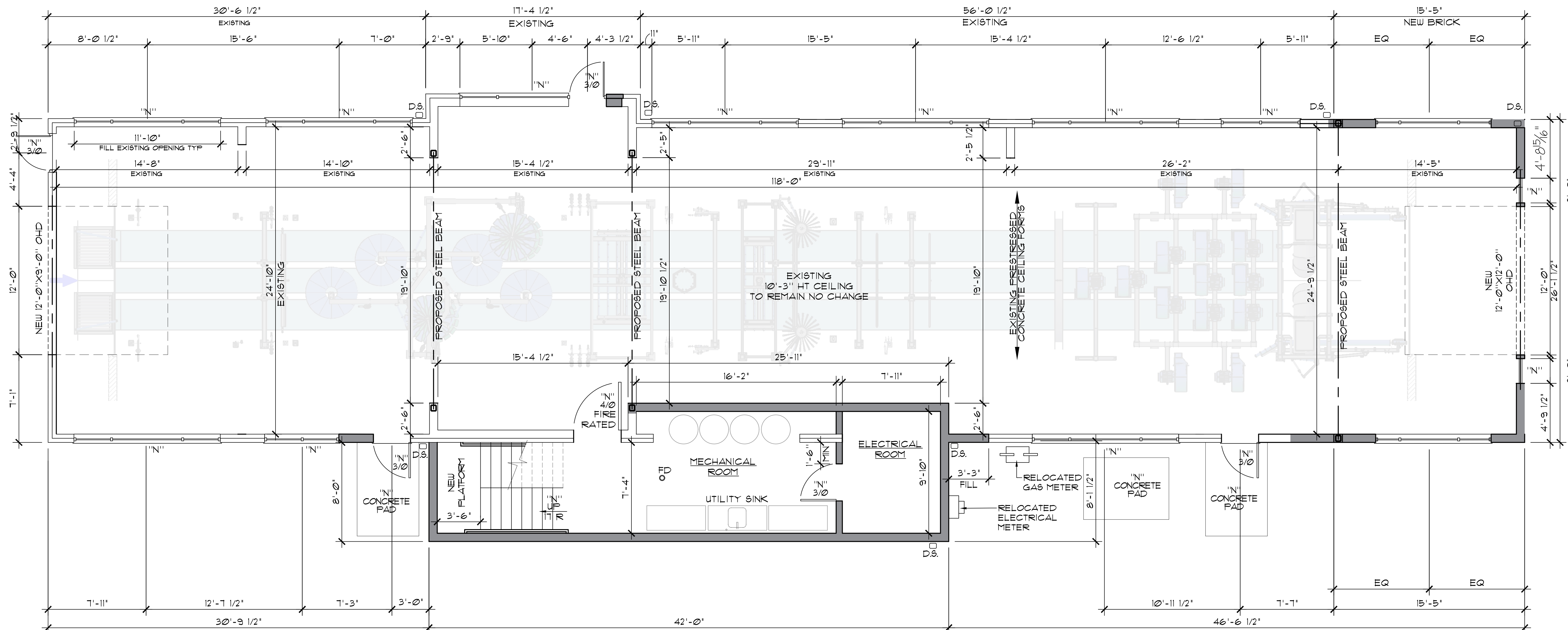
| | |
|------------------|---------|
| Project # | 22032 |
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Upgrades to Existing Carwash
Damas Consulting
7130 171st Street
Tinley Park, IL 60477

Drawing
PROPOSED
ARCHITECTURAL
SITE PLAN

Sheet
A1



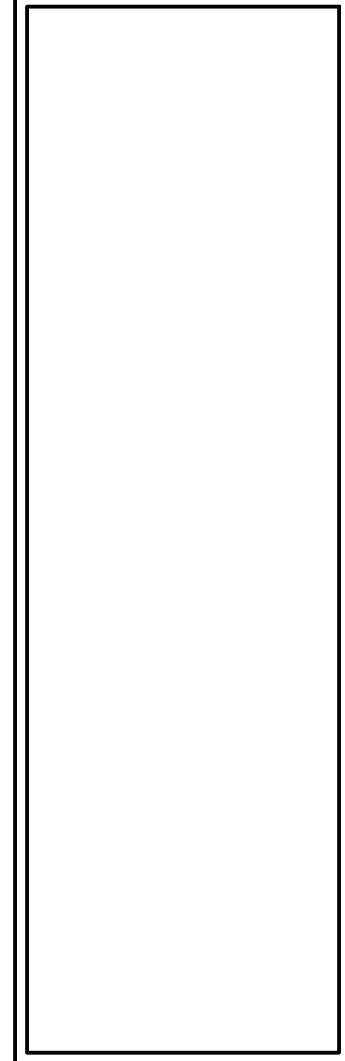
PROPOSED FIRST FLOOR PLAN

SCALE: 1/4"=1'-0"

RELY ON PRINTED DIMENSIONS ONLY - DO NOT SCALE

- NEW WALL
- EXISTING WALL
- "R" = RELOCATED
- "N" = NEW
- "X" = REMOVE

| | |
|------------------|---------|
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Tinley Park, IL 60477

Drawing
PROPOSED
FIRST FLOOR
PLAN

Sheet
A3



PROPOSED EAST (RIGHT SIDE) ELEVATION - RENDERING



PROPOSED SOUTH (FRONT) ELEVATION

SCALE: 1/4"=1'-0"

RELY ON PRINTED DIMENSIONS ONLY - DO NOT SCALE

"R" = RELOCATED
"N" = NEW
"X" = REMOVE



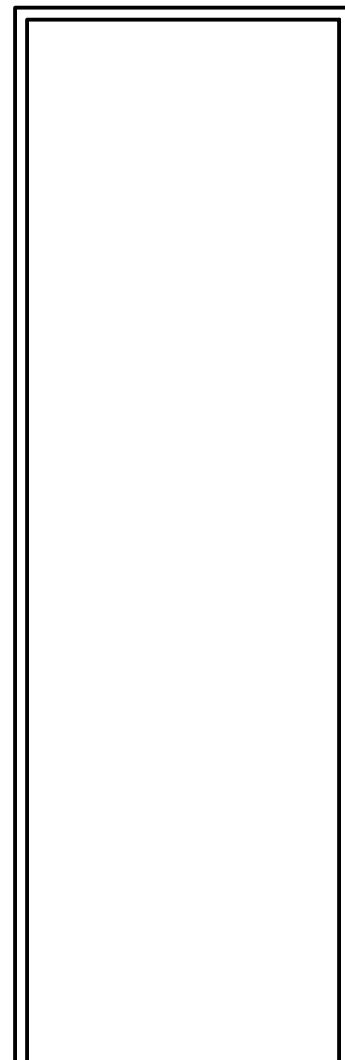
PROPOSED EAST (RIGHT SIDE) ELEVATION

SCALE: 1/4"=1'-0"

RELY ON PRINTED DIMENSIONS ONLY - DO NOT SCALE

"R" = RELOCATED
"N" = NEW
"X" = REMOVE

| | |
|------------------|---------|
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Tinley Park, IL 60477

Drawing
PROPOSED
SOUTH AND
EAST BUILDING
ELEVATIONS
(RENDERINGS)

Sheet
A5

- NOT FOR CONSTRUCTION -



PAY STATION AND PAY STATION CANOPY EXAMPLE TO MATCH FOR REFERENCE PURPOSES ONLY



VACUUM SYSTEM EXAMPLE TO MATCH FOR REFERENCE PURPOSES ONLY



PROPOSED NORTH (REAR) ELEVATION

SCALE: 1/4"=1'-0"

RELY ON PRINTED DIMENSIONS ONLY - DO NOT SCALE

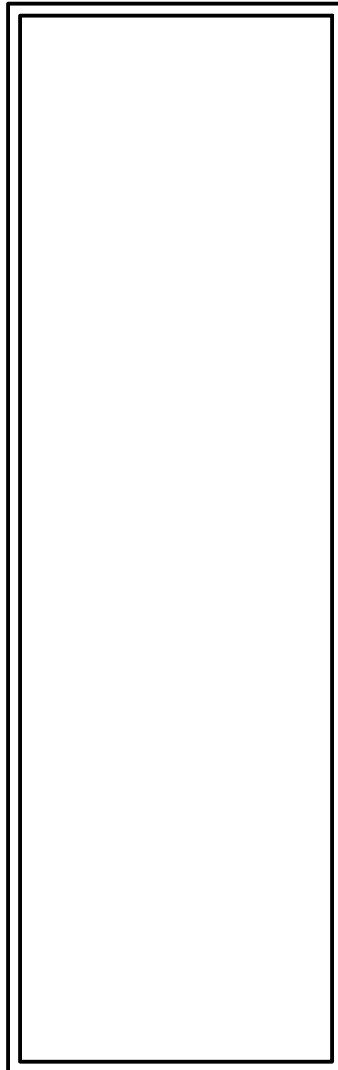


PROPOSED WEST (LEFT SIDE) ELEVATION

SCALE: 1/4"=1'-0"

RELY ON PRINTED DIMENSIONS ONLY - DO NOT SCALE

| | |
|------------------|---------|
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| Rev 2 | 9-13-23 |



Damas Consulting Group
3625 MIDDLETOWN AVE
Downers Grove, IL 60516
Ph 630-991-3299 FAX 630-541-2382

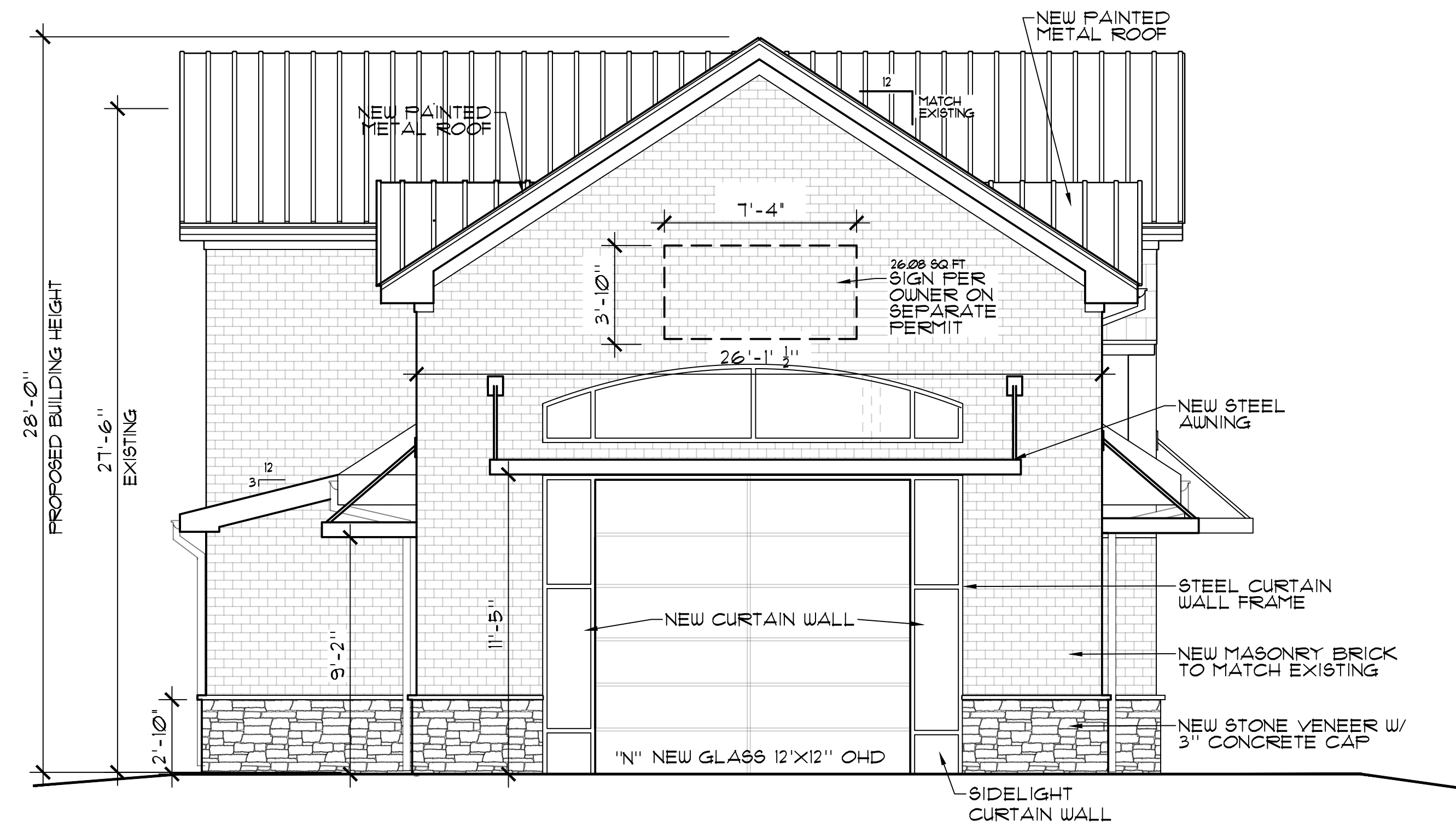
Upgrades to Existing Carwash
Damas Consulting
7130 171st Street
Tinley Park, IL 60477

Drawing
PROPOSED
NORTH AND
WEST BUILDING
ELEVATIONS
(RENDERINGS)

Sheet
A6

- NOT FOR CONSTRUCTION -

| Material Ratios | | | | | | |
|-----------------|--------------|----------------|----------------|---------------------|--------------|--------------|
| | Stone Veneer | Brick Proposed | Brick Existing | Total Brick & Stone | Paint/Stucco | Total (sqft) |
| North | 70 | 350 | 0 | 420 | 7 | 427 |
| | 16.39% | 81.97% | 0.00% | 98.36% | 1.64% | |
| East | 330 | 217 | 561 | 1108 | 145 | 1253 |
| | 26.34% | 17.32% | 44.77% | 88.43% | 11.57% | |
| South | 54.5 | 500 | 0 | 554.5 | 22 | 576.5 |
| | 9.45% | 86.73% | 0.00% | 96.18% | 3.82% | |
| West | 330 | 217 | 815 | 1362 | 0 | 1362 |
| | 24.23% | 15.93% | 59.84% | 100.00% | 0.00% | |

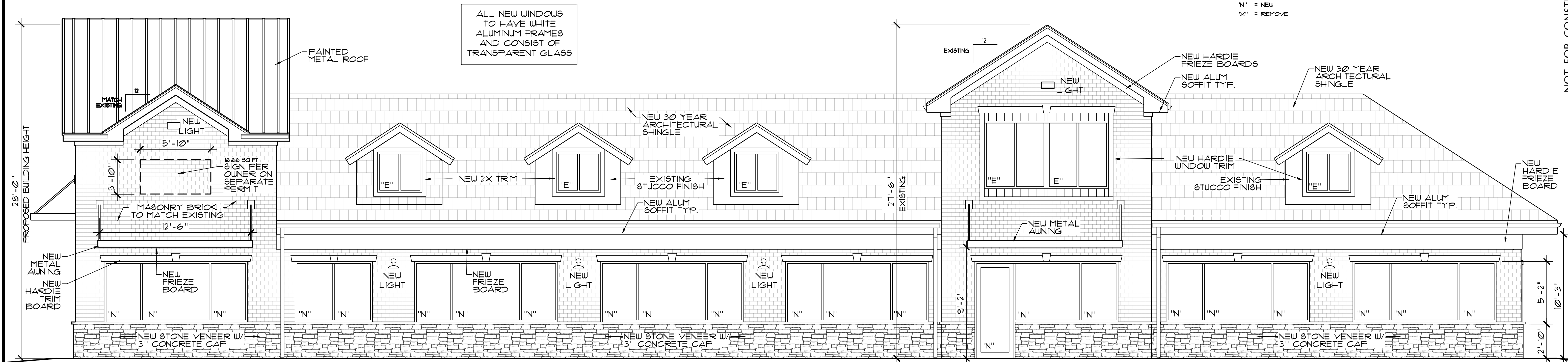


PROPOSED SOUTH (FRONT) ELEVATION

SCALE: 1/4"=1'-0"

RELY ON PRINTED DIMENSIONS
ONLY - DO NOT SCALE

"R" = RELOCATED
"N" = NEW
"X" = REMOVE



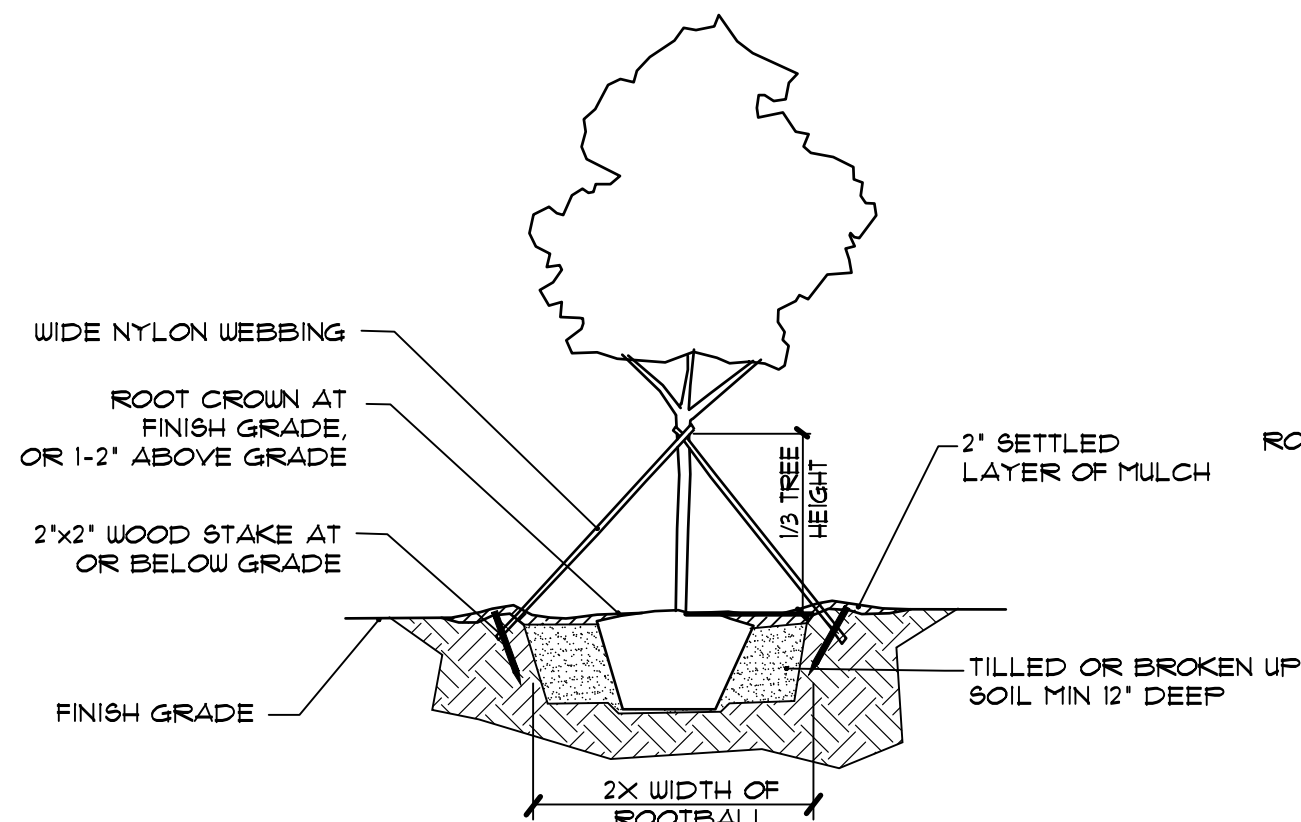
PROPOSED EAST (RIGHT SIDE) ELEVATION

SCALE: 3/16"=1'-0"

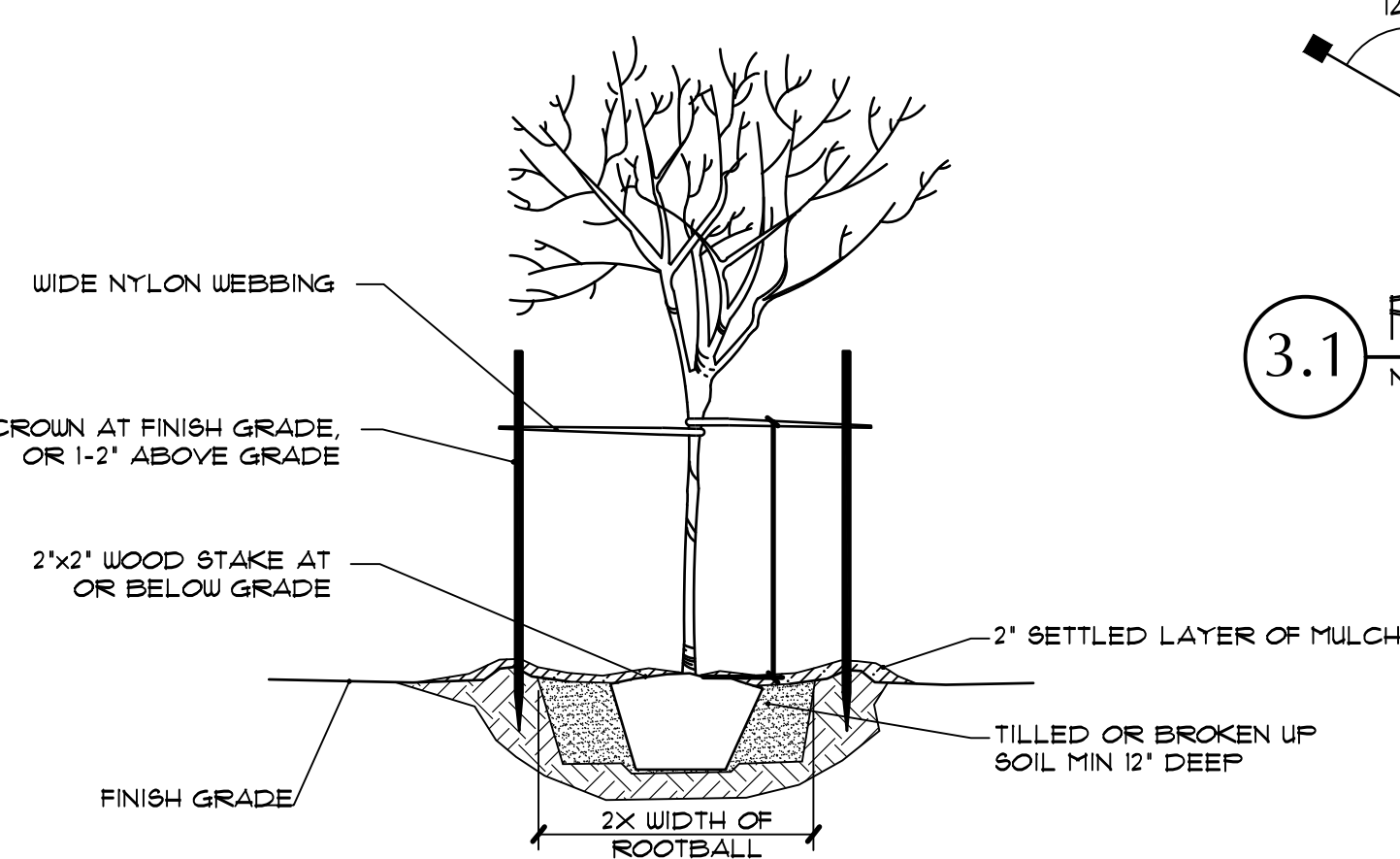
RELY ON PRINTED DIMENSIONS
ONLY - DO NOT SCALE

"R" = RELOCATED
"N" = NEW
"X" = REMOVE

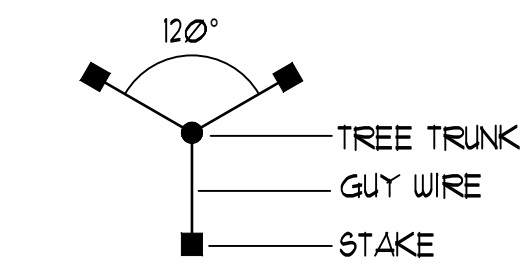
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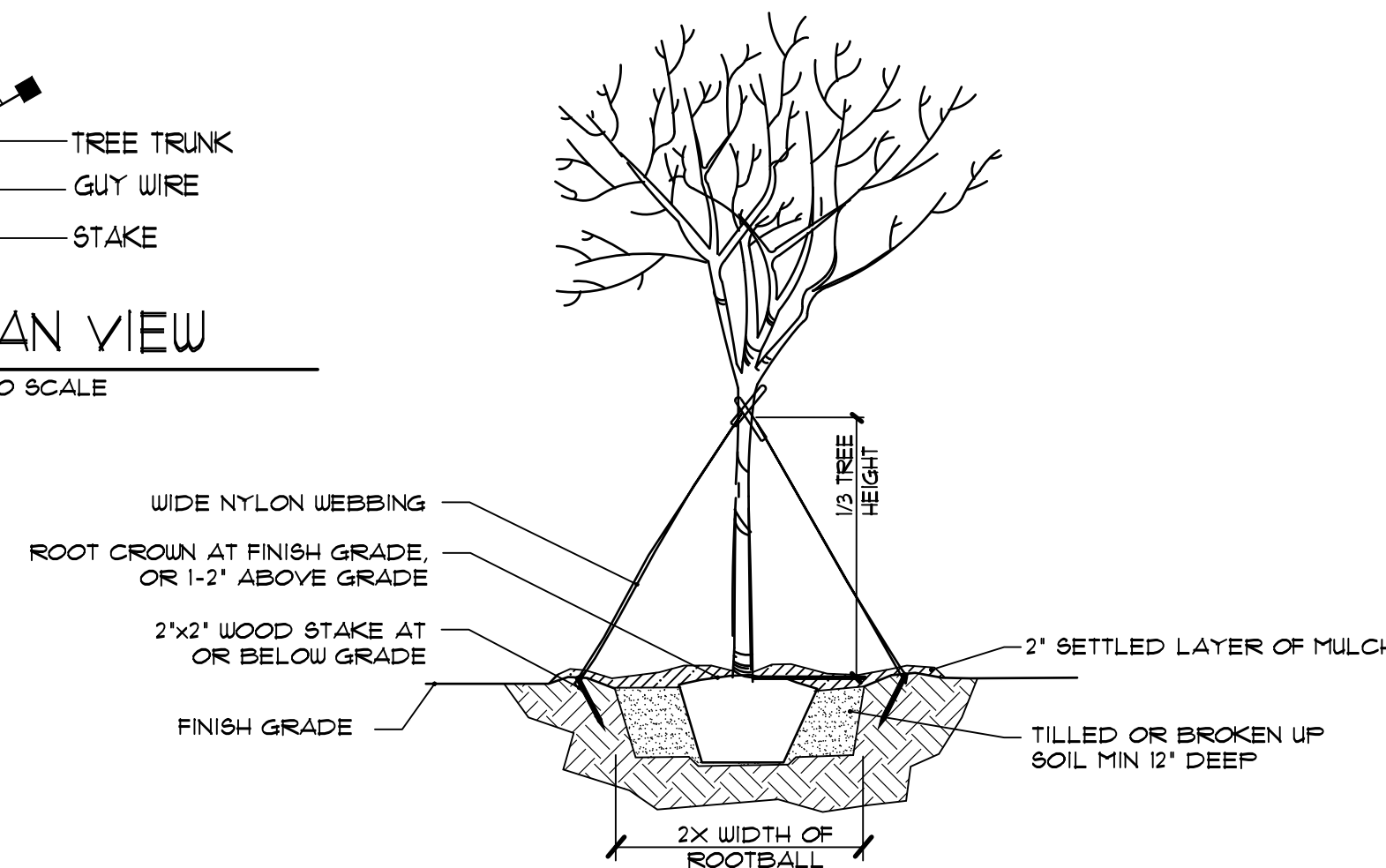
1 TREE PLANTING
NOT TO SCALE



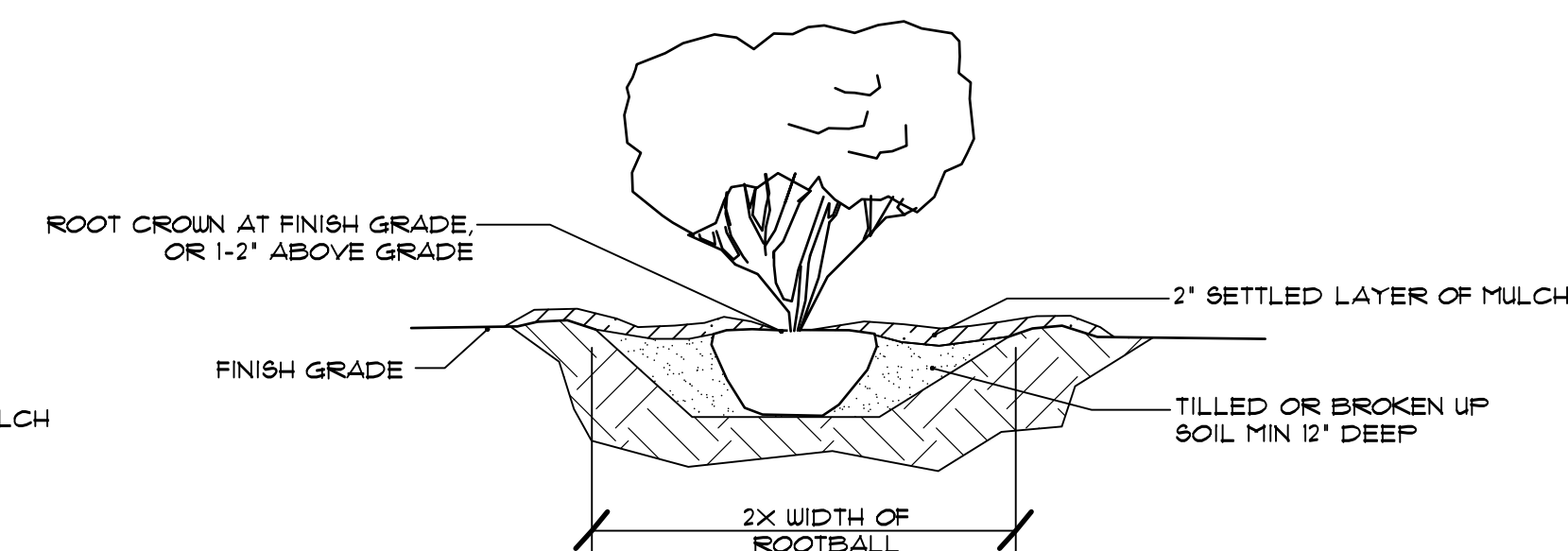
2 SMALL TREE PLANTING (< 2" CAL.)
NOT TO SCALE



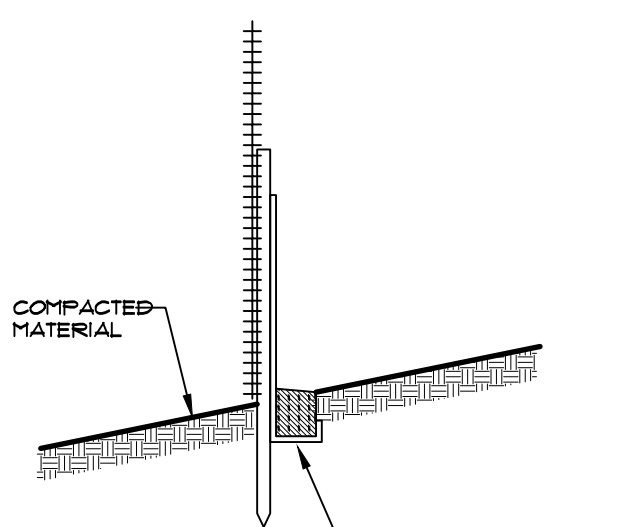
3.1 PLAN VIEW
NOT TO SCALE



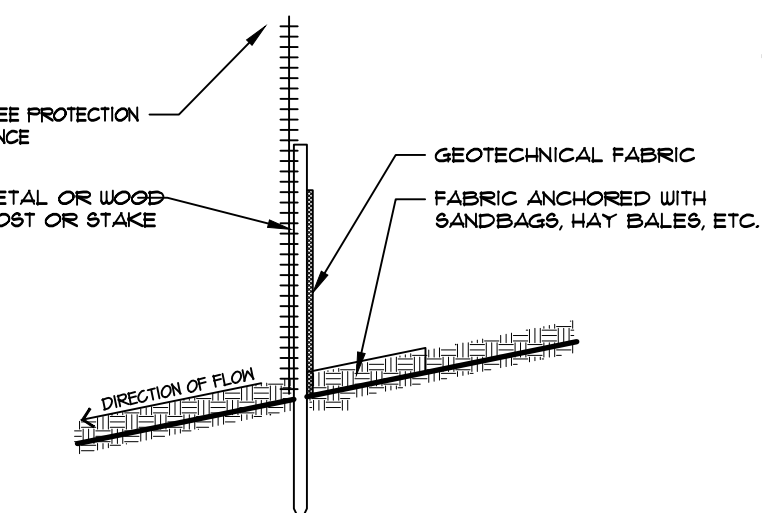
3 SMALL TREE PLANTING (> 2" CAL.)
NOT TO SCALE



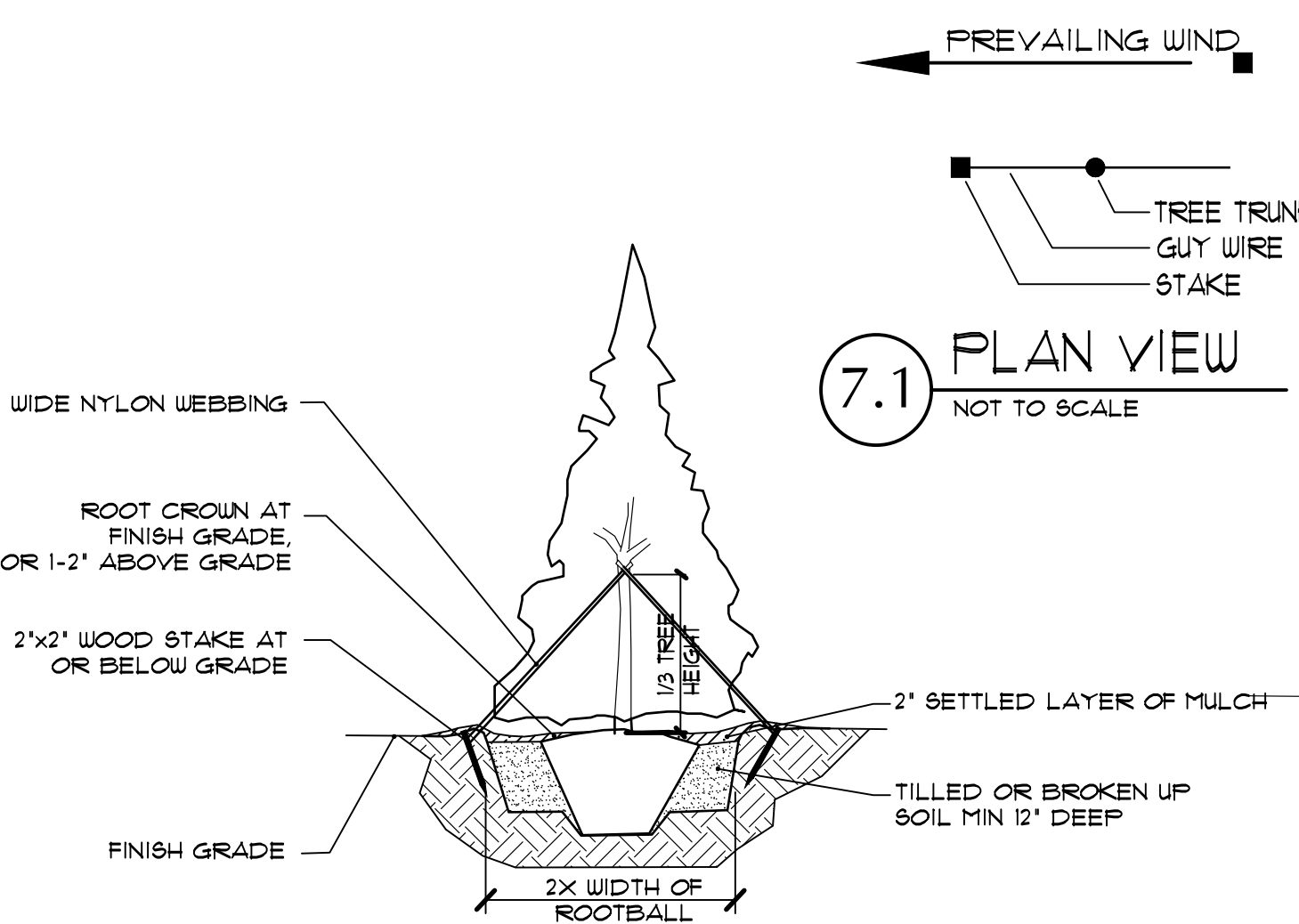
4 SMALL SHRUB PLANTING:
INDIVIDUAL PLANTING HOLE
NOT TO SCALE



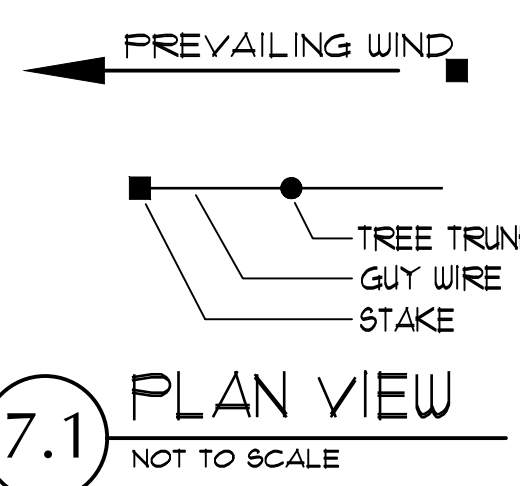
5 INCORRECT SILT FENCE DETAIL
NOT TO SCALE



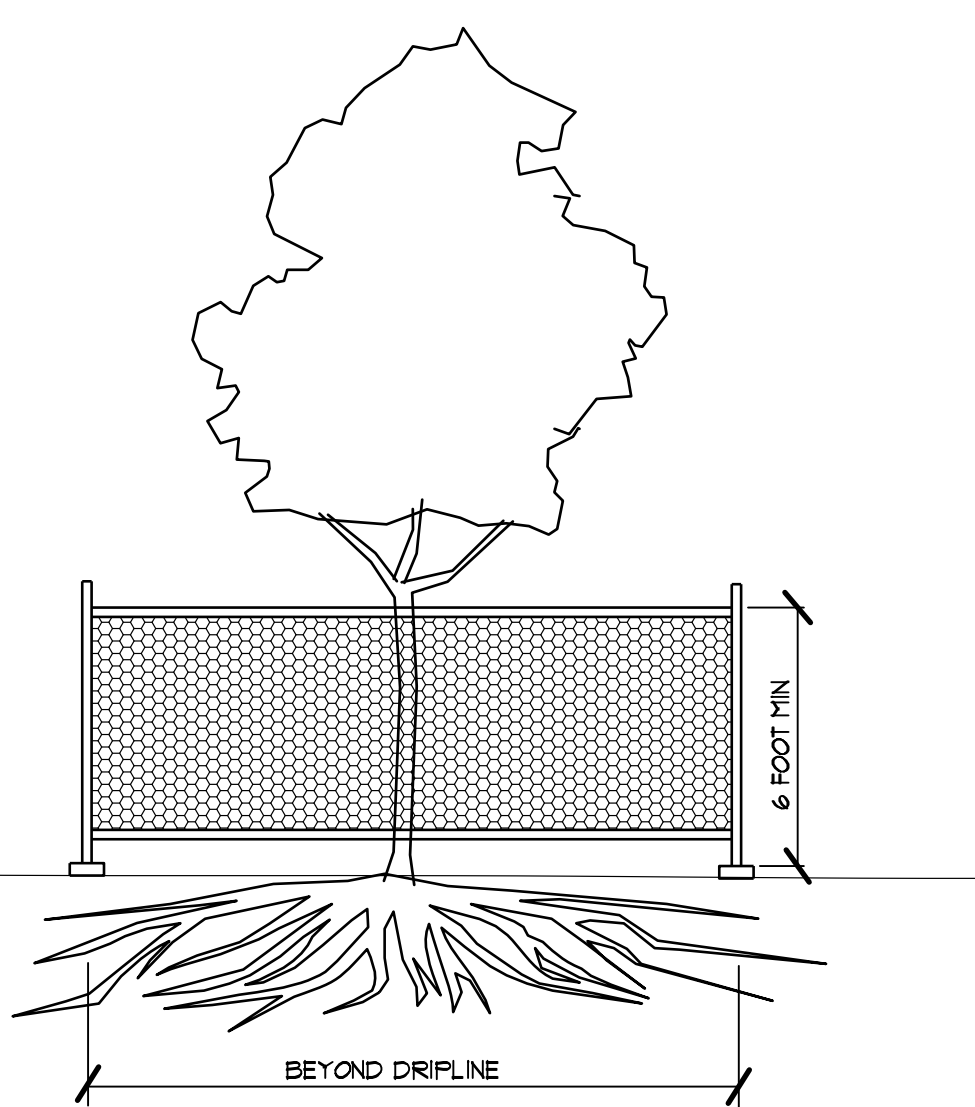
6 CORRECT SILT FENCE DETAIL
NOT TO SCALE



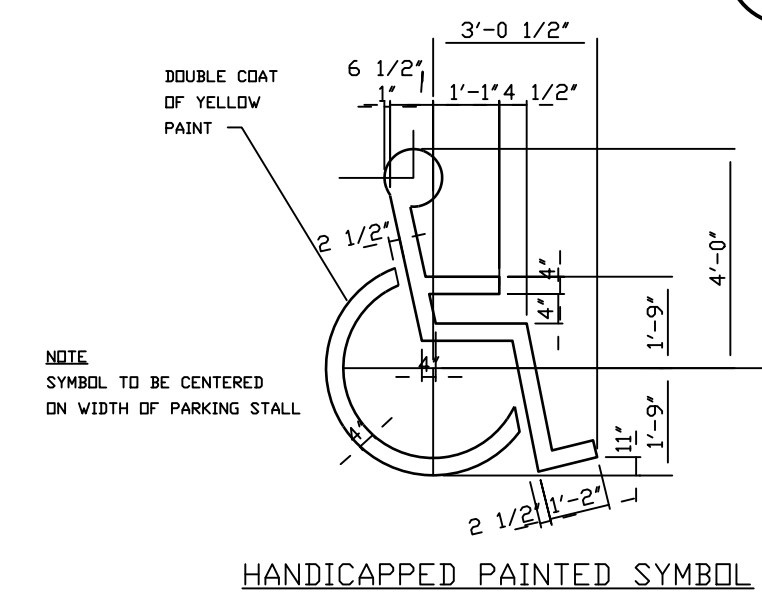
7 EVERGREEN TREE PLANTING
NOT TO SCALE



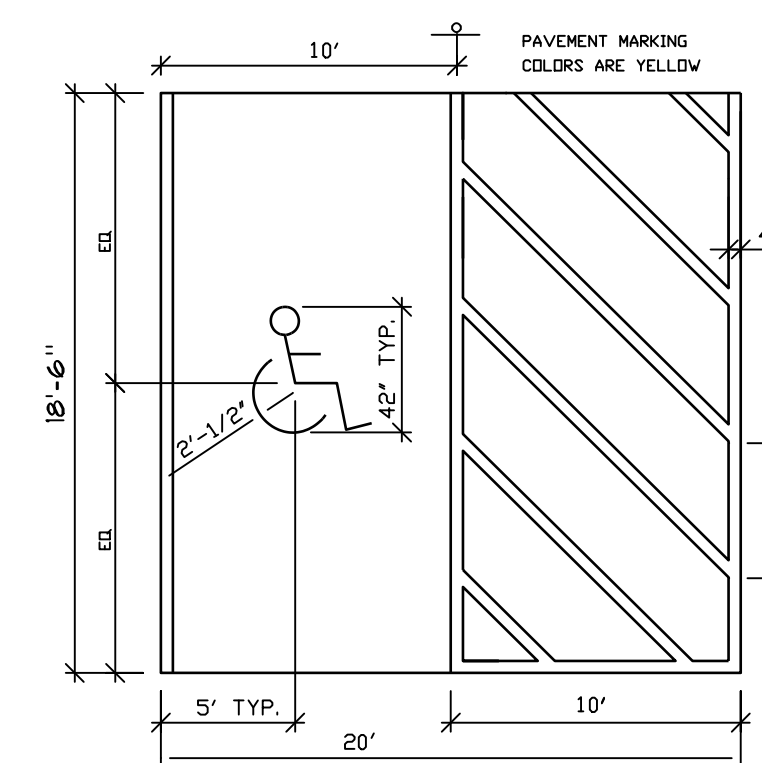
7.1 PLAN VIEW
NOT TO SCALE



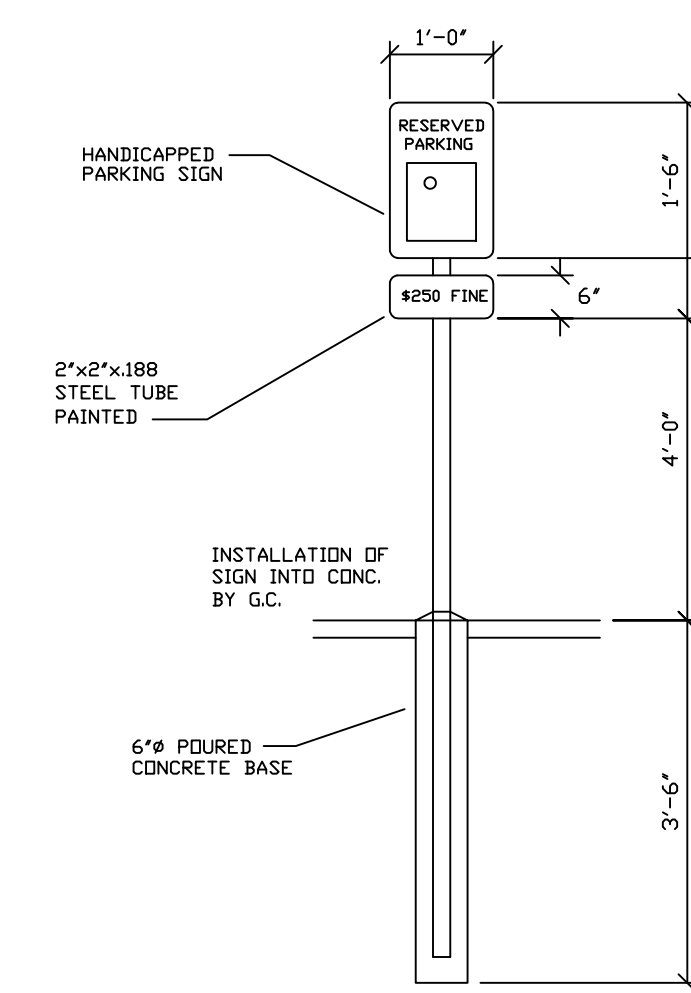
8 TREE PROTECTION DETAIL
NOT TO SCALE



HANDICAPPED PAINTED SYMBOL



ACCESSIBLE PARKING
SPACE MARKINGS



HANDICAPPED PARKING SIGN

TYPICAL TREE PLANTING INSTRUCTIONS:

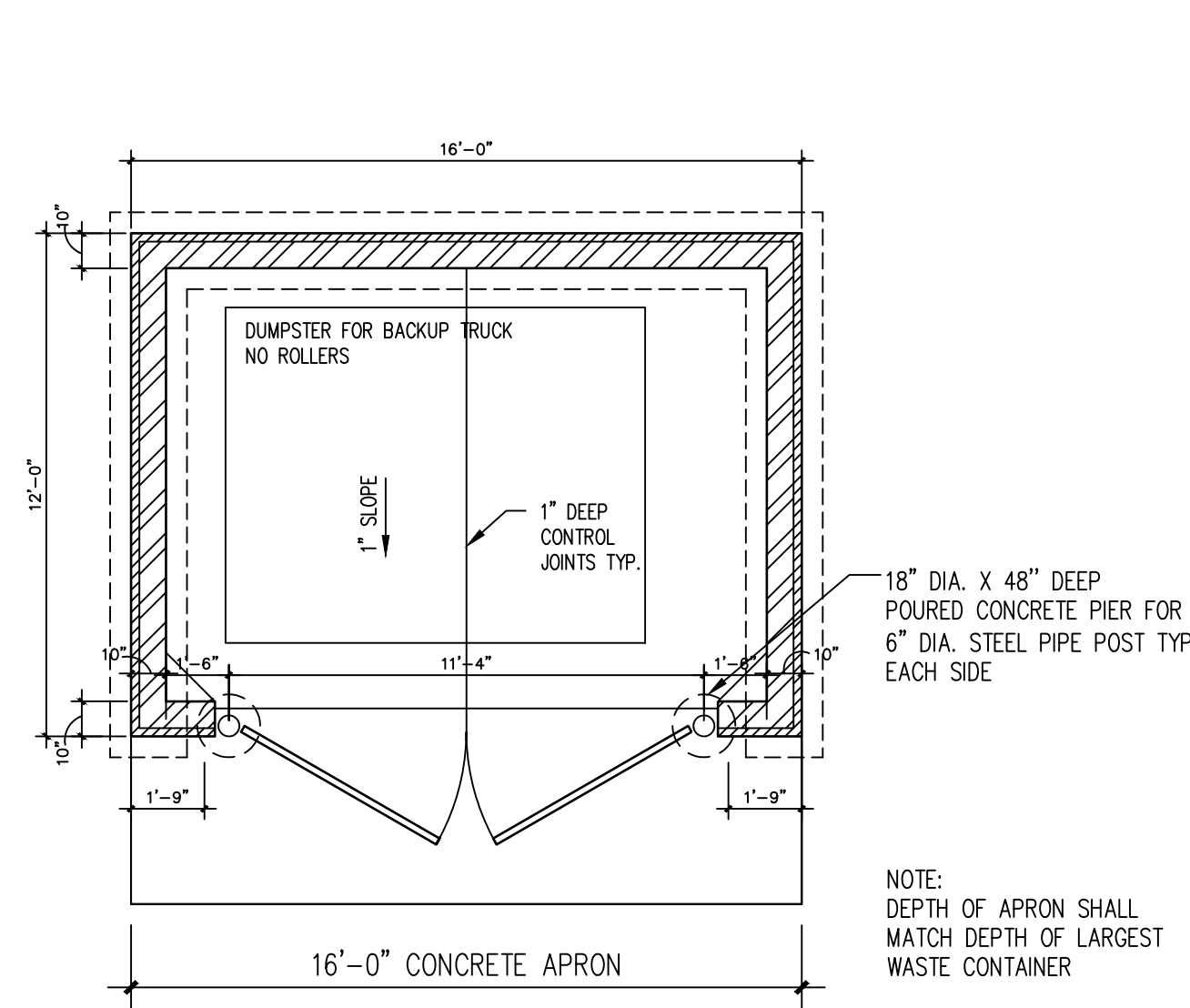
1. ALL PLANT MATERIALS SHALL BE IN ACCORDANCE WITH THE AMERICAN STANDARDS FOR NURSERY STOCK (ANSI Z601-2004).
2. PLANT ACCORDING TO ANSI A300 PART 6.
3. DIG THE PLANTING HOLE A MINIMUM OF 2X WIDTH OF ROOTBALL FOR AT LEAST THE FIRST 12 INCHES OF DEPTH. BELOW 12 INCHES, DIG HOLE WIDE ENOUGH TO PERMIT ADJUSTING. DO NOT DIG THE HOLE DEEPER THAN ROOT BALL DEPTH.
4. SCARIFY THE SUBGRADE AND SIDES OF THE PLANTING HOLE WHEN PLANTING IN CLAY SOILS (MORE THAN 18% CLAY).
5. SET THE TOP OF THE TREE BY ROOT BALL ONLY. DO NOT LIFT USING THE TREE TRUNK AND DO NOT USE TREE TRUNK AS A LEVER.
6. SET THE TOP OF THE ROOT BALL LEVEL WITH THE SOIL SURFACE OR SLIGHTLY HIGHER IF THE SOIL IS PRONE TO SETTLING.
7. AFTER THE TREE IS SET IN PLACE, REMOVE BURLAP, WIRE AND STRAPS FROM AT LEAST THE UPPER 1/3 OF THE ROOTBALL.
8. BACKFILL WITH EXISTING SOIL THAT HAS BEEN WELL-TILLED OR BROKEN UP. DO NOT ADD AMENDMENTS TO THE BACKFILL SOIL.
9. AMEND THE SURFACE WITH MULCH.
10. USE THREE 2" X 2" WOOD STAKES DRIVEN INTO UNDISTURBED SOIL A MINIMUM OF 16 INCHES. SPACE STAKES EQUALLY AROUND THE TREE.
11. ATTACH 3/4" NYLON WEBBING TO CONNECT THE TREE TO STAKES. ATTACH WEBBING AT 1/3 THE TREE HEIGHT.
12. APPLY A 2-3" (SETTLED) DEPTH OF FINE STRAW OR BARK MULCH TO THE PLANTING SURFACE. LEAVE A 2' SPACE AROUND THE TRUNK FOR AIR CIRCULATION.
13. PRUNING SHALL BE LIMITED TO DEAD, DISEASED, OR BROKEN LIMBS ONLY AND SHALL BE IN ACCORDANCE WITH ANSI A300 SPECIFICATIONS.
14. REMOVE ANY TRUNK WRAP REMAINING AT TIME OF PLANTING. NO WRAPS SHALL BE PLACED ON TRUNK.

TYPICAL SHRUB PLANTING, INDIVIDUAL PLANTING HOLE

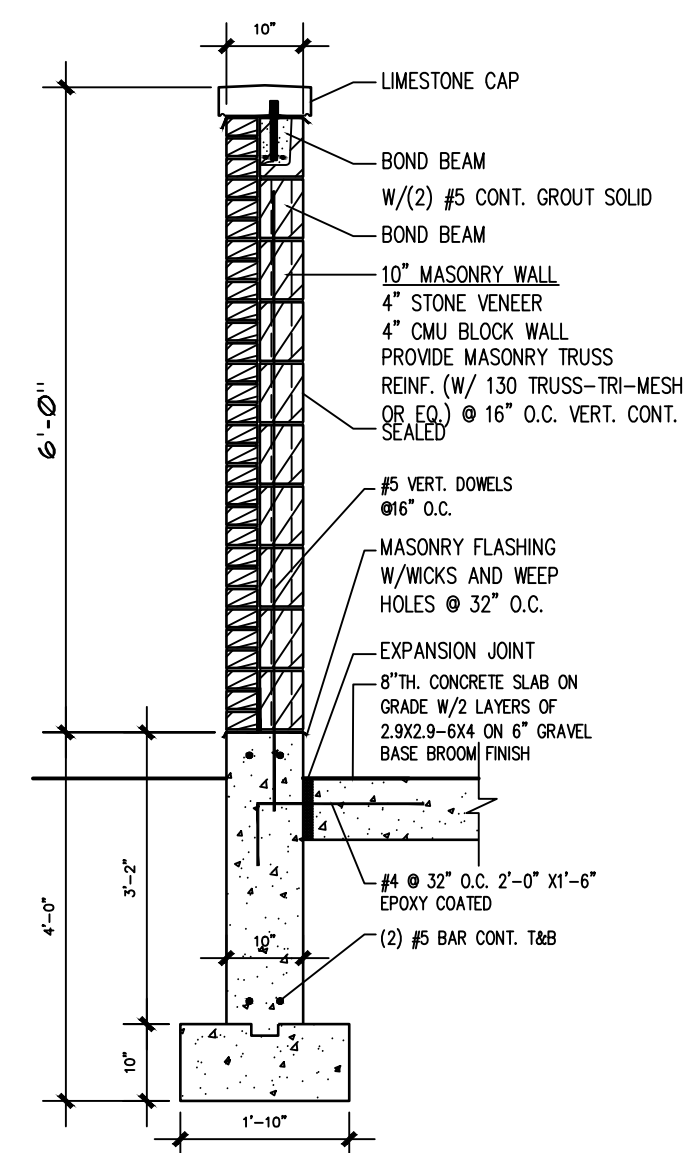
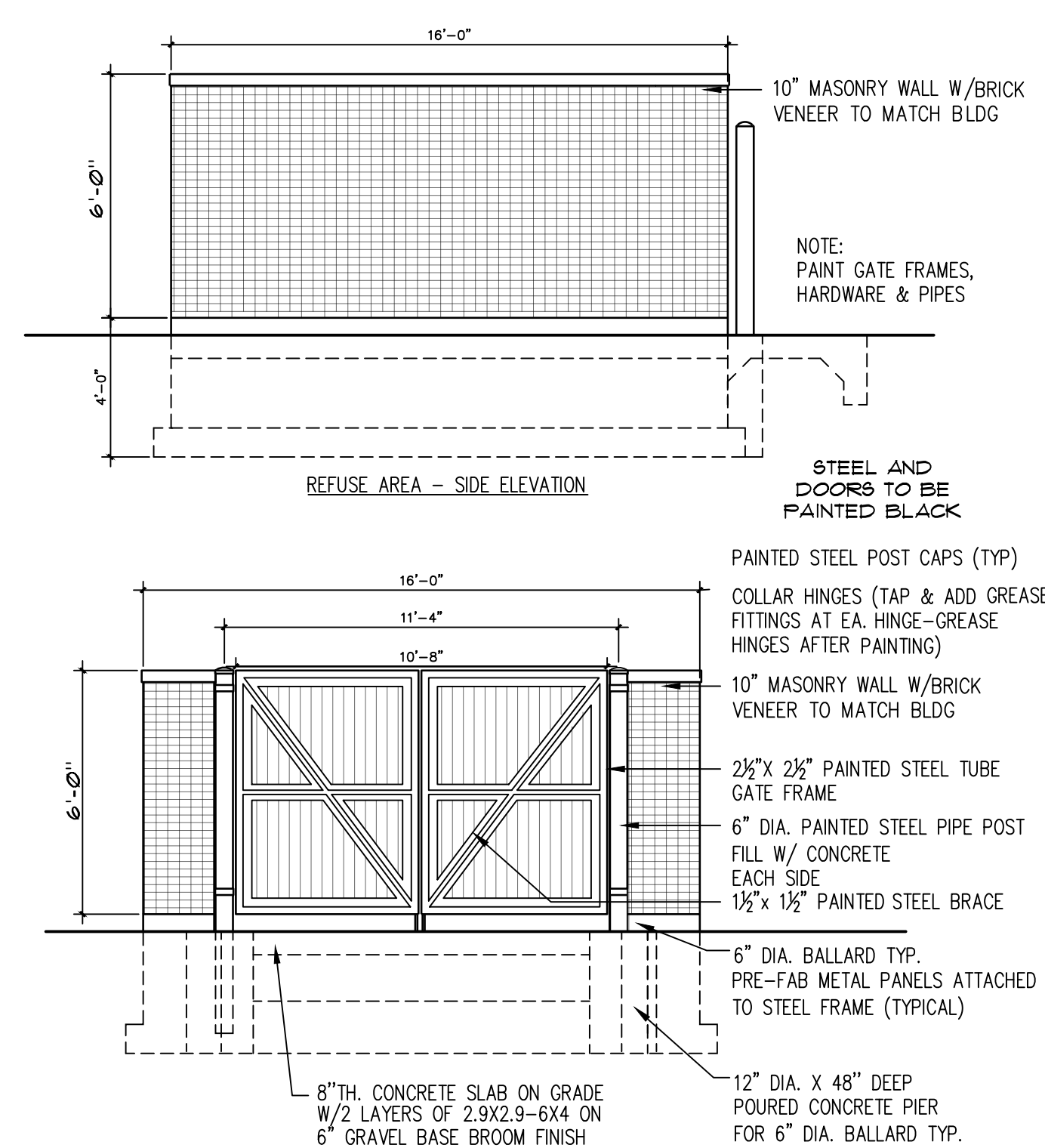
1. DIG PLANTING HOLE AT LEAST 2X THE WIDTH OF THE ROOT BALL OR CONTAINER.
2. SCARIFY SUBGRADE AND SIDES OF PLANTING HOLE WHEN PLANTING IN CLAY SOIL.
3. SCARIFY THE SUBGRADE AND SIDES OF THE PLANTING HOLE WHEN PLANTING IN CLAY SOILS (MORE THAN 18% CLAY).
4. IF CONTAINER GROWN PLANT, GENTLY SLIDE PLANT OUT OF CONTAINER. DISTURB THE ROOTS.
5. SET THE TOP OF THE ROOT BALL LEVEL WITH THE SOIL SURFACE OR SLIGHTLY HIGHER IF THE SOIL IS PRONE TO SETTLING.
6. AFTER THE TREE IS SET IN PLACE, REMOVE BURLAP, WIRE AND STRAPS FROM AT LEAST THE UPPER 1/3 OF THE ROOTBALL.
7. BACKFILL THE PLANTING HOLE WITH EXCAVATED NATIVE SOIL, BROKEN UP OR TILLED. WATER TO REMOVE AIR POCKETS. DO NOT ADD AMENDMENTS.
8. AMEND THE SURFACE WITH MULCH.
9. USE THREE 2" X 2" WOOD STAKES DRIVEN INTO UNDISTURBED SOIL A MINIMUM OF 16 INCHES. SPACE STAKES EQUALLY AROUND THE TREE.
10. ATTACH 3/4" NYLON WEBBING TO CONNECT THE TREE TO STAKES. ATTACH WEBBING AT 1/3 THE TREE HEIGHT.
11. APPLY A 2-3" (SETTLED) DEPTH OF FINE STRAW OR BARK MULCH TO THE PLANTING SURFACE. LEAVE A 2' SPACE AROUND THE TRUNK FOR AIR CIRCULATION.
12. PRUNING SHALL BE LIMITED TO DEAD, DISEASED, OR BROKEN LIMBS ONLY AND SHALL BE IN ACCORDANCE WITH ANSI A300 SPECIFICATIONS.
13. REMOVE ANY TRUNK WRAP REMAINING AT TIME OF PLANTING. NO WRAPS SHALL BE PLACED ON TRUNK.

TYPICAL EVERGREEN TREE INSTRUCTIONS:

1. ALL PLANT MATERIALS SHALL BE IN ACCORDANCE WITH THE AMERICAN STANDARDS FOR NURSERY STOCK (ANSI Z601-2004).
2. PLANT ACCORDING TO ANSI A300 PART 6.
3. DIG THE PLANTING HOLE A MINIMUM OF 2X WIDTH OF ROOTBALL FOR AT LEAST THE FIRST 12 INCHES OF DEPTH. BELOW 12 INCHES, DIG HOLE WIDE ENOUGH TO PERMIT ADJUSTING. DO NOT DIG THE HOLE DEEPER THAN ROOT BALL DEPTH.
4. SCARIFY THE SUBGRADE AND SIDES OF THE PLANTING HOLE WHEN PLANTING IN CLAY SOILS (MORE THAN 18% CLAY).
5. SET THE TOP OF THE TREE BY ROOT BALL ONLY. DO NOT LIFT USING THE TREE TRUNK AND DO NOT USE TREE TRUNK AS A LEVER.
6. SET THE TOP OF THE ROOT BALL LEVEL WITH THE SOIL SURFACE OR SLIGHTLY HIGHER IF THE SOIL IS PRONE TO SETTLING.
7. AFTER THE TREE IS SET IN PLACE, REMOVE BURLAP, WIRE AND STRAPS FROM AT LEAST THE UPPER 1/3 OF THE ROOTBALL.
8. BACKFILL WITH EXISTING SOIL THAT HAS BEEN WELL-TILLED OR BROKEN UP. DO NOT ADD AMENDMENTS TO THE BACKFILL SOIL.
9. AMEND THE SURFACE WITH MULCH.
10. USE THREE 2" X 2" WOOD STAKES DRIVEN INTO UNDISTURBED SOIL A MINIMUM OF 16 INCHES. SPACE STAKES EQUALLY AROUND THE TREE.
11. ATTACH 3/4" NYLON WEBBING TO CONNECT THE TREE TO STAKES. ATTACH WEBBING AT 1/3 THE TREE HEIGHT.
12. APPLY A 2-3" (SETTLED) DEPTH OF FINE STRAW OR BARK MULCH TO THE PLANTING SURFACE. LEAVE A 2' SPACE AROUND THE TRUNK FOR AIR CIRCULATION.
13. PRUNING SHALL BE LIMITED TO DEAD, DISEASED, OR BROKEN LIMBS ONLY AND SHALL BE IN ACCORDANCE WITH ANSI A300 SPECIFICATIONS.
14. REMOVE ANY TRUNK WRAP REMAINING AT TIME OF PLANTING. NO WRAPS SHALL BE PLACED ON TRUNK.



REFUSE AREA PLAN
SCALE: 1/4" = 1'-0"



REFUSE AREA
WALL SECTION
SCALE: 1/2" = 1'-0"

- NOT FOR CONSTRUCTION -

| | |
|------------------|---------|
| Project # | 22032 |
| Drawn: | JMP |
| Date: | 9-12-22 |
| Issue/Revision | Date: |
| Preliminary | 8-20-22 |
| Permit Submittal | 3-14-23 |
| Rev 1 | 7-06-23 |
| Rev 2 | 9-13-23 |

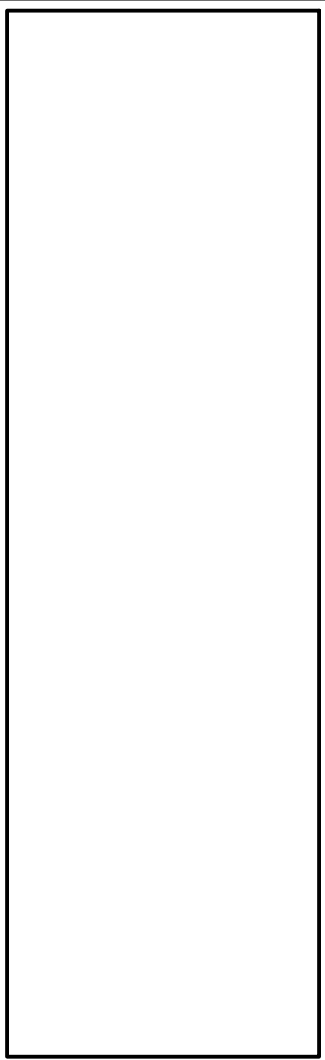
Damas Consulting Group
3625 MIDDLETOWN AVE
Downers Grove, IL 60516
Ph 630-991-3299 FAX 630-541-2382

Upgrades to Existing Carwash
Damas Consulting
7130 171st Street
Tinley Park, IL 60477

Drawing
SITE & LANDSCAPE
DETAILS

Sheet
A9

| | |
|------------------|---------|
| Project # | 22032 |
| Drawn: | JMP |
| Date: | 9-12-22 |
| Issue/Revision | Date: |
| Preliminary | 8-20-22 |
| Permit Submittal | 3-14-23 |
| Rev 1 | 7-06-23 |
| Rev 2 | 9-13-23 |
| | |
| | |



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3625 MIDDAUGH AVE
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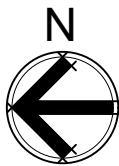
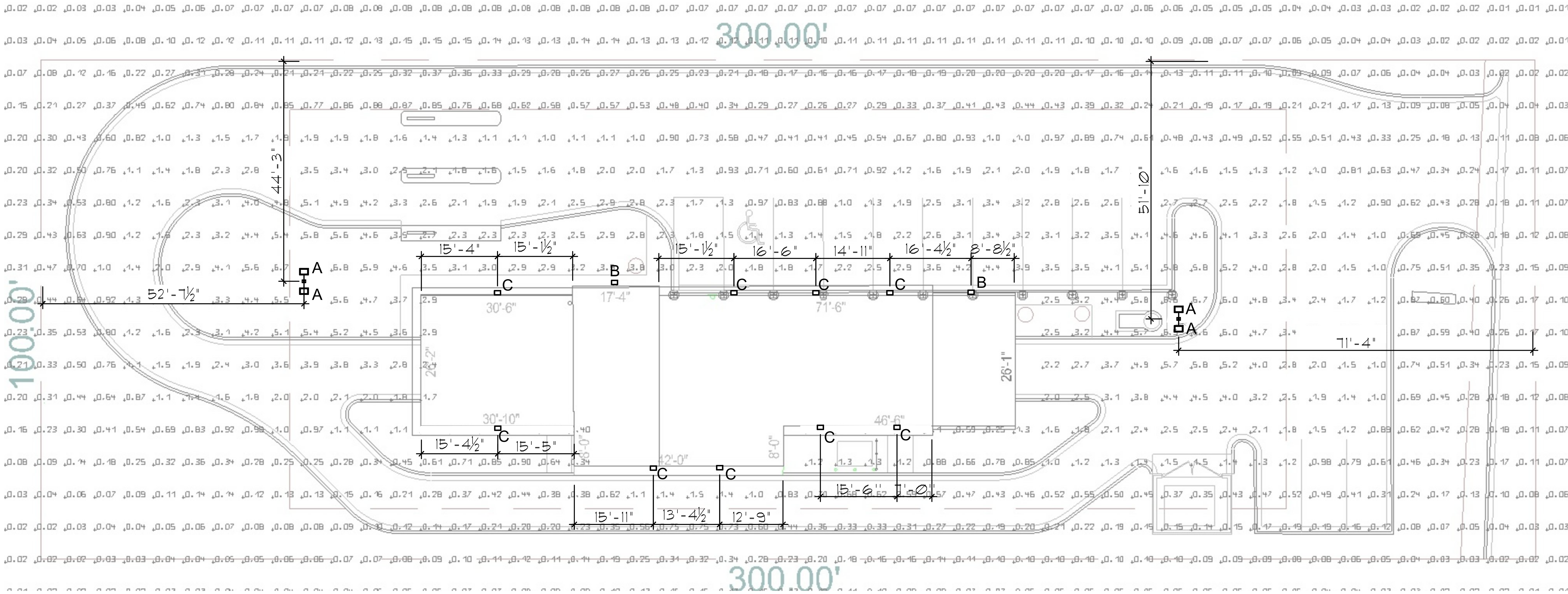
Upgrades to Existing Carwash
Damas Consulting
7130 171st Street
Tinley Park, IL 60477

Drawing
PHOTOMETRIC
SITE PLAN

Sheet
E1

| Lighting Schedule | | | | | | |
|-------------------|----------|----------|--|--------------------------------|-----------------|---------|
| I.D. | Quantity | Brand | Description | Mounting Height | Lumens per Lamp | Wattage |
| A | 4 | Lithonia | RSX Area Luminaire Size 1 P2 Lumen Package 4000K CCT Type R2 Distribution | 25.0 ft | 9878 | 72.9 |
| B | 2 | Lithonia | WDGE2 LED WITH P4- PERFORMANCE PACKAGE, 4000K, 90CRI, VISUAL COMFORT WIDE OPTIC | 22 ft (North) 20 ft (South) | 4005 | 35 |
| C | 9 | Wave | 1-(44LED) 5"DIA 18W LED BOARD w/CLEAR ACRYLIC LED LENS 21" TALL HEXAGON WALL MNT LANTERN LUMINAIRE w/FROSTED ACRYLIC SIDE LENSES | 8.0 ft | 1078 | 18 |

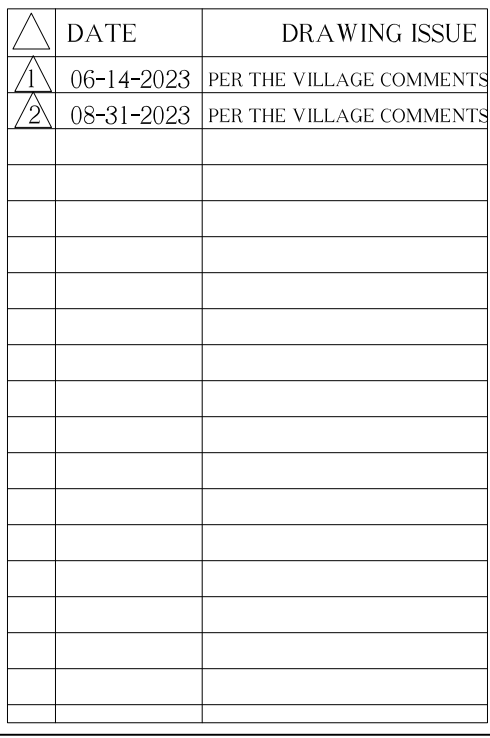
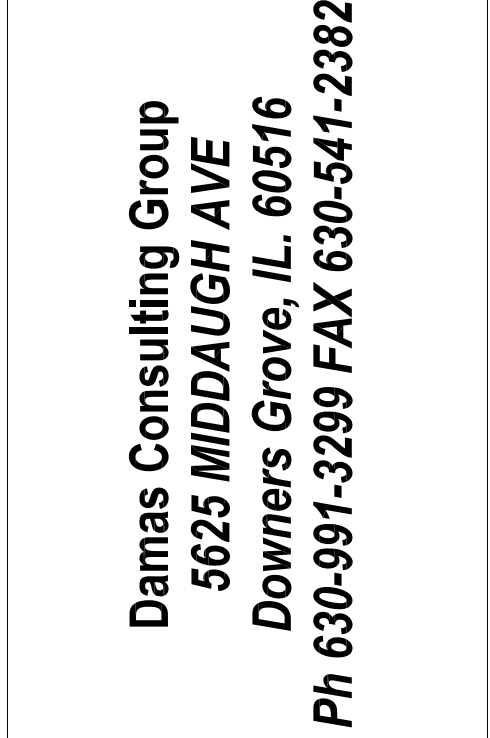
ALL LIGHT FIXTURES (BUILDING AND PARKING AREA) SHALL HAVE NO UPLIGHT (RATING U0) AND HAVE NO LIGHT ABOVE A 90 DEGREE PLANE.



PROPOSED PHOTOMETRIC SITE PLAN

SCALE: 1:10

RELY ON PRINTED DIMENSIONS ONLY - DO NOT SCALE



| | |
|---------------------------|-----------------------------|
| DATE STARTED: 08-14-22 | DRAWN BY: Khaled mansour |
| JOB NO: | FILE NO: |

| |
|-------|
| D-I.0 |
| |



| EXISTING CONDITION | |
|----------------------------|-----------|
| TOTAL LOT AREA | 29,342 SF |
| BUILDING FOOTPRINT (CN=98) | 2880.0 SF |
| ASPHALT (CN=98) | 19,892 SF |
| CONCRETE (CN=98) | 1,022 SF |
| GRASS (CN=74) | 5,548 SF |
| IMPERVIOUS AREA | 23,794 SF |

PERCENTAGE EXISTING LOT COVER=(23,794/ 29,342)X100=81.09%
 PERCENTAGE OF GREEN SPACE=(5,548 / 29,342)X100=18.9%
 FAR= (2,880 / 29,342)X100=9.82%

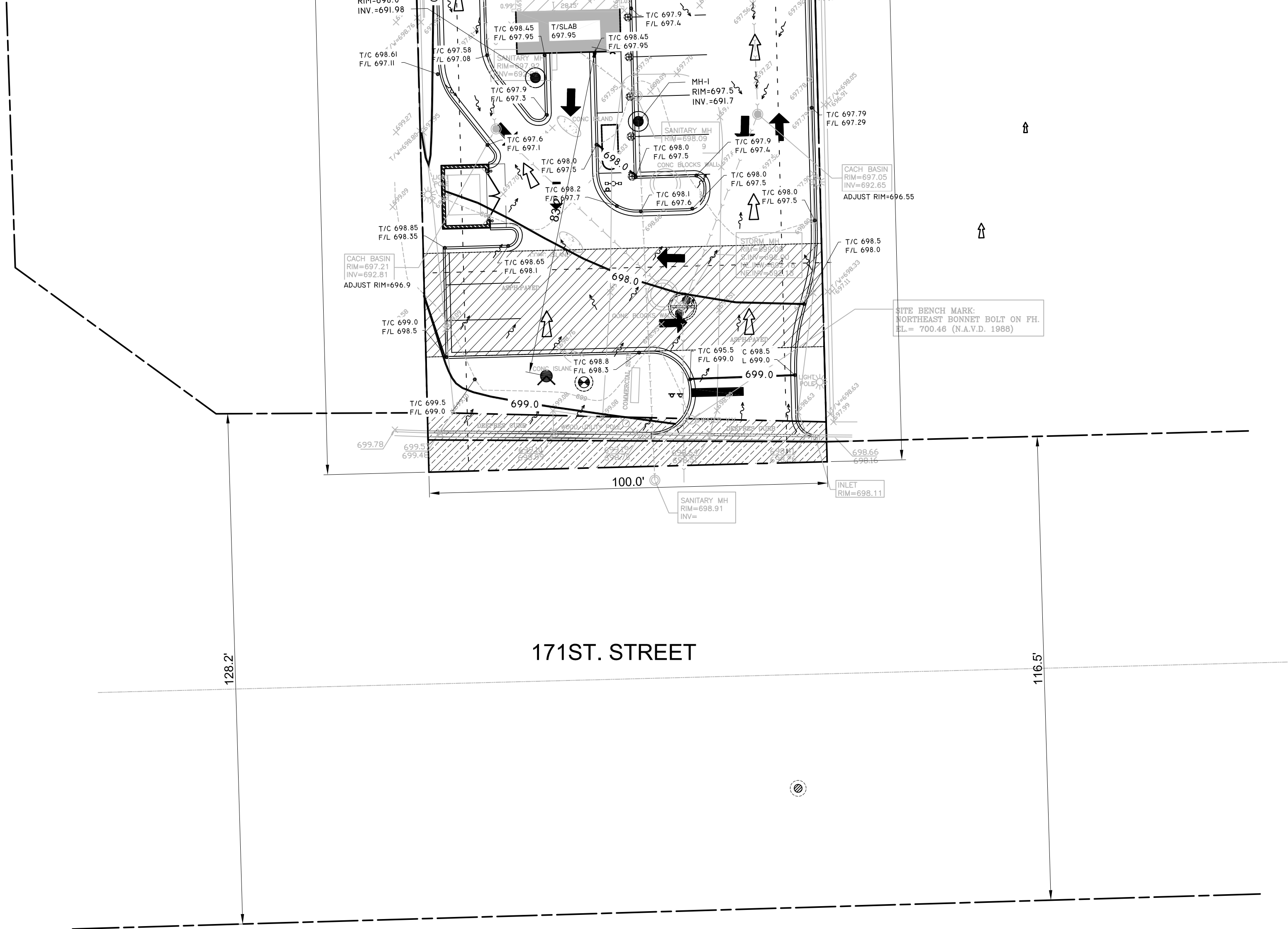
DEMOLITION NOTES:

THE EXTENT OF DEMOLITION WORK IS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN AND INCLUDES, BUT IS NOT LIMITED TO:

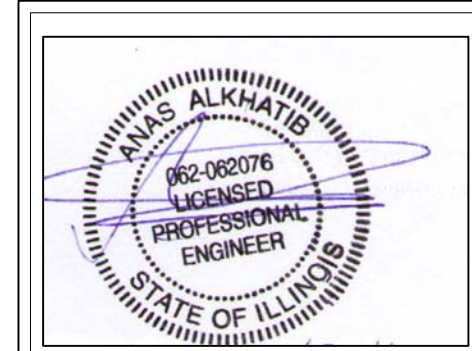
1. REMOVAL OF ALL UTILITIES, OVERHEAD LINES AND POLES, PAVING, VEGETATION AND OTHER SITE FEATURES WHICH CONFLICT WITH THE CONSTRUCTION OF THE NEW PARKING LOT, OR ARE DESIGNATED TO BE REMOVED.
2. CONDUCT DEMOLITION OPERATIONS AND REMOVAL OF DEBRIS AND SPOILS TO INSURE MINIMAL INTERFERENCE WITH BUILDING OPERATIONS.
3. INSURE SAFE PASSAGE OF PERSONS AROUND AREAS OF DEMOLITION. REMOVE FROM SITE ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM DEMOLITION AND LAWFULLY DISPOSE OF SAME.
4. NOTIFY OWNER 48 HOURS IN ADVANCE OF ANY UTILITY SHUTDOWN.
5. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR ALL ITEMS DESIGNATED TO BE REMOVED OR RELOCATED.
6. IF ANY ITEMS ARE ENCOUNTERED IN THE FIELD THAT ARE NOT SHOWN ON THE PLAN WHICH REQUIRE DEMOLITION OR RELOCATION, THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY.
7. THE SURVEY BASE PROVIDED HEREIN IS FOR INFORMATIONAL PURPOSES ONLY. THE OWNER/ARCHITECT/ENGINEER ARE NOT RESPONSIBLE FOR ANY MISCHARTED OR UNCHARTED UTILITIES, OR OTHER ERRORS DETECTED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL SITE CONDITIONS.
8. THE CONTRACTOR WILL PROTECT ALL UTILITIES DESIGNATED TO REMAIN, ANY DAMAGE BY THE CONTRACTOR TO UTILITIES, ALLEYS, WAYS, STREETS OR ADJACENT PROPERTIES WILL BE REPLACED/REPAIRED AT THE CONTRACTOR'S EXPENSE.
9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ALL EXISTING SERVICES AND APPURTENANCES TO DEMOLISHED SITE FEATURES AND CAP/TERMINATE AS REQUIRED BY THE UTILITY COMPANY. CONTRACTOR SHOULD CONTACT ARCHITECT/ENGINEER IF ANY QUESTION ARISES REGARDING THE VIABILITY OF A UTILITY STRUCTURE.

DEMOLITION PLAN

SCALE 1:20



| | |
|--------------------------|--|
| | PROPOSED WATER SERVICE |
| | PROPOSED STORM SEWER |
| | PROPOSED SANITARY SEWER |
| | PROPOSED PERFORATED PIPE |
| | SILT FENCE |
| | CHAIN LINK CONSTRUCTION FENCE |
| | SEWER MANHOLE |
| | PROPOSED CATCH BASIN |
| | PROPOSED WATER VALVE VAULT |
| | PROPOSED FIRE HYDRANT |
| | INLET FILTER BAG |
| | 5" PCC ON 4" CA-6 CONCRETE SIDEWALK |
| | B-6.12 CURB AND GUTTER |
| | CONSTRUCTION ENTRANCE |
| | EXISTING BUILDING |
| | ACCESSES EASEMENT |
| | AREA DEDICATED TO ROW |
| T/C 595.35 F/L 594.85 | TOP OF CURB ELEVATION FLOW LINE OF GUTTER ELEVATION |
| 597.15 | SPOT ELEVATION |
| | OVERLAND OVERFLOW ROUTE |
| EXISTING LEGEND | |
| | WOOD UTILITY POLE |
| | SANITARY MANHOLE |
| | LIGHT POLE |
| | CATCH BASIN |
| | STORM SEWER |
| | SANITARY SEWER |



| | | |
|---|------------|-----------------------|
| △ | DATE | DRAWING ISS |
| 1 | 06-14-2023 | PER THE VILLAGE COMME |
| 2 | 08-31-2023 | PER THE VILLAGE COMME |

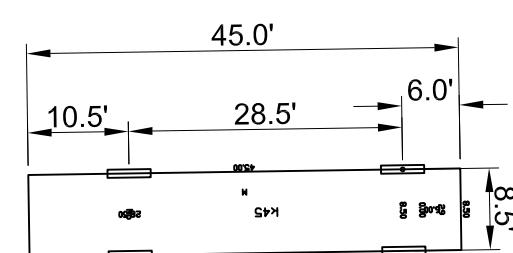
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|---------------------------|-----------------------------|
| DATE STARTED: 08-14-22 | DRAWN BY: Khaled mansour |
| JOB NO: | FILE NO: |

C-1.0

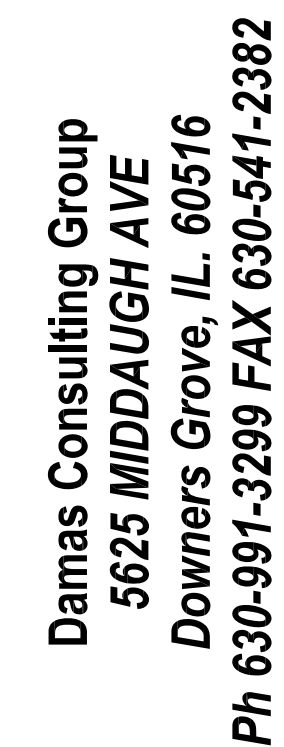
Damas Consulting Group
5625 MIDDGAUGH AVE
Downers Grove, IL. 60516
Ph 630-991-3299 FAX 630-541-

GRADING PLAN

SCALE 1:20



SCALE 1:20

[illegible]

PROJECT AT: 7130 17IS ST, TINLEY PARK, IL 60477

| | |
|---------------------------|-----------------------------|
| DATE STARTED: 08-14-22 | DRAWN BY: Khaled mansour |
| JOB NO: | FILE NO: |

SHEET NO:

C-2.1



LEGEND

- PROPOSED WATER SERVICE
- PROPOSED STORM SEWER
- PROPOSED SANITARY SERVICE
- PROPOSED PERFORATED PIPE
- SILT FENCE
- CHAIN LINK CONSTRUCTION FENCE
- SEWER MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED WATER VALVE VAULT
- PROPOSED FIRE HYDRANT
- INLET FILTER BAG
- 5" PCC ON 4" CA-6 CONCRETE SIDEWALK
- B-6.12 CURB AND GUTTER
- CONSTRUCTION ENTRANCE
- EXISTING BUILDING
- ACCESSES EASEMENT
- AREA DEDICATED TO ROW
- T/C 595.35
F/L 594.85
- 597.15
- TOP OF CURB ELEVATION
- FLOW LINE OF GUTTER ELEVATION
- SPOT ELEVATION
- OVERLAND OVERFLOW ROUTE
- EXISTING LEGEND
- WOOD UTILITY POLE
- SANITARY MANHOLE
- LIGHT POLE
- CATCH BASIN
- STORM SEWER
- SANITARY SEWER

PROPOSED CONDITION

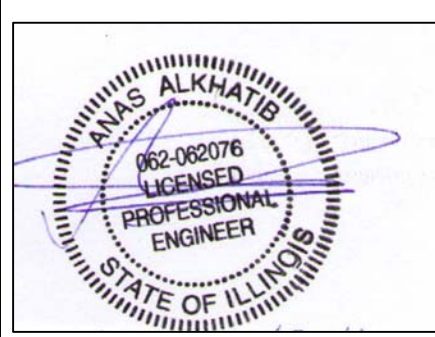
| | |
|------------------------------------|-----------|
| TOTAL DISTURBED AREA | 29,342 SF |
| BUILDING FOOTPRINT (CN=98) | 3329.0 SF |
| ASPHALT (CN=98) | 11,826 SF |
| CONCRETE WALKWAYS PAVEMENT (CN=98) | 1,130 SF |
| CONCRETE CURB AND GUTTER(CN=98) | 1,743 SF |
| PERMEABLE PAVERS | 2,516 SF |
| GRASS (CN=74) | 8,253 SF |
| IMPERVIOUS AREA | 18,028 SF |

PERCENTAGE PROPOSED LOT COVER=(18,028/ 29,342)X100=61.4%

SITE PLAN WITH AERIAL

SCALE 1:20

Damas Consulting Group
5625 MIDDLEDAUGH AVE
Downers Grove, IL, 60516
Ph 630-991-3299 FAX 630-541-2382



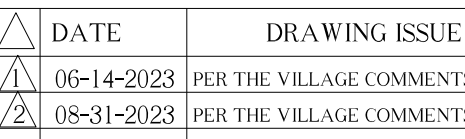
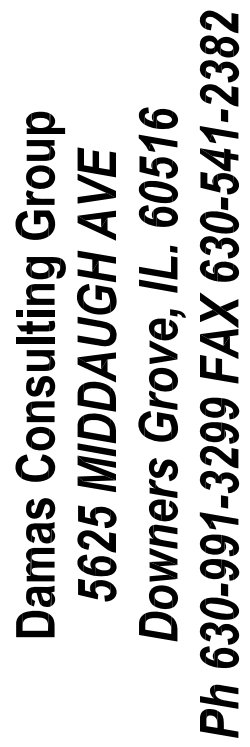
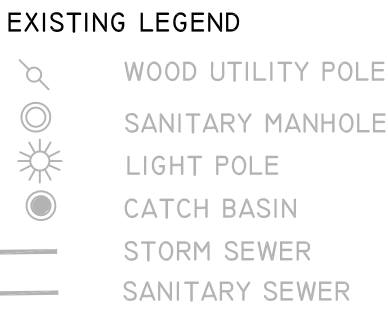
| DATE | DRAWING ISSUE |
|------------|--------------------------|
| 06-14-2023 | PER THE VILLAGE COMMENTS |
| 08-31-2023 | PER THE VILLAGE COMMENTS |

PROJECT AT: 7130 171S ST, TINLEY PARK, IL 60477

| | |
|--------------------------------------|---|
| DATE STARTED: 08-14-22 JOB NO: | DRAWN BY: Khaled mansour FILE NO: |
|--------------------------------------|---|

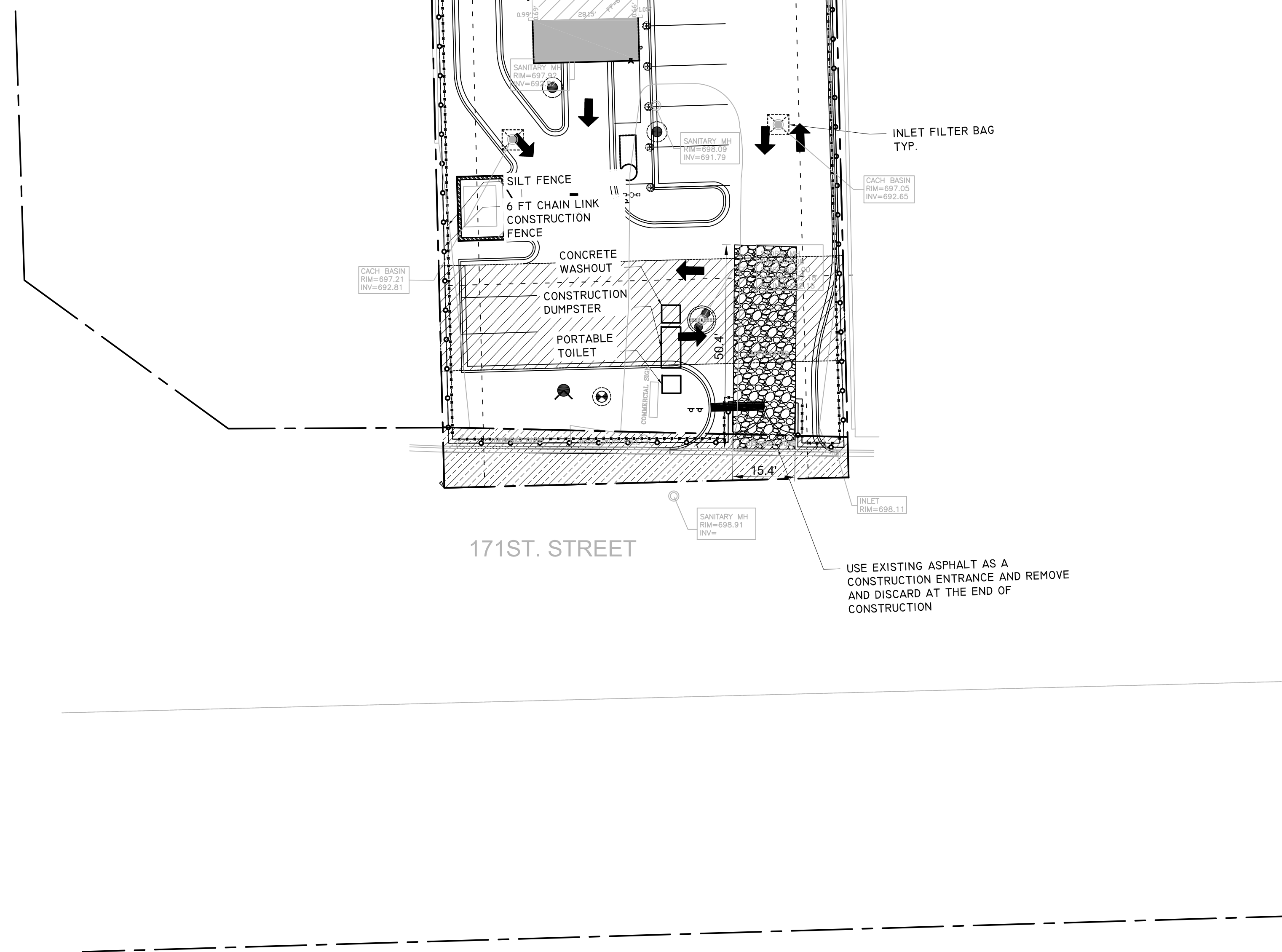
SHEET NO:

C-2.2

[illegible]

| | |
|---------------|----------------|
| DATE STARTED: | DRAWN BY: |
| 08-14-22 | Khaled mansour |
| JOB NO: | FILE NO: |

C-3.0



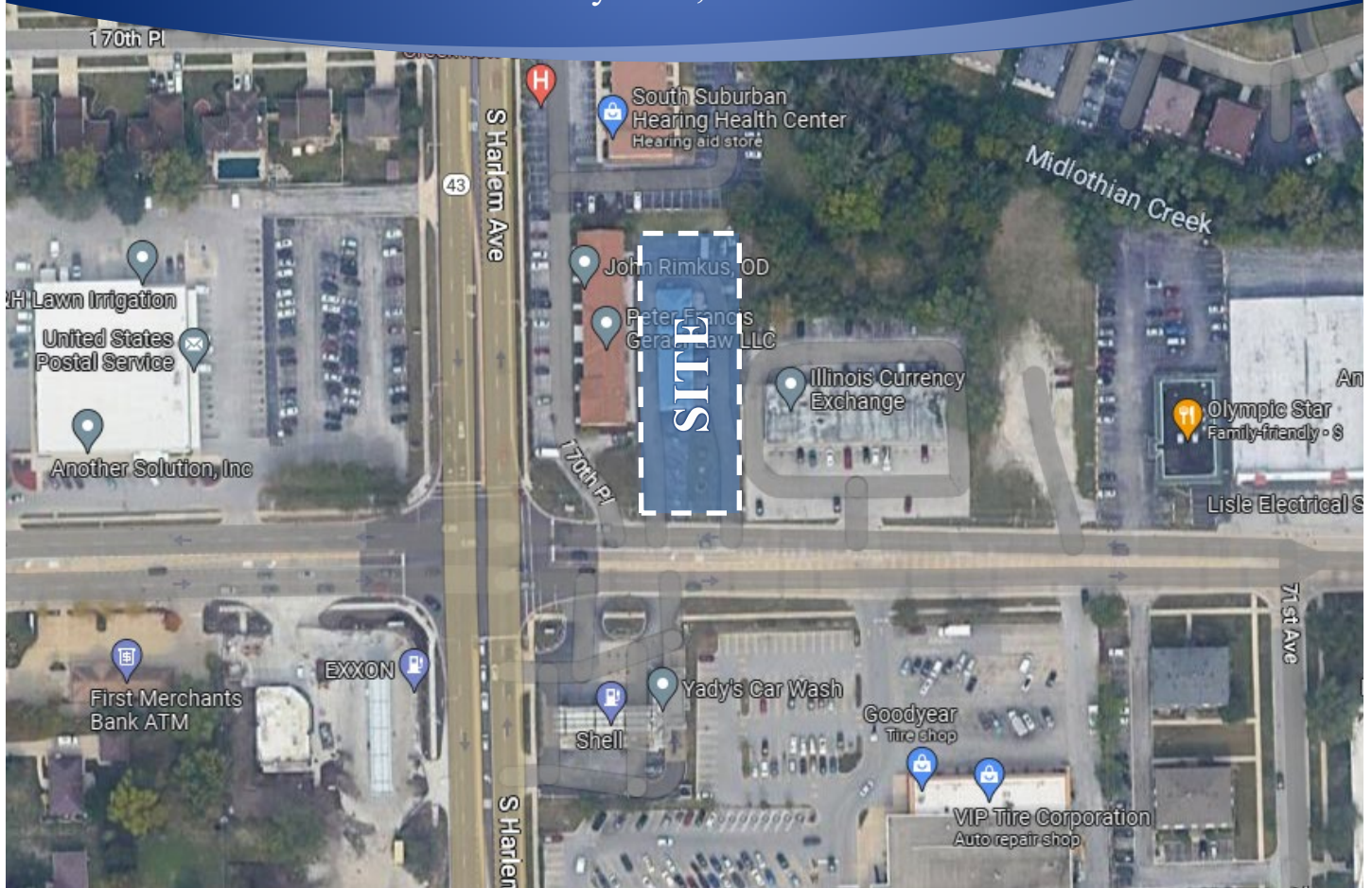
SHEET NO:

C-4.0

A circular professional engineer seal for the State of Illinois. The outer ring contains the text "AL KHATIB" at the top and "STATE OF ILLINOIS" at the bottom. The inner circle contains the text "062-082076", "LICENSED", and "PROFESSIONAL ENGINEER" arranged vertically. A blue ink signature is written across the seal.

Traffic Impact Study Proposed Car Wash

Tinley Park, Illinois



Prepared For:

Tinley Park Properties, LLC



September 15, 2023

1. Introduction

This report presents the methodologies, findings, and recommendations of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for the proposed car wash to be located at 7130 171st Street in Tinley Park, Illinois. The site, which is currently occupied by a self-service car wash, will be redeveloped to contain a tunnel car wash with 12 parking spaces of which eight will be regular vacuum stalls, one will be an accessible parking space, and the rest will be used as employee parking. Access to the proposed car wash will be provided via the existing east access drive off 171st Street.

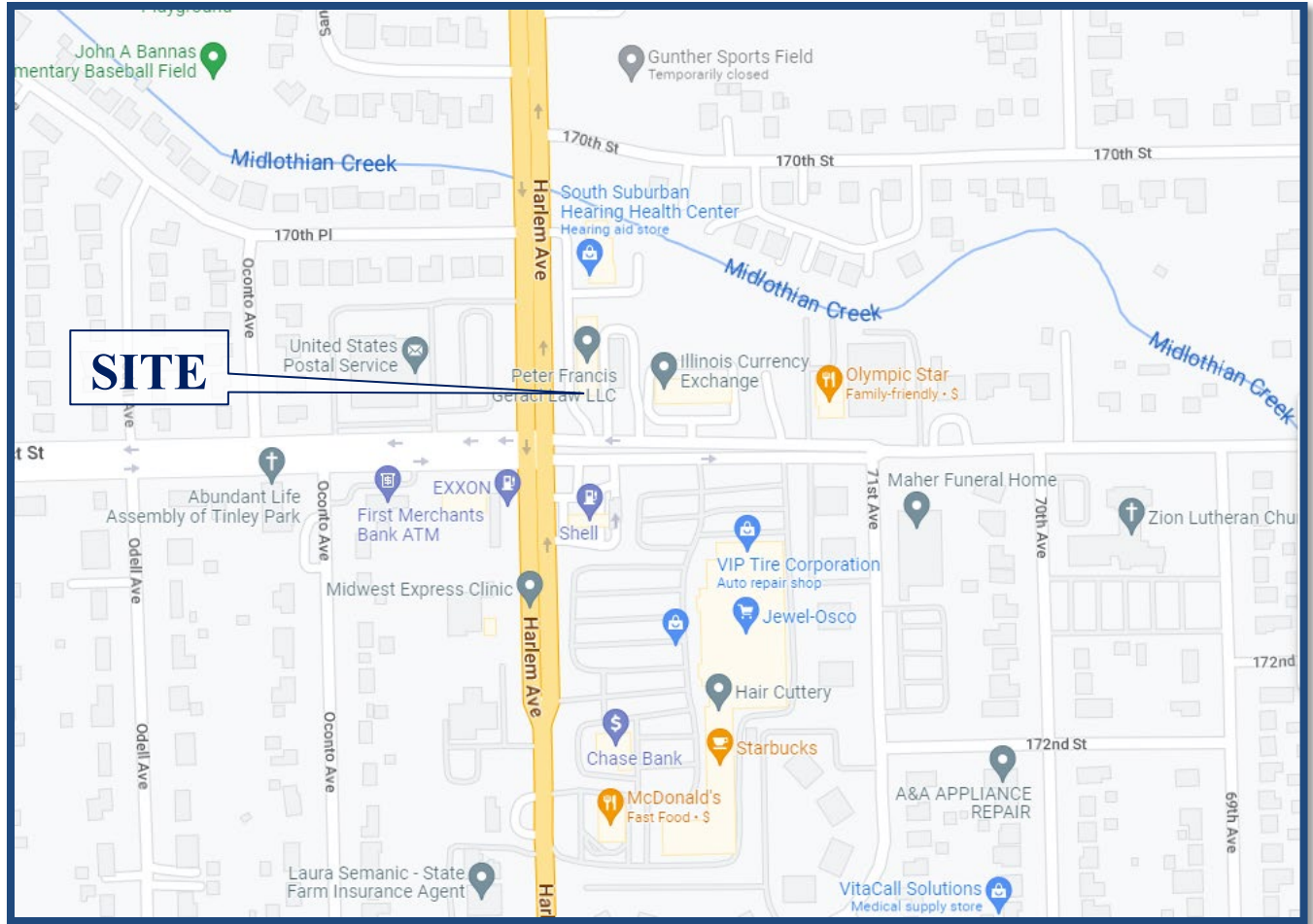
The purpose of this study was to examine background traffic conditions, assess the impact that the proposed car wash will have on traffic conditions in the area, and determine if any roadway or access improvements are necessary to accommodate traffic generated by the proposed car wash. **Figure 1** shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site.

The sections of this report present the following:

- Existing roadway conditions
- A description of the proposed facility
- Directional distribution of the facility traffic
- Vehicle trip generation for the facility
- Future traffic conditions including access to the facility
- Traffic analyses for the weekday morning, weekday evening, and Saturday midday peak hours
- Operation and stacking of the facility
- Recommendations with respect to adequacy of the site access and adjacent roadway system

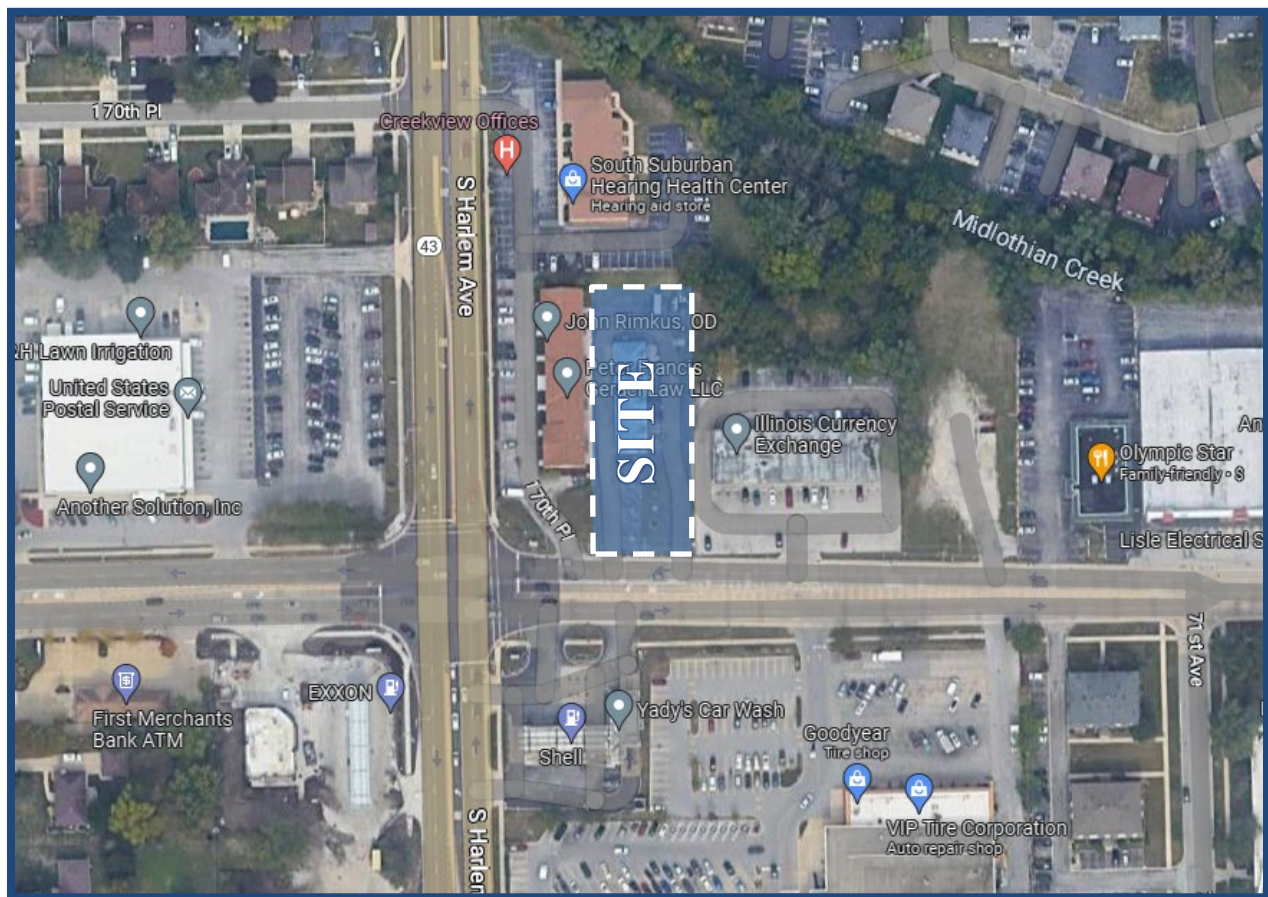
Traffic capacity analyses were conducted for the weekday morning, weekday evening, and Saturday midday peak hours for the following conditions:

1. Existing Conditions – Analyzes the capacity of the existing roadway system using existing peak hour traffic volumes in the surrounding area.
2. No-Build Conditions – Analyzes the capacity of the existing roadway system using the ambient area growth not attributable to any particular development and any additional developments not associated with the proposed development.
3. Projected Conditions – Analyzes the capacity of the future roadway system using the traffic volumes that include the existing traffic volumes, ambient area growth not attributable to any particular development, and the traffic estimated to be generated by the proposed facility.



Site Location

Figure 1



Aerial View of Site

Figure 2

2. Existing Conditions

Existing transportation conditions were documented based on field visits conducted by KLOA, Inc. in order to obtain a database for projecting future conditions. The following provides a description of the geographical location of the site, physical characteristics of the area roadway system including lane usage and traffic control devices, and existing peak hour traffic volumes.

Site Location

The site is located at 7130 171st Street in Tinley Park, Illinois. This site is currently occupied by a self-service car wash. Land uses in the vicinity of the site are commercial and residential. Commercial land uses include Tinley Park Dental Care and Peter Francis Geraci Law LLC to the west, Illinois Currency Exchange and Dragon Palace restaurant to the east, Shell fuel center and Goodyear tire shop to the south, and South Suburban Hearing Health Center to the north.

Existing Roadway System Characteristics

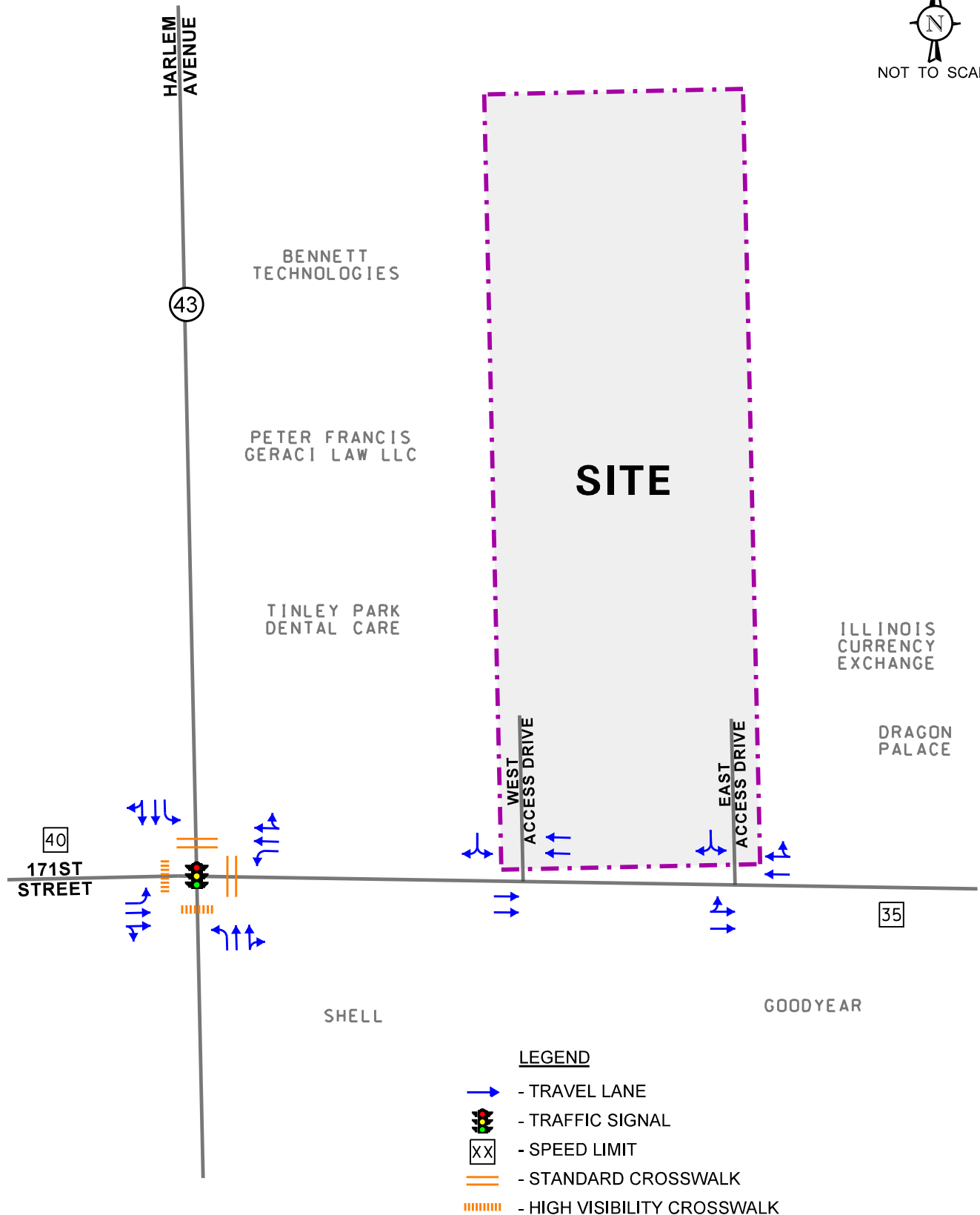
The characteristics of the adjacent roadways and access drives within the study area are described below and illustrated in **Figure 3**.

Harlem Avenue (IL Route 43) is a north-south arterial roadway that in the vicinity of the site provides two through lanes in each direction separated by a raised barrier median. At its signalized intersection with 171st Street, Harlem Avenue provides an exclusive left-turn lane, a through lane and a shared through/right-turn lane on the northbound and southbound approaches. Standard style crosswalks are provided on the north and east legs and high visibility crosswalks are provided on the south and west legs of this intersection. Pedestrian signals are provided on all the legs on the intersection. Harlem Avenue is under the jurisdiction of the Illinois Department of Transportation (IDOT), is classified as a Strategic Regional Arterial (SRA) route, carries an annual average daily traffic (AADT) volume of 27,100 vehicles (IDOT 2021) north of 171st Street and 29,800 vehicles (IDOT 2021) south of 171st Street and has a posted speed limit of 40 miles per hour.

171st Street is an east-west collector roadway that in the vicinity of the site provides two through lanes in each direction separated by a mountable/striped median. At its signalized intersection with Harlem Avenue, 171st Street provides an exclusive left-turn lane, a through lane and a shared through/right-turn lane on the eastbound and westbound approaches. At its unsignalized intersection with the west access drive, 171st Street provides two through lanes on the eastbound and westbound approaches. At its unsignalized intersection with the east access drive, 171st street provides a through lane and a shared left-turn/through lane on the eastbound approach and a through lane and a shared through/right-turn lane on the westbound approach. West of Harlem Avenue, 171st Street is under the jurisdiction of the Cook County Department of Transportation and Highways (CCDOH), carries an AADT volume of 16,000 vehicles (IDOT AADT 2018) and has a posted speed limit of 40 miles per hour. East of Harlem Avenue, 171st Street is under the jurisdiction of the Village of Tinley Park, carries an AADT volume of 11,800 vehicles (IDOT AADT 2018), and has a posted speed limit of 35 miles per hour.



NOT TO SCALE



Car Wash
Tinley Park, Illinois

Existing Roadway Characteristics



Job No: 23-059

Figure: 3

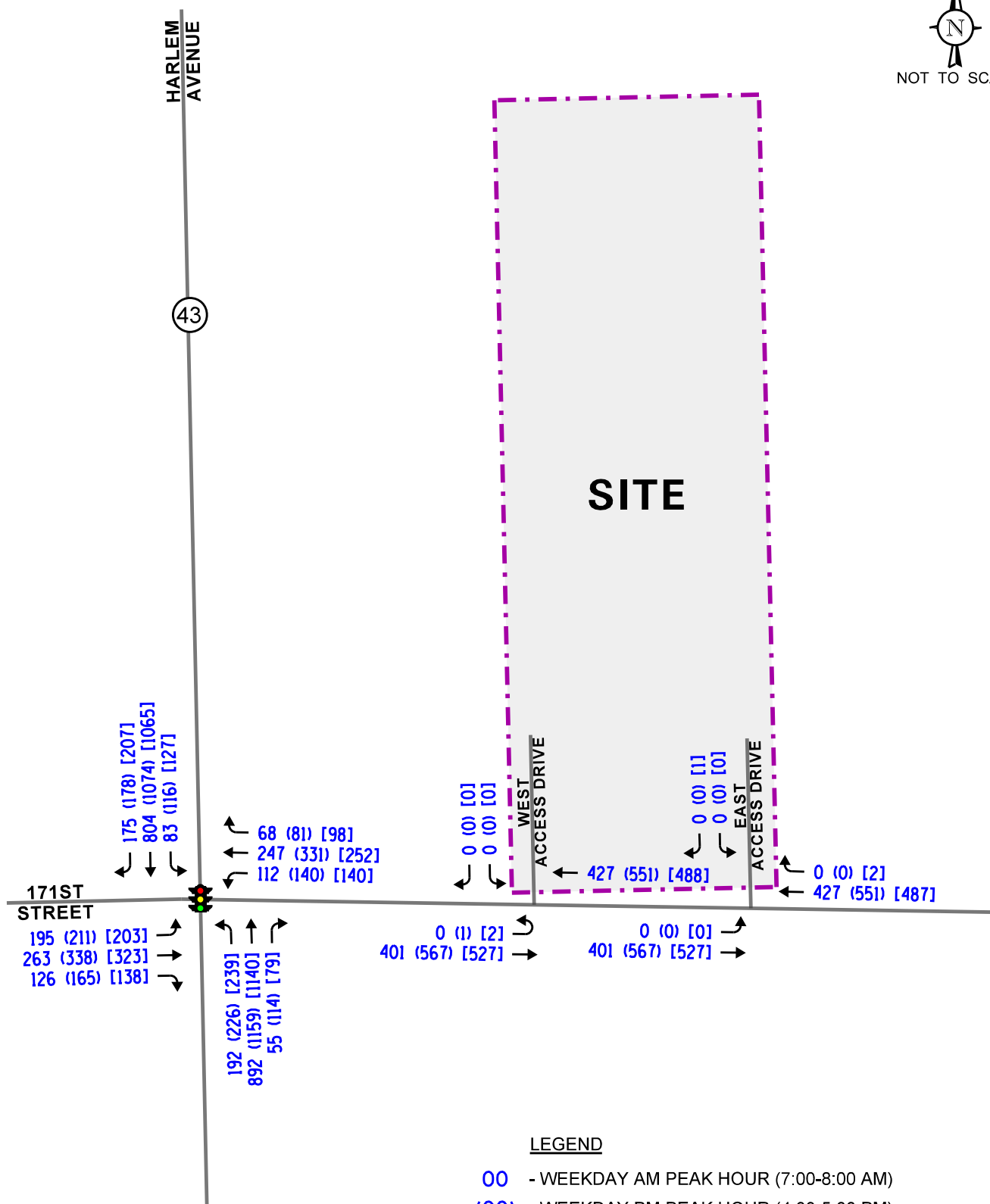
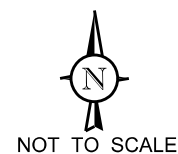
Existing Traffic Volumes

In order to determine current traffic conditions in the vicinity of the site, KLOA, Inc. conducted peak period vehicle, pedestrian, and bicycle movement traffic counts on Thursday, March 16, 2023 during the weekday morning (7:00 to 9:00 A.M.) and weekday evening (4:00 to 6:00 P.M.) peak periods and on Saturday, March 18, 2023 during the midday (11:30 A.M. to 2:00 P.M.) peak period at the following intersections:

- Harlem Avenue with 171st Street
- 171st Street with the East access drive
- 171st Street with the West access drive

The results of the traffic counts showed that the weekday morning peak hour of traffic generally occurs from 7:00 A.M. to 8:00 A.M., the weekday evening peak hour of traffic generally occurs from 4:00 P.M. to 5:00 P.M., and the Saturday midday peak hour of traffic generally occurs from 11:15 P.M. to 12:15 P.M.

Figure 4 illustrates the existing traffic volumes. Copies of the traffic count summary sheets are included in the Appendix.



LEGEND

- 00** - WEEKDAY AM PEAK HOUR (7:00-8:00 AM)
- (00)** - WEEKDAY PM PEAK HOUR (4:00-5:00 PM)
- [000]** - SATURDAY MIDDAY PEAK HOUR (11:15 AM-12:15 PM)

Crash Data Summary

KLOA, Inc. obtained crash data¹ for the most recent available past five years (2017 to 2021) for the intersection of Harlem Avenue with 171st Street. The crash data is summarized in **Table 1**. During the surveyed period, no fatal crashes were reported at this during the surveyed period.

Table 1
HARLEM AVENUE WITH 171ST STREET– CRASH SUMMARY

| Year | Type of Crash Frequency | | | | | | | |
|----------------|-------------------------|----------------|----------------|------------|----------------|------------|-----------|-------------|
| | Angle | Head On | Object | Rear End | Sideswipe | Turning | Other | Total |
| 2017 | 1 | 1 | 0 | 4 | 1 | 6 | 0 | 13 |
| 2018 | 0 | 0 | 1 | 6 | 0 | 7 | 0 | 14 |
| 2019 | 1 | 0 | 0 | 9 | 0 | 4 | 0 | 14 |
| 2020 | 1 | 0 | 1 | 6 | 0 | 7 | 0 | 15 |
| 2021 | 6 | 0 | 0 | 10 | 0 | 0 | 0 | 16 |
| Total | 9 | 1 | 2 | 35 | 1 | 24 | 0 | 72 |
| Average | 1.8 | <1.0 | <1.0 | 7.0 | <1.0 | 4.8 | -- | 14.4 |

¹ IDOT DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation. Any conclusions drawn from analysis of the aforementioned data are the sole responsibility of the data recipient(s). Additionally, for coding years 2015 to present, the Bureau of Data Collection uses the exact latitude/longitude supplied by the investigating law enforcement agency to locate crashes. Therefore, location data may vary in previous years since data prior to 2015 was physically located by bureau personnel.

3. Traffic Characteristics of the Proposed Car Wash

To properly evaluate future traffic conditions in the surrounding area, it was necessary to determine the traffic characteristics of the proposed car wash, including the directional distribution and volumes of traffic that it will generate.

Proposed Site and Car Wash Plan

As proposed, the site will be redeveloped to provide an automatic car wash tunnel and 12 parking spaces, eight of which will be regular vacuum parking spaces and one will be an accessible parking space, the rest will be used as employee parking. Access to the proposed car wash will be provided via the existing east access drive which is located approximately 240 feet east of Harlem Avenue. This access drive will provide one inbound lane and one outbound lane with the outbound movements under stop sign control.

A copy of the preliminary site plan is included in the Appendix.

Car Wash Operations and Circulation

The car wash tunnel building will replace the existing self-service car wash building in the center of the site, oriented north-south. The vacuum stalls will be located on the east side of the car wash building.

Vehicles will enter the site from the access drive and continue north towards the three paying stations which will be located north of the vacuum stalls. After paying at the pay stations, the cars will merge to create a single queue to enter the tunnel carwash making a left-turn. The entrance of the tunnel will be located on the north side of the car wash tunnel. An emergency exit lane is proposed to be provided before the entrance to the car wash. Vehicles will enter the car wash facing south, proceed through the car wash, and exit on the south end of the building. Vehicles will turn left to reach the vacuum stalls or exit the site on 171st Street.

Car Wash Stacking

According to the site plan, there will be stacking for an approximately nine vehicles to queue before the pay stations without blocking the vacuum stalls. In addition, there will be stacking for approximately 10 vehicles between the pay stations and the entrance to the tunnel. As such, the plan provides stacking for a total of approximately 19 vehicles from the drive aisle to the entrance to the tunnel. A stacking exhibit is included in the Appendix.

Car Wash Wayfinding and Traffic Control Signage

The following wayfinding and traffic control signage is recommended:

- Wayfinding signage should be posted to guide vehicles to the respective car wash stacking area to minimize vehicle turning movements within the internal site circulation area.
- Wayfinding signage should be posted at the exit of the car wash tunnel to direct vehicles exiting the car wash to either the vacuum stalls or the access drive to exit.
- A “Do Not Enter” sign should be posted at the exit of the car wash tunnel to deter opposing traffic from entering the car wash tunnel from the one-way exit direction.

Vacuum stalls

The nine vacuum stalls will be located on the east side of the car wash tunnel of which one will be accessible parking space. A two-way drive aisle will be provided, allowing flexibility for vehicles to access the vacuum stalls before or after the car wash. Vehicles exiting the vacuum stalls will utilize the two-way drive aisle to exit the site at the access drive.

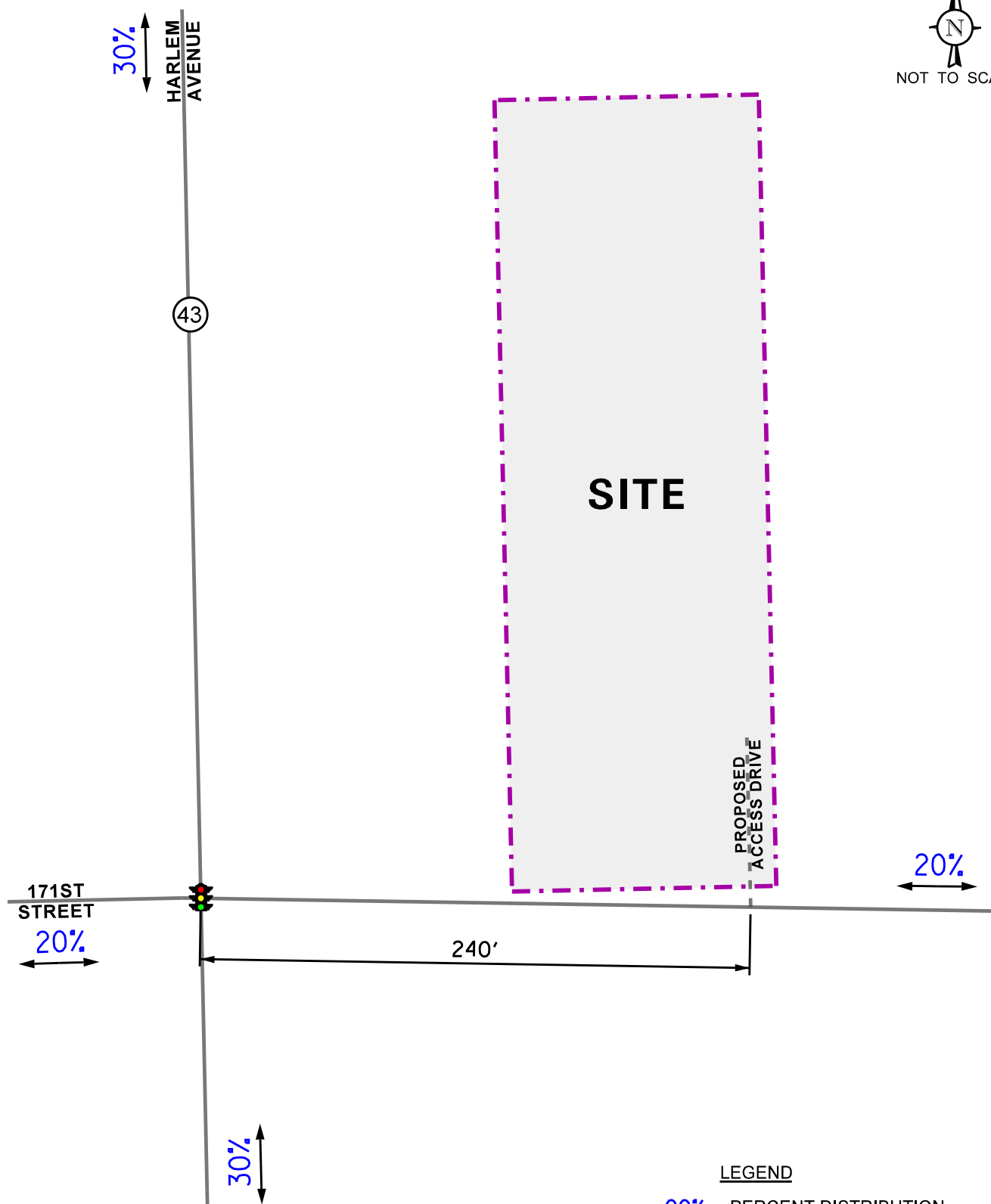
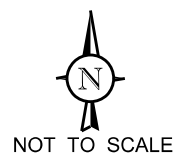
Peak Day Operations

Typical of any car wash, its peak operations (design day) typically occur after a weather event such as a snowfall or a rain event. Based on historical data from other car washes, this typically occurs 12 to 15 times per year. When this peak demand occurs, the following operational procedures should be implemented:

- Increase the service rate of the tunnel to the maximum it can process.
- Increase stacking on site via three queue lanes which will increase stacking to 33 vehicles. Access to the vacuum stalls during these periods will be limited. A copy of the stacking exhibit is included in the Appendix.
- Provide staff at critical locations within the circulation system during peak periods at the car wash to help direct and manage the flow of traffic through the site. Critical internal locations where staff should be located include at the pay stations and at the exit of the car wash.

Directional Distribution of Site Traffic

The directions from which traffic will approach and depart the site were estimated based on existing travel patterns and road types, as determined from the traffic counts. **Figure 5** illustrates the directional distribution of vehicles to/from the proposed car wash.



LEGEND

- 00% - PERCENT DISTRIBUTION
- 00' - DISTANCE IN FEET

Car Wash
Tinley Park, Illinois

Directional Distribution



Job No: 23-059

Figure: 5

Facility-Generated Traffic Volumes

The number of peak hour trips estimated to be generated by the proposed car wash was based on vehicle trip generation rates contained in *Trip Generation Manual*, 11th Edition, published by the Institute of Transportation Engineers (ITE). The “Automated Car Wash” (Land-Use Code 948) rate was utilized for the proposed car wash tunnel.

It is important to note that surveys conducted by ITE have shown that a considerable number of trips made to car washes are diverted from the existing traffic on the roadway system. This is particularly true during the weekday morning and evening peak hours when traffic is diverted from the home-to-work and work-to-home trips. Such diverted trips are referred to as pass-by traffic. However, in order to present a worst-case scenario, no reduction in the site-generated traffic was taken into account.

The ITE Manual does not provide data for the morning peak hour for an automated car wash. For the purposes of the evaluation, it was assumed to be approximately one-third of the weekday evening peak hour trip generation.

Table 2 summarizes the estimated peak hour trips. A copy of the ITE trip generation sheets is included in the Appendix.

Table 2

CAR WASH ESTIMATED PEAK HOUR TRAFFIC VOLUMES

| ITE Land- Use Code | Type | Weekday Morning Peak Hour | | | Weekday Evening Peak Hour | | | Saturday Midday Peak Hour | | |
|-----------------------------|------------------------|------------------------------|-----|-------|------------------------------|-----|-------|------------------------------|-----|-------|
| | | In | Out | Total | In | Out | Total | In | Out | Total |
| 948 | Car Wash (1 tunnel) | 13 | 13 | 26 | 39 | 39 | 78 | 19 | 22 | 41 |

4. Projected Traffic Conditions

The total projected traffic volumes include the existing traffic volumes, increase in background traffic due to growth, and the traffic estimated to be generated by the proposed car wash.

Car Wash Traffic Assignment

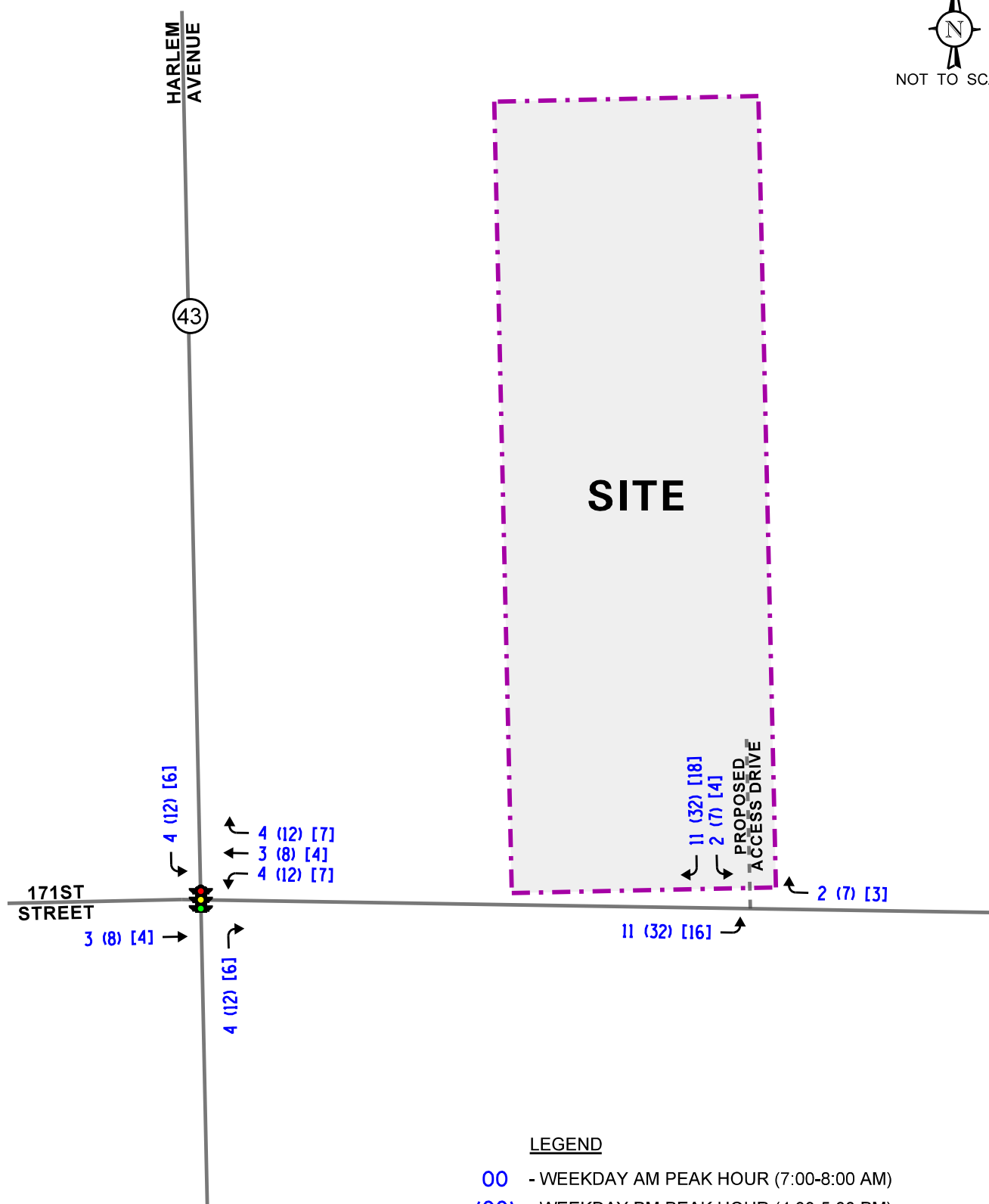
The estimated weekday morning, weekday evening, and Saturday midday peak hour traffic volumes that will be generated by the proposed car wash were assigned to the roadway system in accordance with the previously described directional distribution (Figure 5). The traffic assignment for the car wash is illustrated in **Figure 6**.

Background (No-Build) Traffic Conditions

The existing traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any particular planned development). Based on Year 2050 projections provided by the Chicago Metropolitan Agency for Planning (CMAP) in a letter, an increase of 0.73 percent per year over six years (buildout year plus five years) for a total of 4.0 percent was applied to the existing traffic volumes to determine the projected Year 2029 no-build traffic volumes. **Figure 7** illustrates the Year 2029 no-build traffic conditions. A copy of the CMAP 2050 projections letter is included in the Appendix.

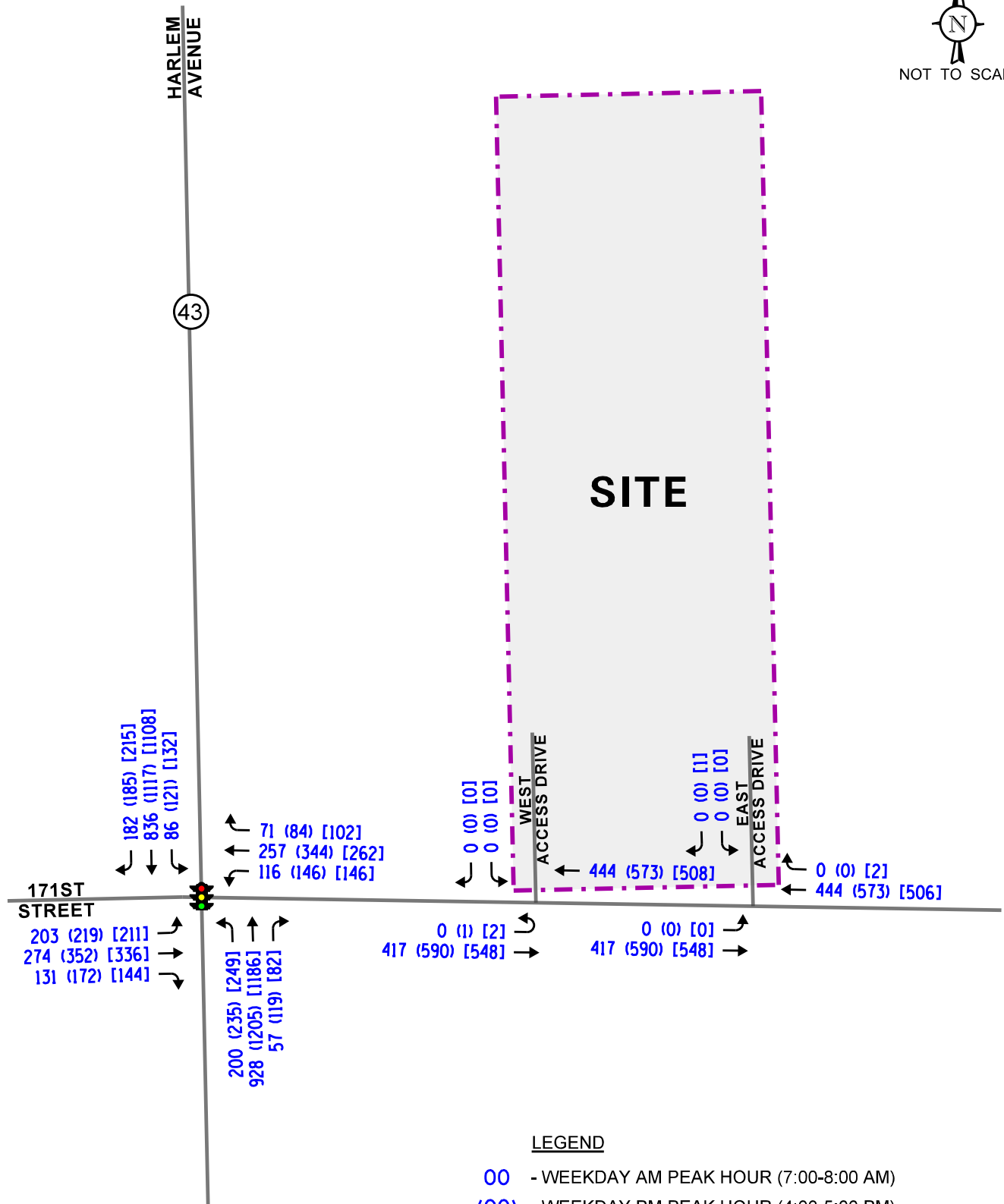
Year 2029 Total Projected Traffic Volumes

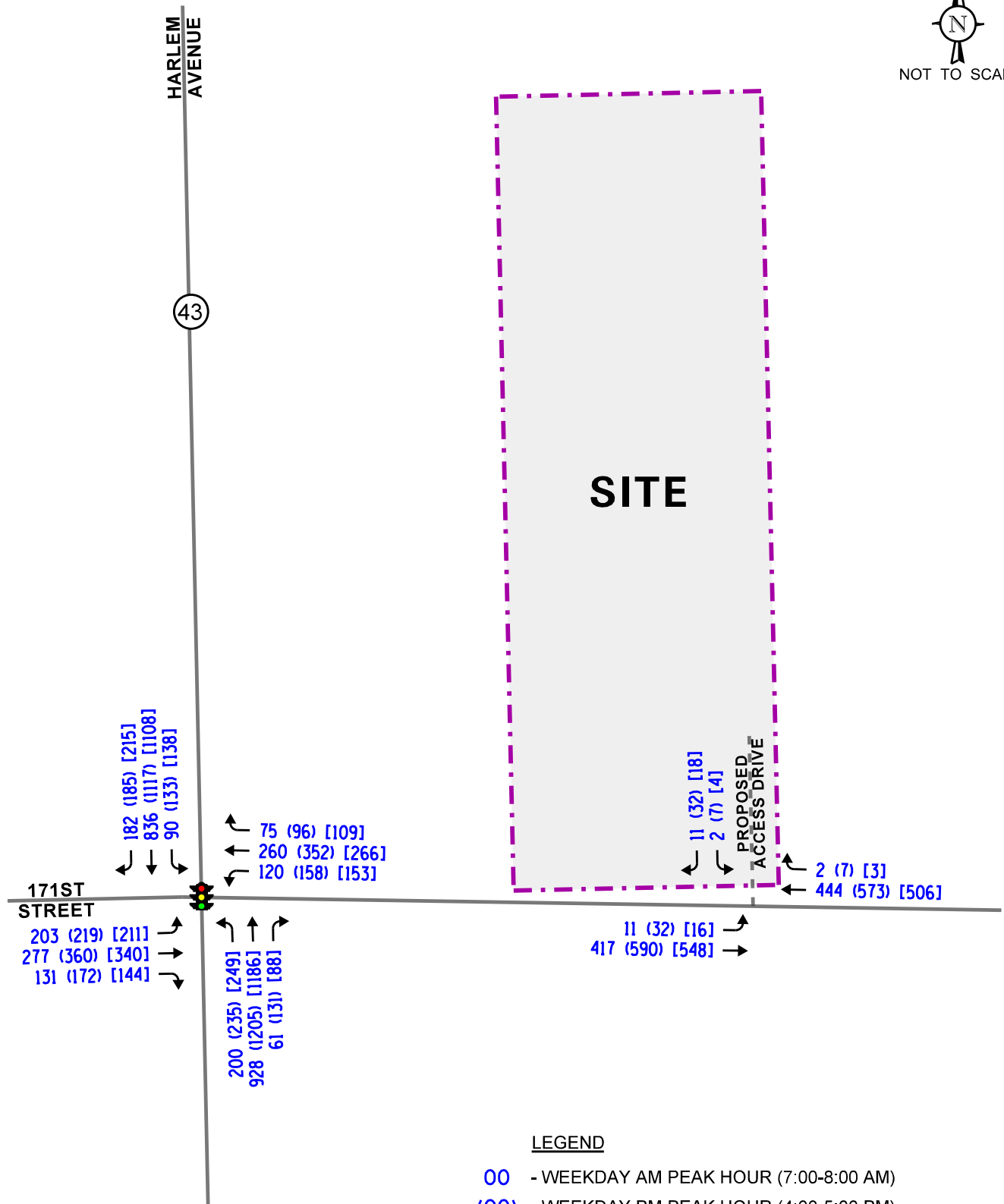
The Year 2029 total projected traffic volumes include the no-build traffic volumes (Figure 7) and the traffic estimated to be generated by the proposed car wash (Figure 6). **Figure 8** shows the Year 2029 total projected traffic volumes.



LEGEND

- 00 - WEEKDAY AM PEAK HOUR (7:00-8:00 AM)
- (00) - WEEKDAY PM PEAK HOUR (4:00-5:00 PM)
- [00] - SATURDAY MIDDAY PEAK HOUR (11:15 AM-12:15 PM)





LEGEND

- 00 - WEEKDAY AM PEAK HOUR (7:00-8:00 AM)
- (00) - WEEKDAY PM PEAK HOUR (4:00-5:00 PM)
- [00] - SATURDAY MIDDAY PEAK HOUR (11:15 AM-12:15 PM)

5. Traffic Analysis and Recommendations

The following provides an evaluation conducted for the weekday morning, weekday evening, and Saturday midday peak hours. The analysis includes conducting capacity analyses to determine how well the roadway system and access drives currently operate and are projected to operate and whether any roadway improvements or modifications are required.

Traffic Analyses

Roadway and adjacent or nearby intersection analyses were performed for the weekday morning, weekday evening, and Saturday midday peak hours for the existing and Year 2029 no-build and total conditions.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual* (HCM), 6th Edition and analyzed using Synchro/SimTraffic 11 software. The analysis for the traffic-signal controlled intersections were accomplished using actual phasings to determine the average overall vehicle delay and levels of service.

The analyses for the unsignalized intersections determine the average control delay to vehicles at an intersection. Control delay is the elapsed time from a vehicle joining the queue at a stop sign (includes the time required to decelerate to a stop) until its departure from the stop sign and resumption of free flow speed. The methodology analyzes each intersection approach controlled by a stop sign and considers traffic volumes on all approaches and lane characteristics.

The ability of an intersection to accommodate traffic flow is expressed in terms of level of service, which is assigned a letter from A to F based on the average control delay experienced by vehicles passing through the intersection. The *Highway Capacity Manual* definitions for levels of service and the corresponding control delay for signalized intersections and unsignalized intersections are included in the Appendix of this report.

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the existing and Year 2029 no-build and total conditions are presented in **Tables 3** through **6**. A discussion of each intersection follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 3

CAPACITY ANALYSIS RESULTS –HARLEM AVENUE WITH 171ST STREET– SIGNALIZED

| | Peak Hour | Eastbound | | Westbound | | Northbound | | Southbound | | Overall |
|--|-----------------|-----------|-----------|-----------|-----------|------------|-----------|------------|-----------|-----------|
| | | L | T/R | L | T/R | L | T/R | L | T/R | |
| Existing Conditions | Weekday Morning | D 39.0 | D 49.0 | C 32.8 | D 54.0 | B 19.6 | C 23.0 | B 12.9 | C 27.3 | C 31.3 |
| | | D – 45.7 | | D – 48.4 | | C – 22.5 | | C – 26.2 | | |
| | Weekday Evening | D 55.0 | E 71.9 | D 46.7 | E 66.7 | D 44.7 | C 28.7 | B 19.6 | D 36.3 | D 42.6 |
| | | E – 66.9 | | E – 61.7 | | C – 31.1 | | C – 34.9 | | |
| | Saturday Midday | D 48.2 | E 63.7 | D 44.5 | E 58.7 | E 66.9 | C 26.8 | C 21.2 | D 36.6 | D 40.8 |
| | | E – 59.0 | | D – 54.6 | | C – 33.4 | | D – 35.2 | | |
| Year 2029 No-Build Conditions | Weekday Morning | D 39.7 | D 48.9 | C 32.7 | D 53.9 | C 24.2 | C 25.0 | B 13.9 | C 29.0 | C 32.8 |
| | | D – 45.8 | | D – 48.4 | | C – 24.9 | | C – 27.9 | | |
| | Weekday Evening | E 57.6 | E 74.4 | D 48.3 | E 67.4 | E 58.1 | C 30.8 | C 24.3 | D 39.1 | D 45.6 |
| | | E – 69.5 | | E – 62.5 | | C – 34.9 | | D – 37.9 | | |
| | Saturday Midday | D 50.2 | E 64.3 | D 45.8 | E 58.8 | E 75.5 | C 28.3 | C 27.3 | D 39.9 | D 43.3 |
| | | E – 60.0 | | E – 55.1 | | D – 36.0 | | D – 38.7 | | |
| Year 2029 Projected Conditions | Weekday Morning | D 39.5 | D 48.7 | C 32.8 | D 53.8 | C 24.8 | C 25.5 | B 14.2 | C 29.2 | C 33.0 |
| | | D – 45.7 | | D – 48.3 | | C – 25.4 | | C – 28.0 | | |
| | Weekday Evening | E 58.8 | E 76.5 | D 50.5 | E 68.7 | E 59.4 | C 31.9 | C 29.4 | D 39.5 | D 46.8 |
| | | E – 71.3 | | E – 64.0 | | D – 36.0 | | D – 38.6 | | |
| | Saturday Midday | D 50.7 | E 64.8 | D 47.9 | E 59.3 | E 76.6 | C 28.7 | C 30.8 | D 40.0 | D 43.8 |
| E – 60.5 | | E – 56.0 | | D – 36.5 | | D – 39.2 | | | | |
| Letter denotes Level of Service L – Left Turn R – Right Turn Delay is measured in seconds. T – Through | | | | | | | | | | |

Table 4

UNSIGNALIZED – EXISTING CONDITIONS

| Intersection | Weekday Morning Peak Hour | | Weekday Evening Peak Hour | | Saturday Midday Peak Hour | |
|---|---------------------------|-------|---------------------------|-------|---------------------------|-------|
| | LOS | Delay | LOS | Delay | LOS | Delay |
| 171st Street with West Access Drive¹ | | | | | | |
| • Southbound Approach | A | 0.1 | A | 0.1 | A | 0.1 |
| 171st Street with East Access Drive¹ | | | | | | |
| • Southbound Approach | A | 0.1 | A | 0.1 | A | 9.9 |
| • Eastbound Left-Turn | A | 0.1 | A | 0.1 | A | 0.1 |
| LOS = Level of Service 1 – One-way stop control Delay is measured in seconds. | | | | | | |

Table 5

UNSIGNALIZED – YEAR 2029 NO-BUILD CONDITIONS

| Intersection | Weekday Morning Peak Hour | | Weekday Evening Peak Hour | | Saturday Midday Peak Hour | |
|---|---------------------------|-------|---------------------------|-------|---------------------------|-------|
| | LOS | Delay | LOS | Delay | LOS | Delay |
| 171st Street with West Access Drive¹ | | | | | | |
| • Southbound Approach | A | 0.1 | A | 0.1 | A | 0.1 |
| 171st Street with East Access Drive¹ | | | | | | |
| • Southbound Approach | A | 0.1 | A | 0.1 | B | 10.0 |
| • Eastbound Left-Turn | A | 0.1 | A | 0.1 | A | 0.1 |
| LOS = Level of Service 1 – One-way stop control Delay is measured in seconds. | | | | | | |

Table 6

UNSIGNALIZED – YEAR 2029 TOTAL CONDITIONS

| Intersection | Weekday Morning Peak Hour | | Weekday Evening Peak Hour | | Saturday Midday Peak Hour | |
|---|------------------------------|-------|------------------------------|-------|------------------------------|-------|
| | LOS | Delay | LOS | Delay | LOS | Delay |
| 171st Street with East Access Drive¹ | | | | | | |
| • Southbound Approach | B | 11.2 | B | 12.7 | B | 11.9 |
| • Eastbound Left-Turn | A | 8.6 | A | 8.8 | A | 8.6 |
| LOS = Level of Service 1 – One-way stop control Delay is measured in seconds. | | | | | | |

Discussion and Recommendations

The following summarizes how the intersections are projected to operate and identifies any roadway and traffic control improvements necessary to accommodate the development-generated traffic.

Harlem Avenue with 171st Street

The results of the capacity analysis indicate that the intersection currently operates at Level of Service (LOS) C during the weekday morning peak hour and LOS D during the weekday evening and Saturday midday peak hours. The eastbound and westbound approaches operate at LOS E or better during all three peak hours. The northbound and southbound major approaches operate at LOS D or better during the peak hours.

Under Year 2029 no-build conditions, the intersection is projected to continue operating at LOS C during the weekday morning peak hour and to operate at LOS D during the weekday evening and Saturday midday peak hours with increases in delay of approximately three seconds or less. The eastbound and westbound approaches are projected to operate at LOS E or better during all three peak hours with increases in delay of less than three seconds. The northbound and southbound approaches are projected to operate at LOS D or better during all three peak hours with increases in delay of less than four seconds.

Under Year 2029 total projected conditions, the intersection is projected to continue operating at LOS C during the weekday morning peak hour and at LOS D during the weekday evening and Saturday midday peak hours with increases in delay of less than two seconds over no-build conditions. All the approaches are projected to continue operating at the same levels of service as in no-build conditions during all three peak hours with increases in delay of less than two seconds. The maximum 95th percentile queue for the westbound through lane is projected to be approximately 285 feet and will occur during the weekday evening peak hour. A review of the traffic simulation indicated that the queues will clear the intersection during one cycle. The car wash is only projected to increase traffic traversing the intersection over no-build conditions by less than two percent during the peak hours. As such, the intersection has adequate capacity to accommodate the traffic projected to be generated by the car wash and no roadway or traffic signal modifications are required.

171st Street with West Access Drive

The results of the capacity analysis indicate that the southbound approach currently operates at LOS A during all three peak hours.

Under Year 2029 no-build conditions, the southbound approach is projected to continue operating at LOS A during all three peak hours with minimal increases in delay.

Under Year 2029 total conditions, this access drive will be demolished.

171st Street with East Access Drive

The results of the capacity analysis indicate that the southbound approach and the eastbound left-turn movement currently operate at LOS A during all three peak hours.

Under Year 2029 no-build conditions, the southbound approach and the eastbound left-turn movement are projected to continue operating at LOS A during all three peak hours with minimal increases in delay except for the southbound approach that is projected to operate at LOS B during the Saturday midday peak hour.

Under Year 2029 total projected conditions, the existing west access drive will be demolished and access to the site will only be provided via east access drive. The results of the capacity analysis indicate that the southbound approach is projected to operate at LOS B during the weekday morning, weekday evening, and Saturday midday peak hours while the eastbound left-turn movement is projected to operate at LOS A during all three peak hours. As such, this access drive will be adequate to accommodate the traffic estimated to be generated by the proposed car wash and will ensure flexible and efficient access to the site.

6. Conclusion

Based on the preceding analyses and recommendations, the following conclusions have been made:

- The results of the capacity analysis indicated that the existing roadway system will have sufficient reserve capacity to accommodate the traffic that will be generated by the proposed car wash and no additional roadway improvements, or traffic control modifications are required.
- Access to the proposed car wash will be provided via the existing east access drive off 171st street. Outbound movements should be under stop sign control.
- In order to enhance the flow of traffic through the car wash site on peak days, the operator should consider implementing the following recommendations:
 - Increase the service rate of the tunnel to the maximum it can process.
 - Increase stacking on site via three queue lanes which will increase stacking to 33 vehicles. Access to the vacuum stalls during these periods will be limited.
 - Provide staff at critical locations within the circulation system during peak periods at the car wash to help direct and manage the flow of traffic through the site. Critical internal locations where staff should be located include at the pay stations and at the exit of the car wash.

Appendix

Traffic Count Summary Sheets

Site Plan

Stacking and Auto-turn Exhibits

ITE Trip Generation Summary Sheets

CMAP 2050 Projections Letter

Level of Service Criteria

Capacity Analysis Summary Sheets

Traffic Count Summary Sheets

| | |
|------------|--|
| Study Name | 171st Street with Car Wash Access Drives TMC |
| Start Date | Thursday, March 16, 2023 7:00 AM |
| End Date | Saturday, March 18, 2023 2:00 PM |
| Site Code | |

Report Summary

| | | Eastbound | | | | | | Westbound | | | | | | Southeastbound | | | | | | Southwestbound | | | | | | Crosswalk | | | | |
|-------------------|----------------|-----------|----|----|------|------|------|-----------|------|----|----|------|------|----------------|----|----|----|----|----|----------------|----|----|----|----|----|-----------|---------|-------|----|---|
| Time Period | Class. | U | HL | BL | T | I | O | U | T | BR | HR | I | O | U | L | BL | HR | I | O | U | HL | BR | R | I | O | Total | Address | Total | | |
| Peak 1 | Lights | 0 | 0 | 0 | 316 | 316 | 374 | 0 | 374 | 0 | 0 | 374 | 316 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 690 | EB | 0 | 0 | |
| Specified Period | % | 0% | 0% | 0% | 98% | 98% | 98% | 0% | 98% | 0% | 0% | 98% | 98% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 98% | | 0% | 0 | |
| 7:00 AM - 8:00 AM | Buses | 0 | 0 | 0 | 8 | 8 | 4 | 0 | 4 | 0 | 0 | 4 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | WB | 0 | 0 |
| One Hour Peak | % | 0% | 0% | 0% | 2% | 2% | 1% | 0% | 1% | 0% | 0% | 1% | 2% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 2% | | 0% | 0 | |
| 7:00 AM - 8:00 AM | ngle-Unit Truc | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | SEB | 0 | 0 |
| % | 0% | 0% | 0% | 0% | 0% | 1% | 0% | 1% | 0% | 1% | 0% | 1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | 0% | 0 |
| ticultated Truc | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | SWB | 0 | 0 |
| % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | 0% | 0 |
| icycles on Roa | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 |
| % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | 0% | 0 |
| Total PHF | 0 | 0 | 0 | 0 | 324 | 324 | 381 | 0 | 381 | 0 | 0 | 381 | 324 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 705 | | 0 | 0 |
| Approach % | 0 | 0 | 0 | 0 | 0.78 | 0.78 | 0.82 | 0 | 0.82 | 0 | 0 | 0.82 | 0.78 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | | 0 | 0 |
| | | | | | | 46% | 54% | | | | | 54% | 46% | | | | | | | 0% | 0% | | | | | 0% | 0% | | | |
| Peak 2 | Lights | 1 | 0 | 0 | 563 | 564 | 548 | 0 | 547 | 0 | 0 | 547 | 563 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1111 | EB | 0 | 0 | |
| Specified Period | % | 100% | 0% | 0% | 99% | 99% | 99% | 0% | 99% | 0% | 0% | 99% | 99% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 99% | | 0% | 0 | 0 |
| 4:00 PM - 5:00 PM | Buses | 0 | 0 | 0 | 3 | 3 | 2 | 0 | 2 | 0 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | WB | 1 | 1 |
| One Hour Peak | % | 0% | 0% | 0% | 1% | 1% | 0% | 0% | 0% | 0% | 0% | 1% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | 100% | | 0 |
| 4:00 PM - 5:00 PM | ngle-Unit Truc | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 2 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | SEB | 0 | 0 |
| % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | 0% | 0 |
| ticultated Truc | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | SWB | 0 | 0 |
| % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | 0% | 0 |
| icycles on Roa | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 |
| % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | 0% | 0 |
| Total PHF | 1 | 0 | 0 | 0 | 567 | 568 | 552 | 0 | 551 | 0 | 0 | 551 | 567 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1119 | | 0 | 0 |
| Approach % | 0.25 | 0 | 0 | 0 | 0.94 | 0.94 | 0.93 | 0 | 0.93 | 0 | 0 | 0.93 | 0.94 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.94 | | 0 | 0 |
| | | | | | | 51% | 49% | | | | | 49% | 51% | | | | | | | 0% | 0% | | | | | 0% | 0% | | | |

| | |
|------------|--|
| Study Name | 171st Street with Car Wash Access Drives TMC |
| Start Date | Thursday, March 16, 2023 7:00 AM |
| End Date | Saturday, March 18, 2023 2:00 PM |
| Site Code | |

Report Summary

[illegible]



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Count Name: Harlem+and+171st TMC
Site Code:
Start Date: 03/16/2023
Page No: 1

Turning Movement Data

| Start Time | 171st Street Eastbound | | | | | | | 171st Street Westbound | | | | | | | Harlem Avenue Northbound | | | | | | | Harlem Avenue Southbound | | | | | | |
|---------------|------------------------|------|------|-------|------|------------|--|------------------------|------|------|-------|------|------------|--|--------------------------|------|------|-------|------|------------|--|--------------------------|------|------|-------|------|------------|------------|
| | U-Turn | Left | Thru | Right | Peds | App. Total | | U-Turn | Left | Thru | Right | Peds | App. Total | | U-Turn | Left | Thru | Right | Peds | App. Total | | U-Turn | Left | Thru | Right | Peds | App. Total | Int. Total |
| 7:00 AM | 0 | 36 | 59 | 35 | 0 | 130 | | 0 | 24 | 77 | 13 | 0 | 114 | | 1 | 47 | 256 | 14 | 0 | 318 | | 0 | 18 | 213 | 42 | 0 | 273 | 835 |
| 7:15 AM | 0 | 56 | 72 | 31 | 0 | 159 | | 0 | 31 | 56 | 6 | 1 | 93 | | 2 | 58 | 194 | 17 | 0 | 271 | | 0 | 18 | 192 | 49 | 1 | 259 | 782 |
| 7:30 AM | 0 | 58 | 66 | 31 | 0 | 155 | | 0 | 27 | 58 | 25 | 0 | 110 | | 0 | 46 | 220 | 10 | 0 | 276 | | 0 | 25 | 209 | 40 | 0 | 274 | 815 |
| 7:45 AM | 0 | 45 | 66 | 29 | 0 | 140 | | 0 | 30 | 56 | 24 | 0 | 110 | | 2 | 36 | 222 | 14 | 0 | 274 | | 0 | 22 | 190 | 44 | 0 | 256 | 780 |
| Hourly Total | 0 | 195 | 263 | 126 | 0 | 584 | | 0 | 112 | 247 | 68 | 1 | 427 | | 5 | 187 | 892 | 55 | 0 | 1139 | | 0 | 83 | 804 | 175 | 1 | 1062 | 3212 |
| 8:00 AM | 0 | 30 | 52 | 26 | 0 | 108 | | 0 | 28 | 49 | 20 | 0 | 97 | | 3 | 44 | 216 | 13 | 0 | 276 | | 0 | 15 | 178 | 27 | 0 | 220 | 701 |
| 8:15 AM | 0 | 53 | 60 | 35 | 0 | 148 | | 0 | 16 | 44 | 10 | 0 | 70 | | 0 | 40 | 205 | 18 | 1 | 263 | | 0 | 22 | 149 | 17 | 0 | 188 | 669 |
| 8:30 AM | 0 | 28 | 46 | 34 | 0 | 108 | | 0 | 16 | 59 | 13 | 0 | 88 | | 0 | 37 | 186 | 15 | 0 | 238 | | 1 | 20 | 159 | 22 | 0 | 202 | 636 |
| 8:45 AM | 0 | 50 | 55 | 38 | 0 | 143 | | 0 | 24 | 50 | 13 | 0 | 87 | | 1 | 40 | 193 | 18 | 0 | 252 | | 0 | 16 | 171 | 26 | 0 | 213 | 695 |
| Hourly Total | 0 | 161 | 213 | 133 | 0 | 507 | | 0 | 84 | 202 | 56 | 0 | 342 | | 4 | 161 | 800 | 64 | 1 | 1029 | | 1 | 73 | 657 | 92 | 0 | 823 | 2701 |
| *** BREAK *** | - | - | - | - | - | - | | - | - | - | - | - | - | | - | - | - | - | - | - | | - | - | - | - | - | - | - |
| 4:00 PM | 0 | 50 | 81 | 39 | 0 | 170 | | 0 | 31 | 84 | 17 | 0 | 132 | | 4 | 58 | 260 | 34 | 0 | 356 | | 1 | 34 | 282 | 44 | 0 | 361 | 1019 |
| 4:15 PM | 0 | 53 | 76 | 39 | 0 | 168 | | 0 | 32 | 74 | 18 | 0 | 124 | | 1 | 53 | 320 | 34 | 0 | 408 | | 0 | 30 | 258 | 50 | 0 | 338 | 1038 |
| 4:30 PM | 0 | 61 | 93 | 45 | 0 | 199 | | 0 | 44 | 41 | 25 | 0 | 110 | | 1 | 52 | 279 | 17 | 0 | 349 | | 0 | 16 | 257 | 45 | 0 | 318 | 976 |
| 4:45 PM | 0 | 47 | 83 | 42 | 0 | 172 | | 0 | 33 | 42 | 21 | 0 | 96 | | 0 | 58 | 300 | 29 | 0 | 387 | | 0 | 35 | 277 | 39 | 0 | 351 | 1006 |
| Hourly Total | 0 | 211 | 333 | 165 | 0 | 709 | | 0 | 140 | 241 | 81 | 0 | 462 | | 6 | 221 | 1159 | 114 | 0 | 1500 | | 1 | 115 | 1074 | 178 | 0 | 1368 | 4039 |
| 5:00 PM | 0 | 56 | 70 | 29 | 0 | 155 | | 0 | 36 | 60 | 20 | 0 | 116 | | 0 | 50 | 243 | 28 | 0 | 321 | | 0 | 23 | 219 | 57 | 0 | 299 | 891 |
| 5:15 PM | 0 | 47 | 69 | 40 | 1 | 156 | | 0 | 26 | 82 | 25 | 2 | 133 | | 1 | 49 | 277 | 22 | 0 | 349 | | 0 | 23 | 222 | 40 | 0 | 285 | 923 |
| 5:30 PM | 0 | 46 | 47 | 41 | 0 | 134 | | 0 | 28 | 41 | 25 | 0 | 94 | | 1 | 48 | 226 | 24 | 0 | 299 | | 1 | 24 | 206 | 38 | 0 | 269 | 796 |
| 5:45 PM | 0 | 39 | 59 | 29 | 0 | 127 | | 0 | 29 | 48 | 22 | 0 | 99 | | 0 | 41 | 207 | 22 | 0 | 270 | | 0 | 19 | 197 | 43 | 0 | 259 | 755 |
| Hourly Total | 0 | 188 | 245 | 139 | 1 | 572 | | 0 | 119 | 231 | 92 | 2 | 442 | | 2 | 188 | 963 | 96 | 0 | 1239 | | 1 | 89 | 844 | 178 | 0 | 1112 | 3365 |
| *** BREAK *** | - | - | - | - | - | - | | - | - | - | - | - | - | | - | - | - | - | - | - | | - | - | - | - | - | - | - |
| 11:00 AM | 0 | 65 | 75 | 38 | 0 | 178 | | 0 | 28 | 59 | 16 | 0 | 103 | | 0 | 40 | 244 | 18 | 0 | 302 | | 0 | 26 | 217 | 42 | 0 | 285 | 868 |
| 11:15 AM | 0 | 46 | 66 | 37 | 0 | 149 | | 0 | 30 | 67 | 23 | 0 | 120 | | 1 | 59 | 288 | 24 | 0 | 372 | | 0 | 33 | 263 | 60 | 0 | 356 | 997 |
| 11:30 AM | 0 | 54 | 83 | 33 | 0 | 170 | | 0 | 37 | 67 | 30 | 0 | 134 | | 0 | 57 | 295 | 29 | 0 | 381 | | 0 | 35 | 282 | 48 | 0 | 365 | 1050 |
| 11:45 AM | 0 | 57 | 69 | 36 | 0 | 162 | | 0 | 39 | 54 | 23 | 0 | 116 | | 1 | 64 | 306 | 15 | 0 | 386 | | 0 | 31 | 264 | 52 | 0 | 347 | 1011 |
| Hourly Total | 0 | 222 | 293 | 144 | 0 | 659 | | 0 | 134 | 247 | 92 | 0 | 473 | | 2 | 220 | 1133 | 86 | 0 | 1441 | | 0 | 125 | 1026 | 202 | 0 | 1353 | 3926 |
| 12:00 PM | 0 | 46 | 54 | 32 | 0 | 132 | | 0 | 34 | 64 | 22 | 0 | 120 | | 3 | 54 | 251 | 11 | 0 | 319 | | 0 | 28 | 256 | 47 | 0 | 331 | 902 |
| 12:15 PM | 0 | 55 | 66 | 37 | 0 | 158 | | 0 | 28 | 57 | 9 | 0 | 94 | | 1 | 53 | 275 | 19 | 0 | 348 | | 0 | 33 | 276 | 56 | 0 | 365 | 965 |
| 12:30 PM | 0 | 49 | 63 | 45 | 0 | 157 | | 0 | 42 | 83 | 24 | 0 | 149 | | 0 | 41 | 274 | 22 | 0 | 337 | | 0 | 29 | 290 | 47 | 0 | 366 | 1009 |
| 12:45 PM | 0 | 38 | 56 | 37 | 0 | 131 | | 0 | 34 | 78 | 24 | 0 | 136 | | 1 | 55 | 251 | 24 | 0 | 331 | | 0 | 25 | 282 | 54 | 0 | 361 | 959 |
| Hourly Total | 0 | 188 | 239 | 151 | 0 | 578 | | 0 | 138 | 282 | 79 | 0 | 499 | | 5 | 203 | 1051 | 76 | 0 | 1335 | | 0 | 115 | 1104 | 204 | 0 | 1423 | 3835 |
| 1:00 PM | 0 | 49 | 73 | 38 | 0 | 160 | | 0 | 28 | 74 | 35 | 0 | 137 | | 0 | 51 | 269 | 17 | 0 | 337 | | 0 | 33 | 254 | 37 | 0 | 324 | 958 |
| 1:15 PM | 0 | 38 | 60 | 40 | 0 | 138 | | 0 | 35 | 65 | 25 | 0 | 125 | | 0 | 51 | 260 | 18 | 0 | 329 | | 0 | 35 | 239 | 35 | 0 | 309 | 901 |
| 1:30 PM | 0 | 57 | 68 | 48 | 0 | 173 | | 0 | 39 | 51 | 14 | 0 | 104 | | 1 | 54 | 262 | 18 | 0 | 335 | | 0 | 39 | 236 | 54 | 0 | 329 | 941 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|-----|------|------|------|-------|------|-----|------|------|------|-------|------|-------|------|------|------|-------|------|-------|------|------|------|-------|------|-------|
| 1:45 PM | 0 | 44 | 55 | 38 | 0 | 137 | 0 | 31 | 53 | 25 | 0 | 109 | 0 | 63 | 315 | 15 | 0 | 393 | 0 | 30 | 237 | 32 | 0 | 299 | 938 |
| Hourly Total | 0 | 188 | 256 | 164 | 0 | 608 | 0 | 133 | 243 | 99 | 0 | 475 | 1 | 219 | 1106 | 68 | 0 | 1394 | 0 | 137 | 966 | 158 | 0 | 1261 | 3738 |
| Grand Total | 0 | 1353 | 1842 | 1022 | 1 | 4217 | 0 | 860 | 1693 | 567 | 3 | 3120 | 25 | 1399 | 7094 | 559 | 1 | 9077 | 3 | 737 | 6475 | 1187 | 1 | 8402 | 24816 |
| Approach % | 0.0 | 32.1 | 43.7 | 24.2 | - | - | 0.0 | 27.6 | 54.3 | 18.2 | - | - | 0.3 | 15.4 | 78.2 | 6.2 | - | - | 0.0 | 8.8 | 77.1 | 14.1 | - | - | - |
| Total % | 0.0 | 5.5 | 7.4 | 4.1 | - | 17.0 | 0.0 | 3.5 | 6.8 | 2.3 | - | 12.6 | 0.1 | 5.6 | 28.6 | 2.3 | - | 36.6 | 0.0 | 3.0 | 26.1 | 4.8 | - | 33.9 | - |
| Lights | 0 | 1335 | 1826 | 1008 | - | 4169 | 0 | 854 | 1679 | 556 | - | 3089 | 25 | 1385 | 6982 | 548 | - | 8940 | 3 | 722 | 6355 | 1163 | - | 8243 | 24441 |
| % Lights | - | 98.7 | 99.1 | 98.6 | - | 98.9 | - | 99.3 | 99.2 | 98.1 | - | 99.0 | 100.0 | 99.0 | 98.4 | 98.0 | - | 98.5 | 100.0 | 98.0 | 98.1 | 98.0 | - | 98.1 | 98.5 |
| Buses | 0 | 11 | 8 | 6 | - | 25 | 0 | 1 | 8 | 3 | - | 12 | 0 | 7 | 12 | 3 | - | 22 | 0 | 4 | 16 | 10 | - | 30 | 89 |
| % Buses | - | 0.8 | 0.4 | 0.6 | - | 0.6 | - | 0.1 | 0.5 | 0.5 | - | 0.4 | 0.0 | 0.5 | 0.2 | 0.5 | - | 0.2 | 0.0 | 0.5 | 0.2 | 0.8 | - | 0.4 | 0.4 |
| Single-Unit Trucks | 0 | 6 | 8 | 4 | - | 18 | 0 | 3 | 6 | 6 | - | 15 | 0 | 4 | 57 | 7 | - | 68 | 0 | 9 | 55 | 12 | - | 76 | 177 |
| % Single-Unit Trucks | - | 0.4 | 0.4 | 0.4 | - | 0.4 | - | 0.3 | 0.4 | 1.1 | - | 0.5 | 0.0 | 0.3 | 0.8 | 1.3 | - | 0.7 | 0.0 | 1.2 | 0.8 | 1.0 | - | 0.9 | 0.7 |
| Articulated Trucks | 0 | 1 | 0 | 4 | - | 5 | 0 | 2 | 0 | 2 | - | 4 | 0 | 3 | 43 | 1 | - | 47 | 0 | 2 | 49 | 2 | - | 53 | 109 |
| % Articulated Trucks | - | 0.1 | 0.0 | 0.4 | - | 0.1 | - | 0.2 | 0.0 | 0.4 | - | 0.1 | 0.0 | 0.2 | 0.6 | 0.2 | - | 0.5 | 0.0 | 0.3 | 0.8 | 0.2 | - | 0.6 | 0.4 |
| Bicycles on Road | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 1 | - | - | - | - | - | 3 | - | - | - | - | - | 1 | - | - | - | - | - | 1 | - | - |
| % Pedestrians | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - | - | - | - | 100.0 | - | - |



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Count Name: Harlem+and+171st TMC
Site Code:
Start Date: 03/16/2023
Page No: 3

Turning Movement Peak Hour Data (7:00 AM)

| Start Time | 171st Street Eastbound | | | | | | | 171st Street Westbound | | | | | | | Harlem Avenue Northbound | | | | | | | Harlem Avenue Southbound | | | | | | |
|----------------------|------------------------|-------|-------|-------|------|------------|--|------------------------|-------|-------|-------|-------|------------|---|--------------------------|-------|-------|-------|------|------------|--|--------------------------|-------|-------|-------|------|------------|------------|
| | U-Turn | Left | Thru | Right | Peds | App. Total | | U-Turn | Left | Thru | Right | Peds | App. Total | | U-Turn | Left | Thru | Right | Peds | App. Total | | U-Turn | Left | Thru | Right | Peds | App. Total | Int. Total |
| 7:00 AM | 0 | 36 | 59 | 35 | 0 | 130 | | 0 | 24 | 77 | 13 | 0 | 114 | | 1 | 47 | 256 | 14 | 0 | 318 | | 0 | 18 | 213 | 42 | 0 | 273 | 835 |
| 7:15 AM | 0 | 56 | 72 | 31 | 0 | 159 | | 0 | 31 | 56 | 6 | 1 | 93 | | 2 | 58 | 194 | 17 | 0 | 271 | | 0 | 18 | 192 | 49 | 1 | 259 | 782 |
| 7:30 AM | 0 | 58 | 66 | 31 | 0 | 155 | | 0 | 27 | 58 | 25 | 0 | 110 | | 0 | 46 | 220 | 10 | 0 | 276 | | 0 | 25 | 209 | 40 | 0 | 274 | 815 |
| 7:45 AM | 0 | 45 | 66 | 29 | 0 | 140 | | 0 | 30 | 56 | 24 | 0 | 110 | | 2 | 36 | 222 | 14 | 0 | 274 | | 0 | 22 | 190 | 44 | 0 | 256 | 780 |
| Total | 0 | 195 | 263 | 126 | 0 | 584 | | 0 | 112 | 247 | 68 | 1 | 427 | | 5 | 187 | 892 | 55 | 0 | 1139 | | 0 | 83 | 804 | 175 | 1 | 1062 | 3212 |
| Approach % | 0.0 | 33.4 | 45.0 | 21.6 | - | - | | 0.0 | 26.2 | 57.8 | 15.9 | - | - | | 0.4 | 16.4 | 78.3 | 4.8 | - | - | | 0.0 | 7.8 | 75.7 | 16.5 | - | - | - |
| Total % | 0.0 | 6.1 | 8.2 | 3.9 | - | 18.2 | | 0.0 | 3.5 | 7.7 | 2.1 | - | 13.3 | | 0.2 | 5.8 | 27.8 | 1.7 | - | 35.5 | | 0.0 | 2.6 | 25.0 | 5.4 | - | 33.1 | - |
| PHF | 0.000 | 0.841 | 0.913 | 0.900 | - | 0.918 | | 0.000 | 0.903 | 0.802 | 0.680 | - | 0.936 | | 0.625 | 0.806 | 0.871 | 0.809 | - | 0.895 | | 0.000 | 0.830 | 0.944 | 0.893 | - | 0.969 | 0.962 |
| Lights | 0 | 184 | 258 | 119 | - | 561 | | 0 | 112 | 238 | 60 | - | 410 | | 5 | 180 | 846 | 49 | - | 1080 | | 0 | 76 | 768 | 165 | - | 1009 | 3060 |
| % Lights | - | 94.4 | 98.1 | 94.4 | - | 96.1 | | - | 100.0 | 96.4 | 88.2 | - | 96.0 | | 100.0 | 96.3 | 94.8 | 89.1 | - | 94.8 | | - | 91.6 | 95.5 | 94.3 | - | 95.0 | 95.3 |
| Buses | 0 | 9 | 3 | 4 | - | 16 | | 0 | 0 | 7 | 1 | - | 8 | | 0 | 6 | 8 | 2 | - | 16 | | 0 | 4 | 7 | 7 | - | 18 | 58 |
| % Buses | - | 4.6 | 1.1 | 3.2 | - | 2.7 | | - | 0.0 | 2.8 | 1.5 | - | 1.9 | | 0.0 | 3.2 | 0.9 | 3.6 | - | 1.4 | | - | 4.8 | 0.9 | 4.0 | - | 1.7 | 1.8 |
| Single-Unit Trucks | 0 | 2 | 2 | 1 | - | 5 | | 0 | 0 | 2 | 5 | - | 7 | | 0 | 0 | 19 | 4 | - | 23 | | 0 | 2 | 11 | 3 | - | 16 | 51 |
| % Single-Unit Trucks | - | 1.0 | 0.8 | 0.8 | - | 0.9 | | - | 0.0 | 0.8 | 7.4 | - | 1.6 | | 0.0 | 0.0 | 2.1 | 7.3 | - | 2.0 | | - | 2.4 | 1.4 | 1.7 | - | 1.5 | 1.6 |
| Articulated Trucks | 0 | 0 | 0 | 2 | - | 2 | | 0 | 0 | 0 | 2 | - | 2 | | 0 | 1 | 19 | 0 | - | 20 | | 0 | 1 | 18 | 0 | - | 19 | 43 |
| % Articulated Trucks | - | 0.0 | 0.0 | 1.6 | - | 0.3 | | - | 0.0 | 0.0 | 2.9 | - | 0.5 | | 0.0 | 0.5 | 2.1 | 0.0 | - | 1.8 | | - | 1.2 | 2.2 | 0.0 | - | 1.8 | 1.3 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | | 0 | 0 | 0 | 0 | - | 0 | | 0 | 0 | 0 | 0 | - | 0 | | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | - | 0.0 | 0.0 | 0.0 | - | 0.0 | | - | 0.0 | 0.0 | 0.0 | - | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 0 | - | | - | - | - | - | 1 | - | - | - | - | - | - | - | 0 | | - | - | - | - | - | 1 | - |
| % Pedestrians | - | - | - | - | - | - | | - | - | - | - | 100.0 | - | - | - | - | - | - | - | - | | - | - | - | - | - | 100.0 | - |



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Count Name: Harlem+and+171st TMC
Site Code:
Start Date: 03/16/2023
Page No: 4

Turning Movement Peak Hour Data (4:00 PM)

| Start Time | 171st Street Eastbound | | | | | | | 171st Street Westbound | | | | | | | Harlem Avenue Northbound | | | | | | | Harlem Avenue Southbound | | | | | | | Int. Total |
|----------------------|------------------------|-------|-------|-------|------|------------|--|------------------------|-------|-------|-------|------|------------|--|--------------------------|-------|-------|-------|------|------------|--|--------------------------|-------|-------|-------|------|------------|-------|------------|
| | U-Turn | Left | Thru | Right | Peds | App. Total | | U-Turn | Left | Thru | Right | Peds | App. Total | | U-Turn | Left | Thru | Right | Peds | App. Total | | U-Turn | Left | Thru | Right | Peds | App. Total | | |
| 4:00 PM | 0 | 50 | 81 | 39 | 0 | 170 | | 0 | 31 | 84 | 17 | 0 | 132 | | 4 | 58 | 260 | 34 | 0 | 356 | | 1 | 34 | 282 | 44 | 0 | 361 | 1019 | |
| 4:15 PM | 0 | 53 | 76 | 39 | 0 | 168 | | 0 | 32 | 74 | 18 | 0 | 124 | | 1 | 53 | 320 | 34 | 0 | 408 | | 0 | 30 | 258 | 50 | 0 | 338 | 1038 | |
| 4:30 PM | 0 | 61 | 93 | 45 | 0 | 199 | | 0 | 44 | 41 | 25 | 0 | 110 | | 1 | 52 | 279 | 17 | 0 | 349 | | 0 | 16 | 257 | 45 | 0 | 318 | 976 | |
| 4:45 PM | 0 | 47 | 83 | 42 | 0 | 172 | | 0 | 33 | 42 | 21 | 0 | 96 | | 0 | 58 | 300 | 29 | 0 | 387 | | 0 | 35 | 277 | 39 | 0 | 351 | 1006 | |
| Total | 0 | 211 | 333 | 165 | 0 | 709 | | 0 | 140 | 241 | 81 | 0 | 462 | | 6 | 221 | 1159 | 114 | 0 | 1500 | | 1 | 115 | 1074 | 178 | 0 | 1368 | 4039 | |
| Approach % | 0.0 | 29.8 | 47.0 | 23.3 | - | - | | 0.0 | 30.3 | 52.2 | 17.5 | - | - | | 0.4 | 14.7 | 77.3 | 7.6 | - | - | | 0.1 | 8.4 | 78.5 | 13.0 | - | - | - | |
| Total % | 0.0 | 5.2 | 8.2 | 4.1 | - | 17.6 | | 0.0 | 3.5 | 6.0 | 2.0 | - | 11.4 | | 0.1 | 5.5 | 28.7 | 2.8 | - | 37.1 | | 0.0 | 2.8 | 26.6 | 4.4 | - | 33.9 | - | |
| PHF | 0.000 | 0.865 | 0.895 | 0.917 | - | 0.891 | | 0.000 | 0.795 | 0.717 | 0.810 | - | 0.875 | | 0.375 | 0.953 | 0.905 | 0.838 | - | 0.919 | | 0.250 | 0.821 | 0.952 | 0.890 | - | 0.947 | 0.973 | |
| Lights | 0 | 211 | 332 | 165 | - | 708 | | 0 | 139 | 239 | 81 | - | 459 | | 6 | 221 | 1149 | 114 | - | 1490 | | 1 | 115 | 1063 | 177 | - | 1356 | 4013 | |
| % Lights | - | 100.0 | 99.7 | 100.0 | - | 99.9 | | - | 99.3 | 99.2 | 100.0 | - | 99.4 | | 100.0 | 100.0 | 99.1 | 100.0 | - | 99.3 | | 100.0 | 100.0 | 99.0 | 99.4 | - | 99.1 | 99.4 | |
| Buses | 0 | 0 | 0 | 0 | - | 0 | | 0 | 0 | 1 | 0 | - | 1 | | 0 | 0 | 1 | 0 | - | 1 | | 0 | 0 | 1 | 1 | - | 2 | 4 | |
| % Buses | - | 0.0 | 0.0 | 0.0 | - | 0.0 | | - | 0.0 | 0.4 | 0.0 | - | 0.2 | | 0.0 | 0.0 | 0.1 | 0.0 | - | 0.1 | | 0.0 | 0.0 | 0.1 | 0.6 | - | 0.1 | 0.1 | |
| Single-Unit Trucks | 0 | 0 | 1 | 0 | - | 1 | | 0 | 0 | 1 | 0 | - | 1 | | 0 | 0 | 3 | 0 | - | 3 | | 0 | 0 | 6 | 0 | - | 6 | 11 | |
| % Single-Unit Trucks | - | 0.0 | 0.3 | 0.0 | - | 0.1 | | - | 0.0 | 0.4 | 0.0 | - | 0.2 | | 0.0 | 0.0 | 0.3 | 0.0 | - | 0.2 | | 0.0 | 0.0 | 0.6 | 0.0 | - | 0.4 | 0.3 | |
| Articulated Trucks | 0 | 0 | 0 | 0 | - | 0 | | 0 | 1 | 0 | 0 | - | 1 | | 0 | 0 | 6 | 0 | - | 6 | | 0 | 0 | 4 | 0 | - | 4 | 11 | |
| % Articulated Trucks | - | 0.0 | 0.0 | 0.0 | - | 0.0 | | - | 0.7 | 0.0 | 0.0 | - | 0.2 | | 0.0 | 0.0 | 0.5 | 0.0 | - | 0.4 | | 0.0 | 0.0 | 0.4 | 0.0 | - | 0.3 | 0.3 | |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | | 0 | 0 | 0 | 0 | - | 0 | | 0 | 0 | 0 | 0 | - | 0 | | 0 | 0 | 0 | 0 | - | 0 | 0 | |
| % Bicycles on Road | - | 0.0 | 0.0 | 0.0 | - | 0.0 | | - | 0.0 | 0.0 | 0.0 | - | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | |
| Pedestrians | - | - | - | - | 0 | - | | - | - | - | - | 0 | - | | - | - | - | - | 0 | - | | - | - | - | - | 0 | - | - | |
| % Pedestrians | - | - | - | - | - | - | | - | - | - | - | - | - | | - | - | - | - | - | - | | - | - | - | - | - | - | - | |



Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990 sainkeshavarzi@kloainc.com

Count Name: Harlem+and+171st TMC
Site Code:
Start Date: 03/16/2023
Page No: 5

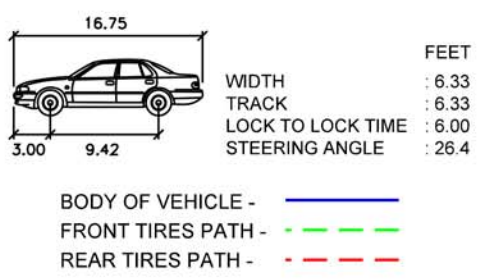
Turning Movement Peak Hour Data (11:15 AM)

| Start Time | 171st Street Eastbound | | | | | | 171st Street Westbound | | | | | | Harlem Avenue Northbound | | | | | | Harlem Avenue Southbound | | | | | | Int. Total |
|----------------------|------------------------|-------|-------|-------|------|------------|------------------------|-------|-------|-------|------|------------|--------------------------|-------|-------|-------|------|------------|--------------------------|-------|-------|-------|------|------------|------------|
| | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | U-Turn | Left | Thru | Right | Peds | App. Total | |
| 11:15 AM | 0 | 46 | 66 | 37 | 0 | 149 | 0 | 30 | 67 | 23 | 0 | 120 | 1 | 59 | 288 | 24 | 0 | 372 | 0 | 33 | 263 | 60 | 0 | 356 | 997 |
| 11:30 AM | 0 | 54 | 83 | 33 | 0 | 170 | 0 | 37 | 67 | 30 | 0 | 134 | 0 | 57 | 295 | 29 | 0 | 381 | 0 | 35 | 282 | 48 | 0 | 365 | 1050 |
| 11:45 AM | 0 | 57 | 69 | 36 | 0 | 162 | 0 | 39 | 54 | 23 | 0 | 116 | 1 | 64 | 306 | 15 | 0 | 386 | 0 | 31 | 264 | 52 | 0 | 347 | 1011 |
| 12:00 PM | 0 | 46 | 54 | 32 | 0 | 132 | 0 | 34 | 64 | 22 | 0 | 120 | 3 | 54 | 251 | 11 | 0 | 319 | 0 | 28 | 256 | 47 | 0 | 331 | 902 |
| Total | 0 | 203 | 272 | 138 | 0 | 613 | 0 | 140 | 252 | 98 | 0 | 490 | 5 | 234 | 1140 | 79 | 0 | 1458 | 0 | 127 | 1065 | 207 | 0 | 1399 | 3960 |
| Approach % | 0.0 | 33.1 | 44.4 | 22.5 | - | - | 0.0 | 28.6 | 51.4 | 20.0 | - | - | 0.3 | 16.0 | 78.2 | 5.4 | - | - | 0.0 | 9.1 | 76.1 | 14.8 | - | - | - |
| Total % | 0.0 | 5.1 | 6.9 | 3.5 | - | 15.5 | 0.0 | 3.5 | 6.4 | 2.5 | - | 12.4 | 0.1 | 5.9 | 28.8 | 2.0 | - | 36.8 | 0.0 | 3.2 | 26.9 | 5.2 | - | 35.3 | - |
| PHF | 0.000 | 0.890 | 0.819 | 0.932 | - | 0.901 | 0.000 | 0.897 | 0.940 | 0.817 | - | 0.914 | 0.417 | 0.914 | 0.931 | 0.681 | - | 0.944 | 0.000 | 0.907 | 0.944 | 0.863 | - | 0.958 | 0.943 |
| Lights | 0 | 202 | 269 | 138 | - | 609 | 0 | 140 | 252 | 98 | - | 490 | 5 | 232 | 1135 | 79 | - | 1451 | 0 | 127 | 1055 | 205 | - | 1387 | 3937 |
| % Lights | - | 99.5 | 98.9 | 100.0 | - | 99.3 | - | 100.0 | 100.0 | 100.0 | - | 100.0 | 100.0 | 99.1 | 99.6 | 100.0 | - | 99.5 | - | 100.0 | 99.1 | 99.0 | - | 99.1 | 99.4 |
| Buses | 0 | 0 | 2 | 0 | - | 2 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 2 |
| % Buses | - | 0.0 | 0.7 | 0.0 | - | 0.3 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.1 |
| Single-Unit Trucks | 0 | 1 | 1 | 0 | - | 2 | 0 | 0 | 0 | 0 | - | 0 | 0 | 2 | 4 | 0 | - | 6 | 0 | 0 | 8 | 2 | - | 10 | 18 |
| % Single-Unit Trucks | - | 0.5 | 0.4 | 0.0 | - | 0.3 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.9 | 0.4 | 0.0 | - | 0.4 | - | 0.0 | 0.8 | 1.0 | - | 0.7 | 0.5 |
| Articulated Trucks | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 1 | 0 | - | 1 | 0 | 0 | 2 | 0 | - | 2 | 3 |
| % Articulated Trucks | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | - | 0.1 | - | 0.0 | 0.2 | 0.0 | - | 0.1 | 0.1 |
| Bicycles on Road | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 |
| % Bicycles on Road | - | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | - | 0.0 | 0.0 | 0.0 | - | 0.0 | 0.0 |
| Pedestrians | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - | - | - | - | 0 | - | - |
| % Pedestrians | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

Site Plan

Stacking and Auto-turn Exhibit

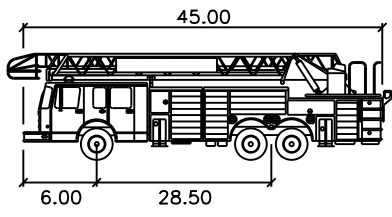
PASSENGER VEHICLE





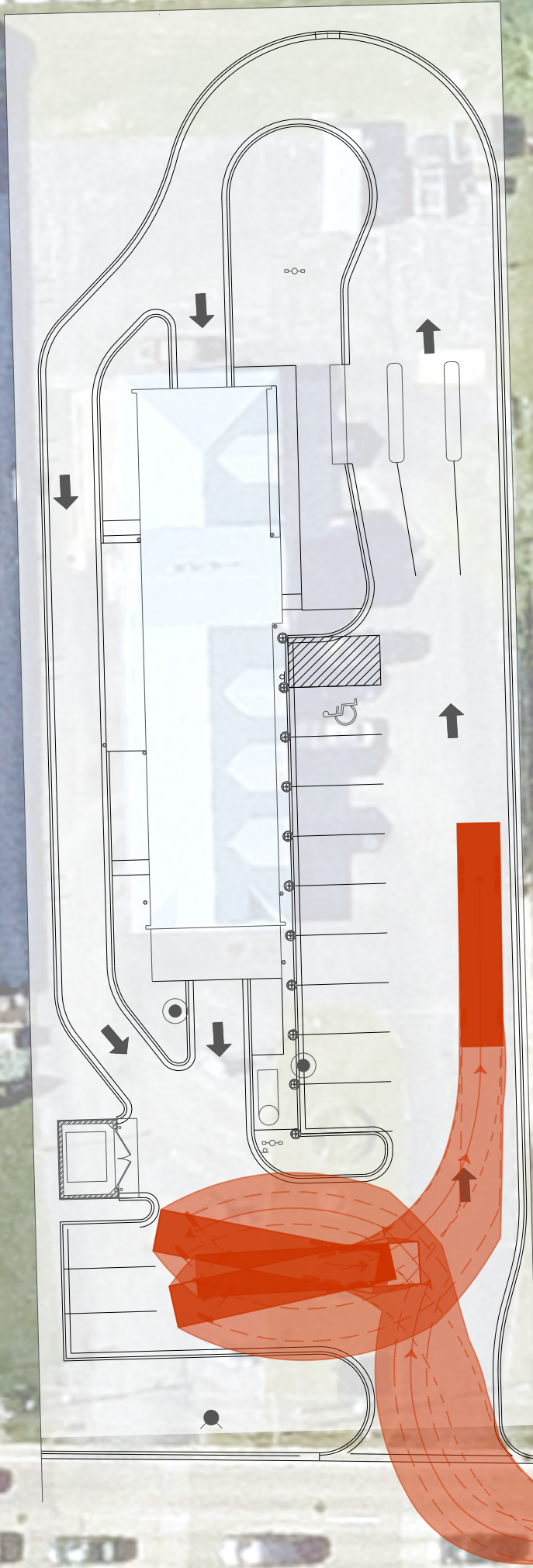
SCALE: 1" = 30'

TINLEY PARK - FIRE TRUCK



| | |
|-------------------|--------|
| | FEET |
| WIDTH | : 8.50 |
| TRACK | : 8.00 |
| LOCK TO LOCK TIME | : 6.00 |
| STEERING ANGLE | : 40.0 |

BODY OF VEHICLE - ——
FRONT TIRES PATH - - - - -
REAR TIRES PATH - - - - -



171ST STREET

ITE Trip Generation Summary Sheets

Land Use: 948

Automated Car Wash

Description

An automated car wash is a facility that allows for the mechanical cleaning of the exterior of vehicles. Manual cleaning service may also be available at the facility. Self-service car wash (Land Use 947) and car wash and detail center (Land Use 949) are related uses.

Additional Data

The sites were surveyed in the 1990s and the 2000s in New Jersey, New York, and Washington.

Source Numbers

552, 555, 585, 599, 954

Automated Car Wash (948)

Vehicle Trip Ends vs: Car Wash Tunnels

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 3

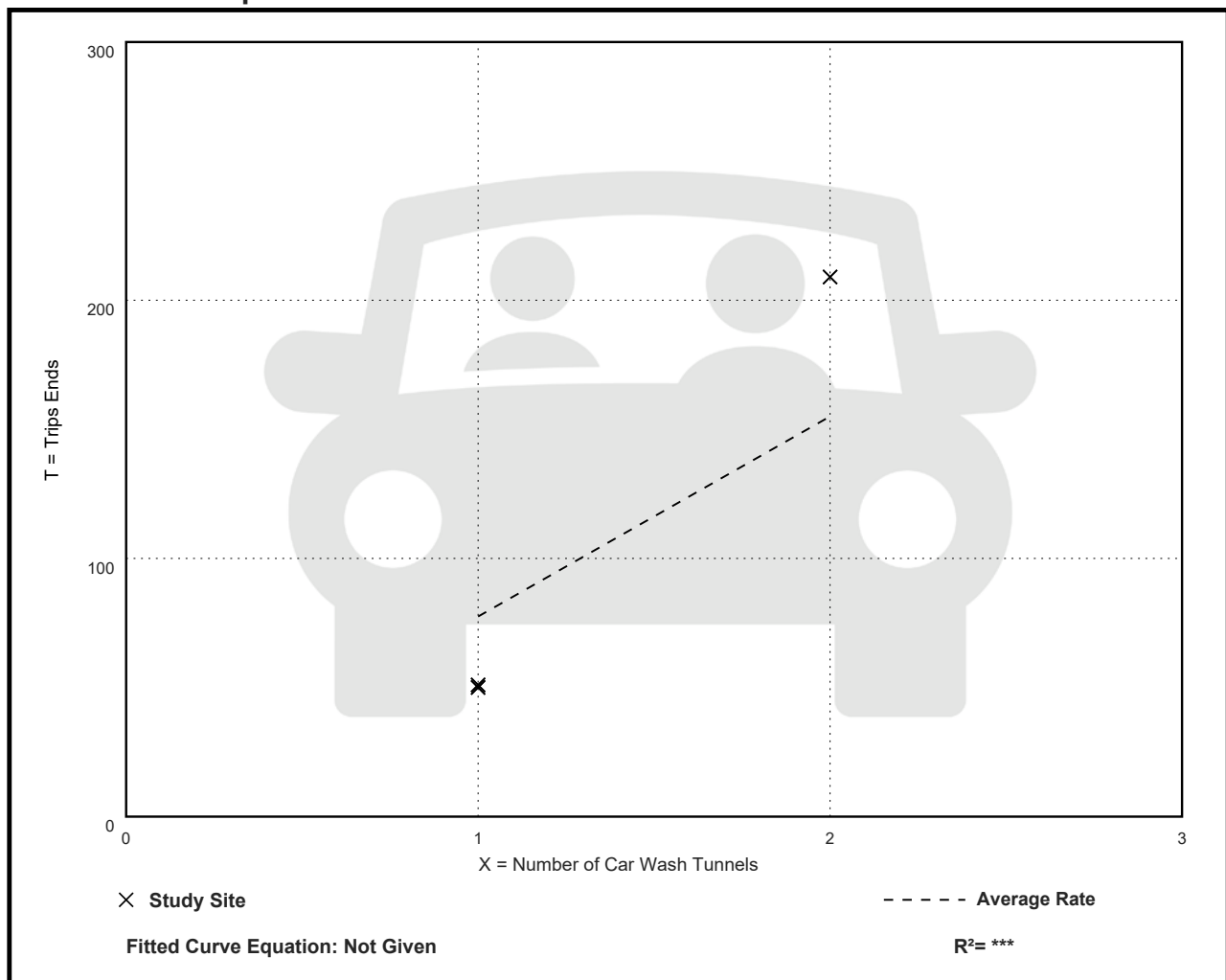
Avg. Num. of Car Wash Tunnels: 1

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Car Wash Tunnel

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 77.50 | 50.00 - 104.50 | 33.07 |

Data Plot and Equation



Automated Car Wash (948)

Vehicle Trip Ends vs: Car Wash Tunnels

On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 1

Avg. Num. of Car Wash Tunnels: 1

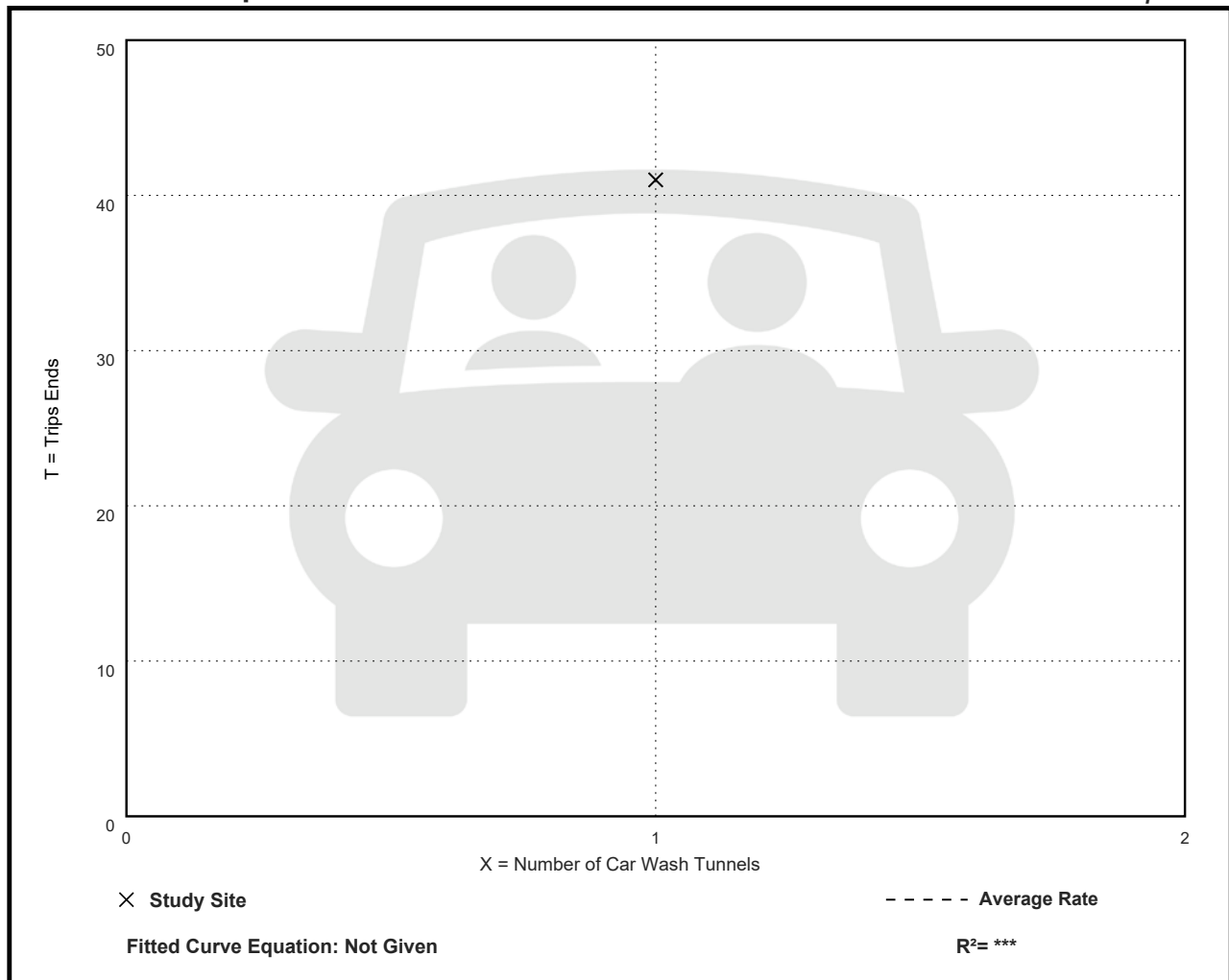
Directional Distribution: 46% entering, 54% exiting

Vehicle Trip Generation per Car Wash Tunnel

| Average Rate | Range of Rates | Standard Deviation |
|--------------|----------------|--------------------|
| 41.00 | 41.00 - 41.00 | *** |

Data Plot and Equation

Caution – Small Sample Size



CMAP 2050 Projections Letter



Chicago Metropolitan
Agency for Planning

433 West Van Buren Street
Suite 450
Chicago, IL 60607

312-454-0400
cmap.illinois.gov

March 28, 2023

Shahrzad Ainkeshavarzi
Traffic Engineer
Kenig, Lindgren, O'Hara, Aboona, Inc.
9575 West Higgins Road
Suite 400
Rosemont, IL 60018

Subject: 171st Street @ Harlem Avenue
IDOT

Dear Ms. Ainkeshavarzi:

In response to a request made on your behalf and dated March 28, 2023, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

| ROAD SEGMENT | Current ADT | Year 2050 ADT |
|---------------------------------|-------------|---------------|
| Harlem Avenue N of 171st Street | 27,100 | 32,700 |
| Harlem Avenue S of 171st Street | 29,800 | 37,300 |
| 171st Street E of Harlem Avenue | 11,800 | 14,600 |
| 171st Street W of Harlem Avenue | 16,000 | 20,700 |

Traffic projections are developed using existing ADT data provided in the request letter and the results from the October 2022 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2050 socioeconomic projections and assumes the implementation of the ON TO 2050 Comprehensive Regional Plan for the Northeastern Illinois area. The provision of this data in support of your request does not constitute a CMAP endorsement of the proposed development or any subsequent developments.

If you have any questions, please call me at (312) 386-8806.

Sincerely,

Jose Rodriguez, PTP, AICP
Senior Planner, Research & Analysis

cc: Rios (IDOT)
2023_TrafficForecasts\TinleyPark\ck-47-23\ck-47-23.docx

Level of Service Criteria

LEVEL OF SERVICE CRITERIA





















| Signalized Intersections | | |
|----------------------------|--|---|
| Level of Service | Interpretation | Average Control Delay (seconds per vehicle) |
| A | Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping. | ≤10 |
| B | Good progression, with more vehicles stopping than for Level of Service A. | >10 - 20 |
| C | Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear. Number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping. | >20 - 35 |
| D | The volume-to-capacity ratio is high and either progression is ineffective, or the cycle length is too long. Many vehicles stop and individual cycle failures are noticeable. | >35 - 55 |
| E | Progression is unfavorable. The volume-to-capacity ratio is high, and the cycle length is long. Individual cycle failures are frequent. | >55 - 80 |
| F | The volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue. | >80.0 |
| Unsignalized Intersections | | |
| Level of Service | Average Total Delay (SEC/VEH) | |
| A | 0 - 10 | |
| B | > 10 - 15 | |
| C | > 15 - 25 | |
| D | > 25 - 35 | |
| E | > 35 - 50 | |
| F | > 50 | |

Source: *Highway Capacity Manual*, 2010.

Capacity Analysis Summary Sheets
Existing Weekday Morning Peak Hour

Lanes, Volumes, Timings
1: Harlem Avenue & 171st Street













03/29/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Volume (vph) | 195 | 263 | 126 | 112 | 247 | 68 | 192 | 892 | 55 | 83 | 804 | 175 |
| Future Volume (vph) | 195 | 263 | 126 | 112 | 247 | 68 | 192 | 892 | 55 | 83 | 804 | 175 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 160 | | 0 | 150 | | 0 | 160 | | 0 | 190 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 145 | | | 145 | | | 125 | | | 125 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.951 | | | 0.968 | | | 0.991 | | | 0.973 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1703 | 3324 | 0 | 1805 | 3305 | 0 | 1736 | 3396 | 0 | 1671 | 3366 | 0 |
| Flt Permitted | 0.342 | | | 0.451 | | | 0.168 | | | 0.223 | | |
| Satd. Flow (perm) | 613 | 3324 | 0 | 857 | 3305 | 0 | 307 | 3396 | 0 | 392 | 3366 | 0 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 40 | | | 35 | | | 40 | | | 40 | |
| Link Distance (ft) | | 212 | | | 138 | | | 383 | | | 516 | |
| Travel Time (s) | | 3.6 | | | 2.7 | | | 6.5 | | | 8.8 | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Heavy Vehicles (%) | 6% | 2% | 6% | 0% | 4% | 12% | 4% | 5% | 11% | 8% | 4% | 6% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 203 | 405 | 0 | 117 | 328 | 0 | 200 | 986 | 0 | 86 | 1020 | 0 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 8.0 | | 3.0 | 8.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | |
| Minimum Split (s) | 9.5 | 24.0 | | 9.5 | 24.0 | | 9.5 | 24.0 | | 9.5 | 24.0 | |
| Total Split (s) | 19.0 | 36.0 | | 14.0 | 31.0 | | 14.0 | 56.0 | | 14.0 | 56.0 | |
| Total Split (%) | 15.8% | 30.0% | | 11.7% | 25.8% | | 11.7% | 46.7% | | 11.7% | 46.7% | |
| Yellow Time (s) | 3.5 | 4.0 | | 3.5 | 4.0 | | 3.5 | 4.0 | | 3.5 | 4.0 | |
| All-Red Time (s) | 0.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | None | | None | None | | None | C-Min | | None | C-Min | |
| Act Effect Green (s) | 38.7 | 23.0 | | 30.4 | 18.2 | | 73.9 | 62.1 | | 67.6 | 57.0 | |
| Actuated g/C Ratio | 0.32 | 0.19 | | 0.25 | 0.15 | | 0.62 | 0.52 | | 0.56 | 0.48 | |
| v/c Ratio | 0.62 | 0.64 | | 0.40 | 0.65 | | 0.62 | 0.56 | | 0.28 | 0.64 | |
| Control Delay | 39.0 | 49.0 | | 32.8 | 54.0 | | 19.6 | 23.0 | | 12.9 | 27.3 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 39.0 | 49.0 | | 32.8 | 54.0 | | 19.6 | 23.0 | | 12.9 | 27.3 | |
| LOS | D | D | | C | D | | B | C | | B | C | |
| Approach Delay | | 45.7 | | | 48.4 | | | 22.5 | | | 26.2 | |
| Approach LOS | | D | | | D | | | C | | | C | |
| Queue Length 50th (ft) | 119 | 153 | | 65 | 127 | | 64 | 277 | | 26 | 314 | |
| Queue Length 95th (ft) | 174 | 196 | | 104 | 169 | | 113 | 392 | | 54 | 423 | |

Lanes, Volumes, Timings

1: Harlem Avenue & 171st Street

03/29/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Internal Link Dist (ft) | | 132 | | | 58 | | | 303 | | | 436 | |
| Turn Bay Length (ft) | 160 | | | 150 | | | 160 | | | 190 | | |
| Base Capacity (vph) | 338 | 831 | | 305 | 688 | | 329 | 1757 | | 340 | 1597 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.60 | 0.49 | | 0.38 | 0.48 | | 0.61 | 0.56 | | 0.25 | 0.64 | |

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 31.3









Intersection LOS: C

Intersection Capacity Utilization 74.9%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: Harlem Avenue & 171st Street

| | | | |
|--|--|--|--|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 14 s | 56 s | 14 s | 36 s |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 14 s | 56 s | 19 s | 31 s |

HCM 6th TWSC
4: 171st Street & West Access Drive

03/29/2023

Intersection

Int Delay, s/veh 0

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | | ↑↑ | ↑↑ | | ↑ | |
| Traffic Vol, veh/h | 0 | 401 | 427 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 401 | 427 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 80 | 80 | 80 | 80 | 80 | 80 |
| Heavy Vehicles, % | 0 | 2 | 2 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 501 | 534 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|-----------|
| Conflicting Flow All | - | 0 | 0 785 267 |
| Stage 1 | - | - | - 534 - |
| Stage 2 | - | - | - 251 - |
| Critical Hdwy | - | - | - 6.8 6.9 |
| Critical Hdwy Stg 1 | - | - | - 5.8 - |
| Critical Hdwy Stg 2 | - | - | - 5.8 - |
| Follow-up Hdwy | - | - | - 3.5 3.3 |
| Pot Cap-1 Maneuver | 0 | - | 0 334 737 |
| Stage 1 | 0 | - | 0 558 - |
| Stage 2 | 0 | - | 0 774 - |
| Platoon blocked, % | - | - | |
| Mov Cap-1 Maneuver | - | - | - 334 737 |
| Mov Cap-2 Maneuver | - | - | - 334 - |
| Stage 1 | - | - | - 558 - |
| Stage 2 | - | - | - 774 - |

| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |




| Minor Lane/Major Mvmt | EBT | WBT | SBLn1 |
|-----------------------|-----|-----|-------|
| Capacity (veh/h) | - | - | - |
| HCM Lane V/C Ratio | - | - | - |
| HCM Control Delay (s) | - | - | 0 |
| HCM Lane LOS | - | - | A |
| HCM 95th %tile Q(veh) | - | - | - |

HCM 6th TWSC
6: 171st Street & East Access Drive

03/29/2023

Intersection

Int Delay, s/veh 0

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|--------------------------|------|---|---|------|---|------|
| Lane Configurations | |  |  | |  | |
| Traffic Vol, veh/h | 0 | 401 | 427 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 401 | 427 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 80 | 80 | 80 | 80 | 80 | 80 |
| Heavy Vehicles, % | 0 | 2 | 2 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 501 | 534 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 534 | 0 | 785 |
| Stage 1 | - | - | 534 |
| Stage 2 | - | - | 251 |
| Critical Hdwy | 4.1 | - | 6.8 |
| Critical Hdwy Stg 1 | - | - | 5.8 |
| Critical Hdwy Stg 2 | - | - | 5.8 |
| Follow-up Hdwy | 2.2 | - | 3.5 |
| Pot Cap-1 Maneuver | 1044 | - | 334 |
| Stage 1 | - | - | 558 |
| Stage 2 | - | - | 774 |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | 1044 | - | 334 |
| Mov Cap-2 Maneuver | - | - | 334 |
| Stage 1 | - | - | 558 |
| Stage 2 | - | - | 774 |





















| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1044 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

Capacity Analysis Summary Sheets
Existing Weekday Evening Peak Hour

Lanes, Volumes, Timings
1: Harlem Avenue & 171st Street













03/29/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Volume (vph) | 211 | 338 | 165 | 140 | 331 | 81 | 226 | 1159 | 114 | 116 | 1074 | 178 |
| Future Volume (vph) | 211 | 338 | 165 | 140 | 331 | 81 | 226 | 1159 | 114 | 116 | 1074 | 178 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 160 | | 0 | 150 | | 0 | 160 | | 0 | 190 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 145 | | | 145 | | | 125 | | | 125 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.951 | | | 0.970 | | | 0.987 | | | 0.979 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1805 | 3410 | 0 | 1787 | 3474 | 0 | 1805 | 3531 | 0 | 1805 | 3499 | 0 |
| Flt Permitted | 0.236 | | | 0.205 | | | 0.084 | | | 0.120 | | |
| Satd. Flow (perm) | 448 | 3410 | 0 | 386 | 3474 | 0 | 160 | 3531 | 0 | 228 | 3499 | 0 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 40 | | | 35 | | | 40 | | | 40 | |
| Link Distance (ft) | | 212 | | | 138 | | | 383 | | | 516 | |
| Travel Time (s) | | 3.6 | | | 2.7 | | | 6.5 | | | 8.8 | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Heavy Vehicles (%) | 0% | 1% | 0% | 1% | 1% | 0% | 0% | 1% | 0% | 0% | 1% | 1% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 218 | 518 | 0 | 144 | 425 | 0 | 233 | 1313 | 0 | 120 | 1291 | 0 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 8.0 | | 3.0 | 8.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | |
| Minimum Split (s) | 9.5 | 24.0 | | 9.5 | 24.0 | | 9.5 | 24.0 | | 9.5 | 24.0 | |
| Total Split (s) | 20.0 | 29.0 | | 20.0 | 29.0 | | 24.0 | 73.0 | | 18.0 | 67.0 | |
| Total Split (%) | 14.3% | 20.7% | | 14.3% | 20.7% | | 17.1% | 52.1% | | 12.9% | 47.9% | |
| Yellow Time (s) | 3.5 | 4.0 | | 3.5 | 4.0 | | 3.5 | 4.0 | | 3.5 | 4.0 | |
| All-Red Time (s) | 0.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | None | | None | None | | None | C-Min | | None | C-Min | |
| Act Effect Green (s) | 42.5 | 24.5 | | 38.1 | 22.2 | | 89.1 | 73.4 | | 78.2 | 66.1 | |
| Actuated g/C Ratio | 0.30 | 0.18 | | 0.27 | 0.16 | | 0.64 | 0.52 | | 0.56 | 0.47 | |
| v/c Ratio | 0.76 | 0.87 | | 0.61 | 0.77 | | 0.77 | 0.71 | | 0.51 | 0.78 | |
| Control Delay | 55.0 | 71.9 | | 46.7 | 66.7 | | 44.7 | 28.7 | | 19.6 | 36.3 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 55.0 | 71.9 | | 46.7 | 66.7 | | 44.7 | 28.7 | | 19.6 | 36.3 | |
| LOS | D | E | | D | E | | D | C | | B | D | |
| Approach Delay | | 66.9 | | | 61.7 | | | 31.1 | | | 34.9 | |
| Approach LOS | | E | | | E | | | C | | | C | |
| Queue Length 50th (ft) | 152 | 241 | | 96 | 196 | | 126 | 471 | | 42 | 531 | |
| Queue Length 95th (ft) | #242 | #354 | | 154 | 257 | | 221 | 598 | | 69 | 647 | |

Lanes, Volumes, Timings

1: Harlem Avenue & 171st Street

03/29/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Internal Link Dist (ft) | 132 | | | 58 | | | 303 | | | 436 | | |
| Turn Bay Length (ft) | 160 | | | 150 | | | 160 | | | 190 | | |
| Base Capacity (vph) | 295 | 597 | | 278 | 570 | | 342 | 1851 | | 298 | 1651 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.74 | 0.87 | | 0.52 | 0.75 | | 0.68 | 0.71 | | 0.40 | 0.78 | |

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 42.6

Intersection LOS: D

Intersection Capacity Utilization 88.0%



ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Harlem Avenue & 171st Street

| | | | |
|--|--|--|--|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 18 s | 73 s | 20 s | 29 s |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 24 s | 67 s | 20 s | 29 s |




HCM 6th TWSC
4: 171st Street & West Access Drive

03/29/2023

| Intersection | | | | | | | |
|--------------------------|--------|--------|-------|--------|------|------|------|
| Int Delay, s/veh | 0 | | | | | | |
| Movement | EBU | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | | ↑↑ | ↑↑ | | ↑↑ | |
| Traffic Vol, veh/h | 1 | 0 | 567 | 551 | 0 | 0 | 0 |
| Future Vol, veh/h | 1 | 0 | 567 | 551 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | - | 0 | 0 | - | 0 | - |
| Grade, % | - | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 94 | 94 | 94 | 94 | 94 | 94 | 94 |
| Heavy Vehicles, % | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| Mvmt Flow | 1 | 0 | 603 | 586 | 0 | 0 | 0 |
| Major/Minor | Major1 | Major2 | | Minor2 | | | |
| Conflicting Flow All | 586 | - | 0 | - | 0 | 890 | 293 |
| Stage 1 | - | - | - | - | - | 586 | - |
| Stage 2 | - | - | - | - | - | 304 | - |
| Critical Hdwy | 6.4 | - | - | - | - | 6.8 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | 5.8 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | 5.8 | - |
| Follow-up Hdwy | 2.5 | - | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 618 | 0 | - | - | 0 | 286 | 709 |
| Stage 1 | - | 0 | - | - | 0 | 525 | - |
| Stage 2 | - | 0 | - | - | 0 | 728 | - |
| Platoon blocked, % | | - | - | | | | |
| Mov Cap-1 Maneuver | 618 | - | - | - | - | 285 | 709 |
| Mov Cap-2 Maneuver | - | - | - | - | - | 285 | - |
| Stage 1 | - | - | - | - | - | 524 | - |
| Stage 2 | - | - | - | - | - | 728 | - |
| Approach | EB | WB | | SB | | | |
| HCM Control Delay, s | 0 | 0 | | 0 | | | |
| HCM LOS | | | | A | | | |
| Minor Lane/Major Mvmt | EBT | WBT | SBLn1 | | | | |
| Capacity (veh/h) | - | - | - | | | | |
| HCM Lane V/C Ratio | - | - | - | | | | |
| HCM Control Delay (s) | - | - | 0 | | | | |
| HCM Lane LOS | - | - | A | | | | |
| HCM 95th %tile Q(veh) | - | - | - | | | | |

HCM 6th TWSC
6: 171st Street & East Access Drive





















03/29/2023

| Intersection | | | | | | |
|--------------------------|--------|---|---|--------|---|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | |  |  | |  | |
| Traffic Vol, veh/h | 0 | 567 | 551 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 567 | 551 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 94 | 94 | 94 | 94 | 94 | 94 |
| Heavy Vehicles, % | 0 | 1 | 1 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 603 | 586 | 0 | 0 | 0 |
| | | | | | | |
| Major/Minor | Major1 | Major2 | | Minor2 | | |
| Conflicting Flow All | 586 | 0 | - | 0 | 888 | 293 |
| Stage 1 | - | - | - | - | 586 | - |
| Stage 2 | - | - | - | - | 302 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.8 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.8 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.8 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 999 | - | - | - | 287 | 709 |
| Stage 1 | - | - | - | - | 525 | - |
| Stage 2 | - | - | - | - | 730 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 999 | - | - | - | 287 | 709 |
| Mov Cap-2 Maneuver | - | - | - | - | 287 | - |
| Stage 1 | - | - | - | - | 525 | - |
| Stage 2 | - | - | - | - | 730 | - |
| | | | | | | |
| Approach | EB | WB | | SB | | |
| HCM Control Delay, s | 0 | 0 | | 0 | | |
| HCM LOS | A | | | | | |
| | | | | | | |
| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | |
| Capacity (veh/h) | 999 | - | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - | - |

Capacity Analysis Summary Sheets
Existing Saturday Midday Peak Hour

Lanes, Volumes, Timings
1: Harlem Avenue & 171st Street













03/29/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Volume (vph) | 203 | 323 | 138 | 140 | 252 | 98 | 239 | 1140 | 79 | 127 | 1065 | 207 |
| Future Volume (vph) | 203 | 323 | 138 | 140 | 252 | 98 | 239 | 1140 | 79 | 127 | 1065 | 207 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 160 | | 0 | 150 | | 0 | 160 | | 0 | 190 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 145 | | | 145 | | | 125 | | | 125 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.955 | | | 0.958 | | | 0.990 | | | 0.976 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1805 | 3424 | 0 | 1805 | 3458 | 0 | 1787 | 3574 | 0 | 1805 | 3488 | 0 |
| Flt Permitted | 0.304 | | | 0.248 | | | 0.066 | | | 0.124 | | |
| Satd. Flow (perm) | 578 | 3424 | 0 | 471 | 3458 | 0 | 124 | 3574 | 0 | 236 | 3488 | 0 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 40 | | | 35 | | | 40 | | | 40 | |
| Link Distance (ft) | | 212 | | | 138 | | | 383 | | | 516 | |
| Travel Time (s) | | 3.6 | | | 2.7 | | | 6.5 | | | 8.8 | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 0% | 1% | 0% | 0% | 0% | 0% | 1% | 0% | 0% | 0% | 1% | 1% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 216 | 491 | 0 | 149 | 372 | 0 | 254 | 1297 | 0 | 135 | 1353 | 0 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 8.0 | | 3.0 | 8.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | |
| Minimum Split (s) | 9.5 | 24.0 | | 9.5 | 24.0 | | 9.5 | 24.0 | | 9.5 | 24.0 | |
| Total Split (s) | 18.0 | 30.0 | | 16.0 | 28.0 | | 20.0 | 70.0 | | 14.0 | 64.0 | |
| Total Split (%) | 13.8% | 23.1% | | 12.3% | 21.5% | | 15.4% | 53.8% | | 10.8% | 49.2% | |
| Yellow Time (s) | 3.5 | 4.0 | | 3.5 | 4.0 | | 3.5 | 4.0 | | 3.5 | 4.0 | |
| All-Red Time (s) | 0.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | None | | None | None | | None | C-Min | | None | C-Min | |
| Act Effct Green (s) | 39.2 | 22.7 | | 34.5 | 20.4 | | 82.6 | 67.5 | | 72.2 | 60.6 | |
| Actuated g/C Ratio | 0.30 | 0.17 | | 0.27 | 0.16 | | 0.64 | 0.52 | | 0.56 | 0.47 | |
| v/c Ratio | 0.70 | 0.82 | | 0.61 | 0.69 | | 0.90 | 0.70 | | 0.56 | 0.83 | |
| Control Delay | 48.2 | 63.7 | | 44.5 | 58.7 | | 66.9 | 26.8 | | 21.2 | 36.6 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 48.2 | 63.7 | | 44.5 | 58.7 | | 66.9 | 26.8 | | 21.2 | 36.6 | |
| LOS | D | E | | D | E | | E | C | | C | D | |
| Approach Delay | | 59.0 | | | 54.6 | | | 33.4 | | | 35.2 | |
| Approach LOS | | E | | | D | | | C | | | D | |
| Queue Length 50th (ft) | 139 | 209 | | 92 | 155 | | 157 | 439 | | 44 | 533 | |
| Queue Length 95th (ft) | 211 | 274 | | 149 | 210 | | #313 | 534 | | 77 | 637 | |

Lanes, Volumes, Timings

1: Harlem Avenue & 171st Street

03/29/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Internal Link Dist (ft) | 132 | | | 58 | | | 303 | | | 436 | | |
| Turn Bay Length (ft) | 160 | | | 150 | | | 160 | | | 190 | | |
| Base Capacity (vph) | 312 | 632 | | 256 | 585 | | 293 | 1855 | | 260 | 1626 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.69 | 0.78 | | 0.58 | 0.64 | | 0.87 | 0.70 | | 0.52 | 0.83 | |

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 40.8

Intersection LOS: D

Intersection Capacity Utilization 87.3%



ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Harlem Avenue & 171st Street

| | | | |
|--|--|--|--|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 14 s | 70 s | 16 s | 30 s |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 20 s | 64 s | 18 s | 28 s |

HCM 6th TWSC
4: 171st Street & West Access Drive

03/29/2023

| Intersection | | | | | | | |
|--------------------------|--------|--------|-------|--------|------|------|------|
| Int Delay, s/veh | 0 | | | | | | |
| Movement | EBU | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | | ↑↑ | ↑↑ | | ↑↑ | |
| Traffic Vol, veh/h | 2 | 0 | 527 | 488 | 0 | 0 | 0 |
| Future Vol, veh/h | 2 | 0 | 527 | 488 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | - | 0 | 0 | - | 0 | - |
| Grade, % | - | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| Mvmt Flow | 2 | 0 | 592 | 548 | 0 | 0 | 0 |
| Major/Minor | Major1 | Major2 | | Minor2 | | | |
| Conflicting Flow All | 548 | - | 0 | - | 0 | 848 | 274 |
| Stage 1 | - | - | - | - | - | 548 | - |
| Stage 2 | - | - | - | - | - | 300 | - |
| Critical Hdwy | 6.4 | - | - | - | - | 6.8 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | 5.8 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | 5.8 | - |
| Follow-up Hdwy | 2.5 | - | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 654 | 0 | - | - | 0 | 304 | 730 |
| Stage 1 | - | 0 | - | - | 0 | 549 | - |
| Stage 2 | - | 0 | - | - | 0 | 731 | - |
| Platoon blocked, % | | - | - | | | | |
| Mov Cap-1 Maneuver | 654 | - | - | - | - | 302 | 730 |
| Mov Cap-2 Maneuver | - | - | - | - | - | 302 | - |
| Stage 1 | - | - | - | - | - | 546 | - |
| Stage 2 | - | - | - | - | - | 731 | - |
| Approach | EB | WB | | SB | | | |
| HCM Control Delay, s | 0 | 0 | | 0 | | | |
| HCM LOS | | | | A | | | |
| Minor Lane/Major Mvmt | EBT | WBT | SBLn1 | | | | |
| Capacity (veh/h) | - | - | - | | | | |
| HCM Lane V/C Ratio | - | - | - | | | | |
| HCM Control Delay (s) | - | - | 0 | | | | |
| HCM Lane LOS | - | - | A | | | | |
| HCM 95th %tile Q(veh) | - | - | - | | | | |

HCM 6th TWSC
6: 171st Street & East Access Drive

03/29/2023

Intersection

Int Delay, s/veh 0

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | | ↑↑ | ↑↑ | | ↑↑ | |
| Traffic Vol, veh/h | 0 | 527 | 487 | 2 | 0 | 1 |
| Future Vol, veh/h | 0 | 527 | 487 | 2 | 0 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 0 | 1 | 1 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 592 | 547 | 2 | 0 | 1 |

| Major/Minor | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 549 | 0 | 844 |
| Stage 1 | - | - | 548 |
| Stage 2 | - | - | 296 |
| Critical Hdwy | 4.1 | - | 6.8 |
| Critical Hdwy Stg 1 | - | - | 5.8 |
| Critical Hdwy Stg 2 | - | - | 5.8 |
| Follow-up Hdwy | 2.2 | - | 3.5 |
| Pot Cap-1 Maneuver | 1031 | - | 306 |
| Stage 1 | - | - | 549 |
| Stage 2 | - | - | 735 |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | 1031 | - | 306 |
| Mov Cap-2 Maneuver | - | - | 306 |
| Stage 1 | - | - | 549 |
| Stage 2 | - | - | 735 |





















| Approach | EB | WB | SB |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0 | 0 | 9.9 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1031 | - | - | - | 729 |
| HCM Lane V/C Ratio | - | - | - | - | 0.002 |
| HCM Control Delay (s) | 0 | - | - | - | 9.9 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0 |

Capacity Analysis Summary Sheets
Year 2029 No-Build Weekday Morning Peak Hour













Lanes, Volumes, Timings
1: Harlem Avenue & 171st Street

03/29/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Volume (vph) | 203 | 274 | 131 | 116 | 257 | 71 | 200 | 928 | 57 | 86 | 836 | 182 |
| Future Volume (vph) | 203 | 274 | 131 | 116 | 257 | 71 | 200 | 928 | 57 | 86 | 836 | 182 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 160 | | 0 | 150 | | 0 | 160 | | 0 | 190 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 145 | | | 145 | | | 125 | | | 125 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.952 | | | 0.968 | | | 0.991 | | | 0.973 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1703 | 3327 | 0 | 1805 | 3305 | 0 | 1736 | 3396 | 0 | 1671 | 3366 | 0 |
| Flt Permitted | 0.331 | | | 0.432 | | | 0.149 | | | 0.198 | | |
| Satd. Flow (perm) | 593 | 3327 | 0 | 821 | 3305 | 0 | 272 | 3396 | 0 | 348 | 3366 | 0 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 40 | | | 35 | | | 40 | | | 40 | |
| Link Distance (ft) | | 212 | | | 138 | | | 383 | | | 516 | |
| Travel Time (s) | | 3.6 | | | 2.7 | | | 6.5 | | | 8.8 | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Heavy Vehicles (%) | 6% | 2% | 6% | 0% | 4% | 12% | 4% | 5% | 11% | 8% | 4% | 6% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 211 | 421 | 0 | 121 | 342 | 0 | 208 | 1026 | 0 | 90 | 1061 | 0 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 8.0 | | 3.0 | 8.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | |
| Minimum Split (s) | 9.5 | 24.0 | | 9.5 | 24.0 | | 9.5 | 24.0 | | 9.5 | 24.0 | |
| Total Split (s) | 19.0 | 36.0 | | 14.0 | 31.0 | | 14.0 | 56.0 | | 14.0 | 56.0 | |
| Total Split (%) | 15.8% | 30.0% | | 11.7% | 25.8% | | 11.7% | 46.7% | | 11.7% | 46.7% | |
| Yellow Time (s) | 3.5 | 4.0 | | 3.5 | 4.0 | | 3.5 | 4.0 | | 3.5 | 4.0 | |
| All-Red Time (s) | 0.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | None | | None | None | | None | C-Min | | None | C-Min | |
| Act Effct Green (s) | 39.3 | 23.5 | | 31.0 | 18.7 | | 73.1 | 59.5 | | 66.5 | 55.7 | |
| Actuated g/C Ratio | 0.33 | 0.20 | | 0.26 | 0.16 | | 0.61 | 0.50 | | 0.55 | 0.46 | |
| v/c Ratio | 0.64 | 0.65 | | 0.42 | 0.67 | | 0.67 | 0.61 | | 0.32 | 0.68 | |
| Control Delay | 39.7 | 48.9 | | 32.7 | 53.9 | | 24.2 | 25.0 | | 13.9 | 29.0 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 39.7 | 48.9 | | 32.7 | 53.9 | | 24.2 | 25.0 | | 13.9 | 29.0 | |
| LOS | D | D | | C | D | | C | C | | B | C | |
| Approach Delay | | 45.8 | | | 48.4 | | | 24.9 | | | 27.9 | |
| Approach LOS | | D | | | D | | | C | | | C | |
| Queue Length 50th (ft) | 124 | 159 | | 67 | 133 | | 67 | 296 | | 27 | 340 | |
| Queue Length 95th (ft) | 179 | 202 | | 106 | 175 | | #158 | 420 | | 56 | 447 | |

Lanes, Volumes, Timings
1: Harlem Avenue & 171st Street

03/29/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Internal Link Dist (ft) | 132 | | | 58 | | | 303 | | | 436 | | |
| Turn Bay Length (ft) | 160 | | | 150 | | | 160 | | | 190 | | |
| Base Capacity (vph) | 337 | 831 | | 302 | 688 | | 315 | 1683 | | 316 | 1563 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.63 | 0.51 | | 0.40 | 0.50 | | 0.66 | 0.61 | | 0.28 | 0.68 | |

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 32.8

Intersection LOS: C

Intersection Capacity Utilization 77.3%









ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Harlem Avenue & 171st Street

| | | | |
|--|--|--|--|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 14 s | 56 s | 14 s | 36 s |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 14 s | 56 s | 19 s | 31 s |




HCM 6th TWSC
4: 171st Street & West Access Drive

03/29/2023

| Intersection | | | | | | |
|--------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↑↑ | ↑↑ | | ↑↑ | |
| Traffic Vol, veh/h | 0 | 417 | 444 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 417 | 444 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 80 | 80 | 80 | 80 | 80 | 80 |
| Heavy Vehicles, % | 0 | 2 | 2 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 521 | 555 | 0 | 0 | 0 |
| | | | | | | |
| Major/Minor | Major1 | Major2 | | Minor2 | | |
| Conflicting Flow All | - | 0 | - | 0 | 816 | 278 |
| Stage 1 | - | - | - | - | 555 | - |
| Stage 2 | - | - | - | - | 261 | - |
| Critical Hdwy | - | - | - | - | 6.8 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.8 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.8 | - |
| Follow-up Hdwy | - | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 0 | - | - | 0 | 319 | 725 |
| Stage 1 | 0 | - | - | 0 | 544 | - |
| Stage 2 | 0 | - | - | 0 | 765 | - |
| Platoon blocked, % | | - | - | | | |
| Mov Cap-1 Maneuver | - | - | - | - | 319 | 725 |
| Mov Cap-2 Maneuver | - | - | - | - | 319 | - |
| Stage 1 | - | - | - | - | 544 | - |
| Stage 2 | - | - | - | - | 765 | - |
| | | | | | | |
| | | | | | | |
| Approach | EB | WB | | SB | | |
| HCM Control Delay, s | 0 | 0 | | 0 | | |
| HCM LOS | | | | A | | |
| | | | | | | |
| | | | | | | |
| Minor Lane/Major Mvmt | EBT | WBT | SBLn1 | | | |
| Capacity (veh/h) | - | - | - | | | |
| HCM Lane V/C Ratio | - | - | - | | | |
| HCM Control Delay (s) | - | - | 0 | | | |
| HCM Lane LOS | - | - | A | | | |
| HCM 95th %tile Q(veh) | - | - | - | | | |

HCM 6th TWSC
6: 171st Street & East Access Drive

03/29/2023

| Intersection | | | | | | |
|--------------------------|------|---|---|------|---|------|
| Int Delay, s/veh | 0 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | |  |  | |  | |
| Traffic Vol, veh/h | 0 | 417 | 444 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 417 | 444 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 80 | 80 | 80 | 80 | 80 | 80 |
| Heavy Vehicles, % | 0 | 2 | 2 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 521 | 555 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 555 | 0 | 816 |
| Stage 1 | - | - | 555 |
| Stage 2 | - | - | 261 |
| Critical Hdwy | 4.1 | - | 6.8 |
| Critical Hdwy Stg 1 | - | - | 5.8 |
| Critical Hdwy Stg 2 | - | - | 5.8 |
| Follow-up Hdwy | 2.2 | - | 3.5 |
| Pot Cap-1 Maneuver | 1026 | - | 319 |
| Stage 1 | - | - | 544 |
| Stage 2 | - | - | 765 |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | 1026 | - | 319 |
| Mov Cap-2 Maneuver | - | - | 319 |
| Stage 1 | - | - | 544 |
| Stage 2 | - | - | 765 |





















| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1026 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

Capacity Analysis Summary Sheets
Year 2029 No-Build Weekday Evening Peak Hour













Lanes, Volumes, Timings
1: Harlem Avenue & 171st Street

03/29/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Volume (vph) | 219 | 352 | 172 | 146 | 344 | 84 | 235 | 1205 | 119 | 121 | 1117 | 185 |
| Future Volume (vph) | 219 | 352 | 172 | 146 | 344 | 84 | 235 | 1205 | 119 | 121 | 1117 | 185 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 160 | | 0 | 150 | | 0 | 160 | | 0 | 190 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 145 | | | 145 | | | 125 | | | 125 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.951 | | | 0.970 | | | 0.986 | | | 0.979 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1805 | 3410 | 0 | 1787 | 3474 | 0 | 1805 | 3527 | 0 | 1805 | 3499 | 0 |
| Flt Permitted | 0.223 | | | 0.183 | | | 0.066 | | | 0.102 | | |
| Satd. Flow (perm) | 424 | 3410 | 0 | 344 | 3474 | 0 | 125 | 3527 | 0 | 194 | 3499 | 0 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 40 | | | 35 | | | 40 | | | 40 | |
| Link Distance (ft) | | 212 | | | 138 | | | 383 | | | 516 | |
| Travel Time (s) | | 3.6 | | | 2.7 | | | 6.5 | | | 8.8 | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Heavy Vehicles (%) | 0% | 1% | 0% | 1% | 1% | 0% | 0% | 1% | 0% | 0% | 1% | 1% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 226 | 540 | 0 | 151 | 442 | 0 | 242 | 1365 | 0 | 125 | 1343 | 0 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 8.0 | | 3.0 | 8.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | |
| Minimum Split (s) | 9.5 | 24.0 | | 9.5 | 24.0 | | 9.5 | 24.0 | | 9.5 | 24.0 | |
| Total Split (s) | 20.0 | 29.0 | | 20.0 | 29.0 | | 24.0 | 73.0 | | 18.0 | 67.0 | |
| Total Split (%) | 14.3% | 20.7% | | 14.3% | 20.7% | | 17.1% | 52.1% | | 12.9% | 47.9% | |
| Yellow Time (s) | 3.5 | 4.0 | | 3.5 | 4.0 | | 3.5 | 4.0 | | 3.5 | 4.0 | |
| All-Red Time (s) | 0.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | None | | None | None | | None | C-Min | | None | C-Min | |
| Act Effect Green (s) | 42.9 | 24.8 | | 38.9 | 22.6 | | 88.5 | 72.2 | | 77.6 | 64.8 | |
| Actuated g/C Ratio | 0.31 | 0.18 | | 0.28 | 0.16 | | 0.63 | 0.52 | | 0.55 | 0.46 | |
| v/c Ratio | 0.79 | 0.89 | | 0.64 | 0.79 | | 0.83 | 0.75 | | 0.56 | 0.83 | |
| Control Delay | 57.6 | 74.4 | | 48.3 | 67.4 | | 58.1 | 30.8 | | 24.3 | 39.1 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 57.6 | 74.4 | | 48.3 | 67.4 | | 58.1 | 30.8 | | 24.3 | 39.1 | |
| LOS | E | E | | D | E | | E | C | | C | D | |
| Approach Delay | | 69.5 | | | 62.5 | | | 34.9 | | | 37.9 | |
| Approach LOS | | E | | | E | | | C | | | D | |
| Queue Length 50th (ft) | 159 | 254 | | 101 | 205 | | 154 | 505 | | 43 | 575 | |
| Queue Length 95th (ft) | #248 | #378 | | 161 | 267 | | #269 | 643 | | 87 | 687 | |

Lanes, Volumes, Timings
1: Harlem Avenue & 171st Street

03/29/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Internal Link Dist (ft) | 132 | | | 58 | | | 303 | | | 436 | | |
| Turn Bay Length (ft) | 160 | | | 150 | | | 160 | | | 190 | | |
| Base Capacity (vph) | 292 | 604 | | 272 | 570 | | 325 | 1818 | | 280 | 1619 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.77 | 0.89 | | 0.56 | 0.78 | | 0.74 | 0.75 | | 0.45 | 0.83 | |

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 45.6

Intersection LOS: D

Intersection Capacity Utilization 90.8%


ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Harlem Avenue & 171st Street

| | | | |
|--|--|--|--|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 18 s | 73 s | 20 s | 29 s |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 24 s | 67 s | 20 s | 29 s |

HCM 6th TWSC
4: 171st Street & West Access Drive

03/29/2023

| Intersection | | | | | | | |
|--------------------------|--------|------|--------|------|--------|------|------|
| Int Delay, s/veh | 0 | | | | | | |
| Movement | EBU | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | | ↑↑ | ↑↑ | | ↑↑ | |
| Traffic Vol, veh/h | 1 | 0 | 590 | 573 | 0 | 0 | 0 |
| Future Vol, veh/h | 1 | 0 | 590 | 573 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | - | 0 | 0 | - | 0 | - |
| Grade, % | - | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 94 | 94 | 94 | 94 | 94 | 94 | 94 |
| Heavy Vehicles, % | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| Mvmt Flow | 1 | 0 | 628 | 610 | 0 | 0 | 0 |
| Major/Minor | Major1 | | Major2 | | Minor2 | | |
| Conflicting Flow All | 610 | - | 0 | - | 0 | 926 | 305 |
| Stage 1 | - | - | - | - | - | 610 | - |
| Stage 2 | - | - | - | - | - | 316 | - |
| Critical Hdwy | 6.4 | - | - | - | - | 6.8 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | 5.8 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | 5.8 | - |
| Follow-up Hdwy | 2.5 | - | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 597 | 0 | - | - | 0 | 271 | 697 |
| Stage 1 | - | 0 | - | - | 0 | 510 | - |
| Stage 2 | - | 0 | - | - | 0 | 718 | - |
| Platoon blocked, % | | | - | - | | | |
| Mov Cap-1 Maneuver | 597 | - | - | - | - | 270 | 697 |
| Mov Cap-2 Maneuver | - | - | - | - | - | 270 | - |
| Stage 1 | - | - | - | - | - | 508 | - |
| Stage 2 | - | - | - | - | - | 718 | - |
| Approach | EB | | WB | | SB | | |
| HCM Control Delay, s | 0 | | 0 | | 0 | | |
| HCM LOS | | | | | A | | |
| Minor Lane/Major Mvmt | EBT | | WBT | | SBLn1 | | |
| Capacity (veh/h) | - | - | - | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - | - | - |
| HCM Control Delay (s) | - | - | 0 | | | | |
| HCM Lane LOS | - | - | A | | | | |
| HCM 95th %tile Q(veh) | - | - | - | | | | |

HCM 6th TWSC
6: 171st Street & East Access Drive

03/29/2023

Intersection

Int Delay, s/veh 0

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | | ↑↑ | ↑↑ | | ↑ | |
| Traffic Vol, veh/h | 0 | 590 | 573 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 590 | 573 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 94 | 94 | 94 | 94 | 94 | 94 |
| Heavy Vehicles, % | 0 | 1 | 1 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 628 | 610 | 0 | 0 | 0 |

| Major/Minor | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 610 | 0 | 924 |
| Stage 1 | - | - | 610 |
| Stage 2 | - | - | 314 |
| Critical Hdwy | 4.1 | - | 6.8 |
| Critical Hdwy Stg 1 | - | - | 5.8 |
| Critical Hdwy Stg 2 | - | - | 5.8 |
| Follow-up Hdwy | 2.2 | - | 3.5 |
| Pot Cap-1 Maneuver | 979 | - | 272 |
| Stage 1 | - | - | 510 |
| Stage 2 | - | - | 720 |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | 979 | - | 272 |
| Mov Cap-2 Maneuver | - | - | 272 |
| Stage 1 | - | - | 510 |
| Stage 2 | - | - | 720 |





















| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-----|-----|-----|-----|-------|
| Capacity (veh/h) | 979 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

Capacity Analysis Summary Sheets
Year 2029 No-Build Saturday Midday Peak Hour

Lanes, Volumes, Timings
1: Harlem Avenue & 171st Street













03/29/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Volume (vph) | 211 | 336 | 144 | 146 | 262 | 102 | 249 | 1186 | 82 | 132 | 1108 | 215 |
| Future Volume (vph) | 211 | 336 | 144 | 146 | 262 | 102 | 249 | 1186 | 82 | 132 | 1108 | 215 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 160 | | 0 | 150 | | 0 | 160 | | 0 | 190 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 145 | | | 145 | | | 125 | | | 125 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.955 | | | 0.958 | | | 0.990 | | | 0.976 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1805 | 3424 | 0 | 1805 | 3458 | 0 | 1787 | 3574 | 0 | 1805 | 3488 | 0 |
| Flt Permitted | 0.290 | | | 0.235 | | | 0.063 | | | 0.107 | | |
| Satd. Flow (perm) | 551 | 3424 | 0 | 446 | 3458 | 0 | 119 | 3574 | 0 | 203 | 3488 | 0 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 40 | | | 35 | | | 40 | | | 40 | |
| Link Distance (ft) | | 212 | | | 138 | | | 383 | | | 516 | |
| Travel Time (s) | | 3.6 | | | 2.7 | | | 6.5 | | | 8.8 | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 0% | 1% | 0% | 0% | 0% | 0% | 1% | 0% | 0% | 0% | 1% | 1% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 224 | 510 | 0 | 155 | 388 | 0 | 265 | 1349 | 0 | 140 | 1408 | 0 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 8.0 | | 3.0 | 8.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | |
| Minimum Split (s) | 9.5 | 24.0 | | 9.5 | 24.0 | | 9.5 | 24.0 | | 9.5 | 24.0 | |
| Total Split (s) | 18.0 | 30.0 | | 16.0 | 28.0 | | 20.0 | 70.0 | | 14.0 | 64.0 | |
| Total Split (%) | 13.8% | 23.1% | | 12.3% | 21.5% | | 15.4% | 53.8% | | 10.8% | 49.2% | |
| Yellow Time (s) | 3.5 | 4.0 | | 3.5 | 4.0 | | 3.5 | 4.0 | | 3.5 | 4.0 | |
| All-Red Time (s) | 0.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | None | | None | None | | None | C-Min | | None | C-Min | |
| Act Effect Green (s) | 39.8 | 23.2 | | 35.1 | 20.9 | | 82.0 | 66.8 | | 71.5 | 59.8 | |
| Actuated g/C Ratio | 0.31 | 0.18 | | 0.27 | 0.16 | | 0.63 | 0.51 | | 0.55 | 0.46 | |
| v/c Ratio | 0.74 | 0.83 | | 0.64 | 0.70 | | 0.94 | 0.73 | | 0.62 | 0.88 | |
| Control Delay | 50.2 | 64.3 | | 45.8 | 58.8 | | 75.5 | 28.3 | | 27.3 | 39.9 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 50.2 | 64.3 | | 45.8 | 58.8 | | 75.5 | 28.3 | | 27.3 | 39.9 | |
| LOS | D | E | | D | E | | E | C | | C | D | |
| Approach Delay | | 60.0 | | | 55.1 | | | 36.0 | | | 38.7 | |
| Approach LOS | | E | | | E | | | D | | | D | |
| Queue Length 50th (ft) | 145 | 218 | | 96 | 163 | | 170 | 468 | | 46 | 570 | |
| Queue Length 95th (ft) | #225 | #286 | | 154 | 219 | | #338 | 567 | | 98 | #684 | |

Lanes, Volumes, Timings

1: Harlem Avenue & 171st Street

03/29/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Internal Link Dist (ft) | 132 | | | 58 | | | 303 | | | 436 | | |
| Turn Bay Length (ft) | 160 | | | 150 | | | 160 | | | 190 | | |
| Base Capacity (vph) | 308 | 632 | | 253 | 585 | | 288 | 1837 | | 243 | 1604 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.73 | 0.81 | | 0.61 | 0.66 | | 0.92 | 0.73 | | 0.58 | 0.88 | |

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 43.3

Intersection LOS: D

Intersection Capacity Utilization 90.1%



ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Harlem Avenue & 171st Street

| | | | |
|--|--|--|--|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 14 s | 70 s | 16 s | 30 s |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 20 s | 64 s | 18 s | 28 s |

HCM 6th TWSC
4: 171st Street & West Access Drive

03/29/2023




| Intersection | | | | | | | |
|--------------------------|--------|--------|-------|--------|------|------|------|
| Int Delay, s/veh | 0 | | | | | | |
| Movement | EBU | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | | ↑↑ | ↑↑ | | ↑↑ | |
| Traffic Vol, veh/h | 2 | 0 | 548 | 508 | 0 | 0 | 0 |
| Future Vol, veh/h | 2 | 0 | 548 | 508 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | - | 0 | 0 | - | 0 | - |
| Grade, % | - | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| Mvmt Flow | 2 | 0 | 616 | 571 | 0 | 0 | 0 |
| Major/Minor | Major1 | Major2 | | Minor2 | | | |
| Conflicting Flow All | 571 | - | 0 | - | 0 | 883 | 286 |
| Stage 1 | - | - | - | - | - | 571 | - |
| Stage 2 | - | - | - | - | - | 312 | - |
| Critical Hdwy | 6.4 | - | - | - | - | 6.8 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | 5.8 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | 5.8 | - |
| Follow-up Hdwy | 2.5 | - | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 632 | 0 | - | - | 0 | 289 | 717 |
| Stage 1 | - | 0 | - | - | 0 | 534 | - |
| Stage 2 | - | 0 | - | - | 0 | 721 | - |
| Platoon blocked, % | | - | - | | | | |
| Mov Cap-1 Maneuver | 632 | - | - | - | - | 288 | 717 |
| Mov Cap-2 Maneuver | - | - | - | - | - | 288 | - |
| Stage 1 | - | - | - | - | - | 531 | - |
| Stage 2 | - | - | - | - | - | 721 | - |
| Approach | EB | WB | | SB | | | |
| HCM Control Delay, s | 0 | 0 | | 0 | | | |
| HCM LOS | | | | A | | | |
| Minor Lane/Major Mvmt | EBT | WBT | SBLn1 | | | | |
| Capacity (veh/h) | - | - | - | | | | |
| HCM Lane V/C Ratio | - | - | - | | | | |
| HCM Control Delay (s) | - | - | 0 | | | | |
| HCM Lane LOS | - | - | A | | | | |
| HCM 95th %tile Q(veh) | - | - | - | | | | |

HCM 6th TWSC
6: 171st Street & East Access Drive

03/29/2023

Intersection

Int Delay, s/veh 0

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|--------------------------|------|---|---|------|---|------|
| Lane Configurations | |  |  | |  | |
| Traffic Vol, veh/h | 0 | 548 | 506 | 2 | 0 | 1 |
| Future Vol, veh/h | 0 | 548 | 506 | 2 | 0 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 0 | 1 | 1 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 616 | 569 | 2 | 0 | 1 |

| Major/Minor | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 571 | 0 | 878 |
| Stage 1 | - | - | 570 |
| Stage 2 | - | - | 308 |
| Critical Hdwy | 4.1 | - | 6.8 |
| Critical Hdwy Stg 1 | - | - | 5.8 |
| Critical Hdwy Stg 2 | - | - | 5.8 |
| Follow-up Hdwy | 2.2 | - | 3.5 |
| Pot Cap-1 Maneuver | 1012 | - | 291 |
| Stage 1 | - | - | 535 |
| Stage 2 | - | - | 725 |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | 1012 | - | 291 |
| Mov Cap-2 Maneuver | - | - | 291 |
| Stage 1 | - | - | 535 |
| Stage 2 | - | - | 725 |





















| Approach | EB | WB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0 | 0 | 10 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 1012 | - | - | - | 717 |
| HCM Lane V/C Ratio | - | - | - | - | 0.002 |
| HCM Control Delay (s) | 0 | - | - | - | 10 |
| HCM Lane LOS | A | - | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0 |

Capacity Analysis Summary Sheets
Year 2029 Total Projected Weekday Morning Peak Hour

Lanes, Volumes, Timings
1: Harlem Avenue & 171st Street













03/29/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Volume (vph) | 203 | 277 | 131 | 120 | 260 | 75 | 200 | 928 | 61 | 90 | 836 | 182 |
| Future Volume (vph) | 203 | 277 | 131 | 120 | 260 | 75 | 200 | 928 | 61 | 90 | 836 | 182 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 160 | | 0 | 150 | | 0 | 160 | | 0 | 190 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 145 | | | 145 | | | 125 | | | 125 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.952 | | | 0.966 | | | 0.991 | | | 0.973 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1703 | 3328 | 0 | 1805 | 3296 | 0 | 1736 | 3395 | 0 | 1671 | 3366 | 0 |
| Flt Permitted | 0.326 | | | 0.428 | | | 0.149 | | | 0.194 | | |
| Satd. Flow (perm) | 584 | 3328 | 0 | 813 | 3296 | 0 | 272 | 3395 | 0 | 341 | 3366 | 0 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 40 | | | 35 | | | 40 | | | 40 | |
| Link Distance (ft) | | 212 | | | 138 | | | 383 | | | 516 | |
| Travel Time (s) | | 3.6 | | | 2.7 | | | 6.5 | | | 8.8 | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Heavy Vehicles (%) | 6% | 2% | 6% | 0% | 4% | 12% | 4% | 5% | 11% | 8% | 4% | 6% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 211 | 425 | 0 | 125 | 349 | 0 | 208 | 1031 | 0 | 94 | 1061 | 0 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 8.0 | | 3.0 | 8.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | |
| Minimum Split (s) | 9.5 | 24.0 | | 9.5 | 24.0 | | 9.5 | 24.0 | | 9.5 | 24.0 | |
| Total Split (s) | 19.0 | 36.0 | | 14.0 | 31.0 | | 14.0 | 56.0 | | 14.0 | 56.0 | |
| Total Split (%) | 15.8% | 30.0% | | 11.7% | 25.8% | | 11.7% | 46.7% | | 11.7% | 46.7% | |
| Yellow Time (s) | 3.5 | 4.0 | | 3.5 | 4.0 | | 3.5 | 4.0 | | 3.5 | 4.0 | |
| All-Red Time (s) | 0.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | None | | None | None | | None | C-Min | | None | C-Min | |
| Act Effct Green (s) | 39.5 | 23.7 | | 31.3 | 19.0 | | 72.7 | 59.0 | | 66.5 | 55.6 | |
| Actuated g/C Ratio | 0.33 | 0.20 | | 0.26 | 0.16 | | 0.61 | 0.49 | | 0.55 | 0.46 | |
| v/c Ratio | 0.64 | 0.65 | | 0.43 | 0.67 | | 0.67 | 0.62 | | 0.33 | 0.68 | |
| Control Delay | 39.5 | 48.7 | | 32.8 | 53.8 | | 24.8 | 25.5 | | 14.2 | 29.2 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 39.5 | 48.7 | | 32.8 | 53.8 | | 24.8 | 25.5 | | 14.2 | 29.2 | |
| LOS | D | D | | C | D | | C | C | | B | C | |
| Approach Delay | | 45.7 | | | 48.3 | | | 25.4 | | | 28.0 | |
| Approach LOS | | D | | | D | | | C | | | C | |
| Queue Length 50th (ft) | 123 | 160 | | 69 | 135 | | 68 | 301 | | 29 | 342 | |
| Queue Length 95th (ft) | 179 | 204 | | 109 | 177 | | #163 | 426 | | 59 | 447 | |

Lanes, Volumes, Timings

1: Harlem Avenue & 171st Street

03/29/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Internal Link Dist (ft) | 132 | | | 58 | | | 303 | | | 436 | | |
| Turn Bay Length (ft) | 160 | | | 150 | | | 160 | | | 190 | | |
| Base Capacity (vph) | 336 | 832 | | 303 | 686 | | 313 | 1670 | | 312 | 1558 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.63 | 0.51 | | 0.41 | 0.51 | | 0.66 | 0.62 | | 0.30 | 0.68 | |

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 33.0

Intersection LOS: C

Intersection Capacity Utilization 77.5%









ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Harlem Avenue & 171st Street

| | | | |
|--|--|--|--|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 14 s | 56 s | 14 s | 36 s |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 14 s | 56 s | 19 s | 31 s |

HCM 6th TWSC
6: 171st Street & Proposed Access Drive

06/29/2023

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.3 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↑↑ | ↑↑ | | ↑ | |
| Traffic Vol, veh/h | 11 | 417 | 444 | 2 | 2 | 11 |
| Future Vol, veh/h | 11 | 417 | 444 | 2 | 2 | 11 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 80 | 80 | 80 | 80 | 80 | 80 |
| Heavy Vehicles, % | 0 | 2 | 2 | 0 | 0 | 0 |
| Mvmt Flow | 14 | 521 | 555 | 3 | 3 | 14 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|-----|-----|
| Conflicting Flow All | 558 | 0 | 0 | 846 | 279 |
| Stage 1 | - | - | - | 557 | - |
| Stage 2 | - | - | - | 289 | - |
| Critical Hdwy | 4.1 | - | - | 6.8 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | 5.8 | - |
| Critical Hdwy Stg 2 | - | - | - | 5.8 | - |
| Follow-up Hdwy | 2.2 | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1023 | - | - | 305 | 724 |
| Stage 1 | - | - | - | 543 | - |
| Stage 2 | - | - | - | 741 | - |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1023 | - | - | 299 | 724 |
| Mov Cap-2 Maneuver | - | - | - | 299 | - |
| Stage 1 | - | - | - | 533 | - |
| Stage 2 | - | - | - | 741 | - |





















| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.3 | 0 | 11.2 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1023 | - | - | - | 594 |
| HCM Lane V/C Ratio | 0.013 | - | - | - | 0.027 |
| HCM Control Delay (s) | 8.6 | 0.1 | - | - | 11.2 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |

Capacity Analysis Summary Sheets
Year 2029 Total Projected Weekday Evening Peak Hour

Lanes, Volumes, Timings
1: Harlem Avenue & 171st Street













03/29/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Volume (vph) | 219 | 360 | 172 | 158 | 352 | 96 | 235 | 1205 | 131 | 133 | 1117 | 185 |
| Future Volume (vph) | 219 | 360 | 172 | 158 | 352 | 96 | 235 | 1205 | 131 | 133 | 1117 | 185 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 160 | | 0 | 150 | | 0 | 160 | | 0 | 190 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 145 | | | 145 | | | 125 | | | 125 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.952 | | | 0.968 | | | 0.985 | | | 0.979 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1805 | 3414 | 0 | 1787 | 3467 | 0 | 1805 | 3524 | 0 | 1805 | 3499 | 0 |
| Flt Permitted | 0.210 | | | 0.174 | | | 0.064 | | | 0.095 | | |
| Satd. Flow (perm) | 399 | 3414 | 0 | 327 | 3467 | 0 | 122 | 3524 | 0 | 180 | 3499 | 0 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 40 | | | 35 | | | 40 | | | 40 | |
| Link Distance (ft) | | 212 | | | 138 | | | 383 | | | 516 | |
| Travel Time (s) | | 3.6 | | | 2.7 | | | 6.5 | | | 8.8 | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Heavy Vehicles (%) | 0% | 1% | 0% | 1% | 1% | 0% | 0% | 1% | 0% | 0% | 1% | 1% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 226 | 548 | 0 | 163 | 462 | 0 | 242 | 1377 | 0 | 137 | 1343 | 0 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 8.0 | | 3.0 | 8.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | |
| Minimum Split (s) | 9.5 | 24.0 | | 9.5 | 24.0 | | 9.5 | 24.0 | | 9.5 | 24.0 | |
| Total Split (s) | 20.0 | 29.0 | | 20.0 | 29.0 | | 24.0 | 73.0 | | 18.0 | 67.0 | |
| Total Split (%) | 14.3% | 20.7% | | 14.3% | 20.7% | | 17.1% | 52.1% | | 12.9% | 47.9% | |
| Yellow Time (s) | 3.5 | 4.0 | | 3.5 | 4.0 | | 3.5 | 4.0 | | 3.5 | 4.0 | |
| All-Red Time (s) | 0.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | None | | None | None | | None | C-Min | | None | C-Min | |
| Act Effect Green (s) | 43.1 | 24.7 | | 39.6 | 23.0 | | 88.1 | 71.3 | | 77.8 | 64.4 | |
| Actuated g/C Ratio | 0.31 | 0.18 | | 0.28 | 0.16 | | 0.63 | 0.51 | | 0.56 | 0.46 | |
| v/c Ratio | 0.80 | 0.91 | | 0.68 | 0.81 | | 0.84 | 0.77 | | 0.61 | 0.83 | |
| Control Delay | 58.8 | 76.5 | | 50.5 | 68.7 | | 59.4 | 31.9 | | 29.4 | 39.5 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 58.8 | 76.5 | | 50.5 | 68.7 | | 59.4 | 31.9 | | 29.4 | 39.5 | |
| LOS | E | E | | D | E | | E | C | | C | D | |
| Approach Delay | | 71.3 | | | 64.0 | | | 36.0 | | | 38.6 | |
| Approach LOS | | E | | | E | | | D | | | D | |
| Queue Length 50th (ft) | 159 | 261 | | 110 | 216 | | 156 | 522 | | 48 | 575 | |
| Queue Length 95th (ft) | #257 | #386 | | 172 | #285 | | #272 | 653 | | 109 | 687 | |

Lanes, Volumes, Timings

1: Harlem Avenue & 171st Street

03/29/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Internal Link Dist (ft) | 132 | | | 58 | | | 303 | | | 436 | | |
| Turn Bay Length (ft) | 160 | | | 150 | | | 160 | | | 190 | | |
| Base Capacity (vph) | 288 | 603 | | 270 | 569 | | 323 | 1794 | | 272 | 1610 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.78 | 0.91 | | 0.60 | 0.81 | | 0.75 | 0.77 | | 0.50 | 0.83 | |

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 46.8

Intersection LOS: D

Intersection Capacity Utilization 91.4%


ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Harlem Avenue & 171st Street

| | | | |
|--|--|--|--|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 18 s | 73 s | 20 s | 29 s |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 24 s | 67 s | 20 s | 29 s |

HCM 6th TWSC
6: 171st Street & Proposed Access Drive

06/29/2023

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 0.7 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↑↑ | ↑↑ | | ↑ | |
| Traffic Vol, veh/h | 32 | 590 | 573 | 7 | 7 | 32 |
| Future Vol, veh/h | 32 | 590 | 573 | 7 | 7 | 32 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 94 | 94 | 94 | 94 | 94 | 94 |
| Heavy Vehicles, % | 0 | 1 | 1 | 0 | 0 | 0 |
| Mvmt Flow | 34 | 628 | 610 | 7 | 7 | 34 |

| Major/Minor | Major1 | Major2 | Minor2 | | |
|----------------------|--------|--------|--------|-----|-----|
| Conflicting Flow All | 617 | 0 | 0 | 996 | 309 |
| Stage 1 | - | - | - | 614 | - |
| Stage 2 | - | - | - | 382 | - |
| Critical Hdwy | 4.1 | - | - | 6.8 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | 5.8 | - |
| Critical Hdwy Stg 2 | - | - | - | 5.8 | - |
| Follow-up Hdwy | 2.2 | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 973 | - | - | 245 | 693 |
| Stage 1 | - | - | - | 508 | - |
| Stage 2 | - | - | - | 665 | - |
| Platoon blocked, % | - | - | - | | |
| Mov Cap-1 Maneuver | 973 | - | - | 232 | 693 |
| Mov Cap-2 Maneuver | - | - | - | 232 | - |
| Stage 1 | - | - | - | 481 | - |
| Stage 2 | - | - | - | 665 | - |





















| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.6 | 0 | 12.7 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 973 | - | - | - | 511 |
| HCM Lane V/C Ratio | 0.035 | - | - | - | 0.081 |
| HCM Control Delay (s) | 8.8 | 0.2 | - | - | 12.7 |
| HCM Lane LOS | A | A | - | - | B |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.3 |

Capacity Analysis Summary Sheets
Year 2029 Total Projected Saturday Midday Peak Hour

Lanes, Volumes, Timings
1: Harlem Avenue & 171st Street













03/29/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Volume (vph) | 211 | 340 | 144 | 153 | 266 | 109 | 249 | 1186 | 88 | 138 | 1108 | 215 |
| Future Volume (vph) | 211 | 340 | 144 | 153 | 266 | 109 | 249 | 1186 | 88 | 138 | 1108 | 215 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 160 | | 0 | 150 | | 0 | 160 | | 0 | 190 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 1 | | 0 |
| Taper Length (ft) | 145 | | | 145 | | | 125 | | | 125 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.955 | | | 0.956 | | | 0.990 | | | 0.976 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1805 | 3423 | 0 | 1805 | 3451 | 0 | 1787 | 3574 | 0 | 1805 | 3488 | 0 |
| Flt Permitted | 0.282 | | | 0.227 | | | 0.063 | | | 0.103 | | |
| Satd. Flow (perm) | 536 | 3423 | 0 | 431 | 3451 | 0 | 119 | 3574 | 0 | 196 | 3488 | 0 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (mph) | | 40 | | | 35 | | | 40 | | | 40 | |
| Link Distance (ft) | | 212 | | | 138 | | | 383 | | | 516 | |
| Travel Time (s) | | 3.6 | | | 2.7 | | | 6.5 | | | 8.8 | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles (%) | 0% | 1% | 0% | 0% | 0% | 0% | 1% | 0% | 0% | 0% | 1% | 1% |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 224 | 515 | 0 | 163 | 399 | 0 | 265 | 1356 | 0 | 147 | 1408 | 0 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | | 8 | | | 2 | | | 6 | | |
| Detector Phase | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 3.0 | 8.0 | | 3.0 | 8.0 | | 3.0 | 15.0 | | 3.0 | 15.0 | |
| Minimum Split (s) | 9.5 | 24.0 | | 9.5 | 24.0 | | 9.5 | 24.0 | | 9.5 | 24.0 | |
| Total Split (s) | 18.0 | 30.0 | | 16.0 | 28.0 | | 20.0 | 70.0 | | 14.0 | 64.0 | |
| Total Split (%) | 13.8% | 23.1% | | 12.3% | 21.5% | | 15.4% | 53.8% | | 10.8% | 49.2% | |
| Yellow Time (s) | 3.5 | 4.0 | | 3.5 | 4.0 | | 3.5 | 4.0 | | 3.5 | 4.0 | |
| All-Red Time (s) | 0.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | | 0.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Lost Time (s) | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | | 3.5 | 6.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | | Yes | Yes | |
| Recall Mode | None | None | | None | None | | None | C-Min | | None | C-Min | |
| Act Effect Green (s) | 39.9 | 23.3 | | 35.4 | 21.1 | | 81.8 | 66.5 | | 71.6 | 59.7 | |
| Actuated g/C Ratio | 0.31 | 0.18 | | 0.27 | 0.16 | | 0.63 | 0.51 | | 0.55 | 0.46 | |
| v/c Ratio | 0.74 | 0.84 | | 0.67 | 0.71 | | 0.94 | 0.74 | | 0.66 | 0.88 | |
| Control Delay | 50.7 | 64.8 | | 47.9 | 59.3 | | 76.6 | 28.7 | | 30.8 | 40.0 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 50.7 | 64.8 | | 47.9 | 59.3 | | 76.6 | 28.7 | | 30.8 | 40.0 | |
| LOS | D | E | | D | E | | E | C | | C | D | |
| Approach Delay | | 60.5 | | | 56.0 | | | 36.5 | | | 39.2 | |
| Approach LOS | | E | | | E | | | D | | | D | |
| Queue Length 50th (ft) | 145 | 221 | | 101 | 168 | | 170 | 475 | | 48 | 570 | |
| Queue Length 95th (ft) | #228 | #292 | | 162 | 225 | | #338 | 572 | | 110 | #684 | |

Lanes, Volumes, Timings

1: Harlem Avenue & 171st Street

03/29/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Internal Link Dist (ft) | 132 | | | 58 | | | 303 | | | 436 | | |
| Turn Bay Length (ft) | 160 | | | 150 | | | 160 | | | 190 | | |
| Base Capacity (vph) | 306 | 633 | | 251 | 584 | | 286 | 1827 | | 239 | 1601 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Reduced v/c Ratio | 0.73 | 0.81 | | 0.65 | 0.68 | | 0.93 | 0.74 | | 0.62 | 0.88 | |

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 43.8

Intersection LOS: D

Intersection Capacity Utilization 90.5%





ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Harlem Avenue & 171st Street

| | | | |
|--|--|--|--|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 14 s | 70 s | 16 s | 30 s |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 20 s | 64 s | 18 s | 28 s |

HCM 6th TWSC
6: 171st Street & Proposed Access Drive

06/29/2023

| Intersection | | | | | | |
|--------------------------|--------|--------|--------|------|-------|------|
| Int Delay, s/veh | 0.4 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↑↑ | ↑↑ | | ↑ | |
| Traffic Vol, veh/h | 16 | 548 | 506 | 5 | 4 | 18 |
| Future Vol, veh/h | 16 | 548 | 506 | 5 | 4 | 18 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 89 | 89 | 89 | 89 | 89 | 89 |
| Heavy Vehicles, % | 0 | 1 | 1 | 0 | 0 | 0 |
| Mvmt Flow | 18 | 616 | 569 | 6 | 4 | 20 |
| Major/Minor | Major1 | Major2 | Minor2 | | | |
| Conflicting Flow All | 575 | 0 | - | 0 | 916 | 288 |
| Stage 1 | - | - | - | - | 572 | - |
| Stage 2 | - | - | - | - | 344 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.8 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.8 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.8 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.5 | 3.3 |
| Pot Cap-1 Maneuver | 1008 | - | - | - | 275 | 715 |
| Stage 1 | - | - | - | - | 534 | - |
| Stage 2 | - | - | - | - | 695 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1008 | - | - | - | 268 | 715 |
| Mov Cap-2 Maneuver | - | - | - | - | 268 | - |
| Stage 1 | - | - | - | - | 520 | - |
| Stage 2 | - | - | - | - | 695 | - |
| Approach | EB | WB | | SB | | |
| HCM Control Delay, s | 0.3 | 0 | | 11.9 | | |
| HCM LOS | | | | B | | |
| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | |
| Capacity (veh/h) | 1008 | - | - | - | 549 | |
| HCM Lane V/C Ratio | 0.018 | - | - | - | 0.045 | |
| HCM Control Delay (s) | 8.6 | 0.1 | - | - | 11.9 | |
| HCM Lane LOS | A | A | - | - | B | |
| HCM 95th %tile Q(veh) | 0.1 | - | - | - | 0.1 | |



RSX1 LED Area Luminaire

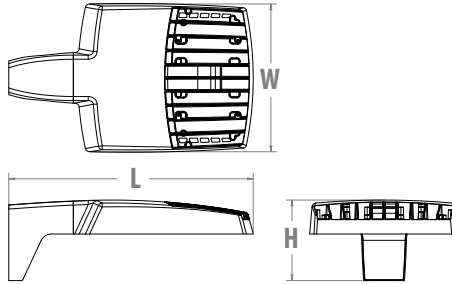


| |
|----------------|
| Catalog Number |
| Notes |
| Type |

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

| | |
|----------------------------|---|
| EPA (ft ² @0°): | 0.57 ft ² (0.05 m ²) |
| Length: | 21.8" (55.4 cm) (SPA mount) |
| Width: | 13.3" (33.8 cm) |
| Height: | 3.0" (7.6 cm) Main Body 7.2" (18.4 cm) Arm |
| Weight: (SPA mount): | 22.0 lbs (10.0 kg) |



Introduction

The new RSX LED Area family delivers maximum value by providing significant energy savings, long life and outstanding photometric performance at an affordable price. The RSX1 delivers 7,000 to 17,000 lumens allowing it to replace 70W to 400W HID luminaires.

The RSX features an integral universal mounting mechanism that allows the luminaire to be mounted on most existing drill hole patterns. This "no-drill" solution provides significant labor savings. An easy-access door on the bottom of mounting arm allows for wiring without opening the electrical compartment. A mast arm adaptor, adjustable integral slipfitter and other mounting configurations are available.



Items marked by a **shaded background** qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.

*See ordering tree for details



Ordering Information

EXAMPLE: RSX1 LED P4 40K R3 MVOLT SPA DDBXD

| RSX1 LED | | | | | |
|----------|---------------------|-------------------|---|---|--|
| Series | Performance Package | Color Temperature | Distribution | Voltage | Mounting |
| RSX1 LED | P1 | 30K 3000K | R2 Type 2 Wide | MVOLT (120V-277V) ² | SPA Square pole mounting (3.0" min. SQ pole for 1 at 90°, 3.5" min. SQ pole for 2, 3, 4 at 90°) |
| | P2 | 40K 4000K | R3 Type 3 Wide | HVOLT (347V-480V) ³ | RPA Round pole mounting (3.2" min. dia. RND pole for 2, 3, 4 at 90°, 3.0" min. dia. RND pole for 1 at 90°, 2 at 180°, 3 at 120°) |
| | P3 | 50K 5000K | R3S Type 3 Short | XVOLT (277V-480V) ⁴ | MA Mast arm adaptor (fits 2-3/8" OD horizontal tenon) |
| | P4 | | R4 Type 4 Wide | (use specific voltage for options as noted) | IS Adjustable slipfitter (fits 2-3/8" OD tenon) ⁶ |
| | | | R4S Type 4 Short | 120 ³ 277 ⁵ | WBA Wall bracket ¹ |
| | | | R5 Type 5 Wide ¹ | 208 ³ 347 ⁵ | WBASC Wall bracket with surface conduit box |
| | | | R5S Type 5 Short ¹ | 240 ³ 480 ⁵ | AASP Adjustable tilt arm square pole mounting ⁶ |
| | | | AFR Automotive Front Row | | AARP Adjustable tilt arm round pole mounting ⁶ |
| | | | AFRR90 Automotive Front Row Right Rotated | | AAWB Adjustable tilt arm with wall bracket ⁶ |
| | | | AFRL90 Automotive Front Row Left Rotated | | AAWSC Adjustable tilt arm wall bracket and surface conduit box ⁶ |

| Options | | Finish |
|--|--|----------------------------------|
| Shipped Installed | | DDBXD Dark Bronze |
| HS House-side shield ⁷ | | DBLXD Black |
| PE Photocontrol, button style ^{8,9} | | DNAXD Natural Aluminum |
| PER7 Seven-wire twist-lock receptacle only (no controls) ^{9,10,11} | | DWHXD White |
| SF Single fuse (120, 277, 347) ⁵ | | DBBTXD Textured Dark Bronze |
| DF Double fuse (208, 240, 480) ⁵ | | DBLBXD Textured Black |
| SPD20KV 20KV Surge pack (10KV standard) | | DNATXD Textured Natural Aluminum |
| FAO Field adjustable output ⁹ | | DWHGXD Textured White |
| DMG 0-10V dimming extend out back of housing for external control (control ordered separate) ⁹ | | |
| Shipped Installed | | |
| *Standalone and Networked Sensors/Controls (factory default settings, see table page 9) | | |
| NLTAIR2 PIRHN nLight AIR generation 2, with Networked, Bi-Level motion/ambient sensor ^{9,12,13,14} | | |
| BAA Buy America(n) Act Compliant | | |
| CCE Coastal Construction ¹⁵ | | |
| *Note: NLTAIR2 PIRHN with nLight Air can be used as a standalone or networked solution. Sensor coverage pattern is affected when luminaire is tilted. | | |
| Shipped Separately (requires some field assembly) | | |
| EGS External glare shield ⁷ | | |
| EGFV External glare full visor (360° around light aperture) ⁷ | | |
| BS Bird spikes ¹⁶ | | |



COMMERCIAL OUTDOOR

One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.acuitybrands.com
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Lithonia RSX1 Area LED
Rev. 06/27/23
Page 1 of 9

Ordering Information

Accessories

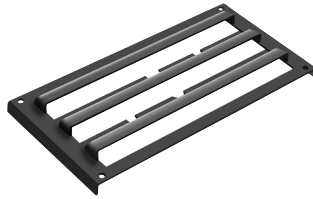
Ordered and shipped separately.

| | |
|---------------------|--|
| RSX1HS | RSX1 House side shield (includes 1 shield) |
| RSX1HSAFRR U | RSX1 House side shield for AFR rotated optics (includes 1 shield) |
| RSX1EGS (FINISH) U | External glare shield (specify finish) |
| RSX1EGFV (FINISH) U | External glare full visor (specify finish) |
| RSXRPA (FINISH) U | RSX Universal round pole adaptor plate (specify finish) |
| RSXWBA (FINISH) U | RSX WBA wall bracket (specify finish) ¹ |
| RSXSCB (FINISH) U | RSX Surface conduit box (specify finish, for use with WBA, WBA not included) |
| DLL127F 1.5 JU | Photocell -SSL twist-lock (120-277V) ¹⁷ |
| DLL347F 1.5 CUL JU | Photocell -SSL twist-lock (347V) ¹⁷ |
| DLL480F 1.5 CUL JU | Photocell -SSL twist-lock (480V) ¹⁷ |
| DSHORT SBK U | Shorting cap ¹⁷ |

NOTES

- Any Type 5 distribution, is not available with WBA.
- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- HVOLT driver operates on any line voltage from 347-480V (50/60 Hz).
- XVOLT driver not available with P1 or P2. XVOLT driver operates on any line voltage from 277V-480V (50/60 Hz). XVOLT not available with fusing (SF or DF) and not available with PE.
- Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
- Maximum tilt is 90° above horizontal.
- It may be ordered as an accessory.
- Requires MVOLT or 347V.
- Two or more of the following options cannot be combined including PE, DMG, PER7, FAO and NLTAIR2 PIRHN. (Exception: PE and FAO can be combined; also PE and DMG can be combined.)
- Compatible with standard twist-lock photocells for dusk to dawn operation or advanced control nodes that provide 0-10V dimming signals. Wire 4/Wire 5 wired to dimming leads on driver. Wire6/Wire7 capped inside luminaire. Twistlock photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.
- For units with option PER7, the mounting must be restricted to +/- 45° from horizontal aim per ANSI C136.10-2010.
- Must be ordered with PIRHN.
- Requires MVOLT or HVOLT.
- Must be ordered with NLTAIR2. For additional information on PIRHN visit [here](#).
- CCE option not available with WBA, WBASC, AASP, AARP, AAWB, AAWBSC, EGS, EGFV and BS.
- Must be ordered with fixture for factory pre-drilling.
- Requires luminaire to be specified with PER7 option. Ordered and shipped as a separate line item from Acuity Brands Controls.

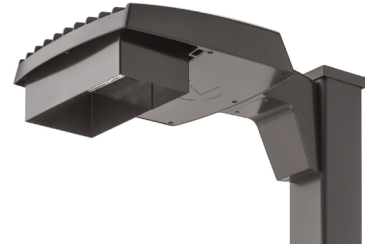
External Shields



House Side Shield



External Glare Shield

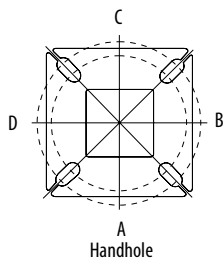


External 360 Full Visor

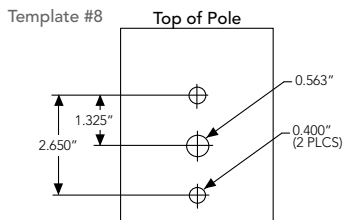
Pole/Mounting Information

Accessories including bullhorns, cross arms and other adapters are available under the accessories tab at Lithonia's Outdoor Poles and Arms product page. Click here to visit [Accessories](#).

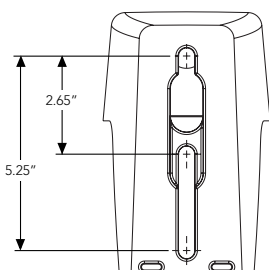
HANDHOLE ORIENTATION



RSX POLE DRILLING



RSX STANDARD ARM & ADJUSTABLE ARM



Round Tenon Mount - Pole Top Slipfitters

| Tenon O.D. | RSX Mounting | Single | 2 @ 180° | 2 @ 90° | 3 @ 120° | 3 @ 90° | 4 @ 90° |
|------------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|
| 2 - 3/8" | RPA, AARP | AS3-5 190 | AS3-5 280 | AS3-5 290 | AS3-5 320 | AS3-5 390 | AS3-5 490 |
| 2 - 7/8" | RPA, AARP | AST25-190 | AST25-280 | AST25-290 | AST25-320 | AST25-390 | AST25-490 |
| 4" | RPA, AARP | AST35-190 | AST35-280 | AST35-290 | AST35-320 | AST35-390 | AST35-490 |

Drill/Side Location by Configuration Type

| Drilling Template | Mounting Option | Single | 2 @ 180 | 2 @ 90 | 3 @ 120 | 3 @ 90 | 4 @ 90 |
|-------------------|--------------------|--------|------------|------------|-----------------|---------------|------------------|
| | Head Location | Side B | Side B & D | Side B & C | Round Pole Only | Side B, C & D | Side A, B, C & D |
| #8 | Drill Nomenclature | DM19AS | DM28AS | DM29AS | DM32AS | DM39AS | DM49AS |

RSX1 - Luminaire EPA

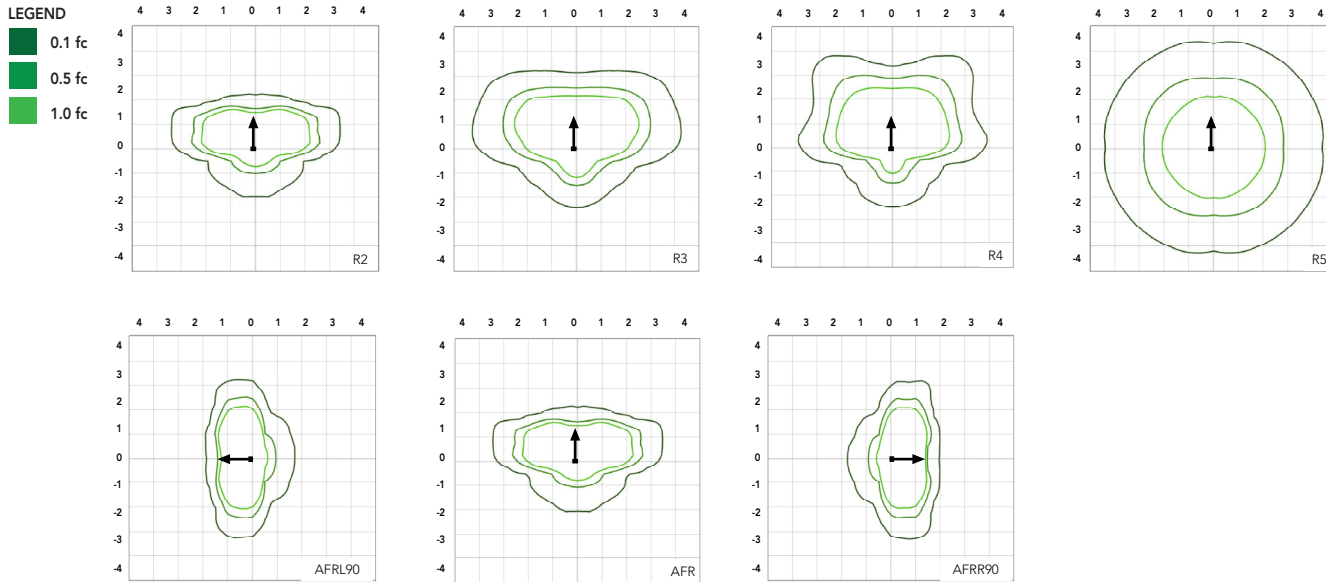
*Includes Luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

| Fixture Quantity & Mounting Configuration | Single | 2 @ 90 | 2 @ 180 | 3 @ 90 | 3 @ 120 | 4 @ 90 | 2 Side by Side | 3 Side by Side | 4 Side by Side |
|--|--------|--------|---------|--------|---------|--------|----------------|----------------|----------------|
| Mounting Type | Tilt | | | | | | | | |
| SPA - Square Pole Adaptor | 0° | 0.57 | 1.03 | 1.05 | 1.52 | 1.36 | 2.03 | 1.31 | 2.26 |
| RPA - Round Pole Adaptor | | 0.62 | 1.08 | 1.15 | 1.62 | 1.46 | 2.13 | 1.36 | 2.36 |
| MA - Mast Arm Adaptor | | 0.49 | 0.95 | 0.89 | 1.36 | 1.2 | 1.87 | 1.23 | 2.1 |
| IS - Integral Slipfitter AASP/AARP - Adjustable Arm Square/Round Pole | 0° | 0.57 | 1.03 | 1.05 | 1.52 | 1.36 | 2.03 | 1.31 | 2.26 |
| | 10° | 0.68 | 1.34 | 1.33 | 2 | 1.74 | 2.64 | 1.35 | 2.71 |
| | 20° | 0.87 | 1.71 | 1.73 | 2.56 | 2.26 | 3.42 | 1.75 | 3.49 |
| | 30° | 1.24 | 2.19 | 2.3 | 3.21 | 2.87 | 4.36 | 2.49 | 4.97 |
| | 40° | 1.81 | 2.68 | 2.98 | 3.85 | 3.68 | 5.30 | 3.62 | 7.24 |
| | 45° | 2.11 | 2.92 | 3.44 | 4.2 | 4.08 | 5.77 | 4.22 | 8.44 |
| | 50° | 2.31 | 3.17 | 3.72 | 4.52 | 4.44 | 6.26 | 4.62 | 9.25 |
| | 60° | 2.71 | 3.66 | 4.38 | 5.21 | 5.15 | 7.24 | 5.43 | 10.86 |
| | 70° | 2.78 | 3.98 | 4.54 | 5.67 | 5.47 | 7.91 | 5.52 | 11.03 |
| | 80° | 2.76 | 4.18 | 4.62 | 5.97 | 5.76 | 8.31 | 5.51 | 11.03 |
| | 90° | 2.73 | 4.25 | 4.64 | 6.11 | 5.91 | 8.47 | 5.45 | 10.97 |

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's [RSX Area homepage](#).

Isofootcandle plots for the RSX1 LED P4 40K. Distances are in units of mounting height (20').



Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-50°C (32-122°F).

| Ambient | Ambient | Lumen Multiplier |
|---------|---------|------------------|
| 0°C | 32°F | 1.05 |
| 5°C | 41°F | 1.04 |
| 10°C | 50°F | 1.03 |
| 15°C | 59°F | 1.02 |
| 20°C | 68°F | 1.01 |
| 25°C | 77°F | 1.00 |
| 30°C | 86°F | 0.99 |
| 35°C | 95°F | 0.98 |
| 40°C | 104°F | 0.97 |
| 45°C | 113°F | 0.96 |
| 50°C | 122°F | 0.95 |

Electrical Load

| Performance Package | System Watts (W) | Current (A) | | | | | |
|---------------------|------------------|-------------|------|------|------|------|------|
| | | 120V | 208V | 240V | 277V | 347V | 480V |
| P1 | 51W | 0.42 | 0.25 | 0.21 | 0.19 | 0.14 | 0.11 |
| P2 | 72W | 0.60 | 0.35 | 0.30 | 0.26 | 0.21 | 0.15 |
| P3 | 109W | 0.91 | 0.52 | 0.45 | 0.39 | 0.31 | 0.23 |
| P4 | 133W | 1.11 | 0.64 | 0.55 | 0.48 | 0.38 | 0.27 |

Projected LED Lumen Maintenance

| Operating Hours | 50,000 | 75,000 | 100,000 |
|--------------------------|--------|--------|---------|
| Lumen Maintenance Factor | >0.97 | >0.95 | >0.92 |

Values calculated according to IESNA TM-21-11 methodology and valid up to 40°C.

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

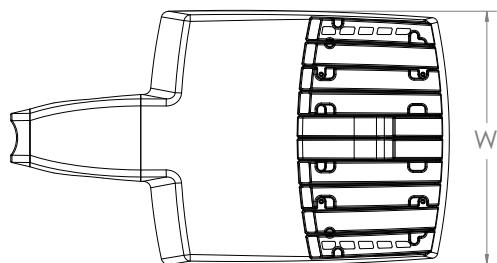
| Performance Package | System Watts | Distribution Type | 30K (3000K, 70 CRI) | | | | | 40K (4000K, 70 CRI) | | | | | 50K (5000K, 70 CRI) | | | | |
|---------------------|--------------|-------------------|------------------------|---|---|---|-----|------------------------|---|---|---|-----|------------------------|---|---|---|-----|
| | | | Lumens | B | U | G | LPW | Lumens | B | U | G | LPW | Lumens | B | U | G | LPW |
| P1 | 51W | R2 | 6,482 | 1 | 0 | 1 | 126 | 7,121 | 1 | 0 | 1 | 139 | 7,121 | 1 | 0 | 1 | 139 |
| | | R3 | 6,459 | 1 | 0 | 2 | 127 | 7,096 | 1 | 0 | 2 | 139 | 7,096 | 1 | 0 | 2 | 139 |
| | | R3S | 6,631 | 1 | 0 | 1 | 129 | 7,286 | 1 | 0 | 2 | 142 | 7,286 | 1 | 0 | 2 | 142 |
| | | R4 | 6,543 | 1 | 0 | 2 | 128 | 7,189 | 1 | 0 | 2 | 141 | 7,189 | 1 | 0 | 2 | 141 |
| | | R4S | 6,313 | 1 | 0 | 1 | 124 | 6,936 | 1 | 0 | 1 | 136 | 6,936 | 1 | 0 | 1 | 136 |
| | | R5 | 6,631 | 3 | 0 | 2 | 130 | 7,286 | 3 | 0 | 2 | 143 | 7,286 | 3 | 0 | 2 | 143 |
| | | R5S | 6,807 | 3 | 0 | 1 | 133 | 7,479 | 3 | 0 | 1 | 147 | 7,479 | 3 | 0 | 1 | 147 |
| | | AFR | 6,473 | 1 | 0 | 1 | 127 | 7,112 | 1 | 0 | 1 | 139 | 7,112 | 1 | 0 | 1 | 139 |
| | | AFRR90 | 6,535 | 2 | 0 | 2 | 127 | 7,179 | 2 | 0 | 2 | 140 | 7,179 | 2 | 0 | 2 | 140 |
| P2 | 72W | AFRL90 | 6,562 | 2 | 0 | 1 | 128 | 7,210 | 2 | 0 | 2 | 140 | 7,210 | 2 | 0 | 2 | 140 |
| | | R2 | 8,991 | 2 | 0 | 1 | 123 | 9,878 | 2 | 0 | 1 | 135 | 9,878 | 2 | 0 | 1 | 135 |
| | | R3 | 8,959 | 2 | 0 | 2 | 124 | 9,843 | 2 | 0 | 2 | 137 | 9,843 | 2 | 0 | 2 | 137 |
| | | R3S | 9,198 | 2 | 0 | 2 | 126 | 10,106 | 2 | 0 | 2 | 139 | 10,106 | 2 | 0 | 2 | 139 |
| | | R4 | 9,077 | 2 | 0 | 2 | 126 | 9,972 | 2 | 0 | 2 | 139 | 9,972 | 2 | 0 | 2 | 139 |
| | | R4S | 8,757 | 1 | 0 | 2 | 122 | 9,622 | 2 | 0 | 2 | 134 | 9,622 | 2 | 0 | 2 | 134 |
| | | R5 | 9,198 | 4 | 0 | 2 | 128 | 10,106 | 4 | 0 | 2 | 140 | 10,106 | 4 | 0 | 2 | 140 |
| | | R5S | 9,443 | 3 | 0 | 1 | 131 | 10,374 | 3 | 0 | 1 | 144 | 10,374 | 3 | 0 | 1 | 144 |
| | | AFR | 8,979 | 2 | 0 | 1 | 125 | 9,865 | 2 | 0 | 1 | 137 | 9,865 | 2 | 0 | 1 | 137 |
| P3 | 109W | AFRR90 | 9,064 | 3 | 0 | 2 | 124 | 9,959 | 3 | 0 | 2 | 137 | 9,959 | 3 | 0 | 2 | 137 |
| | | AFRL90 | 9,102 | 3 | 0 | 2 | 125 | 10,001 | 3 | 0 | 2 | 137 | 10,001 | 3 | 0 | 2 | 137 |
| | | R2 | 12,808 | 2 | 0 | 1 | 117 | 14,072 | 2 | 0 | 2 | 129 | 14,072 | 2 | 0 | 2 | 129 |
| | | R3 | 12,763 | 2 | 0 | 2 | 117 | 14,023 | 2 | 0 | 2 | 129 | 14,023 | 2 | 0 | 2 | 129 |
| | | R3S | 13,104 | 2 | 0 | 2 | 120 | 14,397 | 2 | 0 | 2 | 132 | 14,397 | 2 | 0 | 2 | 132 |
| | | R4 | 12,930 | 2 | 0 | 2 | 119 | 14,206 | 2 | 0 | 2 | 130 | 14,206 | 2 | 0 | 2 | 130 |
| | | R4S | 12,475 | 2 | 0 | 2 | 114 | 13,707 | 2 | 0 | 2 | 126 | 13,707 | 2 | 0 | 2 | 126 |
| | | R5 | 13,104 | 4 | 0 | 2 | 120 | 14,397 | 4 | 0 | 2 | 132 | 14,397 | 4 | 0 | 2 | 132 |
| | | R5S | 13,452 | 3 | 0 | 2 | 123 | 14,779 | 3 | 0 | 2 | 136 | 14,779 | 3 | 0 | 2 | 136 |
| P4 | 133W | AFR | 12,791 | 2 | 0 | 1 | 117 | 14,053 | 2 | 0 | 2 | 129 | 14,053 | 2 | 0 | 2 | 129 |
| | | AFRR90 | 12,913 | 3 | 0 | 3 | 118 | 14,187 | 3 | 0 | 3 | 130 | 14,187 | 3 | 0 | 3 | 130 |
| | | AFRL90 | 12,967 | 3 | 0 | 2 | 118 | 14,247 | 3 | 0 | 3 | 130 | 14,247 | 3 | 0 | 3 | 130 |
| | | R2 | 14,943 | 2 | 0 | 2 | 112 | 16,417 | 2 | 0 | 2 | 123 | 16,417 | 2 | 0 | 2 | 123 |
| | | R3 | 14,890 | 2 | 0 | 3 | 112 | 16,360 | 2 | 0 | 3 | 123 | 16,360 | 2 | 0 | 3 | 123 |
| | | R3S | 15,287 | 2 | 0 | 2 | 115 | 16,796 | 2 | 0 | 2 | 126 | 16,796 | 2 | 0 | 2 | 126 |
| | | R4 | 15,085 | 2 | 0 | 3 | 113 | 16,574 | 2 | 0 | 3 | 125 | 16,574 | 2 | 0 | 3 | 125 |
| | | R4S | 14,554 | 2 | 0 | 2 | 109 | 15,991 | 2 | 0 | 2 | 120 | 15,991 | 2 | 0 | 2 | 120 |
| | | R5 | 15,287 | 4 | 0 | 2 | 115 | 16,796 | 4 | 0 | 2 | 126 | 16,796 | 4 | 0 | 2 | 126 |
| | | R5S | 15,693 | 4 | 0 | 2 | 118 | 17,242 | 4 | 0 | 2 | 130 | 17,242 | 4 | 0 | 2 | 130 |
| | | AFR | 14,923 | 2 | 0 | 2 | 112 | 16,395 | 2 | 0 | 2 | 123 | 16,395 | 2 | 0 | 2 | 123 |
| | | AFRR90 | 15,065 | 3 | 0 | 3 | 113 | 16,551 | 3 | 0 | 3 | 124 | 16,551 | 3 | 0 | 3 | 124 |
| | | AFRL90 | 15,128 | 3 | 0 | 3 | 114 | 16,621 | 3 | 0 | 3 | 125 | 16,621 | 3 | 0 | 3 | 125 |

Dimensions & Weights

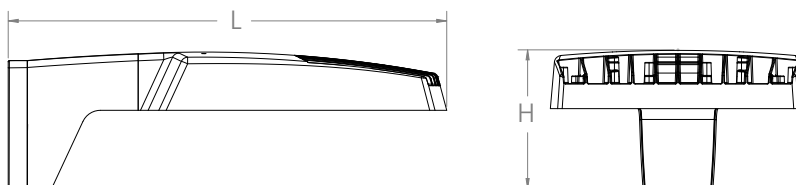
Luminaire Weight by Mounting Type

| Mounting Configuration | Total Luminaire Weight |
|------------------------|------------------------|
| SPA | 22 lbs |
| RPA | 24 lbs |
| MA | 22 lbs |
| WBA | 25 lbs |
| WBASC | 28 lbs |
| IS | 25 lbs |
| AASP | 25 lbs |
| AARP | 27 lbs |
| AAWB | 28 lbs |
| AAWSC | 31 lbs |

RSX1 with Round Pole Adapter (RPA)



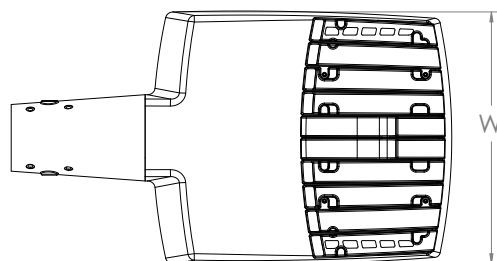
Length: 22.8" (57.9 cm)
 Width: 13.3" (33.8 cm)
 Height: 3.0" (7.6 cm) Main Body
 7.2" (18.4 cm) Arm



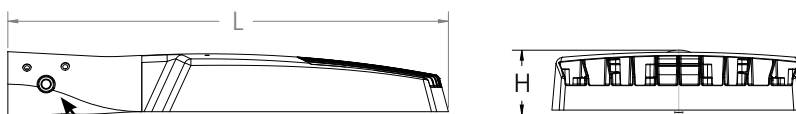
Note: RPA — Round Pole mount can also be used to mount on square poles by omitting the round pole adapter plate shown here.



RSX1 with Mast Arm Adapter (MA)

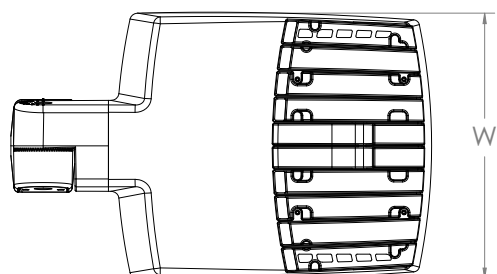


Length: 23.2" (59.1 cm)
 Width: 13.3" (33.8 cm)
 Height: 3.0" (7.6 cm) Main Body
 3.5" (8.9 cm) Arm

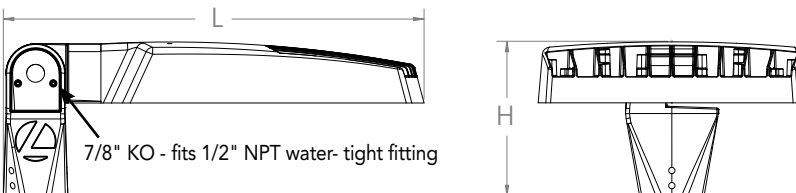


7/16" locking thru bolt/nut provided

RSX1 with Adjustable Slipfitter (IS)



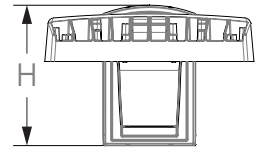
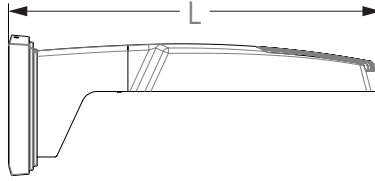
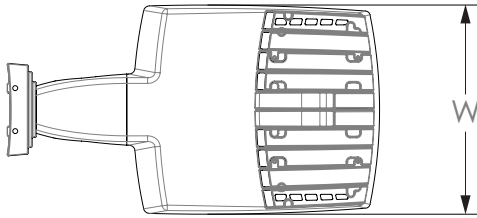
Length: 20.7" (52.7 cm)
 Width: 13.3" (33.8 cm)
 Height: 3.0" (7.6 cm) Main Body
 7.6" (19.3 cm) Arm



7/8" KO - fits 1/2" NPT water-tight fitting

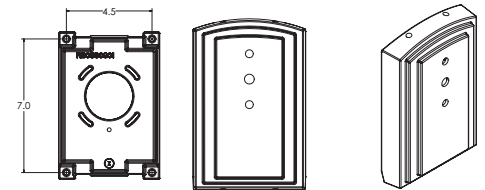
Dimensions

RSX1 with Wall Bracket (WBA)

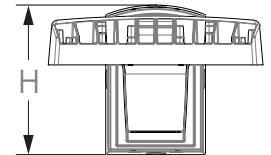
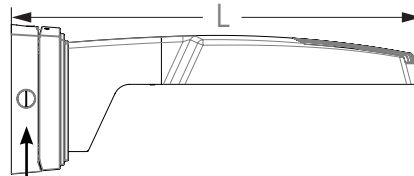
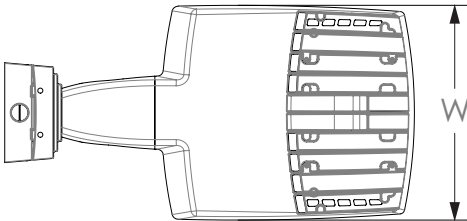


Length: 23.6" (59.9 cm)
 Width: 13.3" (33.8 cm)
 Height: 3.0" (7.6 cm) Main Body
 8.9" (22.6 cm) Arm

Wall Bracket (WBA) Mounting Detail



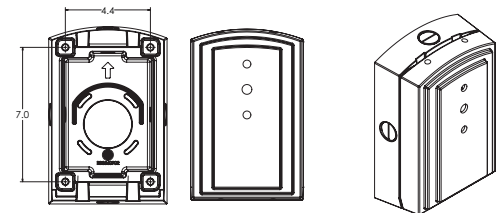
RSX1 with Wall Bracket with Surface Conduit Box (WBASC)



3/4" NPT taps with plugs - Qty (4) provided

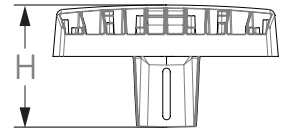
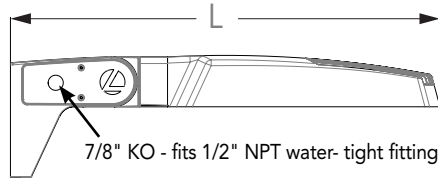
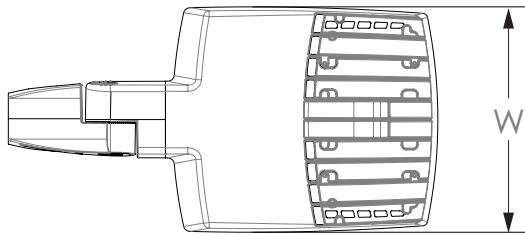
Length: 25.3" (64.3 cm)
 Width: 13.3" (33.8 cm)
 Height: 3.0" (7.6 cm) Main Body
 9.2" (23.4 cm) Arm

Surface Conduit Box (SCB) Mounting Detail

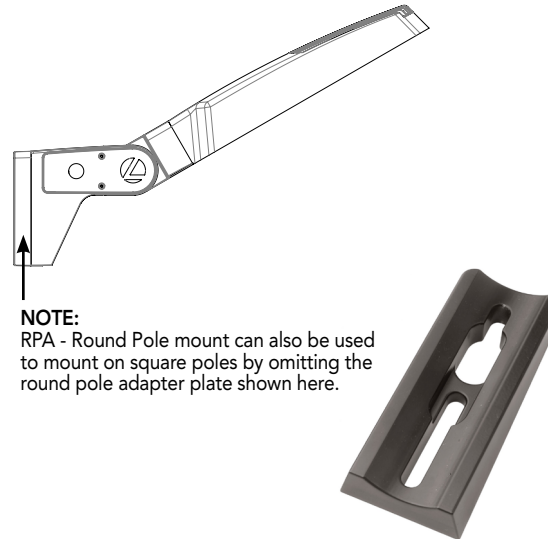


Dimensions

RSX1 with Adjustable Tilt Arm - Square or Round Pole (AASP or AARP)



Length: 25.3" (65.3 cm) **AASP**
 26.3" (66.8 cm) **AARP**
 Width: 13.3" (33.8 cm)
 Height: 3.0" (7.6 cm) Main Body
 7.2" (18.2 cm) Arm



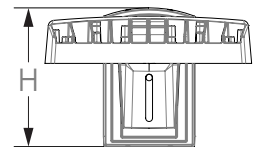
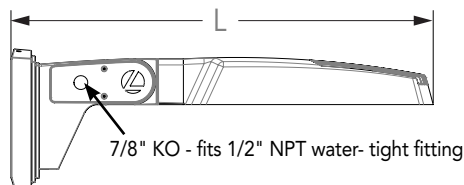
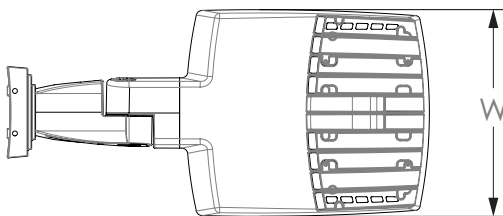
NOTE:
 RPA - Round Pole mount can also be used to mount on square poles by omitting the round pole adapter plate shown here.

Notes

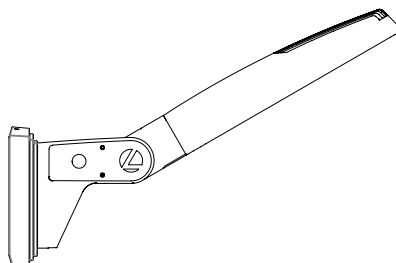
AASP: Requires 3.0" min. square pole for 1 at 90°. Requires 3.5" min. square pole for mounting 2, 3, 4 at 90°.

AARP: Requires 3.2" min. dia. round pole for 2, 3, 4 at 90°. Requires 3.0" min. dia. round pole for mounting 1 at 90°, 2 at 180°, 3 at 120°.

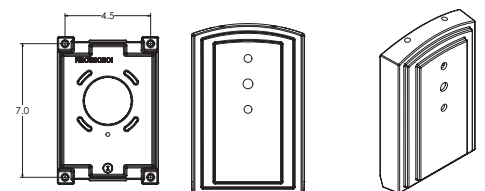
RSX1 with Adjustable Tilt Arm with Wall Bracket (AAWB)



Length: 27.1" (68.8 cm)
 Width: 13.3" (33.8 cm)
 Height: 3.0" (7.6 cm) Main Body
 8.9" (22.6 cm) Arm

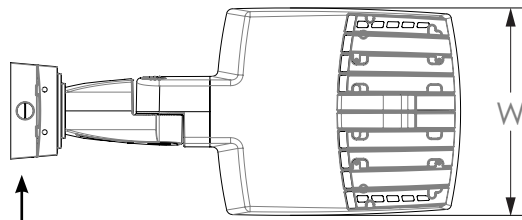


Wall Bracket (WBA) Mounting Detail



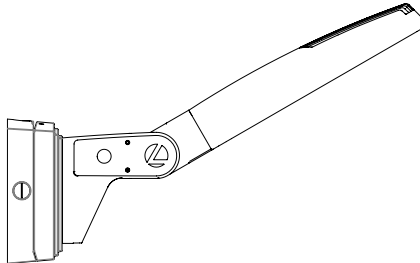
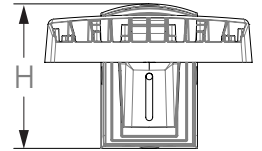
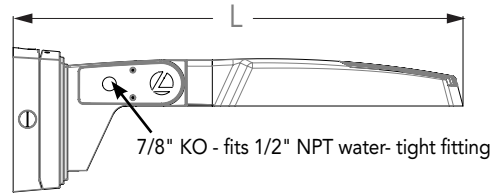
Dimensions

RSX1 with Adjustable Tilt Arm with Wall Bracket and Surface Conduit Box (AAWSC)

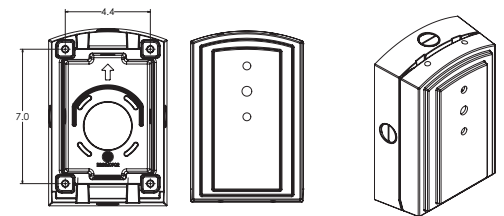


3/4" NPT taps
with plugs - Qty (4)
provided

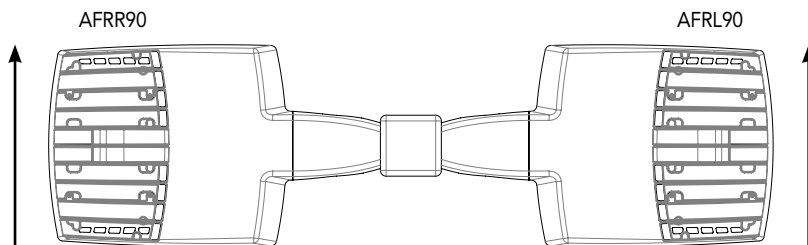
Length: 28.8" (73.2 cm)
Width: 13.3" (33.8 cm)
Height: 3.0" (7.6 cm) Main Body
9.2" (23.4 cm) Arm



Surface Conduit Box (SCB) Mounting Detail



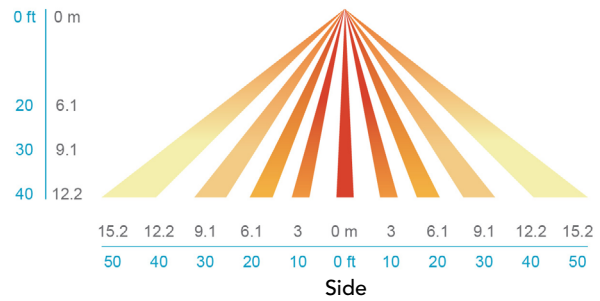
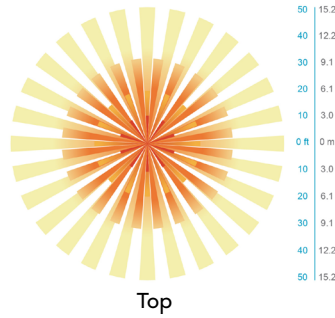
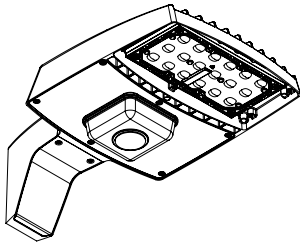
Automotive Front Row - Rotated Optics (AFRL90/R90)



(Example: 2@180 - arrows indicate direction of light exiting the luminaire)

nLight Sensor Coverage Pattern

NLTAIR2 PIRHN



| Motion Sensor Default Settings - Option PIRHN | | | | | | |
|---|---------------------------|----------------------------|---------------------|-----------------------------------|--|--|
| Option | Dimmed State (unoccupied) | High Level (when occupied) | Photocell Operation | Dwell Time (occupancy time delay) | Ramp-up Time (from unoccupied to occupied) | Ramp-down Time (from occupied to unoccupied) |
| NLTAIR2 PIRHN | Approx. 30% Output | 100% Output | Enabled @ 1.5FC | 7.5 minutes | 3 seconds | 5 minutes |

*Note: NLTAIR2 PIRHN default settings including photocell set-point, high/low dim rates, and occupancy sensor time delay are all configurable using the Clairity Pro App. Sensor coverage pattern shown with luminaire at 0°. Sensor coverage pattern is affected when luminaire is tilted.

FEATURES & SPECIFICATIONS

INTENDED USE

The RSX LED area family is designed to provide a long-lasting, energy-efficient solution for the one-for-one replacement of existing metal halide or high pressure sodium lighting. The RSX1 delivers 7,000 to 17,000 lumens and is ideal for replacing 70W to 400W HID pole-mounted luminaires in parking lots and other area lighting applications.

CONSTRUCTION

The RSX LED area luminaire features a rugged die-cast aluminum main body that uses heat-dissipating fins and flow-through venting to provide optimal thermal management that both enhances LED performance and extends component life. Integral "no drill" mounting arm allows the luminaire to be mounted on existing pole drillings, greatly reducing installation labor. The light engines and housing are sealed against moisture and environmental contaminants to IP66. The low-profile design results in a low EPA, allowing pole optimization. All mountings are rated for minimum 1.5 G vibration load per ANSI C136.31. 3G Mountings: Include SPA, RPA, MA, IS, AASP, and AARP rated for 3G vibration. 1.5G Mountings: Include WBA, WBASC, AAWB and AAWSC rated for 1.5G vibration.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures superior adhesion as well as a minimum finish thickness of 3 mils. The result is a high-quality finish that is warranted not to crack or peel.

COASTAL CONSTRUCTION (CCE)

Optional corrosion resistant construction is engineered with added corrosion protection in materials and/or pre-treatment of base material under superdurable paint. Provides additional corrosion protection for applications near coastal areas. Finish is salt spray tested to over 5,000 hours per ASTM B117 with crevice rating of 10. Additional lead-times apply.

OPTICS

Precision acrylic refractive lenses are engineered for superior application efficiency, distributing the light to where it is needed most. Available in short and wide pattern distributions including Type 2, Type 3, Type 3S, Type 4, Type 4S, Type 5, Type 5S, AFR (Automotive Front Row), and AFR rotated ARFL90 and ARFL90.

ELECTRICAL

Light engine(s) configurations consist of high-efficacy LEDs mounted on metal-core circuit boards and aluminum heat sinks to maximize heat dissipation. Light engines are IP66 rated. LED lumen maintenance is >L92/100,000 hours. CCT's of 3000K, 4000K and 5000K (minimum 70 CRI) are available. Fixtures ship standard with 0-10v dimming driver. Class 1 electronic drivers ensure system power factor >90% and THD <20%. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS

The RSX LED area luminaire has a wide assortment of control options. Dusk to dawn controls include MVOLT and 347V button-type photocells and NEMA twist-lock photocell receptacles.

nLIGHT AIR CONTROLS

The RSX LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing with photocontrol functionality and is suitable for mounting heights up to 40 feet. No commissioning is required when using factory default settings that provide basic stand-alone motion occupancy dimming that is switched on and off with a built-in photocell. See chart above for motion sensor default out-of-box settings. For more advanced wireless functionality, such as group dimming, nLight AIR can be commissioned using a smartphone and the easy-to-use CLAIRITY app. nLight AIR equipped luminaires can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclipse. Additional information about nLight Air can be found [here](#).

INSTALLATION

Integral "no-drill" mounting arm allows for fast, easy mounting using existing pole drillings. Select the "SPA" option for square poles and the "RPA" option to mount to round poles. Note, the RPA mount can also be used for mounting to square poles by omitting the RPA adapter plate. Select the "MA" option to attach the luminaire to a 2 3/8" horizontal mast arm or the "IS" option for an adjustable slipfitter that mounts on a 2 3/8" OD tenon. The adjustable slipfitter has an integral junction box and offers easy installation. Can be tilted up to 90° above horizontal. Additional mountings are available including a wall bracket, adjustable tilt arm for direct-to-pole and wall and a surface conduit box for wall mount applications.

LISTINGS

CSA Certified to meet U.S. and Canadian standards. Suitable for wet locations. Rated for -40°C minimum ambient. DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified. International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only. U.S. Patent No. D882, 146S

BUY AMERICAN ACT

Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:

www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.



WDGE2 LED

Architectural Wall Sconce

Precision Refractive Optic



Catalog
Number

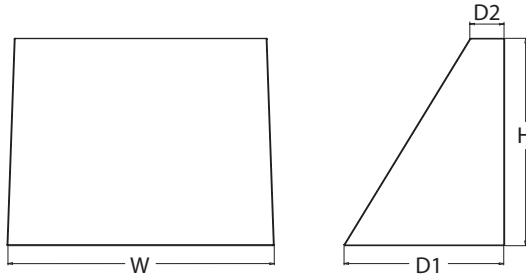
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

Depth (D1): 7"
Depth (D2): 1.5"
Height: 9"
Width: 11.5"
Weight: 13.5 lbs
 (without options)



Introduction

The WDGE LED family is designed to meet specifier's every wall-mounted lighting need in a widely accepted shape that blends with any architecture. The clean rectilinear design comes in four sizes with lumen packages ranging from 1,200 to 25,000 lumens, providing a true site-wide solution. Embedded with nLight® AIR wireless controls, the WDGE family provides additional energy savings and code compliance.

WDGE2 with industry leading precision refractive optics provides great uniform distribution and optical control. When combined with multiple integrated emergency battery backup options, including an 18W cold temperature option, the WDGE2 becomes the ideal wall-mounted lighting solution for pedestrian scale applications in any environment.

WDGE LED Family Overview

| Luminaire | Optics | Standard EM, 0°C | Cold EM, -20°C | Sensor | Approximate Lumens (4000K, 80CRI) | | | | | | |
|-----------|----------------------|------------------|----------------|---------------------|-----------------------------------|--------|--------|--------|--------|--------|--------|
| | | | | | P0 | P1 | P2 | P3 | P4 | P5 | P6 |
| WDGE1 LED | Visual Comfort | 4W | | -- | 750 | 1,200 | 2,000 | -- | -- | -- | -- |
| WDGE2 LED | Visual Comfort | 10W | 18W | Standalone / nLight | -- | 1,200 | 2,000 | 3,000 | 4,500 | 6,000 | -- |
| WDGE2 LED | Precision Refractive | 10W | 18W | Standalone / nLight | 700 | 1,200 | 2,000 | 3,200 | 4,200 | -- | -- |
| WDGE3 LED | Precision Refractive | 15W | 18W | Standalone / nLight | -- | 7,500 | 8,500 | 10,000 | 12,000 | -- | -- |
| WDGE4 LED | Precision Refractive | | | Standalone / nLight | -- | 12,000 | 16,000 | 18,000 | 20,000 | 22,000 | 25,000 |

Ordering Information

EXAMPLE: WDGE2 LED P3 40K 80CRI VF MVOLT SRM DDBXD

| Series | Package | Color Temperature | CRI | Distribution | Voltage | Mounting | |
|-----------|-----------------|------------------------|---|---------------------------|------------------|--|--|
| WDGE2 LED | P0 ¹ | 27K 2700K | 70CRI ⁴ | T1S Type I Short | MVOLT | Shipped included SRM Surface mounting bracket ICW Indirect Canopy/Ceiling Washer bracket (dry/damp locations only) ⁶ | Shipped separately AWS 3/8inch Architectural wall spacer PBBW Surface-mounted back box (top, left, right conduit entry). Use when there is no junction box available. |
| | P1 ² | 30K 3000K | 80CRI LW ³ Limited Wavelength | T2M Type II Medium | 347 ⁵ | | |
| | P2 ² | 40K 4000K | | T3M Type III Medium | 480 ⁵ | | |
| | P3 ² | 50K 5000K | | T4M Type IV Medium | | | |
| | P4 ² | AMB ³ Amber | | TFTM Forward Throw Medium | | | |

| Options | | | | Finish | |
|------------------|---|---|--------|---------------------------|--|
| E10WH | Emergency battery backup, Certified in CA Title 20 MAEDBS (10W, 5°C min) | Standalone Sensors/Controls PIR Bi-level (100/35%) motion sensor for 8-15' mounting heights. Intended for use on switched circuits with external dusk to dawn switching. PIRH Bi-level (100/35%) motion sensor for 15-30' mounting heights. Intended for use on switched circuits with external dusk to dawn switching PIR1FC3V Bi-level (100/35%) motion sensor for 8-15' mounting heights with photocell pre-programmed for dusk to dawn operation. PIRH1FC3V Bi-level (100/35%) motion sensor for 15-30' mounting heights with photocell pre-programmed for dusk to dawn operation. Networked Sensors/Controls NLTAIR2 PIR nLightAIR Wireless enabled bi-level motion/ambient sensor for 8-15' mounting heights. NLTAIR2 PIRH nLightAIR Wireless enabled bi-level motion/ambient sensor for 15-30' mounting heights. See page 4 for out of box functionality | DDBXD | Dark bronze | |
| E20WC | Emergency battery backup, Certified in CA Title 20 MAEDBS (18W, -20°C min) | | DBLXD | Black | |
| PE ⁷ | Photocell, Button Type | | DNAXD | Natural aluminum | |
| DMG ⁸ | 0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately) | | DWHXD | White | |
| BCE | Bottom conduit entry for back box (PBBW). Total of 4 entry points. | | DSSXD | Sandstone | |
| BAA | Buy America(n) Act Compliant | | DDBTXD | Textured dark bronze | |
| | | | DBLBDX | Textured black | |
| | | | DNATXD | Textured natural aluminum | |
| | | | DWHGXD | Textured white | |
| | | | DSSTXD | Textured sandstone | |



COMMERCIAL OUTDOOR

One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com
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WDGE2 LED
 Rev. 11/21/22

Accessories

Ordered and shipped separately.

WDGEAWS DDBXD WEDGE 3/8inch Architectural Wall Spacer (specify finish)
WDGE2P8BW DDBXD U WEDGE2 surface-mounted back box (specify finish)

NOTES

- 1 PO option not available with sensors/controls.
- 2 P1-P4 not available with AMB and LW.
- 3 AMB and LW always go together.
- 4 70CRI only available with T3M and T4M.
- 5 347V and 480V not available with E10WH or E20WC.
- 6 Not qualified for DLC. Not available with emergency battery backup or sensors/controls.
- 7 PE not available in 480V or with sensors/controls.
- 8 DMG option not available with sensors/controls.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

| Performance Package | System Watts | Dist. Type | 27K (2700K, 80 CRI) | | | | | 30K (3000K, 80 CRI) | | | | | 40K (4000K, 80 CRI) | | | | | 50K (5000K, 80 CRI) | | | | | Amber (Limited Wavelength) | | | | |
|---------------------|--------------|------------|---------------------|-----|---|---|---|---------------------|-----|---|---|---|---------------------|-----|---|---|---|---------------------|-----|---|---|---|----------------------------|-----|---|---|---|
| | | | Lumens | LPW | B | U | G | Lumens | LPW | B | U | G | Lumens | LPW | B | U | G | Lumens | LPW | B | U | G | Lumens | LPW | B | U | G |
| P0 | 7W | T1S | 636 | 92 | 0 | 0 | 0 | 666 | 97 | 0 | 0 | 0 | 699 | 101 | 0 | 0 | 1 | 691 | 100 | 0 | 0 | 1 | 712 | 47 | 0 | 0 | 1 |
| | | T2M | 662 | 96 | 0 | 0 | 0 | 693 | 101 | 0 | 0 | 0 | 728 | 106 | 0 | 0 | 0 | 719 | 104 | 0 | 0 | 0 | 741 | 48 | 0 | 0 | 0 |
| | | T3M | 662 | 96 | 0 | 0 | 0 | 693 | 101 | 0 | 0 | 0 | 728 | 106 | 0 | 0 | 0 | 719 | 104 | 0 | 0 | 0 | 741 | 48 | 0 | 0 | 0 |
| | | T4M | 648 | 94 | 0 | 0 | 0 | 679 | 98 | 0 | 0 | 0 | 712 | 103 | 0 | 0 | 0 | 704 | 102 | 0 | 0 | 0 | 726 | 47 | 0 | 0 | 0 |
| | | TFTM | 652 | 95 | 0 | 0 | 0 | 683 | 99 | 0 | 0 | 0 | 717 | 104 | 0 | 0 | 0 | 708 | 103 | 0 | 0 | 0 | 730 | 48 | 0 | 0 | 1 |
| P1 | 11W | T1S | 1,105 | 99 | 0 | 0 | 1 | 1,157 | 104 | 0 | 0 | 1 | 1,215 | 109 | 0 | 0 | 1 | 1,200 | 107 | 0 | 0 | 1 | | | | | |
| | | T2M | 1,150 | 103 | 0 | 0 | 1 | 1,204 | 108 | 0 | 0 | 1 | 1,264 | 113 | 0 | 0 | 1 | 1,249 | 112 | 0 | 0 | 1 | | | | | |
| | | T3M | 1,150 | 103 | 0 | 0 | 1 | 1,205 | 108 | 0 | 0 | 1 | 1,265 | 113 | 0 | 0 | 1 | 1,250 | 112 | 0 | 0 | 1 | | | | | |
| | | T4M | 1,126 | 101 | 0 | 0 | 1 | 1,179 | 106 | 0 | 0 | 1 | 1,238 | 111 | 0 | 0 | 1 | 1,223 | 110 | 0 | 0 | 1 | | | | | |
| | | TFTM | 1,133 | 101 | 0 | 0 | 1 | 1,186 | 106 | 0 | 0 | 1 | 1,245 | 112 | 0 | 0 | 1 | 1,230 | 110 | 0 | 0 | 1 | | | | | |
| P2 | 19W | T1S | 1,801 | 95 | 1 | 0 | 1 | 1,886 | 99 | 1 | 0 | 1 | 1,981 | 104 | 1 | 0 | 1 | 1,957 | 103 | 1 | 0 | 1 | | | | | |
| | | T2M | 1,875 | 99 | 1 | 0 | 1 | 1,963 | 103 | 1 | 0 | 1 | 2,061 | 109 | 1 | 0 | 1 | 2,037 | 107 | 1 | 0 | 1 | | | | | |
| | | T3M | 1,876 | 99 | 1 | 0 | 1 | 1,964 | 103 | 1 | 0 | 1 | 2,062 | 109 | 1 | 0 | 1 | 2,038 | 107 | 1 | 0 | 1 | | | | | |
| | | T4M | 1,836 | 97 | 1 | 0 | 1 | 1,922 | 101 | 1 | 0 | 1 | 2,018 | 106 | 1 | 0 | 1 | 1,994 | 105 | 1 | 0 | 1 | | | | | |
| | | TFTM | 1,847 | 97 | 1 | 0 | 1 | 1,934 | 102 | 1 | 0 | 1 | 2,030 | 107 | 1 | 0 | 1 | 2,006 | 106 | 1 | 0 | 1 | | | | | |
| P3 | 32W | T1S | 2,809 | 87 | 1 | 0 | 1 | 2,942 | 92 | 1 | 0 | 1 | 3,089 | 96 | 1 | 0 | 1 | 3,052 | 95 | 1 | 0 | 1 | | | | | |
| | | T2M | 2,924 | 91 | 1 | 0 | 1 | 3,062 | 95 | 1 | 0 | 1 | 3,215 | 100 | 1 | 0 | 1 | 3,176 | 99 | 1 | 0 | 1 | | | | | |
| | | T3M | 2,925 | 91 | 1 | 0 | 1 | 3,063 | 95 | 1 | 0 | 1 | 3,216 | 100 | 1 | 0 | 1 | 3,177 | 99 | 1 | 0 | 1 | | | | | |
| | | T4M | 2,862 | 89 | 1 | 0 | 1 | 2,997 | 93 | 1 | 0 | 1 | 3,147 | 98 | 1 | 0 | 1 | 3,110 | 97 | 1 | 0 | 1 | | | | | |
| | | TFTM | 2,880 | 90 | 1 | 0 | 1 | 3,015 | 94 | 1 | 0 | 1 | 3,166 | 99 | 1 | 0 | 1 | 3,128 | 97 | 1 | 0 | 1 | | | | | |
| P4 | 47W | T1S | 3,729 | 80 | 1 | 0 | 1 | 3,904 | 84 | 1 | 0 | 1 | 4,099 | 88 | 1 | 0 | 1 | 4,051 | 87 | 1 | 0 | 1 | | | | | |
| | | T2M | 3,881 | 83 | 1 | 0 | 1 | 4,063 | 87 | 1 | 0 | 1 | 4,267 | 91 | 1 | 0 | 1 | 4,216 | 90 | 1 | 0 | 1 | | | | | |
| | | T3M | 3,882 | 83 | 1 | 0 | 1 | 4,065 | 87 | 1 | 0 | 1 | 4,268 | 91 | 1 | 0 | 1 | 4,217 | 90 | 1 | 0 | 1 | | | | | |
| | | T4M | 3,799 | 81 | 1 | 0 | 1 | 3,978 | 85 | 1 | 0 | 1 | 4,177 | 90 | 1 | 0 | 1 | 4,127 | 88 | 1 | 0 | 1 | | | | | |
| | | TFTM | 3,822 | 82 | 1 | 0 | 1 | 4,002 | 86 | 1 | 0 | 1 | 4,202 | 90 | 1 | 0 | 1 | 4,152 | 89 | 1 | 0 | 1 | | | | | |

| Performance Package | System Watts | Dist. Type | 27K (2700K, 70 CRI) | | | | | 30K (3000K, 70 CRI) | | | | | 40K (4000K, 70 CRI) | | | | | 50K (5000K, 70 CRI) | | | | |
|---------------------|--------------|------------|---------------------|-----|---|---|---|---------------------|-----|---|---|---|---------------------|-----|---|---|---|---------------------|-----|---|---|---|
| | | | Lumens | LPW | B | U | G | Lumens | LPW | B | U | G | Lumens | LPW | B | U | G | Lumens | LPW | B | U | G |
| P0 | 7W | T3M | 737 | 107 | 0 | 0 | 0 | 763 | 111 | 0 | 0 | 0 | 822 | 119 | 0 | 0 | 0 | 832 | 121 | 0 | 0 | 1 |
| | | T4M | 721 | 105 | 0 | 0 | 0 | 746 | 108 | 0 | 0 | 0 | 804 | 117 | 0 | 0 | 1 | 814 | 118 | 0 | 0 | 1 |
| P1 | 11W | T3M | 1,280 | 115 | 0 | 0 | 1 | 1,325 | 119 | 0 | 0 | 1 | 1,427 | 128 | 1 | 0 | 1 | 1,445 | 129 | 1 | 0 | 1 |
| | | T4M | 1,253 | 112 | 0 | 0 | 1 | 1,297 | 116 | 0 | 0 | 1 | 1,397 | 125 | 0 | 0 | 1 | 1,415 | 127 | 0 | 0 | 1 |
| P2 | 19W | T3M | 2,087 | 110 | 1 | 0 | 1 | 2,160 | 114 | 1 | 0 | 1 | 2,327 | 123 | 1 | 0 | 1 | 2,357 | 124 | 1 | 0 | 1 |
| | | T4M | 2,042 | 108 | 1 | 0 | 1 | 2,114 | 111 | 1 | 0 | 1 | 2,278 | 120 | 1 | 0 | 1 | 2,306 | 121 | 1 | 0 | 1 |
| P3 | 32W | T3M | 3,254 | 101 | 1 | 0 | 1 | 3,369 | 105 | 1 | 0 | 1 | 3,629 | 113 | 1 | 0 | 1 | 3,675 | 114 | 1 | 0 | 1 |
| | | T4M | 3,185 | 99 | 1 | 0 | 1 | 3,297 | 103 | 1 | 0 | 1 | 3,552 | 111 | 1 | 0 | 1 | 3,597 | 112 | 1 | 0 | 1 |
| P4 | 47W | T3M | 4,319 | 93 | 1 | 0 | 1 | 4,471 | 96 | 1 | 0 | 1 | 4,817 | 103 | 1 | 0 | 2 | 4,878 | 105 | 1 | 0 | 2 |
| | | T4M | 4,227 | 91 | 1 | 0 | 1 | 4,376 | 94 | 1 | 0 | 2 | 4,714 | 101 | 1 | 0 | 2 | 4,774 | 102 | 1 | 0 | 2 |



COMMERCIAL OUTDOOR

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WDGE2 LED
Rev. 11/21/22

Electrical Load

| Performance Package | System Watts | Current (A) | | | | | |
|---------------------|--------------|-------------|--------|--------|--------|--------|--------|
| | | 120Vac | 208Vac | 240Vac | 277Vac | 347Vac | 480Vac |
| P0 | 7.0 | 0.061 | 0.042 | 0.04 | 0.039 | -- | -- |
| | 9.0 | -- | -- | -- | -- | 0.031 | 0.021 |
| P1 | 11.0 | 0.100 | 0.064 | 0.059 | 0.054 | -- | -- |
| | 14.1 | -- | -- | -- | -- | 0.046 | 0.031 |
| P2 | 19.0 | 0.168 | 0.106 | 0.095 | 0.083 | -- | -- |
| | 22.8 | -- | -- | -- | -- | 0.067 | 0.050 |
| P3 | 32.0 | 0.284 | 0.163 | 0.144 | 0.131 | -- | -- |
| | 37.1 | -- | -- | -- | -- | 0.107 | 0.079 |
| P4 | 47.0 | 0.412 | 0.234 | 0.207 | 0.185 | -- | -- |
| | 53.5 | -- | -- | -- | -- | 0.153 | 0.112 |

Lumen Output in Emergency Mode (4000K, 80 CRI, T3M)

| Option | Lumens |
|--------|--------|
| E10WH | 1,358 |
| E20WC | 2,230 |

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

| Ambient | | Lumen Multiplier |
|---------|-------|------------------|
| 0°C | 32°F | 1.03 |
| 10°C | 50°F | 1.02 |
| 20°C | 68°F | 1.01 |
| 25°C | 77°F | 1.00 |
| 30°C | 86°F | 0.99 |
| 40°C | 104°F | 0.97 |

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a 25°C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

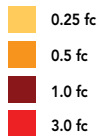
To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

| Operating Hours | 0 | 25,000 | 50,000 | 100,000 |
|--------------------------|-----|--------|--------|---------|
| Lumen Maintenance Factor | 1.0 | >0.96 | >0.93 | >0.87 |

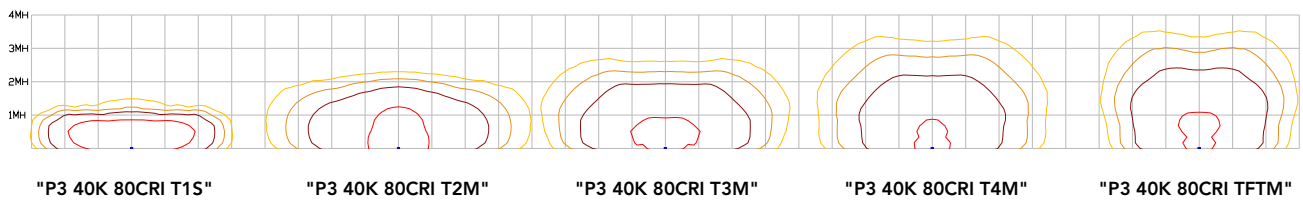
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting WDGE LED homepage. Tested in accordance with IESNA LM-79 and LM-80 standards.

LEGEND



MH = 10ft
Grid = 10ft x 10ft



Emergency Egress Options

Emergency Battery Backup

The emergency battery backup is integral to the luminaire — no external housing required! This design provides reliable emergency operation while maintaining the aesthetics of the product. All emergency battery backup configurations include an independent secondary driver with an integral relay to immediately detect loss of normal power and automatically energize the luminaire. The emergency battery will power the luminaire for a minimum duration of 90 minutes (maximum duration of three hours) from the time normal power is lost and maintain a minimum of 60% of the light output at the end of 90minutes.

Applicable codes: NFPA 70/NEC – section 700.16, NFPA 101 Life Safety Code Section 7.9



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WDGE2 LED
Rev. 11/21/22

Motion/Ambient Sensor (PIR_, PIRH_)

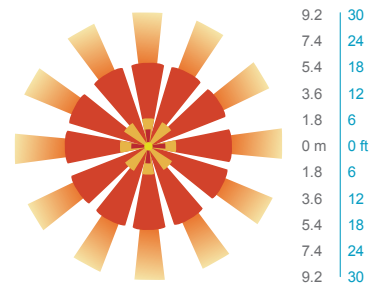
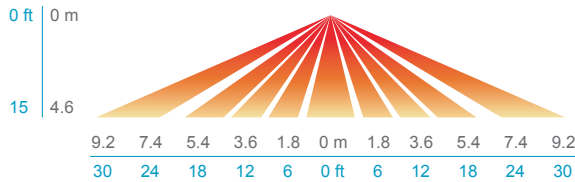
Motion/Ambient sensor (Sensor Switch MSOD) is integrated into the the luminaire. The sensor provides both Motion and Daylight based dimming of the luminaire. For motion detection, the sensor utilizes 100% Digital Passive Infrared (PIR) technology that is tuned for walking size motion while preventing false tripping from the environment. The integrated photocell enables additional energy savings during daytime periods when there is sufficient daylight. Optimize sensor coverage by either selecting PIR or PIRH option. PIR option comes with a sensor lens that is optimized to provide maximum coverage for mounting heights between 8-15ft, while PIRH is optimized for 15-40ft mounting height.

Networked Control (NLTAIR2)

nLight® AIR is a wireless lighting controls platform that allows for seamless integration of both indoor and outdoor luminaires. Five-tier security architecture, 900 MHz wireless communication and app (CLAIRITY™ Pro) based configurability combined together make nLight® AIR a secure, reliable and easy to use platform.

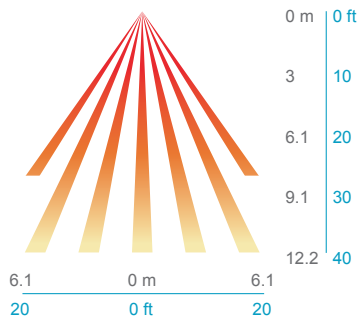
PIR

HIGH VIEW

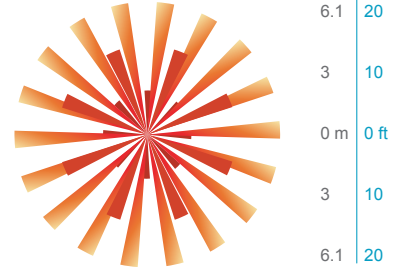


PIRH

SIDE VIEW



TOP VIEW



| Option | Dim Level | High Level (when triggered) | Photocell Operation | Motion Time Delay | Ramp-down Time | Ramp-up Time |
|--|---|-----------------------------|---------------------|-------------------|----------------|--------------------------------------|
| PIR or PIRH | Motion - 3V (37% of full output) Photocell - 0V (turned off) | 10V (100% output) | Enabled @ 5fc | 5 min | 5 min | Motion - 3 sec Photocell - 45 sec |
| PIR1FC3V, PIRH1FC3V | Motion - 3V (37% of full output) Photocell - 0V (turned off) | 10V (100% output) | Enabled @ 1fc | 5 min | 5 min | Motion - 3 sec Photocell - 45 sec |
| NLTAIR2 PIR, NLTAIR2 PIRH (out of box) | Motion - 3V (37% of full output) Photocell - 0V (turned off) | 10V (100% output) | Enabled @ 5fc | 7.5 min | 5 min | Motion - 3 sec Photocell - 45 sec |



Motion/Ambient Sensor

D = 7"
H = 9" (Standalone controls)
11" (nLight AIR controls, 2" antenna will be pointing down behind the sensor)
W = 11.5"



PBBW – Surface-Mounted Back Box Use when there is no junction box available.

D = 1.75"
H = 9"
W = 11.5"



AWS – 3/8inch Architectural Wall Spacer

D = 0.38"
H = 4.4"
W = 7.5"

FEATURES & SPECIFICATIONS

INTENDED USE

Common architectural look, with clean rectilinear shape, of the WDGE LED was designed to blend with any type of construction, whether it be tilt-up, frame or brick. Applications include commercial offices, warehouses, hospitals, schools, malls, restaurants, and other commercial buildings.

CONSTRUCTION

The single-piece die-cast aluminum housing integrates secondary heat sinks to optimize thermal transfer from the internal light engine heat sinks and promote long life. The driver is mounted in direct contact with the casting for a low operating temperature and long life. The die-cast door frame is fully gasketed with a one-piece solid silicone gasket to keep out moisture and dust, providing an IP66 rating for the luminaire.

FINISH

Exterior painted parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Standard Super Durable colors include dark bronze, black, natural aluminum, sandstone and white. Available in textured and non-textured finishes.

OPTICS

Individually formed acrylic lenses are engineered for superior application efficiency which maximizes the light in the areas where it is most needed. The WDGE LED has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine consists of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L91/100,000 hours at 25°C). The electronic driver has a power factor of >90%, THD <20%. Luminaire comes with built in 6kV surge protection, which meets a minimum Category C low exposure (per ANSI/IEEE C62.41.2). Fixture ships standard with 0-10v dimmable driver.

INSTALLATION

A universal mounting plate with integral mounting support arms allows the fixture to hinge down for easy access while making wiring connections. The 3/8" Architectural Wall Spacer (AWS) can be used to create a floating appearance or to accommodate small imperfections in the wall surface. The ICW option can be used to mount the luminaire inverted for indirect lighting in dry and damp locations. Design can withstand up to a 1.5 G vibration load rating per ANSI C136.31.

LISTINGS

CSA certified to U.S. and Canadian standards. Luminaire is IP66 rated. PIR options are rated for wet location. Rated for -40°C minimum ambient. DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified. International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 2700K and 3000K color temperature only and SRM mounting only.

BUY AMERICAN ACT

Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations.

Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

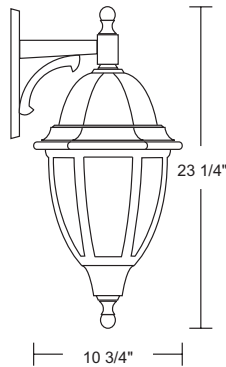
Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

OUTDOOR WALL FIXTURE S11V

OUTDOOR DECORATIVE EVERSTONE™



EXTENDS:
12 3/4"
H/CTR:
5 1/4"
BACKPLATE:
10 5/8" x 5 1/2"



SPECIFICATIONS

- Black, White, Sand, Gray, & Bronzestone
- Nylon Mounting Hardware Included
- Oceanside Approved
- Clear or Frosted Acrylic Diffuser
- Wall Mount Only
- Minimum Starting Temp -20°F
- UL Listed for Wet Locations
- Composite Construction



Wave Lighting's S11V provides a level of beauty to any outdoor space. EverStone™ is a proprietary compression molded composite material that provides a level of non-corrosive durability that is unavailable in traditional metallic lighting fixtures. Wave Lighting's S11V is designed for wall applications and non-corrosive mounting hardware is included.



LED SOURCE OPTIONS

LIGHTWAVE LED - LR/LT

- 120V, 50/60 Hz
- AC Driver-On-Board Array
- Estimated 50,000 Hrs L₇₀
- Low Flicker (LT models)
- Surge Supression
- Dimmable (see compatible dimmer list)
- High Efficacy LED Light Source
- 3000K or 4000K CCT 80 or 90CRI
- 5 Year Warranty
- Energy Star

E26 MEDIUM BASE - LE26

- 120V, 50/60Hz
- "Screw-In" Medium Base A19/E26 LED Lamp
- Estimated 15,000 Hrs L₇₀
- Low Flicker (3K models)
- Dimmable (see compatible dimmer list)
- 3000K CCT 90CRI or 4000K CCT 80CRI
- 3 Year Warranty
- Energy Star

GUIDE CODE: S11VC-LR12W-WH-PC

CALL FOR PHOTOMETRIC INFORMATION

| ITEM # | LENS | LIGHT SOURCE | CCT | COLOR | OPTIONS |
|--------|---------------------------------|--|--------------|--|--------------|
| S11V | ACRYLIC C-Clear F-Frosted | E26 MEDIUM BASE | C-4K W-3K | BK-Blackstone WH-Whitestone SN-Sandstone GY-Graystone BZ-Bronzestone | PC-Photocell |
| | | (1) 100W MAX Medium Base LE26 -9.5W 800lm (E26 LED Lamp) ★ ★ | | | |
| | | 120V LIGHTWAVE LED | | | |
| | | LR12 -13W 1000lm 80CRI ★ LR15 -15W 1400lm 80CRI ★ LT12 -12W 1040lm 90CRI LT15 -16W 1400lm 90CRI | | | |

★ Lamp included. ★ Energy Star qualified product.



Petitioner

West Point Builders, Inc.
on behalf of Tinley Park
Main Street, LLC

Property Location

North St. 67th Court
and North Street

PINs

28-30-407-007-0000,
28-30-407-008-0000,
28-30-404-025-0000, &
right-of-way

Zoning

DG (Downtown General)
& DC (Downtown Core)

Approvals Sought

- Special Use Permit
- Site Plan/Arch.
Approval
- Variations
- Final Plat Approvals
- Rezoning
- Text Amendment

Project Planner

Jason Engberg, AICP
Planning Manager

PLAN COMMISSION STAFF REPORT

October 5, 2023 – Public Hearing

West Point at Harmony Square

67th Court and North Street

EXECUTIVE SUMMARY

The Petitioner is requesting Site Plan/Architecture Approval, a Special Use, Final Plat of Subdivision, Plat of Vacation, Rezoning, Variations, and a Text Amendment for the mixed-use West Point at Harmony Square development. The project includes a 5-story mixed-use building on North Street with approximately 4,350 sq. ft. of commercial space (fronting the future Harmony Square Plaza) and 63 residential units. Amenities include a rooftop terrace overlooking the plaza, a fitness center, bike storage, community room, covered parking, open space, and onsite office. Additionally, the development includes 63 townhome units at the former site of Central Middle School. The project is proposed to be constructed in one phase, but construction is expected to begin on the townhome portion first.

The text amendment request is based on staff feedback and will relocate the required street-level commercial space from North Street to front the Harmony Square Plaza. The commercial space facing the plaza will help activate the space (which was not originally contemplated at this location). The project includes the vacation of approximately .531 acres of right-of-way (ROW) along 173rd Street that will be deeded to the developer and consolidated with the property to support this development. The development includes improvements to the adjacent sidewalks and streetscape areas. The development scale is consistent with the vision of the Legacy Plan and Transit Oriented Development (TOD) principles by providing residential density near mass transit. Through these principles, the Village will be able to attract stable commercial users that will serve residents of the project and the community, thereby contributing to the economic health and vitality of the downtown area and Village as a whole.

CONTINUATION OF THE PUBLIC HEARING

The public hearing for these requests was opened and conducted on September 7, 2023. After staff, the petitioner, and the public made their comments on the proposed requests, the Plan Commission voted to continue the public hearing to the September 21, 2023 regularly scheduled meeting. The public hearing for these requests was opened and continued at the September 21st meeting to the October 5, 2023 regularly scheduled meeting.

In terms of zoning entitlement requests, the petitioner has not altered the previous requests and is still seeking a positive recommendation from the Plan Commission. The petitioner has taken the comments given at the initial meeting and is attempting to alter the layout of the townhome development to provide more parking options. **A change in the layout of the townhome structures does not affect the zoning entitlement requests in any way as the townhomes already meet the minimum standards in the Zoning Ordinance. The petitioner will submit a new layout by Monday, October 2nd and it will be posted as additional materials on the Village website. The altered layout will be presented at the public hearing.**

PROPOSED REQUESTS

The in-depth details of this request can be found in the attached Staff Report from the September 7, 2023 meeting. The Petitioner has not changed their requests and are summarized as follows:

Text Amendment

A text amendment to *Section XII.2.A.3* to relocate a segment of the frontage designated as “Street-Level Commercial Required” from a certain segment of North Street to a certain segment of the 67th Court extension.

Rezoning

Rezone the vacated portion of the 173rd Street right-of-way to the DC (Downtown Core) Zoning District.

Special Use

A special use request to allow accessory residential uses on the street level in a mixed-use building.

Variations

1. Five studio units to be permitted at a minimum of 705 sq. ft. instead of the minimum 800 sq. ft. size. For a residential dwelling (Sec. V.C.2).
2. Permit residential parking that is not within or below the building envelope or an attached parking structure. 24 required stalls are required to still have a carport covering or approved parking structure (Sec. XII.3.C.3.d.).
3. Permit floors 2-5 to be setback 24' instead of the permitted maximum of five feet (5') (Sec. XII.2.A.2.9.).
4. Permit a reduction of the required 60% of all street frontage facades on a commercial building to be transparent windows. Opaque, non-mirrored” windows shall be permitted on the three-non-primary facades (Sec. XII.3.B.6.a.).
5. Permit 57.5 sq. ft. development wall signs on the west (67th Ct.) and south (North Street) facades to be placed at the top of the 5th floor parapet as shown on the elevation (Sec. XII.4.E.8.).
6. Permit 6 sq. ft. in size, 4 ft. high identification signs at the private park and dog park areas (Sec. XII.4.E.16.).
7. Permit two 15 sq. ft. in size, 68 inch high townhome development entrance ground signs to be setback a minimum of two feet from the property lines (Sec. XII.4.E.14.).
8. Permit Commercial Depth of 45' instead of the minimum 50' where street-level commercial is required (Sec. XII.2.A.4.).

Final Plats

Plat of Vacation

The vacation of a 0.531 acre area of the 173rd Street right-of-way.

Plat of Subdivision

Consolidation of existing lots into two lots for the townhome development and mixed-use structure development.

Site Plan/Architectural Approval

The submitted plans for a mixed-use structure on Lot 2 of the site and for approximately 63 townhome units (as amended) on Lot 1 of the site. All plans are attached to this Staff Report.

ADDITIONAL LEGACY CODE STANDARDS

In addition to any other specific standards set forth herein the Plan Commission shall not recommend a Special Use, variance, appeal, or map amendment from the regulations of this ordinance unless it shall have made findings of fact, based upon evidence presented to it, in each specific case that the following standards are met. Staff has provided draft Findings for the Commission's review. The Commission may adopt the Findings as provided or make any additions, deletions, or modifications based on testimony provided at the hearing.

- a. The proposed improvement meets the Legacy Plan and its Principles, as presented in Section 1.A-B: Purpose and Intent, of this ordinance.
 - *The Legacy Plan specifically calls for maximizing the number of people living within walking distance of the train station. The project will have the potential to bring, at a minimum, 126 new residents to the downtown area near the commuter line. The new commercial storefronts adjacent to the Harmony Square Plaza and overall site design are in conformance with the goal of having a walkable downtown with a strong economic center.*
- b. The new improvement is compatible with uses already developed or planned in this district and will not exercise undue detrimental influences upon surrounding properties.
 - *The mixed-use building and townhomes are permitted within their respective Zoning Districts and are compatible with the commercial service uses preferred in the downtown area.*
- c. Any improvement meets the architectural standards set forth in the Legacy Code.
 - *The mixed-use and townhome buildings provide for a consistent style of architecture without being monotonous. The first-floor retail storefront provides for varying materials with the use of brick, stone, fabric and metal awnings, light fixtures, and recessed doorways. The upper floors utilize balconies and a mixture of brick, stone, fiber cement panel siding, cornices, and trim to create interest. The overall appearance is traditional in nature to help complement the existing downtown buildings.*
- d. The improvement will have the effect of protecting and enhancing the economic development of the Legacy Plan area.
 - *The proposed improvements provide new commercial space, increasing the availability of downtown commercial space, and will add residents within walking distance to support downtown businesses. The Village will be able to attract commercial users that will serve residents of the project, the community and beyond, thereby contributing to the economic health of the downtown area and the village overall.*

STANDARDS FOR A SPECIAL USE

Section X.J.5. of the Zoning Ordinance lists standards that need to be considered by the Plan Commission. The Plan Commission is encouraged to consider these standards (listed below) when analyzing a Special Use request. Staff has provided the following draft Findings for the Commission's review. The Commission may adopt the Findings as provided or make any additions, deletions, or modifications based on testimony provided at the hearing.

X.J.5. Standards: No Special Use shall be recommended by the Plan Commission unless said Commission shall find:

- a. That the establishment, maintenance, or operation of the Special Use will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare;
 - *The incorporation of ground-floor residential amenities will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare. The uses are incorporated with the overall design of the first-floor lobby area and will be built to meet all building codes.*

- b. That the Special Use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood;
 - *The inclusion of ground-floor residential amenities will not be injurious to the use and enjoyment of other properties in the immediate vicinity. There is a train station across the street and a mix of commercial and residential uses surrounding the property.*
- c. That the establishment of the Special Use will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district;
 - *Having residential amenities on the first floor will not impede the normal development of the downtown, however these uses will not generate sales tax revenue the community hopes to achieve with downtown redevelopment. In the future, the amenity space could be converted in whole or part to commercial space.*
- d. That adequate utilities, access roads, drainage, and/or other necessary facilities have been or are being provided;
 - *As part of this development, the adjacent roadways will be reconstructed according to the Village's streetscape and roadway plans. A regional pond, which was established on the Panduit Site, is providing the necessary stormwater management that normally would have been required on site.*
- e. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets; and
 - *The residential amenities will only be accessed from the interior lobby area of the mixed-use building. Since these areas will only be utilized by the residents living in the apartments, there will not be any issues of increased traffic on the public streets.*
- f. That the Special Use shall, in all other respects, conform to the applicable regulations of the district in which it is located, except as such regulations may in each instance be modified by the Village Board pursuant to the recommendation of the Plan Commission. The Village Board shall impose such conditions and restrictions upon the premises benefited by a Special Use Permit as may be necessary to ensure compliance with the above standards, to reduce or minimize the effect of such permit upon other properties in the neighborhood, and to better carry out the general intent of this Ordinance. Failure to comply with such conditions or restrictions shall constitute a violation of this Ordinance.
 - *The DC (Downtown Core) District for this area requires first floor commercial space. The residential amenity space is permitted by Special Use.*
- g. The extent to which the Special Use contributes directly or indirectly to the economic development of the community as a whole.
 - *The Special Use will add required commercial space along the future 67th Court extension at the corner of South Street, adjacent to the future Harmony Square Plaza. The DC (Downtown Core) District requires ground floor commercial space. Although a portion of the ground floor of the mixed-use building will be occupied by resident amenity space, the development adds available commercial space downtown. The amenity space will not generate additional foot traffic for businesses; however it will enhance the living experience of future residents of the building.*

It is important to recognize that a Special Use Permit does not run with the land and instead the Special Use Permit is tied to the Petitioner. This is different from a process such as a variance, since a variance will forever apply to the property to which it is granted. Staff encourages the Plan Commission to refer to Section X.J.6. to examine the conditions where a Special Use Permit will expire and a new owner would be required to receive a new approval.

STANDARDS FOR A VARIATION

Section X.G.4. of the Zoning Ordinance states the Plan Commission shall not recommend a Variation of the regulations of the Zoning Ordinance unless it shall have made Findings of Fact, based upon the evidence presented for each of the Standards for Variations listed below. The Plan Commission must provide findings for the first three standards; the remaining standards are provided to help the Plan Commission further analyze the request. Staff has provided the following draft Findings for the Commission's review. The Commission may adopt the Findings as provided or make any additions, deletions, or modifications based on testimony provided at the hearing.

1. The property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in the district in which it is located.
 - *The Variations are based upon the existing market conditions and available space on the property. The requests have been minimized whenever possible but allow the preferred development pattern to occur. Resident amenities have been maximized where there is available space.*
2. The plight of the owner is due to unique circumstances.
 - *Most of the Legacy and Zoning Code requirements have been met by the Petitioner with only a few changes that have been minimized where possible that allow for the project to be financially viable and fit within the site's size constraints. The overall proposal fits within the visions and plan for their respective Districts.*
3. The Variation, if granted, will not alter the essential character of the locality.
 - *The Variations do not change the character of the area and have been minimized where possible to keep in line with the existing development pattern, Legacy Plan and Legacy Code requirements.*
4. Additionally, the Plan Commission shall also, in making its determination whether there are practical difficulties or particular hardships, take into consideration the extent to which the following facts favorable to the Petitioner have been established by the evidence:
 - a. The particular physical surroundings, shape, or topographical condition of the specific property involved would result in a particular hardship upon the owner, as distinguished from a mere inconvenience, if the strict letter of the regulations were carried out;
 - b. The conditions upon which the petition for a Variation is based would not be applicable, generally, to other property within the same zoning classification;
 - c. The purpose of the Variation is not based exclusively upon a desire to make more money out of the property;
 - d. The alleged difficulty or hardship has not been created by the owner of the property, or by a previous owner;
 - e. The granting of the Variation will not be detrimental to the public welfare or injurious to other property or improvements in the neighborhood in which the property is located; and
 - f. The proposed Variation will not impair an adequate supply of light and air to an adjacent property, or substantially increase the congestion in the public streets, or increase the danger of fire, or endanger the public safety, or substantially diminish or impair property values within the neighborhood.

STANDARDS FOR SITE PLAN AND ARCHITECTURAL APPROVAL

Section III.T.2. of the Zoning Ordinance requires that the conditions listed below must be met and reviewed for Site Plan approval. Specific findings are not required but all standards shall be considered to have been met upon review by the Plan Commission.

Architectural

- a. Building Materials: The size of the structure will dictate the required building materials (Section V.C. Supplementary District Regulations). Where tilt-up or pre-cast masonry walls (with face or thin brick inlay) are allowed vertical articulation, features are encouraged to mask the joint lines. Concrete panels must incorporate architectural finishes that comply with “Building Articulation” (Section III.U.5.h.) standards. Cast in place concrete may be used as an accent alternate building material (no greater than 15% per façade) provided there is sufficient articulation and detail to diminish it’s the appearance if used on large, blank walls.
- b. Cohesive Building Design: Buildings must be built with approved materials and provide architectural interest on all sides of the structure. Whatever an architectural style is chosen, a consistent style of architectural composition and building materials are to be applied on all building facades.
- c. Compatible Architecture: All construction, whether it be new or part of an addition or renovation of an existing structure, must be compatible with the character of the site, adjacent structures and streetscape. Avoid architecture or building materials that significantly diverge from adjacent architecture. Maintain the rhythm of the block in terms of scale, massing and setback. Where a development includes outlots they shall be designed with compatible consistent architecture with the primary building(s). Site lighting, landscaping and architecture shall reflect a consistent design statement throughout the development.
- d. Color: Color choices shall consider the context of the surrounding area and shall not be used for purposes of “attention getting” or branding of the proposed use. Color choices shall be harmonious with the surrounding buildings; excessively bright or brilliant colors are to be avoided except to be used on a minor scale for accents.
- e. Sustainable architectural design: The overall design must meet the needs of the current use without compromising the ability of future uses. Do not let the current use dictate an architecture so unique that it limits its potential for other uses (i.e. Medieval Times).
- f. Defined Entry: Entrance shall be readily identifiable from public right-of-way or parking fields. The entry can be clearly defined by using unique architecture, a canopy, overhang or some other type of weather protection, some form of roof element or enhanced landscaping.
- g. Roof: For buildings 10,000 sf or less a pitched roof is required or a parapet that extends the full exterior of the building. For buildings with a continuous roof line of 100 feet or more, a change of at least five feet in height must be made for every 75 feet.
- h. Building Articulation: Large expanses of walls void of color, material or texture variation are to be avoided. The use of material and color changes, articulation of details around doors, windows, plate lines, the provision of architectural details such as “belly-bands” (decorative cladding that runs horizontally around the building), the use of recessed design elements, exposed expansion joints, reveals, change in texture, or other methods of visual relief are encouraged as a means to minimize the oppressiveness of large expanses of walls and break down the overall scale of the building into intermediate scaled parts. On commercial buildings, facades greater than 100 feet must include some form of articulation of the façade through the use of recesses or projections of at least 6 inches for at least 20% of the length of the façade. For industrial buildings efforts to break up the long façade shall be accomplished through a change in building material, color or vertical breaks of three feet or more every 250 feet.
- i. Screen Mechanicals: All mechanical devices shall be screened from all public views.
- j. Trash Enclosures: Trash enclosures must be screened on three sides by a masonry wall consistent with the architecture and building material of the building it serves. Gates must be kept closed at all times and constructed of a durable material such as wood or steel. They shall not be located in the front or corner side yard and shall be set behind the front building façade.

Site Design

- a. Building/parking location: Buildings shall be located in a position of prominence with parking located to the rear or side of the main structure when possible. Parking areas shall be designed so as to provide continuous circulation avoiding dead-end parking aisles. Drive-through facilities shall be located to the rear or side of the structure and not dominate the aesthetics of the building. Architecture for canopies of drive-through areas shall be consistent with the architecture of the main structure.
- b. Loading Areas: Loading docks shall be located at the rear or side of buildings whenever possible and screened from view from public rights-of-way.
- c. Outdoor Storage: Outdoor storage areas shall be located at the rear of the site in accordance with Section III.O.1. (Open Storage). No open storage is allowed in front or corner side yards and are not permitted to occupy areas designated for parking, driveways or walkways.
- d. Interior Circulation: Shared parking and cross access easements are encouraged with adjacent properties of similar use. Where possible visitor/employee traffic shall be separate from truck or equipment traffic.
- e. Pedestrian Access: Public and interior sidewalks shall be provided to encourage pedestrian traffic. Bicycle use shall be encouraged by providing dedicated bikeways and parking. Where pedestrians or bicycles must cross vehicle pathways a crosswalk shall be provided that is distinguished by a different pavement material or color.

MOTIONS TO CONSIDER

If the Plan Commission wishes to act on the Petitioner's requests, the appropriate wording of the motions is listed below. The protocol for the writing of a motion is to write it in the affirmative so that a positive or negative recommendation correlates to the Petitioner's proposal. By making a motion, it does not indicate a specific recommendation in support or against the plan, it only moves the request to a vote. The conditions listed below are recommended by staff but can be added to, changed, or removed by the Commission based on their discussion of the approval of recommendation.

Motion 1 (Text Amendment)

"...make a motion to recommend the Village Board amend Sec. XII.2.A.3. of the Zoning Ordinance (Legacy District) "Downtown Core Regulating Plan" to relocate a segment of the frontage designated as "Street-Level Commercial Required" from a certain segment of North Street to a certain segment of the 67th Court extension as proposed in the September 7, 2023 staff report."

Motion 2 (Zoning)

"...make a motion to recommend the Village Board grant West Point Builders, Inc., on behalf of Tinley Park Main Street, LLC, a rezoning of the vacated portion of the 173rd Street right-of-way to the DC (Downtown Core) Zoning District, subject to the condition that the Plat of Vacation is reviewed and approved by the Village Attorney, Village Engineer, and Village Board."

Motion 3 (Special Use)

"...make a motion to recommend the Village Board grant a Special Use Permit to allow "Accessory Residential Uses on the Street Level in a mixed-use building" to the Petitioner, West Point Builders, Inc., on behalf of Tinley Park Main Street, LLC, in the DC (Downtown Core) Zoning District, where street-level commercial is required in accordance with the plans submitted and adopt the Findings of Fact as proposed in the September 7, 2023 staff report, subject to the following conditions:

- a) The "Accessory Residential Uses on the Street Level in a mixed-use building" must not occupy more than 93 feet 8 inches of the proposed building frontage on the 67th Court extension.*
- b) Approval is subject to final engineering reviews and approval.*
- c) Approval is subject to approval by the Village Board of all other related zoning requests.*
- d) As required by Village Ordinance, any changes in ownership require a new Special Use Approval.*
- e) The commercial architectural character of the residential uses must be maintained to create a uniformed commercial frontage appearance. The architecture and character of the exterior frontage of the "Accessory Residential Uses on the Street Level in a mixed-use building" must be designed and maintained to give the appearance of a storefront substantially similar to that of the commercial spaces occupying the ground floor.*

Motion 4 (Variations)

"...make a motion to recommend the Village Board grant eight Variations from the Zoning Ordinance as listed in the September 7, 2023, Staff Report to the Petitioner, West Point Builders, Inc., on behalf of Tinley Park Main Street, LLC, to permit the construction of a development consisting of townhomes and a mixed-use five-story building at North Street and 67th Court, in accordance with the plans submitted and adopt the Findings of Fact as proposed in Staff Report, subject to the following conditions:

- a) Revised plans with updates to the design of the parking lot, garage entrances, and elevations as noted in the staff report and discussed during the public hearing must be revised prior to the Village Board approval.*
- b) Approval is subject to final engineering review and approval, and may, at the sole discretion of the Village, require revisions to the proposed streetscape to comply with the Village's forthcoming streetscape plan.*
- c) All required parking stalls for dwelling units must be covered, situated within the mixed-use building garage, or, if approved by the Village, covered by carport canopies or within accessory garages. either interior to the building,*
- d) "Faux"/opaque windows specifications and design must be reviewed and approved by staff prior to permitting and installation. Windows must not be mirrored.*
- e) Commercial signage must be of a consistent style and mounting design as noted on the plans.*

Motion 5 (Site Plan/Architectural Approval)

“...make a motion to grant Site Plan/Architectural Approval to the Petitioner, West Point Builders, Inc., on behalf of Tinley Park Main Street, LLC, for the development of 63 townhomes and a 5-story mixed-use building with commercial space and 63 units at North Street and 67th Court in accordance with the plans submitted and adopt the Findings of Fact as proposed in the September 7, 2023 staff report, subject to the following conditions:

- a) Revised plans with all updates to the parking lot, garage entrance, and elevations as noted in the staff report and public hearing, must be revised prior to the Village Board approval.*
- b) “Public Event signage” areas on the North Street facade must be comprised of glazing to give the appearance of windows when not utilized.*
- c) “Public Event Signage” must not be used for commercial signage purposes and must be left empty when not utilized by the Village, or other public agency.*
- d) Approval is subject to final engineering reviews and approval, and may, at the sole discretion of the Village, require revisions to the proposed streetscape to comply with the Village’s forthcoming streetscape plan. Site-work, grading, and utility permits require prior approval by MWRD, as well as submittal of the Final Plat with all applicable signatures for recording. Foundation-only permits are not permitted unless complying with the Village’s policy and are approved by the Village Board.*
- e) The developer must obtain the necessary construction easements from the Village for the use of their property during construction.*
- f) A minimum of one parking space to one residential unit must be provided on-site for the duration of the construction process.*
- g) All lighting fixtures and the photometric plan are subject to Village review to confirm compliance with all applicable standards.*
- h) All rooftop HVAC and mechanical equipment must be located in a manner to be screened by the parapet wall and must not be visible at ground level.*

Motion 6 (Plat of Vacation and Subdivision)

“...make a motion to recommend approval of the Final Plat of Vacation dated June 7, 2023 and the Harmony Square Final Plat of Subdivision dated August 16, 2023 to the Petitioner, West Point Builders, Inc. on behalf of Tinley Park Main Street, LLC, subject to the following condition that it is subject to final review and approval by the Village Engineer and Village Attorney.”

LIST OF REVIEWED PLANS

| Submitted Sheet Name | | Prepared By | Date On Sheet |
|----------------------|---|----------------------|---------------|
| 1 | Application | WPB | 6/19/23 |
| 2 | Illustrative Plan and Landscape Plan | WPB/SL | 7/27/23 |
| 3 | Combined Arch and Elevations 20230811 | SL | 7/27/23 |
| 4 | Tinley Park Exteriors with Brick | Eleni | |
| 5 | Townhome Elevations and Floor Plans | SL | 7/27/23 |
| 6 | Townhome Anti-monotony plan | SL | 7/27/23 |
| 7 | Final Plat of Subdivision | WMA | 7/18/23 |
| 8 | Plat of Vacation Harmony Square 2023-06-19 | Robinson | 6/7/23 |
| 9 | Overall Site Plan | WMA | 7/19/23 |
| 10 | Lot 1 Engineering | WMA | 7/19/23 |
| 11 | Lot 2 Engineering | WMA | 7/19/23 |
| 12 | Sight Distance Exhibit | WMA | 7/19/23 |
| 13 | Photometric Plan and Fixture Cut Sheets | ITG | 7/27/23 |
| 14 | Harmony Square Sign Package 20230810 | VanBruggen | 8/10/23 |
| 15 | Workshop Presentation | WestPoint/Petitioner | 8/17/23 |
| 16 | Updated Mixed-Use Layout with Trash Enclosure and Garage Access | WPB/SL | 8/27/23 |

PLAN COMMISSION STAFF REPORT

September 7, 2023 – Public Hearing

West Point at Harmony Square

67th Court and North Street

Petitioner

West Point Builders, Inc.
on behalf of Tinley Park
Main Street, LLC

Property Location

North St. 67th Court
andand North Street

PINs

28-30-407-007-0000,
28-30-407-008-0000,
28-30-404-025-0000, &
right-of-way

Zoning

DG (Downtown General)
& DC (Downtown Core)

Approvals Sought

- Special Use Permit
- Site Plan/Arch.
Approval
- Variations
- Final Plat Approvals
- Rezoning
- Text Amendment

Project Planner

Daniel Ritter, AICP
Community
Development Director



EXECUTIVE SUMMARY

The Petitioner is requesting Site Plan/Architecture Approval, a Special Use, Final Plat of Subdivision, Plat of Vacation, Rezoning, Variations, and a Text Amendment for the mixed-use West Point at Harmony Square development. The project includes a 5-story mixed-use building on North Street with approximately 4,350 sq. ft. of commercial space (fronting the future Harmony Square Plaza) and 63 residential units. Amenities include a rooftop terrace overlooking the plaza, a fitness center, bike storage, community room, covered parking, open space, and onsite office. Additionally, the development includes 63 townhome units at the former site of Central Middle School. The project is proposed to be constructed in one phase, but construction is expected to begin on the townhome portion first.

The text amendment request is based on staff feedback and will relocate the required street-level commercial space from North Street to front the Harmony Square Plaza. The commercial space facing the plaza will help activate the space (which was not originally contemplated at this location). The project includes the vacation of approximately .531 acres of right-of-way (ROW) along 173rd Street that will be deeded to the developer and consolidated with the property to support this development. The development includes improvements to the adjacent sidewalks and streetscape areas. The development scale is consistent with the vision of the Legacy Plan and Transit Oriented Development (TOD) principles by providing residential density near mass transit. Through these principles, the Village will be able to attract stable commercial users that will serve residents of the project and the community, thereby contributing to the economic health and vitality of the downtown area and Village as a whole.

Changes to the August 17, 2023, Workshop Staff Report are noted in Red. Additional updated plans will be provided at the meeting showing proposed garage access changes.

EXISTING SITE & HISTORY

The development site consists of two areas, all currently vacant land. The first part is a rectangle area bordered by 172nd Street to the north, 173rd Street to the south, 67th Ct to the west and 67th Ave to the east. The common address of this property is 17248 67th Ave. This lot was the former location of Central Middle School, which was located on all or part of the site from the 1930's to 2003 (with multiple additions). The Village purchased the property from School District 146 in 2003 with the goal of spurring redevelopment of that site and North Street properties. Multiple Requests for Proposals (RFPs) and developments have been proposed over the years.

The second area is on North Street and comprised of multiple lots that have largely been detached single-family homes since the incorporation of the Village as the Town of Bremen. The last remaining home (present since at least the 1920s) was dilapidated and demolished in July 2023 after the Village acquired the property. The Village will be vacating .531 acres of 173rd Street right-of-way to help support the development of the mixed-use building. The new road layout is preferred to avoid cut-through traffic in the residential neighborhood and allows for a more connected development.

The Village has worked with the developer to acquire and redevelop these properties along with the Harmony Square Plaza and the Teehan's building. The Development Agreement (Ord. 2023-O-024) approved by the Village Board in May outlined the property transfer and goals for the overall development. The hope is that utility, underground, and other related work can be done simultaneously for both the plaza and this development, to be most efficient and timely for both projects.



Above: Rendering of the Harmony Square Plaza to be developed by the Village.

ZONING & NEARBY LAND USES

The subject property (outlined in red) is zoned DG (Downtown General) and DC (Downtown Core) within the Legacy District. The characteristics of these Districts are described in the Legacy Code as:

DG: “The Downtown General District consists of a variety of lot sizes and building scales, with multi-family dwellings as the primary use. Street frontages have steady street tree plantings, and buildings form a continuous street wall set close to sidewalks.

DC: “The Downtown Core District consists of the highest density and height, with the greatest variety of uses. Street frontages have steady street plantings and pedestrian amenities, and buildings form a continuous street wall set along wide sidewalks”.

Nearby land uses include:

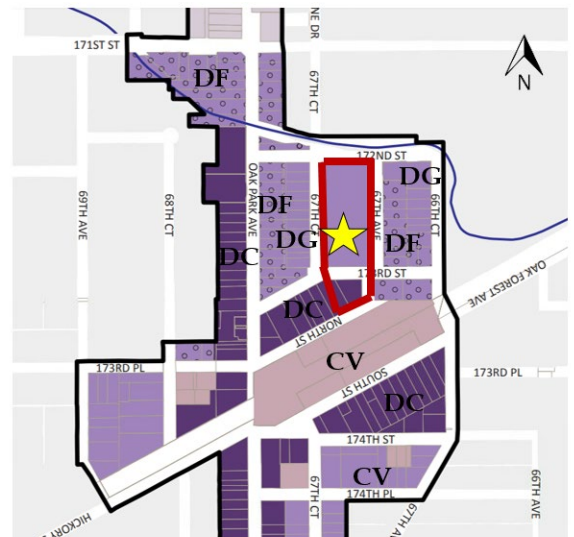
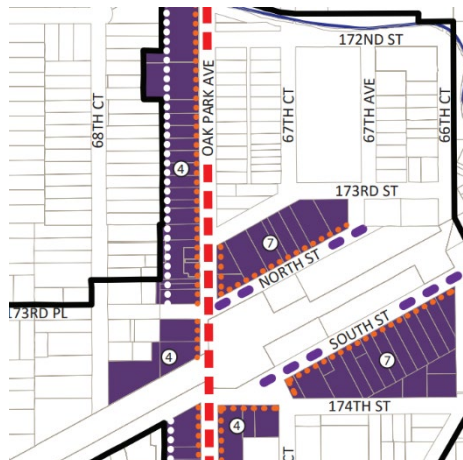
- The Oak Park Avenue Metra Station and commuter parking to the south, zoned CV (Civic)
- Vacant land proposed for Harmony Square Plaza, a four-season public plaza under development by the Village, to the east, currently zoned DC (Downtown Core) and proposed to be zoned CV (Civic) in the near future
- Townhomes and detached single family lots to the west and east of the townhome portion of the development, zoned DG (Downtown General) and DF (Downtown Flex)
- Midlothian Creek and park space (playground and baseball fields) to the North

The Downtown Core District allows for varying building heights with maximum height ranging from four (4) stories along Oak Park Avenue to seven (7) stories for the properties directly to the south and north of the train station. North Street is classified as Corridor Type D which requires on-street parking and a thoroughfare width of 30' curb to curb. In addition, buildings along North Street are required to have street-level (first floor) commercial space with a minimum depth of 50'. Buildings may not be set back further than five feet (5') from the front property line and storefronts with an enclave cannot exceed 50% of the width of the lot. Below are the required setbacks for properties in the DC (Downtown Core) District and various zoning requirements are listed in the plans.



| General | |
|--------------------------------|-------------|
| Minimum Lot Width | 50' |
| Maximum Lot Width | n/a |
| Minimum Building Height | 3 stories |
| Building Setbacks | |
| Front Yard (primary street) | 5' max. ④ |
| Front Yard (secondary street) | 7.5' max. ④ |
| Side Yard (interior) | 5' max. ③ |
| Side Yard (along access drive) | 5' min. ③ |
| Rear Yard (existing alley) | 5' min. ③ |
| Rear Yard (no alley required) | 5' min. ③ |
| Rear Yard (future alley) | 30' min. ③ |

| Key | |
|-----|----------------------------------|
| | Legacy Code Boundary |
| | Downtown Core (DC) District |
| | Corridor Type A |
| | Corridor Type D |
| | Proposed Legacy Plan Alley |
| | Street Level Commercial Required |
| | Allowable Building Height |



TEXT AMENDMENT

The original Legacy Plan and Legacy Code did not anticipate a public plaza at the location where Harmony Square Plaza will be constructed or a roadway layout as proposed. Due to these changes, there is now a desire to have the required street level commercial adjacent to the Plaza and new festival street. These create a more activated plaza with potential stores, restaurants and services having an ideal location next to the plaza, which is planned for substantial pedestrian traffic and numerous special events. The request replaces the North Street frontage to be “Street Level Permitted” instead of “Street Level Required” and then place “Street Level Required” along the new festival street (67th Ct. extension) that is to the east of the plaza. The swap essentially locates the commercial in a more visible location, rather than going farther east down North Street, which will have more limited pedestrian traffic.



SITE PLAN & PROPOSED USES

The Petitioner proposes to construct a mixed-use development called West Point at Harmony Square. The development includes two different parts that will be constructed in one phase. The construction will start with the north townhome portion of the development due to the need to coordinate utilities and other construction elements with the Plaza development. The north part of the development includes 63 3-story 2-bedroom and 3-bedroom townhomes ranging in size from approximately 1,500-1,800 sq. ft. and located on approximately 2.982 acres. The development includes attached garages and a private park area.

The south part of the development includes a 5-story mixed-use building on an approximately 1.438-acre site. The building height is approximately 62.66 feet to the top of the parapet area. The height and scale of the building is similar to The Boulevard, which is 4 stories and 58 feet tall. The first floor will have an approximately 4,350 sq. ft. in commercial space fronting the Harmony Square Plaza and 63 units (5 Studio, 29 1-BR, 27 2-BR, 2 3-BR units). Most units meet the minimum size requirements—the five proposed 704 square foot studio units are below the 800 square foot minimum. Amenities include a rooftop terrace overlooking the plaza, a patio area, a fitness center, interior bike storage, a community room, covered parking, a dog park, and onsite office/package acceptance. The building includes first-story attached parking garage that includes 39 interior spaces, with an additional 37 exterior spaces (24 covered and 13 open). The mixed-use portion of the development includes excess land to be vacated from the 173rd Street right-of-way and will connect the two parts of the project.

| UNIT TYPES | Rentable SF | Total Rentable SF | Total |
|-------------------------|-------------|-------------------|-------|
| A- Studio | 704.00 | 3,520 | 5 |
| B- One Bedroom | 808.00 | 3,232 | 4 |
| B1- One Bedroom | 933.00 | 3,732 | 4 |
| B2- One Bedroom | 831.00 | 8,310 | 10 |
| C- One Bedroom/office | 880.00 | 2,640 | 3 |
| D- One Bedroom/office | 880.00 | 7,040 | 8 |
| E- Two Bedroom | 1,076.00 | 4,304 | 4 |
| E1- Two Bedroom | 1,094.00 | 4,376 | 4 |
| F- Two Bedroom corner | 1,164.00 | 18,624 | 16 |
| G- Two Bedroom | 1,271.00 | 3,813 | 3 |
| H- Three Bedroom corner | 1,476.00 | 1,476 | 1 |
| I- Three Bedroom | 1,445.00 | 1,445 | 1 |
| TOTAL SF | | 62,512 | |
| | | | 63 |

Open Item #1: Discuss a Variation to permit five (5) studio apartment to be 705 sq. ft. instead of the 800 sq. ft. minimum required by code.

The Plan Commission did not express concerns about the 5 units with reduced sizes due to the low number of units and the number of common areas, amenities, and storage space available.

Other uses of the first-floor garage area include resident bike parking/storage, sprinkler room, mechanical equipment, stairwells, elevators, and trash storage area with a compactor.

No outdoor dining space has been included for use by the restaurant tenant and there is very limited excess right-of-way space. The Legacy Code permits a private frontage to have a dining alcove extend up to 50% of the frontage width.

Open Item #2: Discuss the need for outdoor dining space or patio “alcoves” for the commercial tenant spaces to attract high quality tenants.

The Petitioner submitted a plan showing the capacity for a small patio with 4-5 tables within the private lot along North Street. The Plan Commission

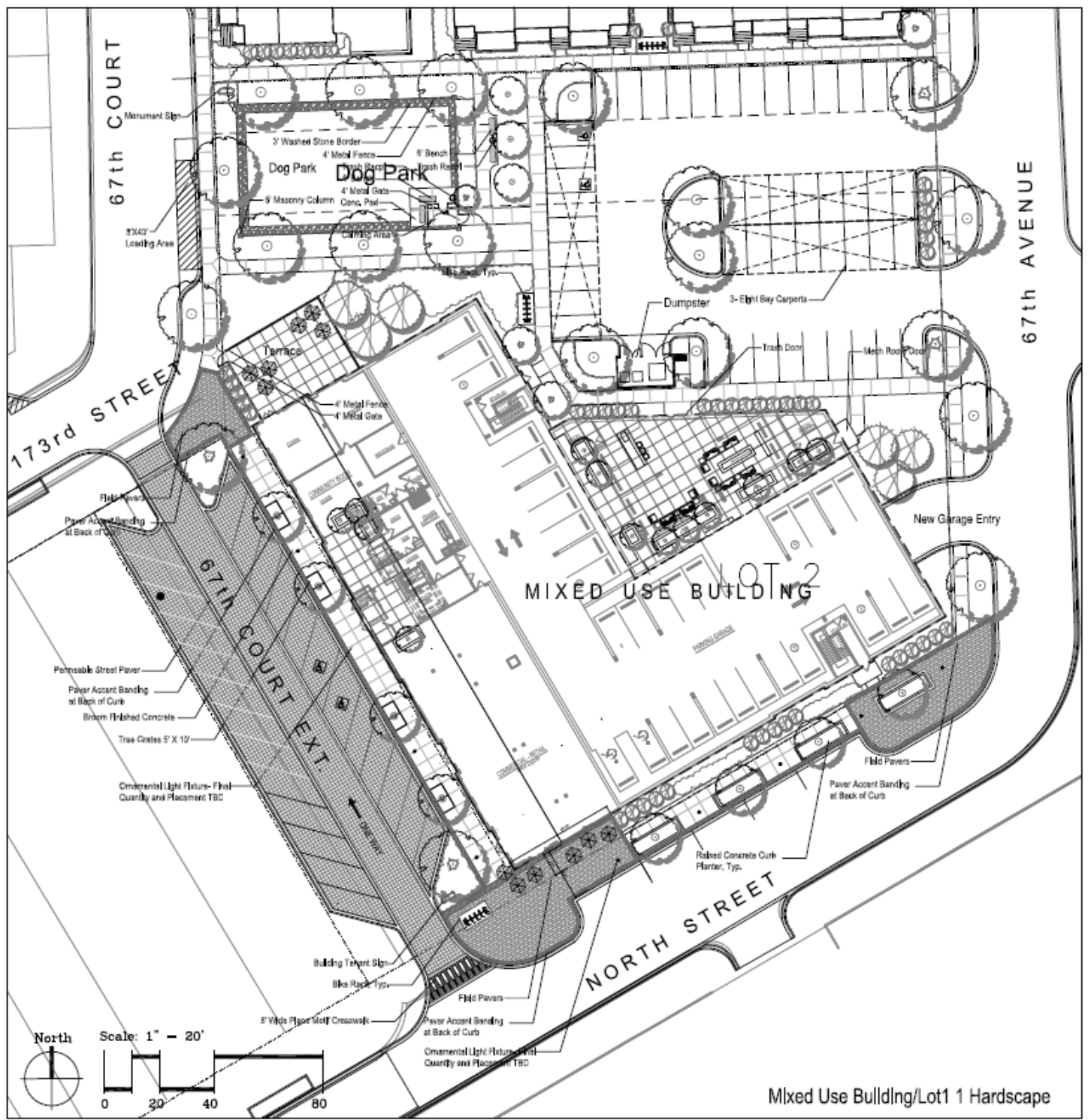
expressed a preference to expand this area, even if within the public right-of-way and replacing a parking stall. Staff's preference remains: adjusting the plan to include the space on the private lot for the primary outdoor dining area. Some right-of-way dining is possible but it cannot be used as the primary outdoor dining area due to issues with maintenance, licensing, and insurance. Public areas can be used to expand outdoor dining without becoming the primary use of the space. The current right-of-way plan is still under design and review by the Village's consultant and engineering team.

Both development areas include significant on-site and off-site improvements including on-street parking, sidewalk improvements, crosswalks, and street trees. Adjacent to the mixed-use building, the right-of-way will include a streetscape that ties into the plaza and like the streetscape in place at The Boulevard at Central Station Development. The plan includes brick paver borders, planter boxes, benches, lights, trees, and public bike racks. The design of the streetscape has not been fully reviewed yet and will be subject to review and changes by Lakota Group, who has been hired to create a uniform design for the streetscape and plaza. Staff recommend a condition clarifying that streetscape improvements are subject to review and approval at the final permitting stage. The hope for the streetscape plan is to tie in The Boulevard at Central Station, Bremen Station, North Street/Harmony Square and other future downtown developments to create a durable, attractive and consistent downtown public frontage.



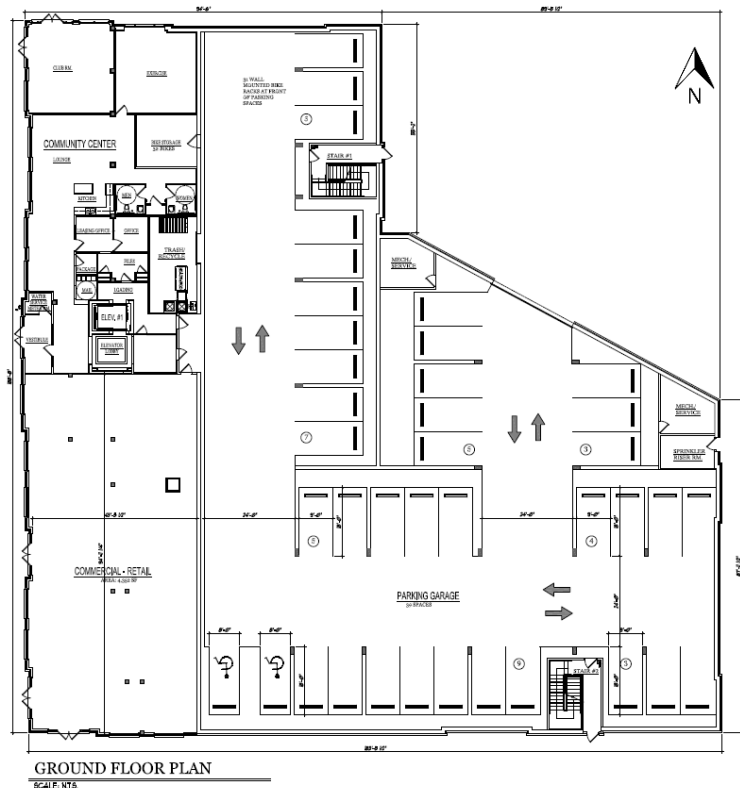
~~**Open Item #3: Final streetscape plans are being designed and shall be incorporated into the proposed plans prior to permitting. Staff recommends this be a condition of approval.**~~

REVISED LAYOUT



FLOOR PLANS

Shared resident amenities will include two outdoor rooftop terraces on the second floor, an exercise room, a lounge, a club room, storage lockers, and bike storage. The apartment units will be high-end luxury units, each with an in-unit washer and dryer. Most units will have a balcony, some recessed and some projecting. 8 total units are not proposed to have a balcony (5 studios and 3 1-bedroom apartments). While it might change the architectural design slightly, it is possible to have balconies on all units. Balconies will need to be added to the rear east facing façade as well as the south façade front North Street. The additional balconies may even increase the appeal of these facades and can be adjacent to an existing balcony. If space is limited, the balconies can even be a small “Juliet balcony” that just allows for someone to step outside with limited space for a table or chairs. Some second-floor units will have privately fenced patio spaces that are located next to the shared resident roof terraces. The fencing provides some defined space but will be a unique aspect to manage security and noise for those units with the roof terraces available to all residents and their guests.



Above: First-floor, amenities include lounge, club room, fitness center, patio, mailboxes, front office, parking garage, bike storage, and elevator.

Open Item #4: Discuss the need or ability to have balconies on 8 units that are currently proposed with no personal outdoor space.

Open Item #5: Discuss the management and design of fenced patios that are adjacent to the two rooftop terraces on the second floor.

The Petitioner noted the units without balconies are the smaller units and the locations were not ideal since they would be the only cantilevered balconies on the building. No other concerns were noted by the Commission.

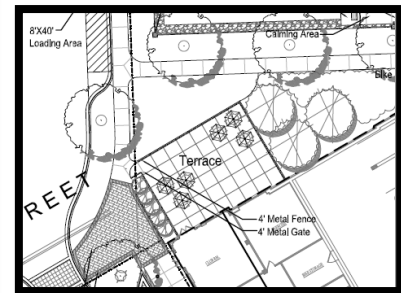
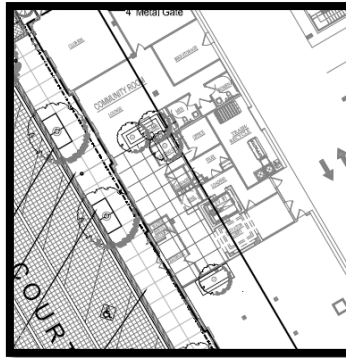
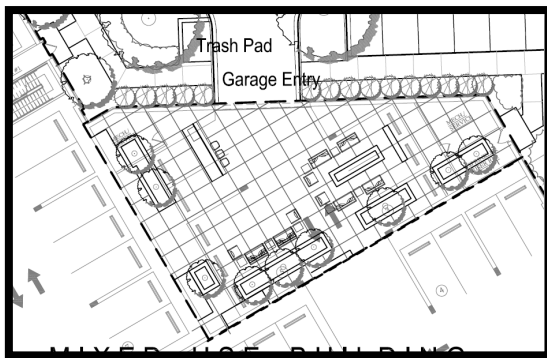
Floors 2-5 are all setback approximately 24 feet from the front property line. This setback of the floors is not required and is making for less building area on floors 2-5. The maximum setback per the Legacy Code is five feet (5'). This maximum setback (often referred to as a “build-to” line) is to create a pedestrian-friendly and inviting street wall in the downtown, maximize buildable area, and generally avoid large setbacks. The Petitioner has noted the additional building space that is difficult to incorporate into the floor plans and expected rents. The unit size changes are unlikely to substantially change income projections, while increasing construction costs. Additionally, the setback creates a unique rooftop terrace space overlooking the Harmony Square Plaza and expected to become an attractive amenity. Due to the building will be set back 24 feet on floors 2-5, a variation is required.

Open Item #6: Discuss Variation to allow floors 2-5 to be setback 24' instead of the permitted maximum of five feet (5').



Above: Second floor, rooftop terraces with private fenced patios.

The building's second floor step back was not a large concern, but the Plan Commission noted usable patio space in the front would be preferred.



Seatwall-Height Planters



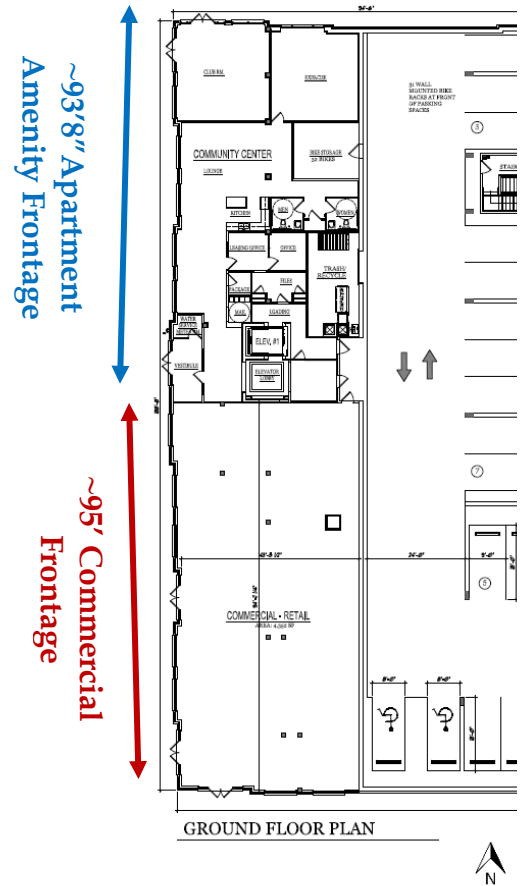
Fire Table, TV Wall, Soft Seating



BBQ Grill Island

The Petitioner is proposing to locate their common apartment entrance vestibule, lobby, fitness center, leasing office, and other accessory amenities on the first floor on the 67th Court extension adjacent to the plaza. The Legacy Code indicates that the North Street frontage requires street-level commercial. However, the Petitioner has requested to move that to 67th Ct where it fronts Harmony Square Plaza. Residential amenities are only permitted where “street-level commercial is required” with a Special Use Permit approval. The apartment entrance and amenities could be relocated in whole or in part off another frontage, where street-level commercial space is not required. The Petitioner has indicated this is due to a set interior layout and the reduction in interior parking that would occur. Relocating some amenities to the North Street frontage can also help improve that frontage’s architectural design. The apartment entrance and amenities utilize approximately 93’ 8” (49.67%) of the total frontage which is approximately 188’ 8”. The remaining frontage will be utilized by the commercial tenant space, anticipated to be at least one restaurant use.

~~Open Item #7: Consider the proposed location of the apartment entrance vestibule, lobby, leasing office, and other amenities on the first floor. Consider alternative locations on other frontages that don't require commercial, particularly on the North Street frontage to make for a more appealing first-floor façade that remains highly visible and important.~~



ACCESS

The townhomes are accessed by a set of private drives/alleys with access points on 67th Court, 172nd Street, and 67th Avenue. Access points are proposed to allow for vehicle and emergency vehicle circulation through the development. A sidewalk system is also proposed to connect the townhome units to the private park area and public sidewalks.

The mixed-use building parking garage will be accessed from 67th Avenue by a private overhead door entrance to be used by residents. Residents can then enter the building from inside the garage. Additionally, the apartments can be accessed by pedestrian traffic from the 67th Court entrance and through two parking garage/stairwell doors on the south side (along North Street) and east side (adjacent to the surface parking lot) of the building. The private surface lot will also be accessed from 67th Avenue. The access will remain accessible even when there are large events downtown and North Street is closed to vehicular traffic.

LOADING & TRASH

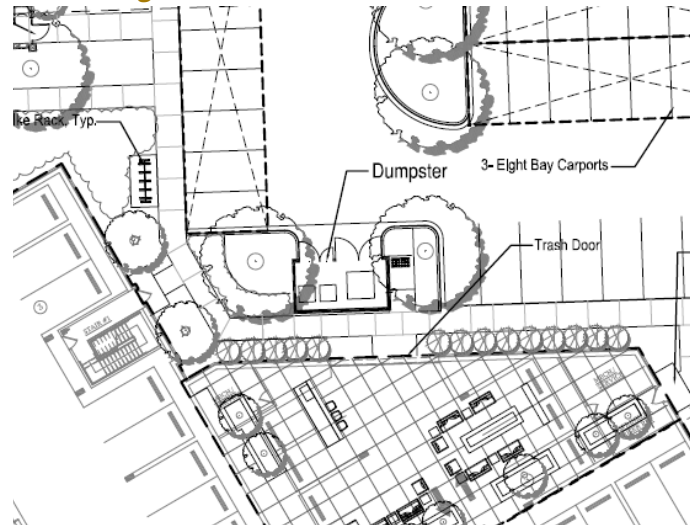
The commercial space will have multiple exterior doors, but the specific layout will depend on the number of tenants and the tenants’ internal layout. Deliveries can occur in the garage but are more likely to occur on North Street or the 67th Court extension due to the tight access for large trucks to enter the garage. The same is likely to happen for residents who are using larger trucks to move in or out of apartment units. The hope is for a restaurant user to occupy the commercial space, but with no known tenants, those delivery schedules will need to be worked out. Typically, deliveries and loading occur in off-times for short periods, so loading may only create a minor inconvenience for vehicles to maneuver around.

Resident garbage collection in the mixed-use building will be funneled to an enclosed room on the first floor of the parking garage. Garbage trucks will have access through the main garage door, but it is unlikely a garbage truck will be able to back in or maneuver the space. Garage ceiling heights may also not be adequate for a garbage truck to operate. A truck entering the garage may also cause issues with other vehicles trying to enter or leave the parking garage while a garbage truck is on-site. In addition, no separate trash area is indicated for the restaurant space and

appears to be sharing the resident garbage area. There is no access to the parking garage from the restaurant and, based on the current plan, an employee will need to exit the garage and to then go into the garbage area to empty the trash. If the garbage area is utilized by both residents and the commercial space, the trash room may not be large enough as it can easily fill up between pickups and on weekends. Due to the lack of an alley or drive-aisle on the site, there are no alternative locations for dumpster storage and the use of a public sidewalk for trash pickup is not an acceptable solution. The size of the space and operations will need to be clarified as acceptable by the applicant and the waste removal company.

Open Item #9: Clarification of the loading, receiving, and garbage operations for the commercial spaces and residents. Indicate truck locations and adequate right-of-way widths being maintained.

The Petitioner added an exterior dumpster enclosure and reconfigured the parking lot to move the garage access to the east side along North Street. This will allow additional trash storage to be used by residents or businesses. The enclosure is required to be masonry, matching the building material. Truck loading is expected to occur at off times along the streets or in the back parking lot but will be dependent on the specific businesses.



Additionally, garbage collection operations for the townhomes will need to be monitored and managed. No common dumpster enclosure spaces are proposed, and units have no exterior space for hidden can storage. With limited garage space (20-22' widths), it is not clear how tote storage will work without detracting from the development or utilizing an interior garage parking space from each unit. Consideration is needed of a common dumpster area as well as truck access to the site will occur. Conditions may be required on the Site Plan approval if operational items are required (for example, storing totes in the garages).

Open Item #10: Clarification of the on-site garbage pickup operations for both the mixed-use building and townhomes. Include residential and commercial spaces, expected pickup frequency, location and truck location/operation and clarification that a garbage truck can maneuver the space as proposed.

ARCHITECTURE

Mixed-Use Building

Staff's primary concern is the 5-story multi-use building's proposed architectural design, particularly at street-level. There are challenges creating attractive frontages, when the ground level is primarily a parking garage and mechanical equipment along three of four frontages. The prominence of the North Street frontage is important as it remains highly visible to downtown businesses, Harmony Square Plaza, the Metra station, and Oak Park Avenue. Additionally, the other facades will be highly visible from the neighboring residential developments, parks, and sidewalks.

The Legacy Code requires a minimum of 75% of all facades and roofs exclusive of glazing shall be comprised of brick, stone and fiber cement siding. Accent material can have a maximum of 25% of other materials. The proposed building will be constructed of a combination of face brick, flat-faced "renaissance stone", fiber cement panels, stucco molding/trim details, and grates for HVAC units (similar to The Boulevard). The primary material used will be manufactured "renaissance stone" for the first floor with face brick and fiber cement panels on floors 2-5. This comprises of anywhere from 75% to 80% of the overall material, excluding glazing, depending on the specific elevation, and complies with Code requirements. Exact materials percentage information still must be supplied by the Petitioner to confirm compliance. Overall, the color pallet is natural earth tones meant to complement the existing traditional architectural styles in the downtown.

Open Item #11: Supply exact exterior material percentages for all façade elevations.

Revised plans with specific material percentages will be provided at the Plan Commission public hearing. Rough calculations from the most recent submittal indicate the proposed composition of each façade would meet the building material requirements.

Plaza/67th Ct/West Front Elevation



The primary street-level frontage facing west toward Harmony Square Plaza has been designed to have a uniform commercial appearance including large windows, canopies, and areas for signage. This has been carried across the façade even though around 50% of the space on the north side is proposed to be residential amenity space. The architecture of the upper floors has been designed with vertical and horizontal breaks in the façade and materials. Balconies are proposed for most units with black railings.

North Street/South Elevation



The next most visible street-level façade is facing south towards North Street and many of the commercial elements have been replicated here including glazing and canopies. However, due to the parking garage location the windows are proposed to be opaque/darkened as they will not have a storefront behind them. While this is not preferred the petitioner had a challenge of fitting interior covered parking in a building that has all sides visible from public roadways and sidewalks. Areas for advertising of public events have been added as well, with the material on these areas unknown. Staff recommend these glazed window areas so that if unused for events or branding promotion, they look as if they are a planned part of the façade. Additionally, foundational landscaping is proposed for this façade to soften the view.

Overall, the preference is for the North Street façade to be commercial space or to be the location of the accessory residential amenities (freeing up additional space adjacent to the plaza for commercial use). The Petitioner has noted that the only way to do that is to have underground parking or a separate parking structure, both options that are not economically feasible to the developer. The proposed elevation is a mixture of components that works best to create an attractive frontage that blends with the rest of the building, while avoiding a large solid brick/stone wall.

Open Item #12: Discuss overall appearance of North Street façade and alternative options to proposed opaque windows.

Northern Elevation



Easten Elevation



The eastern and northern first-floor elevations of the building include similar opaque/darkened windows with a rhythm similar to the window spacing on the floors above it. These façades, while not the front of the building, will still be visible from public ways and neighboring properties. There are limited alternatives to adding windows or openings on the first floor due to the parking garage location. These elevations do face more residential areas and are setback from the road, with more landscaping and residential appearance as opposed to the two primary street elevations.

Open Item #13: Discuss overall appearance of northern and eastern secondary façade appearances.

Buildings with street-level commercial uses are required to have the first floor of all street-level facades with a minimum of 60% glazing that cannot be opaque or mirrored. A variation from this section will be required for the three non-primary facades (south, north, and east).

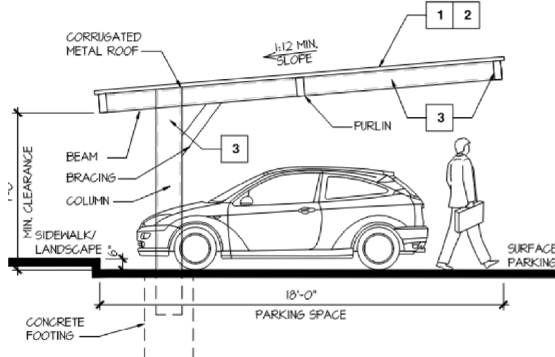
Open Item #14: Discuss variations for less than 60% glazing on street-level facades and to permit opaque glazing/windows on those façades.

Parapet and mechanical unit heights/locations have not been supplied. Staff is looking for plans or a sightline study showing that all rooftop mechanicals will be screened by the proposed parapet.

Open Item #15: provide plans and clarification indicating rooftop mounted HVAC and other mechanical equipment sizes and locations will be screened by the proposed parapet.

Three 8-unit carports are proposed over the surface parking lot to provide coverage for the minimum number of parking stalls. The proposed car port structure details have not been provided but an example has been provided for a prefabricated roof structure with a minimalist design meant to limit their visibility and allow them to blend in better with the surroundings. Staff has recommended considering constructing more traditional detached garages at these locations as they allow the use of materials that better complement the development (matching brick, roofing materials, etc.) Additionally, enclosed garages are likely to be preferred by residents and more closely meet the code, which requires enclosed parking, attached or within the building footprint.

Open Item #16: Discuss proposed carports, their appearance/design, and the desire for enclosed garage structures that match the principal building materials.



Townhomes

The townhomes have a traditional row home style with a front porch entrance and rear loaded garages. All building facades are a combination of face brick and fiber cement board siding and comply with the material specifications. Each unit has an elevated deck on the front elevation as well. The front facades are meant to front major streets, helping create an urban and walkable feel to the downtown. Where the sides of buildings front roadways, the side elevations have been given upgraded elevations with an additional balcony or door/porch to give it the appearance of a front elevation.

All townhome buildings will have a similar style within the development but vary slightly depending on if the structure is 3, 4, or 5 units. However, differing material color combinations of siding and brick have been planned to avoid having buildings with the same exact colors next to each other.

Open Item #17: Review overall architectural design of the townhome elevations.

Elevations differ between the color renderings and the architectural line drawings. Specifically, the line drawings appear to show differing siding patterns (vertical and horizontal) that offer more architectural intrigue to the design on front and side elevations, as opposed to horizontal run lap siding. Clarification of the design and revised renderings will need to be supplied.

Open Item #18: Revise color renderings to have differing siding patterns (vertical, horizontal, board & batten, etc.) as depicted on the architectural line drawings rather than horizontal siding across all elevations.

Front Elevations



Traditional Side Elevations



LEFT ELEVATION
SCALE 1/8"=1'-0"



RIGHT ELEVATION
SCALE 1/8"=1'-0"

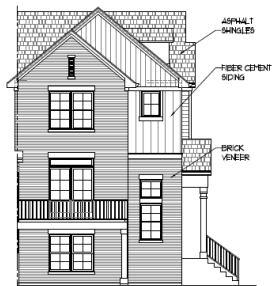


LEFT ELEVATION
SCALE 1/8"=1'-0"



RIGHT ELEVATION
SCALE 1/8"=1'-0"

Upgraded/Streetside Side Elevation



1700

PART'L. COURT ELEVATION
SCALE 1/8"=1'-0"



1700

RIGHT ELEVATION
SCALE 1/8"=1'-0"

Rear Elevation

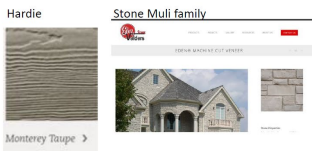


1700

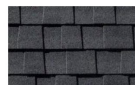
REAR ELEVATION - 3 UNIT
SCALE 1/8"=1'-0"

Exterior Material/Color Packages

Package One Option



Brampton Brick- Ripley
Front Door: SW Homberg Gray 7622
Shutters: Gray



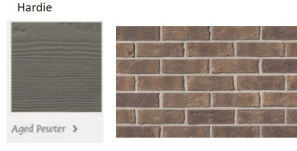
All roofs – GAF Charcoal

Package Two



Artic White
Brick General Shale- LWQ Shawdow Grey Tudor
Front Door: SW Iron Ore 7069
Shutters: Black

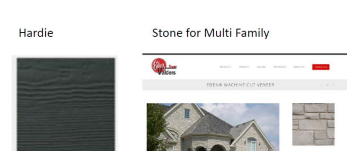
Package Three



Brampton Brick- Brownstone
Front Door: Sherwin Williams Pewter Green SW6208
Shutters: Black



Package Four



Brampton Brick- Graystone
Front Door: Sherwin Williams Auric 6692 | Safer Choice Sherwin Williams Cityscape SW7061
Shutters: Pale Gray

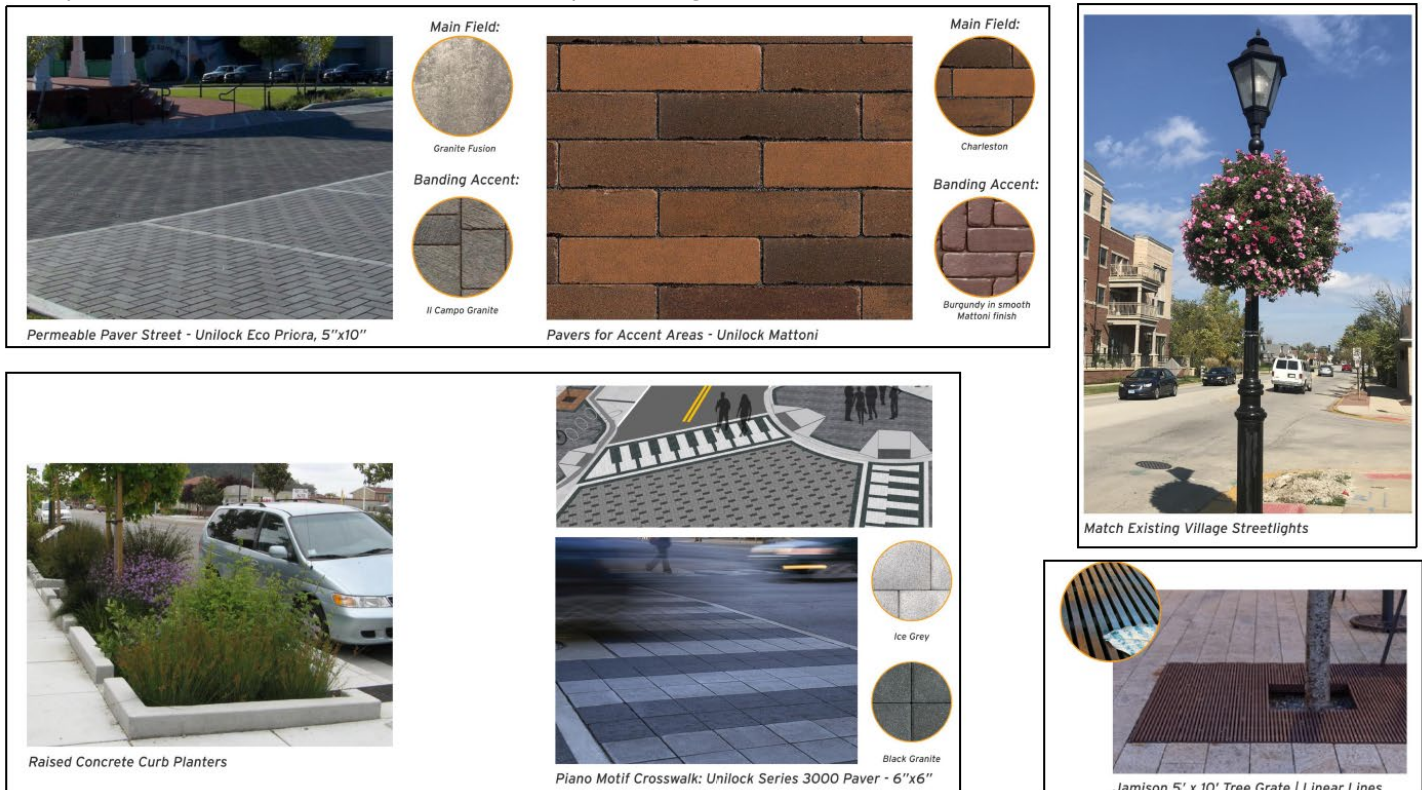


LANDSCAPE

The overall development works to maximize the buildable footprint of the lot while still maintaining an attractive streetscape and landscaping where space is available. The developer proposes an outdoor dog recreational area on the mixed-use lot. Overall, the proposal includes a variety of species types that will create an attractive and interesting development. Species are generally hearty and salt-tolerant to ensure limited maintenance and long-term health.

The proposed streetscape is generally in line with what the Village would like to see regarding landscaping, trees, benches, and streetlights. A Village consultant is actively designing and preparing a streetscape plan for downtown. Staff has recommends that the landscape and site plans be subject to meeting all streetscape requirements laid out in the Village's future streetscape plan or any changes the Village sees fit prior to permitting.

Example North Street and 67th Court Streetscape Frontage



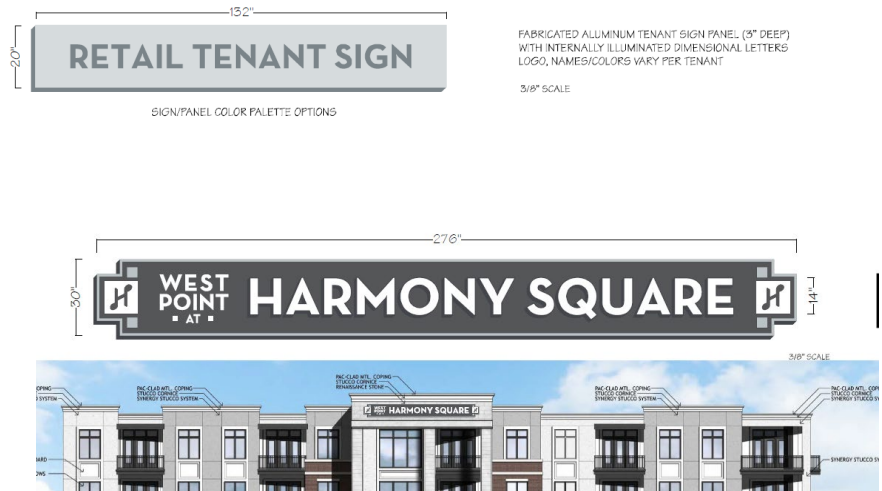
Landscaping is placed throughout the townhome portion of the development where there is available space and around the parking lot. The tree locations have been maximized to provide canopy cover and shade within the development. Foundational landscaping is provided at the base of the buildings and helps to create an attractive appearance from the public roadways and internal to the site.

The mixed-use building has proposed some foundational landscaping to help create an attractive street-level appearance despite the existence of a parking garage on 3 of the elevations. Rooftop landscaping is also proposed on the second-floor rooftop terraces and around the ground floor patio.

Open Item #19: Discuss the proposed landscape plan, and the treatment of the North Street façade foundational landscaping. Clarify if the North Street foundational landscaping will be on the private lot or public right-of-way.

SIGNAGE

The plan indicates various sign band locations on the building which will allow for commercial tenant signage to be an aluminum sign frame/backer with internally illuminated letter or logos. The sign will keep a consistent location and appearance while still allowing unique colors, fonts, and logos specific to the tenant.



The Petitioner proposed to have development signage indicating the name of the development. The development signage is customary in newer urban style development that allows for each building/development to be known. The signage designs are meant to complement the architecture of the buildings.

For the mixed-use building wall signs are proposed on all four elevations of the building. These building signs were not anticipated in the code and are not permitted to advertise the residential development. They also exceed the size and height that commercial wall signs are permitted in the Legacy District. The following requests are needed based upon the Petitioner's submittal:

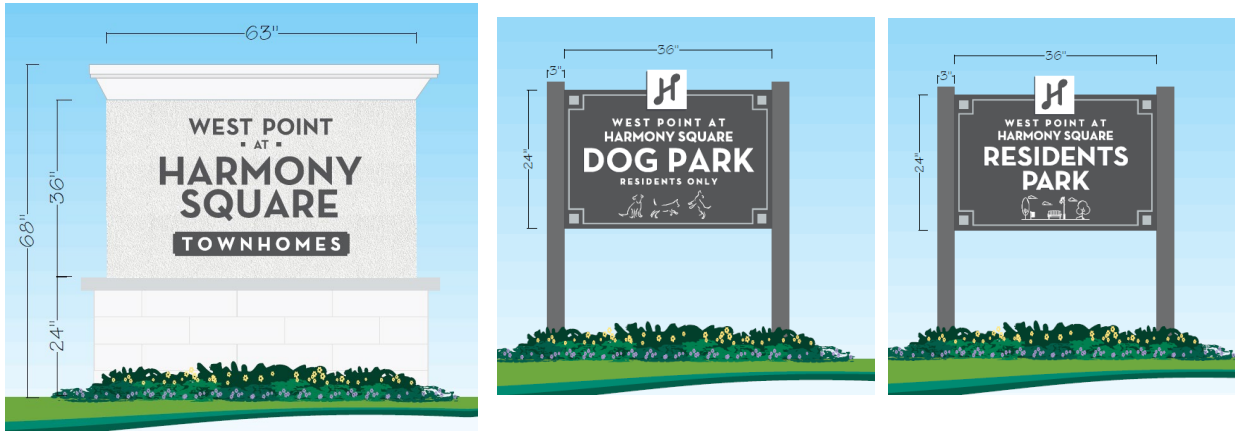
- All development wall signs – Allow for residential development and not a commercial business.
- Wall signs shall not extend higher than the second floor windowsills, where the proposed sign extends to the top of the fifth floor.
- The traditional wall signs are proposed at 57.5 sq. ft. for all four elevations.

Staff has recommended limiting the development signage to only one sign on the west and south elevations that are the primary frontages, facing the train station and downtown area. The other two elevations face towards residential areas and do not have as strong an identification purpose needed. If it is decided that the signs are to remain on those elevations, they will need to be non-illuminated.

Open Item #20: Discuss the proposed mixed-use building development wall signage and required variations. Discuss removal for development wall signs on the north and eastern elevations that face towards residential subdivisions. Open Item #20: Discuss the proposed ground (monument) sign locations and variation to the ten foot minimum setback.

For the townhomes, an entrance sign has been proposed at the southwest and northeast corners of the development. Specific setbacks have not been shown on the plans and need to be clarified, however it is likely less than the 10' min. setback and will require a variation. Signs are also not permitted for residential developments and require variations approval. Subdivision signs are common in other areas of town but not common in the downtown area. However, this development is in the DG (Downtown General) Zoning District, which is a transitional and primarily residential District. The proposed signs blend in with the architectural style of the buildings. 6 sq. ft. in area and 4 ft. high non-illuminated ground signs are also proposed for the resident park and the dog park for informational purposes. Identification signs are only permitted at a maximum of 5 sq. ft. and 2 ft. in height, requiring a variation. The signs have a similar style, font, and colors as the other development signage and are meant to complement the development architecture.

Open Item #21: Discuss the proposed townhome development signage and required variations for residential signage to be permitted and for a reduced setback (to be clarified by Petitioner).



PARKING

The DC (Downtown Core) and DG (Downtown General) Districts do not require parking for street-level commercial uses. That parking is supplemented by the on-street and available public parking, including the centralized Metra commuter lot. However, it does require one enclosed space (located within, or attached to, the building envelope) for each residential unit. The proposed project provides the required amount of residential parking spaces but does not provide them inside of the building for all units in the mixed-use building.

For the townhome portion of the development, each unit has a 2-car attached garage. For the mixed-use building, there are 39 parking stalls provided internal to the building and 45 additional stalls on an exterior surface lot. Of those 45 stalls, 24 will be covered by a carport to ensure the minimum number of required stalls are at least covered parking. Staff has recommended considering the use of fully enclosed detached garage structures. A garage structure is more appealing and tie into the overall development, while also being preferred by the residents. Surface parking lots are generally considered a waste of available building space and run counter to the goal of maximizing building footprints.

Open Item #22: A Variation is required to allow for some required stalls to be located in a surface lot that are not "below or within the building footprint".

The Village restricts on-street parking from 2-5 am, which can limit parking for guests. Additionally, the commuter lot currently requires a monthly pass to park between 5am-10:30am. There are some upcoming changes that will allow for daily pay during those commuter lot hours. Staff is further evaluating whether some stalls may be able to be leased separately to residents, or private developers who want additional stalls. While these changes are in the works, it's important to note that the developer will need to ensure residents operate within the allowable parking, which may be the stalls being provided on site.

The state adopted a recent law requiring all new residential developments to make required stalls "EV charging compatible". This means that the developer will need to ensure there is adequate electrical panels supply and conduit running to any required parking stalls.

Open Item #23: Discuss state requirement to make any "required" parking spaces electrical vehicle charging compatible including proper electrical service panel and conduit installation.

Bike Parking

The Legacy Code requires one bike stall per dwelling unit and .2 per 1,000 sq. ft. of Street Level Commercial. The total required minimum number of bike stalls is one stall for the commercial tenant space and 126 stalls for the residential units. The bike storage for the residential units is in the mixed-use parking garage (on the wall in front of each parking space, and in a separate bike locker) and in the attached garages of the townhome units. A bicycle rack is also

proposed in the public streetscape along North Street. The final location and number of these bike racks will be determined when the final streetscape plan is approved.

LIGHTING

Various building lighting fixtures are shown on the architectural renderings. The cut sheets for the lights and wall sconces were not provided and will need to comply with the allowable light fixture styles, including ensuring the light source is not visible. Column style lights to the Village's specifications are required in the rights-of-way.

Open Item #24: Supply all light fixture cut sheets and a final photometric plan needs to be provided.

PLAT OF VACATION AND SUBDIVISION/CONSOLIDATION

The project includes the vacation of a .531-acre area of the right-of-way and consolidation of that land with the existing south private lot to allow for the development of the mixed-use building and connection between the two parts of the development. The drafted Plat of Vacation and Plat of Subdivision are attached and under review by the Village Engineer and Village Attorney.

Open Item #25: Discuss Plat of Vacation and Plat of Subdivision/Consolidation, both will be subject to final approval by the Village Engineer and Village Attorney.

VARIATIONS

The list of requested variations include:

1. Five studio units to be permitted at a minimum of 705 sq. ft. instead of the minimum 800 sq. ft. size. For a residential dwelling (Sec. V.C.2)
2. Permit residential parking that is not within or below the building envelope or an attached parking structure. 24 required stalls are required to still have a carport covering or approved parking structure (Sec. XII.3.C.3.d.)
3. Permit floors 2-5 to be setback 24' instead of the permitted maximum of five feet (5') (Sec. XII.2.A.2.9.)
4. Permit a reduction of the required 60% of all street frontage facades on a commercial building to be transparent windows. Opaque, non-mirrored" windows shall be permitted on the three-non-primary facades (Sec. XII.3.B.6.a.)
5. Permit 57.5 sq. ft. development wall signs on the west (67th Ct.) and south (North Street) facades to be placed at the top of the 5th floor parapet as shown on the elevation (Sec. XII.4.E.8.)
6. Permit 6 sq. ft. in size, 4 ft. high identification signs at the private park and dog park areas (Sec. XII.4.E.16.)
7. Permit two 15 sq. ft. large and 68 inch high townhome development entrance ground signs to be setback a minimum of two feet from the property lines (Sec. XII.4.E.14.)
8. Permit Commercial Depth of 45' instead of the minimum 50' where street-level commercial is required (Sec. XII.2.A.4.)

ADDITIONAL LEGACY CODE STANDARDS

In addition to any other specific standards set forth herein the Plan Commission shall not recommend a Special Use, variance, appeal, or map amendment from the regulations of this ordinance unless it shall have made findings of fact, based upon evidence presented to it, in each specific case that the following standards are met. Staff has provided draft Findings for the Commission's review. The Commission may adopt the Findings as provided or make any additions, deletions, or modifications based on testimony provided at the hearing.

- a. The proposed improvement meets the Legacy Plan and its Principles, as presented in Section 1.A-B: Purpose and Intent, of this ordinance.
 - *The Legacy Plan specifically calls for maximizing the number of people living within walking distance of the train station. The project will have the potential to bring, at a minimum, 126 new residents to the downtown area near the commuter line. The new commercial storefronts adjacent to the Harmony Square Plaza and overall site design are in conformance with the goal of having a walkable downtown with a strong economic center.*
- b. The new improvement is compatible with uses already developed or planned in this district and will not exercise undue detrimental influences upon surrounding properties.
 - *The mixed-use building and townhomes are permitted within their respective Zoning Districts and are compatible with the commercial service uses preferred in the downtown area.*
- c. Any improvement meets the architectural standards set forth in the Legacy Code.
 - *The mixed-use and townhome buildings provide for a consistent style of architecture without being monotonous. The first-floor retail storefront provides for varying materials with the use of brick, stone, fabric and metal awnings, light fixtures, and recessed doorways. The upper floors utilize balconies and a mixture of brick, stone, fiber cement panel siding, cornices, and trim to create interest. The overall appearance is traditional in nature to help complement the existing downtown buildings.*
- d. The improvement will have the effect of protecting and enhancing the economic development of the Legacy Plan area.
 - *The proposed improvements provide new commercial space, increasing the availability of downtown commercial space, and will add residents within walking distance to support downtown businesses. The Village will be able to attract commercial users that will serve residents of the project, the community and beyond, thereby contributing to the economic health of the downtown area and the village overall.*

STANDARDS FOR A SPECIAL USE

Section X.J.5. of the Zoning Ordinance lists standards that need to be considered by the Plan Commission. The Plan Commission is encouraged to consider these standards (listed below) when analyzing a Special Use request. Staff has provided the following draft Findings for the Commission's review. The Commission may adopt the Findings as provided or make any additions, deletions, or modifications based on testimony provided at the hearing.

X.J.5. Standards: No Special Use shall be recommended by the Plan Commission unless said Commission shall find:

- a. That the establishment, maintenance, or operation of the Special Use will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare;
 - *The incorporation of ground-floor residential amenities will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare. The uses are incorporated with the overall design of the first-floor lobby area and will be built to meet all building codes.*

- b. That the Special Use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood;
 - *The inclusion of ground-floor residential amenities will not be injurious to the use and enjoyment of other properties in the immediate vicinity. There is a train station across the street and a mix of commercial and residential uses surrounding the property.*
- c. That the establishment of the Special Use will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district;
 - *Having residential amenities on the first floor will not impede the normal development of the downtown, however these uses will not generate sales tax revenue the community hopes to achieve with downtown redevelopment. In the future, the amenity space could be converted in whole or part to commercial space.*
- d. That adequate utilities, access roads, drainage, and/or other necessary facilities have been or are being provided;
 - *As part of this development, the adjacent roadways will be reconstructed according to the Village's streetscape and roadway plans. A regional pond, which was established on the Panduit Site, is providing the necessary stormwater management that normally would have been required on site.*
- e. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets; and
 - *The residential amenities will only be accessed from the interior lobby area of the mixed-use building. Since these areas will only be utilized by the residents living in the apartments, there will not be any issues of increased traffic on the public streets.*
- f. That the Special Use shall, in all other respects, conform to the applicable regulations of the district in which it is located, except as such regulations may in each instance be modified by the Village Board pursuant to the recommendation of the Plan Commission. The Village Board shall impose such conditions and restrictions upon the premises benefited by a Special Use Permit as may be necessary to ensure compliance with the above standards, to reduce or minimize the effect of such permit upon other properties in the neighborhood, and to better carry out the general intent of this Ordinance. Failure to comply with such conditions or restrictions shall constitute a violation of this Ordinance.
 - *The DC (Downtown Core) District for this area requires first floor commercial space. The residential amenity space is permitted by Special Use.*
- g. The extent to which the Special Use contributes directly or indirectly to the economic development of the community as a whole.
 - *The Special Use will add required commercial space along the future 67th Court extension at the corner of South Street, adjacent to the future Harmony Square Plaza. The DC (Downtown Core) District requires ground floor commercial space. Although a portion of the ground floor of the mixed-use building will be occupied by resident amenity space, the development adds available commercial space downtown. The amenity space will not generate additional foot traffic for businesses; however it will enhance the living experience of future residents of the building.*

It is important to recognize that a Special Use Permit does not run with the land and instead the Special Use Permit is tied to the Petitioner. This is different from a process such as a variance, since a variance will forever apply to the property to which it is granted. Staff encourages the Plan Commission to refer to Section X.J.6. to examine the conditions where a Special Use Permit will expire and a new owner would be required to receive a new approval.

STANDARDS FOR A VARIATION

Section X.G.4. of the Zoning Ordinance states the Plan Commission shall not recommend a Variation of the regulations of the Zoning Ordinance unless it shall have made Findings of Fact, based upon the evidence presented for each of the Standards for Variations listed below. The Plan Commission must provide findings for the first three standards; the remaining standards are provided to help the Plan Commission further analyze the request. Staff has provided the following draft Findings for the Commission's review. The Commission may adopt the Findings as provided or make any additions, deletions, or modifications based on testimony provided at the hearing.

1. The property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in the district in which it is located.
 - *The Variations are based upon the existing market conditions and available space on the property. The requests have been minimized whenever possible but allow the preferred development pattern to occur. Resident amenities have been maximized where there is available space.*
2. The plight of the owner is due to unique circumstances.
 - *Most of the Legacy and Zoning Code requirements have been met by the Petitioner with only a few changes that have been minimized where possible that allow for the project to be financially viable and fit within the site's size constraints. The overall proposal fits within the visions and plan for their respective Districts.*
3. The Variation, if granted, will not alter the essential character of the locality.
 - *The Variations do not change the character of the area and have been minimized where possible to keep in line with the existing development pattern, Legacy Plan and Legacy Code requirements.*
4. Additionally, the Plan Commission shall also, in making its determination whether there are practical difficulties or particular hardships, take into consideration the extent to which the following facts favorable to the Petitioner have been established by the evidence:
 - a. The particular physical surroundings, shape, or topographical condition of the specific property involved would result in a particular hardship upon the owner, as distinguished from a mere inconvenience, if the strict letter of the regulations were carried out;
 - b. The conditions upon which the petition for a Variation is based would not be applicable, generally, to other property within the same zoning classification;
 - c. The purpose of the Variation is not based exclusively upon a desire to make more money out of the property;
 - d. The alleged difficulty or hardship has not been created by the owner of the property, or by a previous owner;
 - e. The granting of the Variation will not be detrimental to the public welfare or injurious to other property or improvements in the neighborhood in which the property is located; and
 - f. The proposed Variation will not impair an adequate supply of light and air to an adjacent property, or substantially increase the congestion in the public streets, or increase the danger of fire, or endanger the public safety, or substantially diminish or impair property values within the neighborhood.

STANDARDS FOR SITE PLAN AND ARCHITECTURAL APPROVAL

Section III.T.2. of the Zoning Ordinance requires that the conditions listed below must be met and reviewed for Site Plan approval. Specific findings are not required but all standards shall be considered to have been met upon review by the Plan Commission.

Architectural

- a. **Building Materials:** The size of the structure will dictate the required building materials (Section V.C. Supplementary District Regulations). Where tilt-up or pre-cast masonry walls (with face or thin brick inlay) are allowed vertical articulation, features are encouraged to mask the joint lines. Concrete panels must incorporate architectural finishes that comply with “Building Articulation” (Section III.U.5.h.) standards. Cast in place concrete may be used as an accent alternate building material (no greater than 15% per façade) provided there is sufficient articulation and detail to diminish it’s the appearance if used on large, blank walls.
- b. **Cohesive Building Design:** Buildings must be built with approved materials and provide architectural interest on all sides of the structure. Whatever an architectural style is chosen, a consistent style of architectural composition and building materials are to be applied on all building facades.
- c. **Compatible Architecture:** All construction, whether it be new or part of an addition or renovation of an existing structure, must be compatible with the character of the site, adjacent structures and streetscape. Avoid architecture or building materials that significantly diverge from adjacent architecture. Maintain the rhythm of the block in terms of scale, massing and setback. Where a development includes outlots they shall be designed with compatible consistent architecture with the primary building(s). Site lighting, landscaping and architecture shall reflect a consistent design statement throughout the development.
- d. **Color:** Color choices shall consider the context of the surrounding area and shall not be used for purposes of “attention getting” or branding of the proposed use. Color choices shall be harmonious with the surrounding buildings; excessively bright or brilliant colors are to be avoided except to be used on a minor scale for accents.
- e. **Sustainable architectural design:** The overall design must meet the needs of the current use without compromising the ability of future uses. Do not let the current use dictate an architecture so unique that it limits its potential for other uses (i.e. Medieval Times).
- f. **Defined Entry:** Entrance shall be readily identifiable from public right-of-way or parking fields. The entry can be clearly defined by using unique architecture, a canopy, overhang or some other type of weather protection, some form of roof element or enhanced landscaping.
- g. **Roof:** For buildings 10,000 sf or less a pitched roof is required or a parapet that extends the full exterior of the building. For buildings with a continuous roof line of 100 feet or more, a change of at least five feet in height must be made for every 75 feet.
- h. **Building Articulation:** Large expanses of walls void of color, material or texture variation are to be avoided. The use of material and color changes, articulation of details around doors, windows, plate lines, the provision of architectural details such as “belly-bands” (decorative cladding that runs horizontally around the building), the use of recessed design elements, exposed expansion joints, reveals, change in texture, or other methods of visual relief are encouraged as a means to minimize the oppressiveness of large expanses of walls and break down the overall scale of the building into intermediate scaled parts. On commercial buildings, facades greater than 100 feet must include some form of articulation of the façade through the use of recesses or projections of at least 6 inches for at least 20% of the length of the façade. For industrial buildings efforts to break up the long façade shall be accomplished through a change in building material, color or vertical breaks of three feet or more every 250 feet.
- i. **Screen Mechanicals:** All mechanical devices shall be screened from all public views.
- j. **Trash Enclosures:** Trash enclosures must be screened on three sides by a masonry wall consistent with the architecture and building material of the building it serves. Gates must be kept closed at all times and constructed of a durable material such as wood or steel. They shall not be located in the front or corner side yard and shall be set behind the front building façade.

Site Design

- a. Building/parking location: Buildings shall be located in a position of prominence with parking located to the rear or side of the main structure when possible. Parking areas shall be designed so as to provide continuous circulation avoiding dead-end parking aisles. Drive-through facilities shall be located to the rear or side of the structure and not dominate the aesthetics of the building. Architecture for canopies of drive-through areas shall be consistent with the architecture of the main structure.
- b. Loading Areas: Loading docks shall be located at the rear or side of buildings whenever possible and screened from view from public rights-of-way.
- c. Outdoor Storage: Outdoor storage areas shall be located at the rear of the site in accordance with Section III.O.1. (Open Storage). No open storage is allowed in front or corner side yards and are not permitted to occupy areas designated for parking, driveways or walkways.
- d. Interior Circulation: Shared parking and cross access easements are encouraged with adjacent properties of similar use. Where possible visitor/employee traffic shall be separate from truck or equipment traffic.
- e. Pedestrian Access: Public and interior sidewalks shall be provided to encourage pedestrian traffic. Bicycle use shall be encouraged by providing dedicated bikeways and parking. Where pedestrians or bicycles must cross vehicle pathways a crosswalk shall be provided that is distinguished by a different pavement material or color.

MOTIONS TO CONSIDER

If the Plan Commission wishes to act on the Petitioner's requests, the appropriate wording of the motions is listed below. The protocol for the writing of a motion is to write it in the affirmative so that a positive or negative recommendation correlates to the Petitioner's proposal. By making a motion, it does not indicate a specific recommendation in support or against the plan, it only moves the request to a vote. The conditions listed below are recommended by staff but can be added to, changed, or removed by the Commission based on their discussion of the approval of recommendation.

Motion 1 (Text Amendment)

"...make a motion to recommend the Village Board amend Sec. XII.2.A.3. of the Zoning Ordinance (Legacy District) "Downtown Core Regulating Plan" to relocate a segment of the frontage designated as "Street-Level Commercial Required" from a certain segment of North Street to a certain segment of the 67th Court extension as proposed in the September 7, 2023 staff report."

Motion 2 (Zoning)

"...make a motion to recommend the Village Board grant West Point Builders, Inc., on behalf of Tinley Park Main Street, LLC, a rezoning of the vacated portion of the 173rd Street right-of-way to the DC (Downtown Core) Zoning District, subject to the condition that the Plat of Vacation is reviewed and approved by the Village Attorney, Village Engineer, and Village Board."

Motion 3 (Special Use)

"...make a motion to recommend the Village Board grant a Special Use Permit to allow "Accessory Residential Uses on the Street Level in a mixed-use building" to the Petitioner, West Point Builders, Inc., on behalf of Tinley Park Main Street, LLC, in the DC (Downtown Core) Zoning District, where street-level commercial is required in accordance with the plans submitted and adopt the Findings of Fact as proposed in the September 7, 2023 staff report, subject to the following conditions:

- a) The "Accessory Residential Uses on the Street Level in a mixed-use building" must not occupy more than 93 feet 8 inches of the proposed building frontage on the 67th Court extension.*
- b) Approval is subject to final engineering reviews and approval.*
- c) Approval is subject to approval by the Village Board of all other related zoning requests.*
- d) As required by Village Ordinance, any changes in ownership require a new Special Use Approval.*
- e) The commercial architectural character of the residential uses must be maintained to create a uniformed commercial frontage appearance. The architecture and character of the exterior frontage of the "Accessory Residential Uses on the Street Level in a mixed-use building" must be designed and maintained to give the appearance of a storefront substantially similar to that of the commercial spaces occupying the ground floor.*

Motion 4 (Variations)

"...make a motion to recommend the Village Board grant eight Variations from the Zoning Ordinance as listed in the September 7, 2023, Staff Report to the Petitioner, West Point Builders, Inc., on behalf of Tinley Park Main Street, LLC, to permit the construction of a development consisting of townhomes and a mixed-use five-story building at North Street and 67th Court, in accordance with the plans submitted and adopt the Findings of Fact as proposed in Staff Report, subject to the following conditions:

- a) Revised plans with updates to the design of the parking lot, garage entrances, and elevations as noted in the staff report and discussed during the public hearing must be revised prior to the Village Board approval.*
- b) Approval is subject to final engineering review and approval, and may, at the sole discretion of the Village, require revisions to the proposed streetscape to comply with the Village's forthcoming streetscape plan.*
- c) All required parking stalls for dwelling units must be covered, situated within the mixed-use building garage, or, if approved by the Village, covered by carport canopies or within accessory garages. either interior to the building,*
- d) "Faux"/opaque windows specifications and design must be reviewed and approved by staff prior to permitting and installation. Windows must not be mirrored.*
- e) Commercial signage must be of a consistent style and mounting design as noted on the plans.*

Motion 5 (Site Plan/Architectural Approval)

“...make a motion to grant Site Plan/Architectural Approval to the Petitioner, West Point Builders, Inc., on behalf of Tinley Park Main Street, LLC, for the development of 63 townhomes and a 5-story mixed-use building with commercial space and 63 units at North Street and 67th Court in accordance with the plans submitted and adopt the Findings of Fact as proposed in the September 7, 2023 staff report, subject to the following conditions:

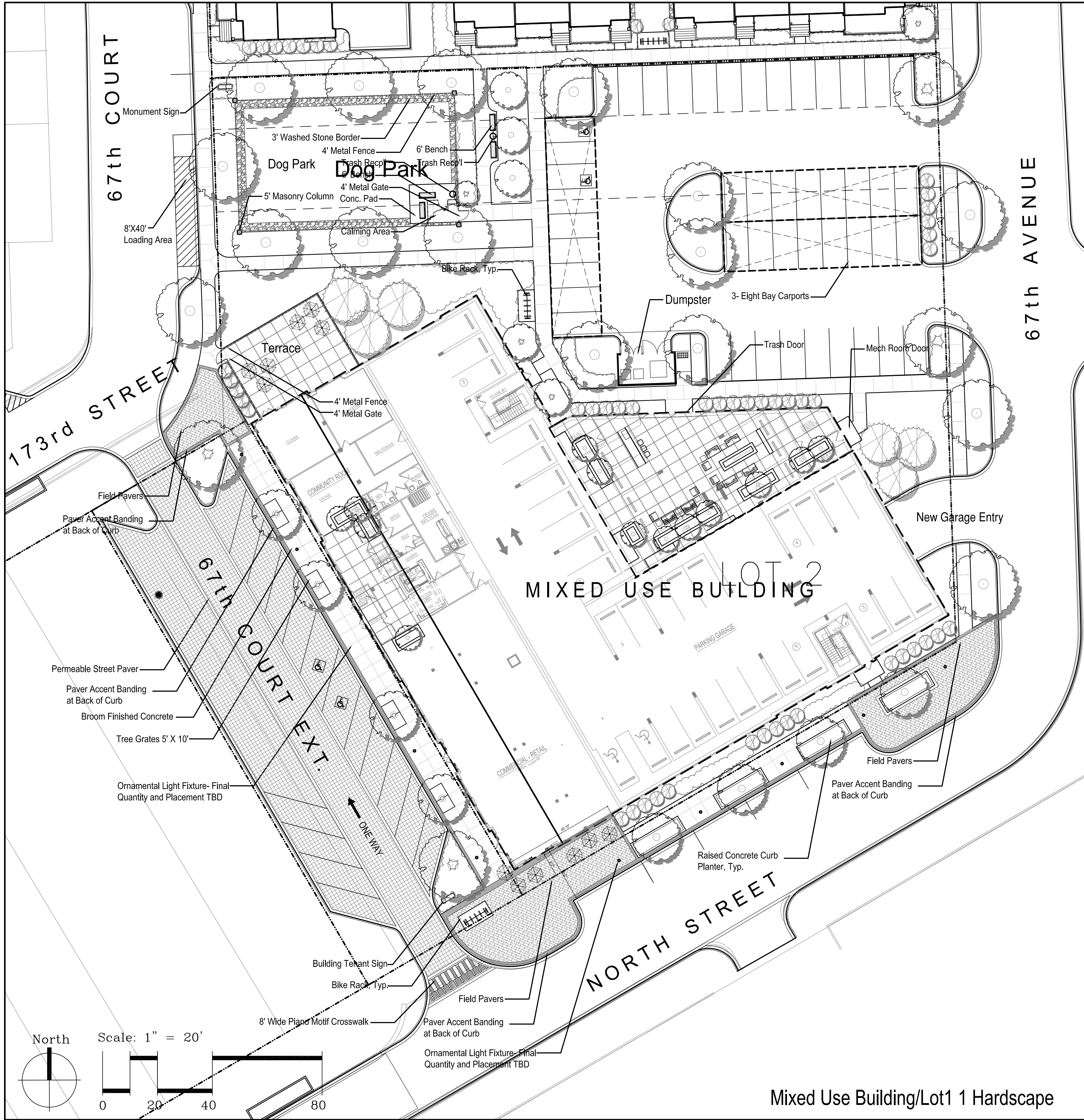
- a) Revised plans with all updates to the parking lot, garage entrance, and elevations as noted in the staff report and public hearing, must be revised prior to the Village Board approval.*
- b) “Public Event signage” areas on the North Street facade must be comprised of glazing to give the appearance of windows when not utilized.*
- c) “Public Event Signage” must not be used for commercial signage purposes and must be left empty when not utilized by the Village, or other public agency.*
- d) Approval is subject to final engineering reviews and approval, and may, at the sole discretion of the Village, require revisions to the proposed streetscape to comply with the Village’s forthcoming streetscape plan. Site-work, grading, and utility permits require prior approval by MWRD, as well as submittal of the Final Plat with all applicable signatures for recording. Foundation-only permits are not permitted unless complying with the Village’s policy and are approved by the Village Board.*
- e) The developer must obtain the necessary construction easements from the Village for the use of their property during construction.*
- f) A minimum of one parking space to one residential unit must be provided on-site for the duration of the construction process.*
- g) All lighting fixtures and the photometric plan are subject to Village review to confirm compliance with all applicable standards.*
- h) All rooftop HVAC and mechanical equipment must be located in a manner to be screened by the parapet wall and must not be visible at ground level.*

Motion 6 (Plat of Vacation and Subdivision)

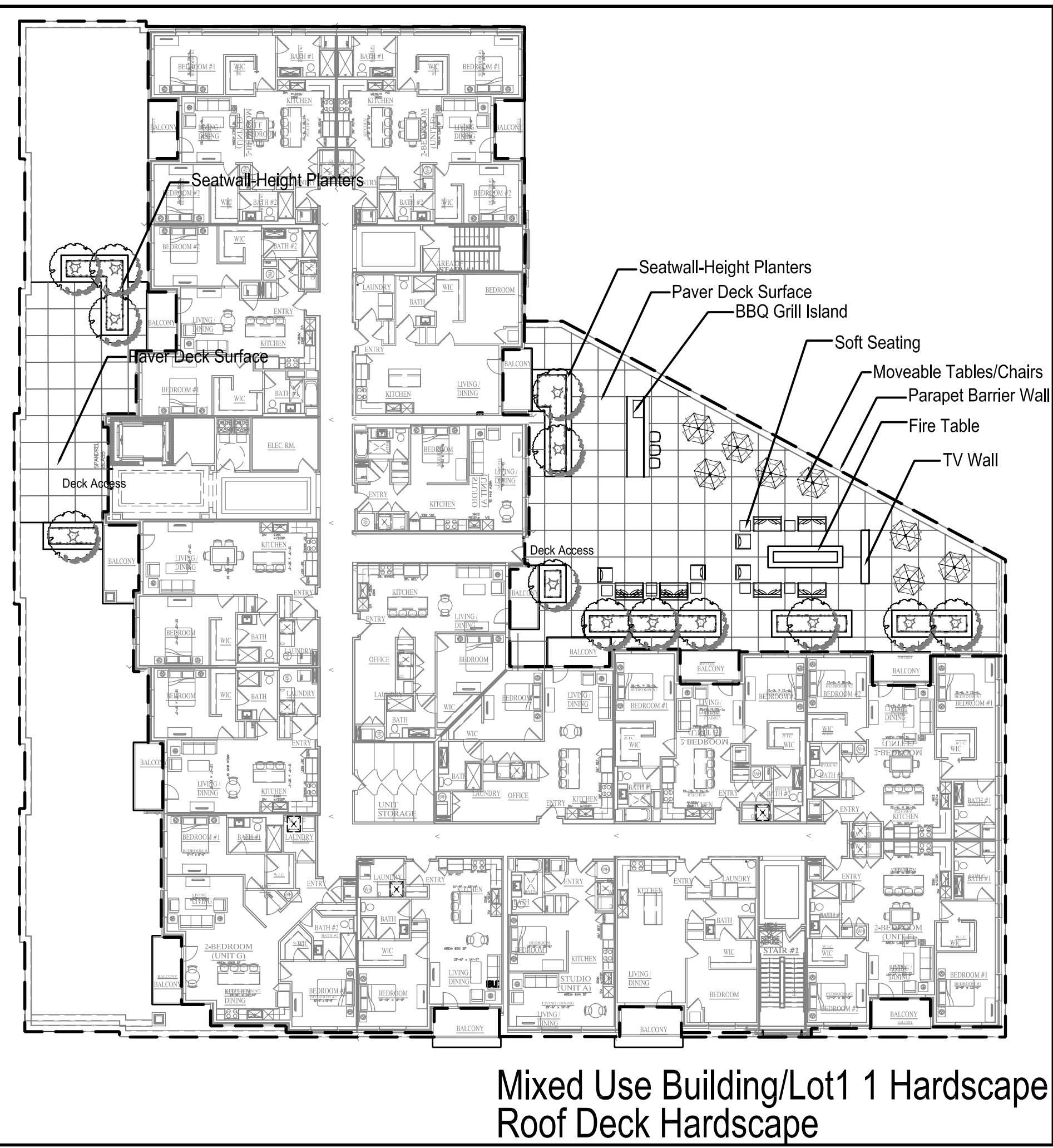
“...make a motion to recommend approval of the Final Plat of Vacation dated June 7, 2023 and the Harmony Square Final Plat of Subdivision dated August 16, 2023 to the Petitioner, West Point Builders, Inc. on behalf of Tinley Park Main Street, LLC, subject to the following condition that it is subject to final review and approval by the Village Engineer and Village Attorney.”

LIST OF REVIEWED PLANS

| Submitted Sheet Name | | Prepared By | Date On Sheet |
|----------------------|---|----------------------|---------------|
| 1 | Application | WPB | 6/19/23 |
| 2 | Illustrative Plan and Landscape Plan | WPB/SL | 7/27/23 |
| 3 | Combined Arch and Elevations 20230811 | SL | 7/27/23 |
| 4 | Tinley Park Exteriors with Brick | Eleni | |
| 5 | Townhome Elevations and Floor Plans | SL | 7/27/23 |
| 6 | Townhome Anti-monotony plan | SL | 7/27/23 |
| 7 | Final Plat of Subdivision | WMA | 7/18/23 |
| 8 | Plat of Vacation Harmony Square 2023-06-19 | Robinson | 6/7/23 |
| 9 | Overall Site Plan | WMA | 7/19/23 |
| 10 | Lot 1 Engineering | WMA | 7/19/23 |
| 11 | Lot 2 Engineering | WMA | 7/19/23 |
| 12 | Sight Distance Exhibit | WMA | 7/19/23 |
| 13 | Photometric Plan and Fixture Cut Sheets | ITG | 7/27/23 |
| 14 | Harmony Square Sign Package 20230810 | VanBruggen | 8/10/23 |
| 15 | Workshop Presentation | WestPoint/Petitioner | 8/17/23 |
| 16 | Updated Mixed-Use Layout with Trash Enclosure and Garage Access | WPB/SL | 8/27/23 |



Mixed Use Building/Lot1 1 Hardscape



Mixed Use Building/Lot1 1 Hardscape
Roof Deck Hardscape



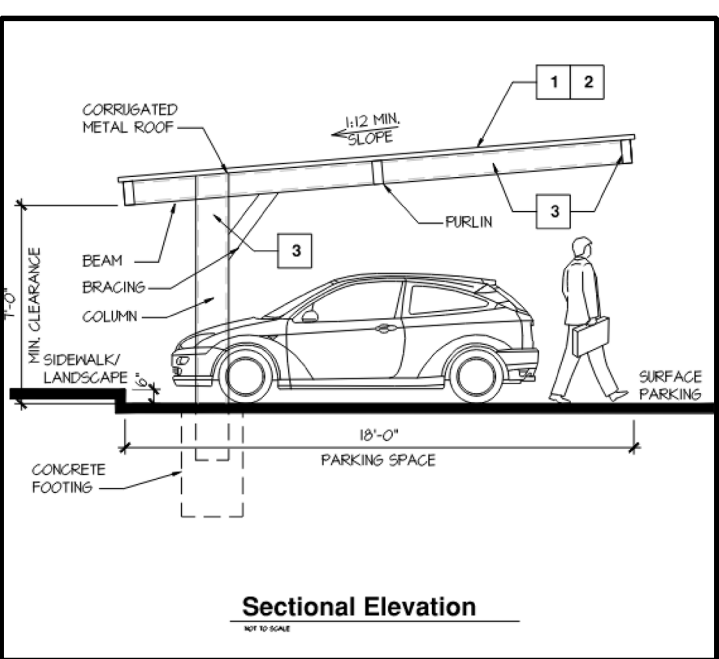
Seatwall-Height Planters



Fire Table, TV Wall, Soft Seating



BBQ Grill Island
Mixed Use Building
Second Floor Roof Deck Character



Sectional Elevation



Reference Photo

Car Port Character

22023-06-15 - Project Submittal Issued

| ISSUE DATE: 06-15-2023 | |
|------------------------|------------------|
| REVISIONS | |
| July 11, 2023 | Village Comments |
| Aug. 27, 2023 | Village Comments |
| | |
| | |
| | |
| | |



West Point at Harmony Square
Tinley Park, Illinois

JOB NO: LP230045.00 PROJ MGR: TJS
DRAWN: TJS CHECKED: ...
MIXED USE BLDG HARDSCAPE



SITE DATA

| Lot | 1 | | | 2 | | |
|---|--------------------------------|--|-------------|--|---------------------------|-------------|
| | DG | | | DC | | |
| Zoning | 2.98 acres | | | 1.44 acres | | |
| Land Area | Townhomes | | | Mixed Use | | |
| Use | Allowable | Proposed | Total Units | Allowable | Proposed | Total Units |
| FAR | Min. 3 Stories | 3 stories | | Min. 3 stories | 5 stories | |
| Building Height | Front (67th Ave) | 5'-15' | 10.8' | 5' Max. (North St.) | 8' | |
| | Front (67th Ct.) | 5'-15' | 8.7' | 5' Max. (Cut Thru) | 1' | |
| | Front (172nd St.) | 5'-15' | 9.3' | 5' Max. (67th) | 1.2' | |
| | Side | N/A | | 5' Min. (north) | 81' | |
| | Rear (south) | 5' Min. | 13.3' | | | |
| Parking Setback | Front | N/A | | 20' | 5' | |
| | Corner Side Yard | N/A | | 0' | 0' | |
| | Side | N/A | | | | |
| | Rear | N/A | | | | |
| MF TH Unit Size | 1,200 SF Min. | 1,500 SF to 1,800 SF | 63 | | | |
| MF Apt. Unit Size | | | | | | |
| UNIT TYPES | | | | | | |
| | | | | Rentable SF | Total Rentable SF | Total |
| | | | | A. Studio | 704.00 | 3,520 |
| | | | | B- One Bedroom | 808.00 | 3,232 |
| | | | | B1- One Bedroom | 933.00 | 3,732 |
| | | | | B2- One Bedroom | 831.00 | 8,310 |
| | | | | C- One Bedroom/office | 880.00 | 2,640 |
| | | | | D- One Bedroom/office | 880.00 | 7,040 |
| | | | | E- Two Bedroom | 1,076.00 | 4,304 |
| | | | | E1- Two Bedroom | 1,094.00 | 4,376 |
| | | | | F- Two Bedroom corner | 1,164.00 | 18,624 |
| | | | | G- Two Bedroom | 1,271.00 | 3,813 |
| | | | | H- Three Bedroom corner | 1,476.00 | 1,476 |
| | | | | I- Three Bedroom | 1,445.00 | 1,445 |
| | | | | TOTAL SF | 62,512 | |
| Apartment SFTotal | | | | | | 63 |
| Unit Total | | | | | (Avg SF/Unit) | 992.3 |
| Average Apt. SF | | | | | | 4,352.0 |
| Commercial SF | | | | | | |
| Aisle Width | Two-way - Max 20' | 22' | | One-way Max 20' | 25' | |
| Parking | | | | | | |
| | TH-1 per unit Req. (63 Spaces) | | | MF-1 per unit Req. (63 spaces) Commercial - None | | |
| Garage -TH Shared Surface Spaces with Lot One Total TH Parking | | 126 | | | | |
| | | 8 | | | | |
| | | 134 | 2.1/Unit | | | |
| | | *TH Parking Total Excludes 21 On Street Spaces | | | | |
| | | 65 Bike Stalls | 1/Unit | | | |
| Garage -Apartment Carport Parking Surface- Apartments Total Apt. Parking | | | | | 39 | |
| | | | | | 24 | |
| | | | | | 13 | |
| | | | | | 76 | 1.2/Unit |
| | | | | | 68 Bike Stalls | 1/Unit |
| | | | | | (63 interior/ 5 exterior) | |
| Commercial Total Comm. Parking | | | | | 29 Spaces | 7/1,000 sf |
| | | | | | 5 Bike Spaces | |
| | | | | | 1- 40' X 8' Loading Space | |

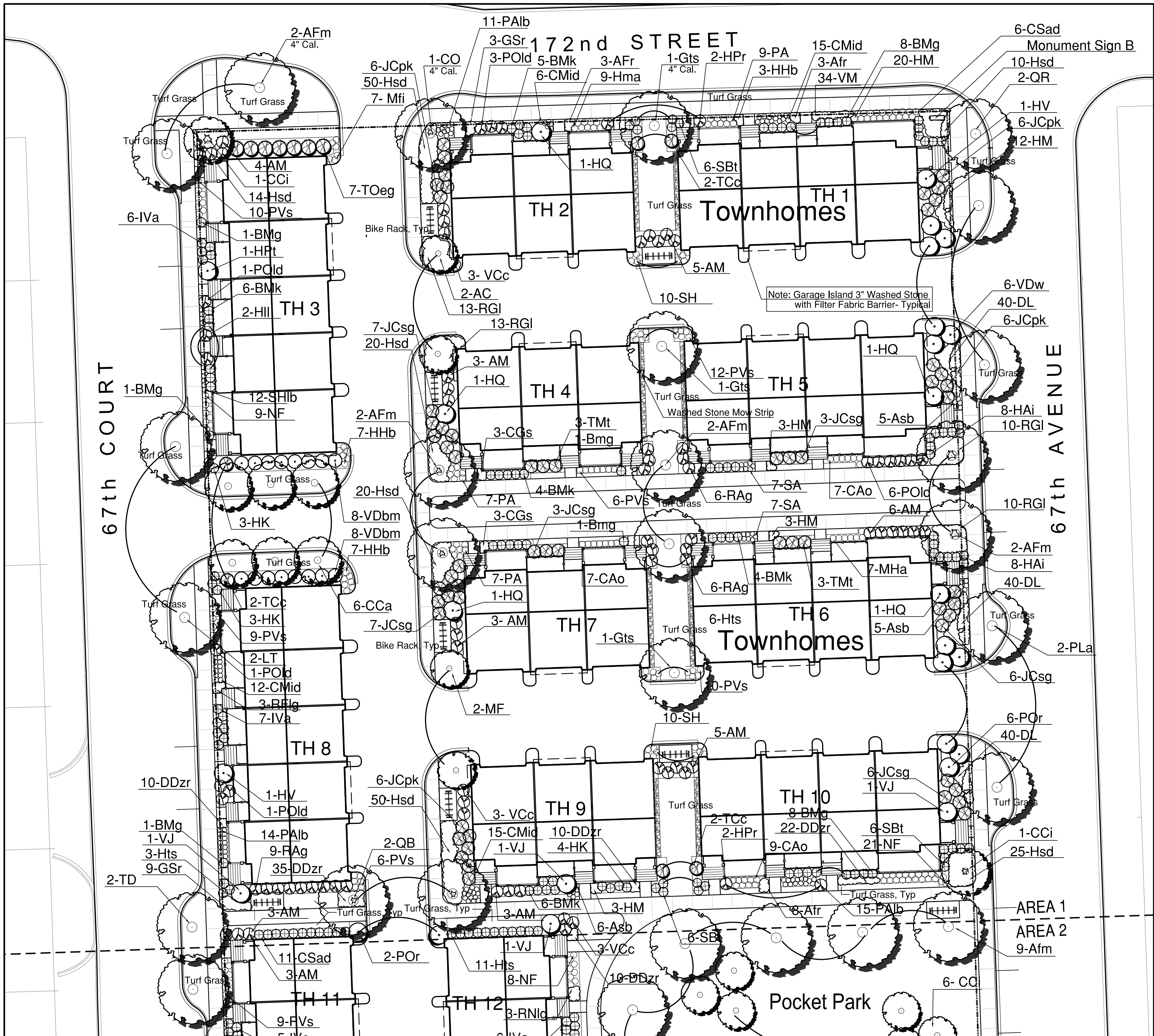
22023-06-15 - Project Submittal Issued

| | |
|---------------|------------------|
| ISSUE DATE: | 06-15-2023 |
| REVISIONS | |
| July 17, 2023 | Village Comments |



West Point at Harmony Square
Tinley Park, Illinois

| | |
|---------------------|---------------|
| JOB NO: LP230045.00 | PROJ MGR: TJS |
| DRAWN: TJS | CHECKED: -- |
| ILLUSTRATIVE PLAN | |



| SHADE TREES | | | |
|-------------|--|----------------------|------------------------------|
| U | SCIENTIFIC NAME | COMMON NAME | SIZE |
| AFm | Acer rubrum 'Autumn Blaze' | Autumn Blaze Maple | 2.5" BB Typ. 4.0" BB Special |
| CO | Celtis occidentalis 'Ultra' | Ultra Hackberry | 2.5" BB Typ. 4.0" BB Special |
| GTls | Gleditsia tricanthos inermis 'Skyline' | Skyline Honey Locust | 2.5" BB Typ. 4.0" BB Special |
| LT | Liriodendron tulipifera | Tulip Tree | 2.5" BB |
| PLa | Platanus acerifolia | London Planetree | 2.5" BB |
| QB | Quercus bicolor | Swamp White Oak | 2.5" BB |
| QI | Quercus imbricaria | Shingle Oak | 2.5" BB |
| QRu | Quercus rubra | Red Oak | 2.5" BB |
| UAh | Ulmus americana 'Homestead' | Homestead Elm | 2.5" BB |

| INTERMEDIATE AND EVERGREEN TREES | | |
|----------------------------------|---------------------------------------|-----------------------------|
| KEY | SCIENTIFIC NAME | COMMON NAME |
| AC | Amelanchier canadensis | Serviceberry |
| CCa | Carpinus carolina | Carolina Hornbeam |
| CCI | Craetagus crus-galli inermis | Thornless Cockspur Hawthorn |
| HV | Hamamelis vernalis | Vernal Witchhazel |
| MF | Malus floribunda (Standard-Tree Form) | Floribunda Crab |
| Mrr | Malus 'Royal Raindrops' | Royal Raindrop's Crab |
| OV | Ostrya virginiana | Hornbeam |
| VP | Viburnum prunifolium | Blackhaw Viburnum |
| PGd | Picea glauca 'Densata' | Black Hills Spruce |

| SHRUBS | | | |
|--------|--|---------------------------------|-------------|
| KEY | SCIENTIFIC NAME | COMMON NAME | SIZE |
| AM | Aronia melanocarpa | Black Chokeberry | 3 Gal Cont. |
| BMk | Buxus microphylla 'Koreana' | Korean Littleleaf Boxwood | 3 Gal Cont. |
| BMg | Buxus microphylla 'Green Mountain' | Green Mountain Boxwood | 3 Gal Cont. |
| CS | Cornus sericea | Redtwig Dogwood | 5 Gal Cont. |
| CSad | Cornus sericea 'Alleman's Dwarf' | Alleman's Dwarf Redtwig Dogwood | 3 Gal Cont. |
| DRk | Diervilla rivularis 'Kodiak' | Kodiak Black Bush Honeysuckle | 3 Gal Cont. |
| HAI | Hydrangea arborescens 'Invincibelle' | Invincibelle Hydrangea | 3 Gal Cont. |
| HPHt | Hydrangea paniculata 'Limelight' | Limelight Hydrangea | 5 Gal Cont. |
| HPr | Hydrangea paniculata 'Rendia' | Rendia Hydrangea | 5 Gal Cont. |
| HPI | Hydrangea paniculata 'Tardiva' | Tardiva Hydrangea | 5 Gal Cont. |
| HL | Hydrangea 'Little Lamb' | Little Lamb Hydrangea | 3 Gal Cont. |
| Hts | Hydrangea 'Tuff Stuff' | Tuff Stuff Hydrangea | 3 Gal Cont. |
| HQ | Hydrangea quercifolia | Oakleaf Hydrangea | 5 Gal Cont. |
| HK | Hypericum kalmianum | Kalm St. John's Wort | 3 Gal Cont. |
| Iva | Ilex verticillata 'Red Sprite' (Include One Male Plant / Planting) | Red Sprite Holly | 3 Gal Cont. |
| JCSg | Juniperus chinensis 'Sea Green' | Sea Green Juniper | 7 Gal Cont. |
| POld | Physocarpus opulifolius 'Little Devil' | Little Devil Nine Bark | 3 Gal Cont. |
| POs | Physocarpus opulifolius 'Seward' | Seward Nine Bark | 5 Gal Cont. |
| RAg | Ribes alpinum 'Green Mound' | Green Mound Alpine Currant | 3 Gal Cont. |
| Rgl | Rhus aromatica 'Grow-Low' (36" On Center) | Grow-Low Sumac | 3 Gal Cont. |
| SBt | Spiraea betulifolia 'Tor' | Tor Birchleaf Spirea | 3 Gal Cont. |
| TCc | Taxus cuspidata 'Capitata' | Upright Yew | 36" BB |
| TMT | Taxus medii 'Tauntoni' | Tauntoni's Yew | 18" BB |
| TOT | Thuja occidentalis 'Technyi' | Techny Arborvitae | 6' Ht. BB |
| TOeg | Thuja occidentalis 'Emerald Green' | Emerald Green Arborvitae | 6' Ht. BB |
| VDbm | Viburnum dentatum 'Blue Muffin' | Blue Muffin Arrow Wood Vib. | 3 Gal Cont. |
| VDw | Viburnum dentatum 'Synnesvedt' | Synnesvedt Arrowwood Vib. | 5 Gal Cont. |
| VJ | Viburnum judii | Judd Viburnum | 3 Gal Cont. |
| VCC | Viburnum carlesii 'Compactum' | Compact Koreanspice Vib. | 3 Gal Cont. |
| VOC | Viburnum opulus 'Compactum' | Compact Euro. Cranberry Vib. | 24" BB |

| PERENNIALS AND GROUNDCOVER | | | |
|----------------------------|---|--------------------------------|--------------------------|
| KEY | SCIENTIFIC NAME | COMMON NAME | SIZE |
| AH | Amsonia hubrichtii | Blazing Star | 1 Gal. 24" On Center |
| Afr | Astilbe 'Fanal Red' | Fanal Red Astilbe | 1 Gal. 24" On Center |
| CMid | Carex morrowi 'Ice Dance' | Ice Dance Sedge | 1 QT Cont. 18" On Center |
| CP | Carex pennsylvanicum | Pennsylvania Sedge | 1 QT Cont. 18" On Center |
| Asb | Allium 'Summer Beauty' | Summer Beauty Onion | 1 QT Cont. 18" On Center |
| GSr | Geranium sanguineum 'Rosanne' | Rosanne Geranium | 1 Gal. 24" On Center |
| HMa | Hakonechloa macra | Japanese Forest Grass | 1 Gal. 24" On Center |
| Hsd | Heimerocallis 'Stella D'Oro' | Stella D'Oro Daylily | 1 Gal. 24" On Center |
| Hhb | Hosta 'Hadsen Blue' | Hadsen Blue Hosta | 1 Gal. 24" On Center |
| HM | Heuchera 'Cherry Truffles' | Cherry Truffles Heuchera | 1 Gal. 24" On Center |
| MFi | Monarda didyma 'Raspberry Wine' | Raspberry Wine Bee Balm | 1 Gal. 24" On Center |
| NF | Nepeta fasseni 'Walker's Low' | Walker's Low Catmint | 1 Gal. 24" On Center |
| PA | Pennisetum alopecuroides | Fountain Grass | 1 Gal. 24" On Center |
| PAIb | Pennisetum alopecuroides 'Little Bunny' | Little Bunny Fountain Grass | 1 Gal. 18" On Center |
| PVs | Panicum virgatum 'Shennandoah' | Shennandoah Switch Grass | 1 Gal. 24" On Center |
| RNG | Rudbeckia neumanii 'Little Goldstar' | Little Goldstar Blackeyed Sus. | 1 Gal. 24" On Center |
| SHt | Sporobolus heterolepis 'Tara' | Tara Prairie Dropseed | 1 Gal. 24" On Center |
| SH | Sporobolus heterolepis | Prairie Dropseed | 1 Gal. 24" On Center |
| VM | Vinca minor | Periwinkle | 1 Qt. 12" On Center |

22023-06-15 - Project Submittal Issued

West Point at Harmony Square

Tinley Park, Illinois

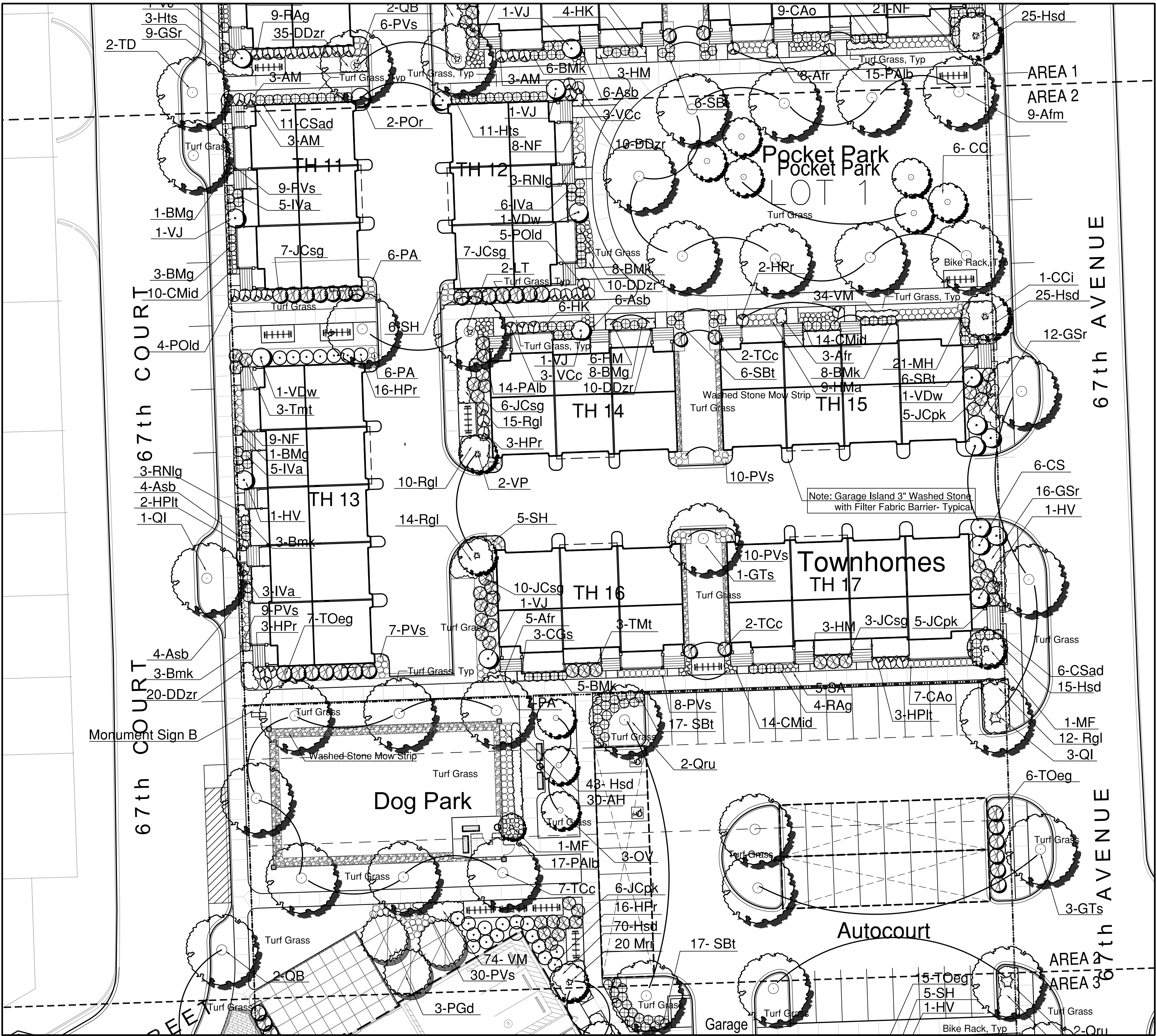
ISSUE DATE: 06-15-2023

REVISIONS

July 11, 2023 Village Comments

JOB NO: LP230045.00 PROJ MGR: TJS
DRAWN: TJS CHECKED: ...
AREA ONE LANDSCAPE PLAN

L1.1



| SHADE TREES | | | |
|-------------|--|----------------------|-----------------|
| KEY | SCIENTIFIC NAME | COMMON NAME | SIZE |
| U | | | 2.5" BB Typ. |
| AFm | Acer rubrum 'Autumn Blaze' | Autumn Blaze Maple | 4.0" BB Special |
| CO | Celtis occidentalis 'Ultra' | Ultra Hackberry | 2.5" BB Typ. |
| GTls | Gleditsia tricanthos inermis 'Skyline' | Skyline Honey Locust | 4.0" BB Special |
| LT | Liriodendron tulipifera | Tulip Tree | 2.5" BB |
| PLa | Platanus acerifolia | London Planetree | 2.5" BB |
| QB | Quercus bicolor | Swamp White Oak | 2.5" BB |
| QI | Quercus imbricaria | Shingle Oak | 2.5" BB |
| QRu | Quercus rubra | Red Oak | 2.5" BB |
| UAh | Ulmus americana 'Homestead' | Homestead Elm | 2.5" BB |

| INTERMEDIATE AND EVERGREEN TREES | | |
|----------------------------------|---------------------------------------|-----------------------------|
| KEY | SCIENTIFIC NAME | COMMON NAME |
| AC | Amelanchier canadensis | Serviceberry |
| CCa | Carpinus carolina | Carolina Hornbeam |
| CCi | Craetegus crus-galli inermis | Thornless Cockspur Hawthorn |
| HV | Hamamelis vernalis | Vernal Witchhazel |
| MF | Malus floribunda (Standard-Tree Form) | Floribunda Crab |
| Mrr | Malus 'Royal Raindrops' | Royal Raindrop's Crab |
| OV | Ostrya virginiana | Hornbeam |
| VP | Viburnum prunifolium | Blackhaw Viburnum |
| PGd | Picea glauca 'Densata' | Black Hills Spruce |

| SHRUBS | | |
|--------|--|---------------------------------|
| KEY | SCIENTIFIC NAME | COMMON NAME |
| AM | Aronia melanocarpa | Black Chokeberry |
| BMk | Buxus microphylla 'Koreana' | Korean Littleleaf Boxwood |
| BMg | Buxus microphylla 'Green Mountain' | Green Mountain Boxwood |
| CS | Cornus sericea | Redtwig Dogwood |
| CSad | Cornus sericea 'Alleman's Dwarf' | Alleman's Dwarf Redtwig Dogwood |
| DRk | Diervilla rivularis 'Kodiak' | Kodiak Black Bush Honeysuckle |
| HAI | Hydrangea arborescens 'Invincibelle' | Invincibelle Hydrangea |
| HPit | Hydrangea paniculata 'Limelight' | Limelight Hydrangea |
| HPr | Hydrangea paniculata 'Rendia' | Rendia Hydrangea |
| HPT | Hydrangea paniculata 'Tardiva' | Tardiva Hydrangea |
| Hil | Hydrangea 'Little Lamb' | Little Lamb Hydrangea |
| Hts | Hydrangea 'Tuff Stuff' | Tuff Stuff Hydrangea |
| HQ | Hydrangea quercifolia | Oakleaf Hydrangea |
| HK | Hypericum kalmianum | Kalm St. John's Wort |
| Iva | Ilex verticillata 'Red Sprite' (Include One Male Plant / Planting) | Red Sprite Holly |
| JCsg | Juniperus chinensis 'Sea Green' | Sea Green Juniper |
| POld | Physocarpus opulifolius 'Little Devil' | Little Devil Nine Bark |
| POs | Physocarpus opulifolius 'Seward' | Seward Nine Bark |
| RAg | Ribes alpinum 'Green Mound' | Green Mound Alpine Currant |
| Rgl | Rhus aromatica 'Grow-Low' (36" On Center) | Grow-Low Sumac |
| SBt | Spiraea betulifolia 'Tor' | Tor Birchleaf Spirea |
| TCc | Taxus cuspidata 'Capitata' | Upright Yew |
| TMT | Taxus medii 'Tauntoni' | Tauntoni's Yew |
| TOl | Thuja occidentalis 'Technyi' | Technyi Arborvitae |
| TOeg | Thuja occidentalis 'Emerald Green' | Emerald Green Arborvitae |
| VDm | Viburnum dentatum 'Blue Muffin' | Blue Muffin Arrow Wood Vib. |
| VDw | Viburnum dentatum 'Synnesvedt' | Synnesvedt Arrowwood Vib. |
| VJ | Viburnum judii | Judd Viburnum |
| VCC | Viburnum carlesii 'Compactum' | Compact Koreanspice Vib. |
| VOC | Viburnum opulus 'Compactum' | Compact Euro. Cranberry Vib. |

| PERENNIALS AND GROUNDCOVER | | | |
|----------------------------|---|--------------------------------|--------------------------|
| KEY | SCIENTIFIC NAME | COMMON NAME | SIZE |
| AH | Amsonia hubrichtii | Blazing Star | 1 Gal. 24" On Center |
| Afr | Astilbe 'Fanal Red' | Fanal Red Astilbe | 1 Gal. 24" On Center |
| CMid | Carex morrowi 'Ice Dance' | Ice Dance Sedge | 1 QT Cont. 18" On Center |
| CP | Carex pennsylvanicum | Pennsylvania Sedge | 1 QT Cont. 18" On Center |
| Asb | Allium 'Summer Beauty' | Summer Beauty Onion | 1 QT Cont. 18" On Center |
| GSr | Geranium sanguineum 'Rosanne' | Rosanne Geranium | 1 Gal. 24" On Center |
| HMa | Hakonechloa macra | Japanese Forest Grass | 1 Gal. 24" On Center |
| Hsd | Hemerocallis 'Stella D'Oro' | Stella D'Oro Daylily | 1 Gal. 24" On Center |
| Hhb | Hosta 'Hadsen Blue' | Hadsen Blue Hosta | 1 Gal. 24" On Center |
| HM | Heuchera 'Cherry Truffles' | Cherry Truffles Heuchera | 1 Gal. 24" On Center |
| MFi | Monarda didyma 'Raspberry Wine' | Raspberry Wine Bee Balm | 1 Gal. 24" On Center |
| NF | Nepeta fasseni 'Walker's Low' | Walker's Low Catmint | 1 Gal. 24" On Center |
| PA | Pennisetum alopecuroides | Fountain Grass | 1 Gal. 24" On Center |
| PAIb | Pennisetum alopecuroides 'Little Bunny' | Little Bunny Fountain Grass | 1 Gal. 18" On Center |
| PVs | Panicum virgatum 'Shennandoah' | Shennandoah Switch Grass | 1 Gal. 24" On Center |
| RNG | Rudbeckia neumanii 'Little Goldstar' | Little Goldstar Blackeyed Sus. | 1 Gal. 24" On Center |
| SHt | Sporobolus heterolepis 'Tara' | Tara Prairie Dropseed | 1 Gal. 24" On Center |
| SH | Sporobolus heterolepis | Prairie Dropseed | 1 Gal. 24" On Center |
| VM | Vinca minor | Periwinkle | 1 Qt. 12" On Center |

22023-06-15 - Project Submittal Issued

West Point at Harmony Square

Tinley Park, Illinois

ISSUE DATE: 06-15-2023

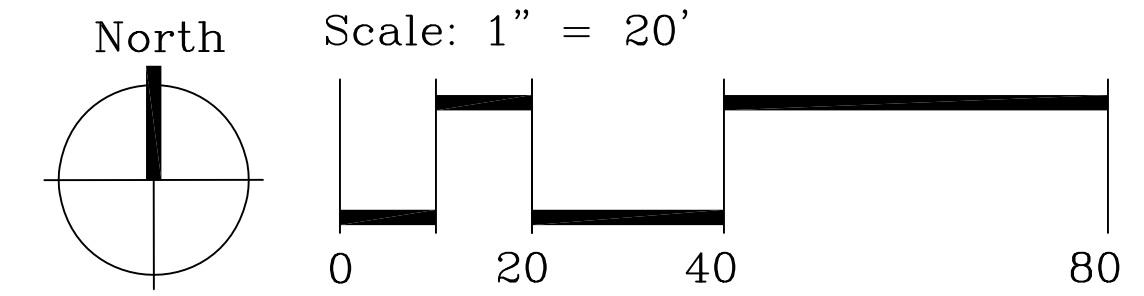
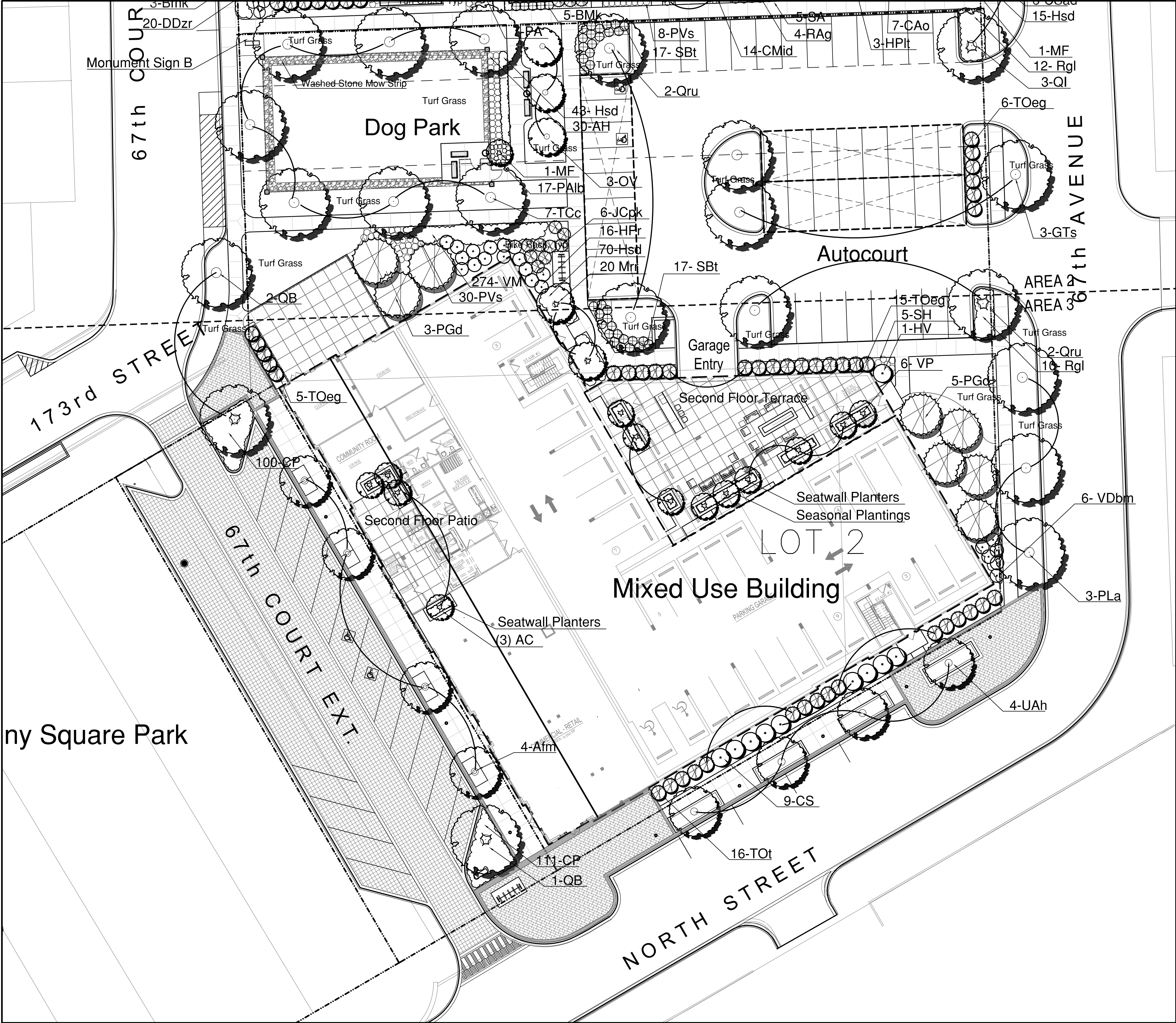
REVISIONS

July 11, 2023 Village Comments



JOB NO: LP230045.00 PROJ MGR: TJS
DRAWN: TJS CHECKED: --
AREA TWO LANDSCAPE PLAN

L1.2



| SHADE TREES | | | |
|----------------------------------|--|---------------------------------|------------------------------|
| U | SCIENTIFIC NAME | COMMON NAME | SIZE |
| AFm | Acer rubrum 'Autumn Blaze' | Autumn Blaze Maple | 2.5" BB Typ. 4.0" BB Special |
| CO | Celtis occidentalis 'Ultra' | Ultra Hackberry | 2.5" BB Typ. 4.0" BB Special |
| GTls | Gleditsia tricanthos inermis 'Skyline' | Skyline Honey Locust | 2.5" BB Typ. 4.0" BB Special |
| LT | Liriodendron tulipifera | Tulip Tree | 2.5" BB |
| PLa | Platanus acerifolia | London Planetree | 2.5" BB |
| QB | Quercus bicolor | Swamp White Oak | 2.5" BB |
| QI | Quercus imbricaria | Shingle Oak | 2.5" BB |
| QRu | Quercus rubra | Red Oak | 2.5" BB |
| UAh | Ulmus americana 'Homestead' | Homestead Elm | 2.5" BB |
| INTERMEDIATE AND EVERGREEN TREES | | | |
| KEY | SCIENTIFIC NAME | COMMON NAME | SIZE |
| AC | Amelanchier canadensis | Serviceberry | 10' CL. BB |
| CCa | Carpinus carolina | Carolina Hornbeam | 2.5" BB |
| CCi | Craetagus crus-galli inermis | Thornless Cockspur Hawthorn | 2.5" BB |
| HV | Hamamelis vernalis | Vernal Witchhazel | 6' HT. BB |
| MF | Malus floribunda (Standard-Tree Form) | Floribunda Crab | 2.5" BB |
| Mrr | Malus 'Royal Raindrops' | Royal Raindrop's Crab | 2.5" BB |
| OV | Ostrya virginiana | Hornbeam | 2.5" BB |
| VP | Viburnum prunifolium | Blackhaw Viburnum | 8' BB |
| PGd | Picea glauca 'Densata' | Black Hills Spruce | 10' HT BB- Spec |
| SHRUBS | | | |
| KEY | SCIENTIFIC NAME | COMMON NAME | SIZE |
| AM | Aronia melanocarpa | Black Chokeberry | 3 Gal Cont. |
| BMk | Buxus microphylla 'Koreana' | Korean Littleleaf Boxwood | 3 Gal Cont. |
| BMg | Buxus microphylla 'Green Mountain' | Green Mountain Boxwood | 3 Gal Cont. |
| CS | Cornus sericea | Redtwig Dogwood | 5 Gal Cont. |
| CSad | Cornus sericea 'Alleman's Dwarf' | Alleman's Dwarf Redtwig Dogwood | 3 Gal Cont. |
| DRk | Diervilla rivularis 'Kodiak' | Kodiak Black Bush Honeysuckle | 3 Gal Cont. |
| HAI | Hydrangea arborescens 'Invincibelle' | Invincibelle Hydrangea | 3 Gal Cont. |
| HPit | Hydrangea paniculata 'Limelight' | Limelight Hydrangea | 5 Gal Cont. |
| HPr | Hydrangea paniculata 'Rendia' | Rendia Hydrangea | 5 Gal Cont. |
| HPT | Hydrangea paniculata 'Tardiva' | Tardiva Hydrangea | 5 Gal Cont. |
| Hil | Hydrangea 'Little Lamb' | Little Lamb Hydrangea | 3 Gal Cont. |
| Hts | Hydrangea 'Tuff Stuff' | Tuff Stuff Hydrangea | 3 Gal Cont. |
| HQ | Hydrangea quercifolia | Oakleaf Hydrangea | 5 Gal Cont. |
| HK | Hypericum kalmianum | Kalm St. John's Wort | 3 Gal Cont. |
| IvA | Ilex verticillata 'Red Sprite' (Include One Male Plant / Planting) | Red Sprite Holly | 3 Gal Cont. |
| JCsg | Juniperus chinensis 'Sea Green' | Sea Green Juniper | 7 Gal Cont. |
| POId | Physocarpus opulifolius 'Little Devil' | Little Devil Nine Bark | 3 Gal Cont. |
| POs | Physocarpus opulifolius 'Seward' | Seward Nine Bark | 5 Gal Cont. |
| RAg | Ribes alpinum 'Green Mound' | Green Mound Alpine Currant | 3 Gal Cont. |
| Rgl | Rhus aromatica 'Grow-Low' (36" On Center) | Grow-Low Sumac | 3 Gal Cont. |
| SBt | Spiraea betulifolia 'Tor' | Tor Birchleaf Spirea | 3 Gal Cont. |
| TCc | Taxus cuspidata 'Capitata' | Upright Yew | 36" BB |
| TMT | Taxus media 'Tauntoni' | Taunton's Yew | 18" BB |
| TOt | Thuja occidentalis 'Technyi' | Techny Arborvitae | 6' Ht. BB |
| TOeg | Thuja occidentalis 'Emerald Green' | Emerald Green Arborvitae | 6' Ht. BB |
| VDbm | Viburnum dentatum 'Blue Muffin' | Blue Muffin Arrow Wood Vib. | 3 Gal Cont. |
| VDw | Viburnum dentatum 'Synnesvedt' | Synnesvedt Arrowwood Vib. | 5 Gal Cont. |
| VJ | Viburnum judii | Judd Viburnum | 3 Gal Cont. |
| VCC | Viburnum carlesii 'Compactum' | Compact Koreanspice Vib. | 3 Gal Cont. |
| VOC | Viburnum opulus 'Compactum' | Compact Euro. Cranberry Vib. | 24" BB |
| PERENNIALS AND GROUNDCOVER | | | |
| KEY | SCIENTIFIC NAME | COMMON NAME | SIZE |
| AH | Amsonia hubrichtii | Blazing Star | 1 Gal. 24" On Center |
| Afr | Astilbe 'Fanal Red' | Fanal Red Astilbe | 1 Gal. 24" On Center |
| CMid | Carex morrowi 'Ice Dance' | Ice Dance Sedge | 1 QT Cont. 18" On Center |
| CP | Carex pennsylvanicum | Pennsylvania Sedge | 1 QT Cont. 18" On Center |
| Asb | Allium 'Summer Beauty' | Summer Beauty Onion | 1 QT Cont. 18" On Center |
| GSr | Geranium sanguineum 'Rosanne' | Rosanne Geranium | 1 Gal. 24" On Center |
| HMa | Hakonechloa macra | Japanese Forest Grass | 1 Gal. 24" On Center |
| Hsd | Hemerocallis 'Stella D'Oro' | Stella D'Oro Daylilly | 1 Gal. 24" On Center |
| Hhb | Hosta 'Hadsen Blue' | Hadsen Blue Hosta | 1 Gal. 24" On Center |
| HM | Heuchera 'Cherry Truffles' | Cherry Truffles Heuchera | 1 Gal. 24" On Center |
| MFi | Monarda didyma 'Raspberry Wine' | Raspberry Wine Bee Balm | 1 Gal. 24" On Center |
| NF | Nepeta fasseni 'Walker's Low' | Walker's Low Catmint | 1 Gal. 24" On Center |
| PA | Pennisetum alopecuroides | Fountain Grass | 1 Gal. 24" On Center |
| PAIb | Pennisetum alopecuroides 'Little Bunny' | Little Bunny Fountain Grass | 1 Gal. 18" On Center |
| PVs | Panicum virgatum 'Shennandoah' | Shennandoah Switch Grass | 1 Gal. 24" On Center |
| RNg | Rudbeckia neumanii 'Little Goldstar' | Little Goldstar Blackeyed Sus. | 1 Gal. 24" On Center |
| SHt | Sporobolus heterolepis 'Tara' | Tara Prairie Dropseed | 1 Gal. 24" On Center |
| SH | Sporobolus heterolepis | Prairie Dropseed | 1 Gal. 24" On Center |
| VM | Vinca minor | Periwinkle | 1 Qt. 12" On Center |

22023-06-15 - Project Submittal Issued

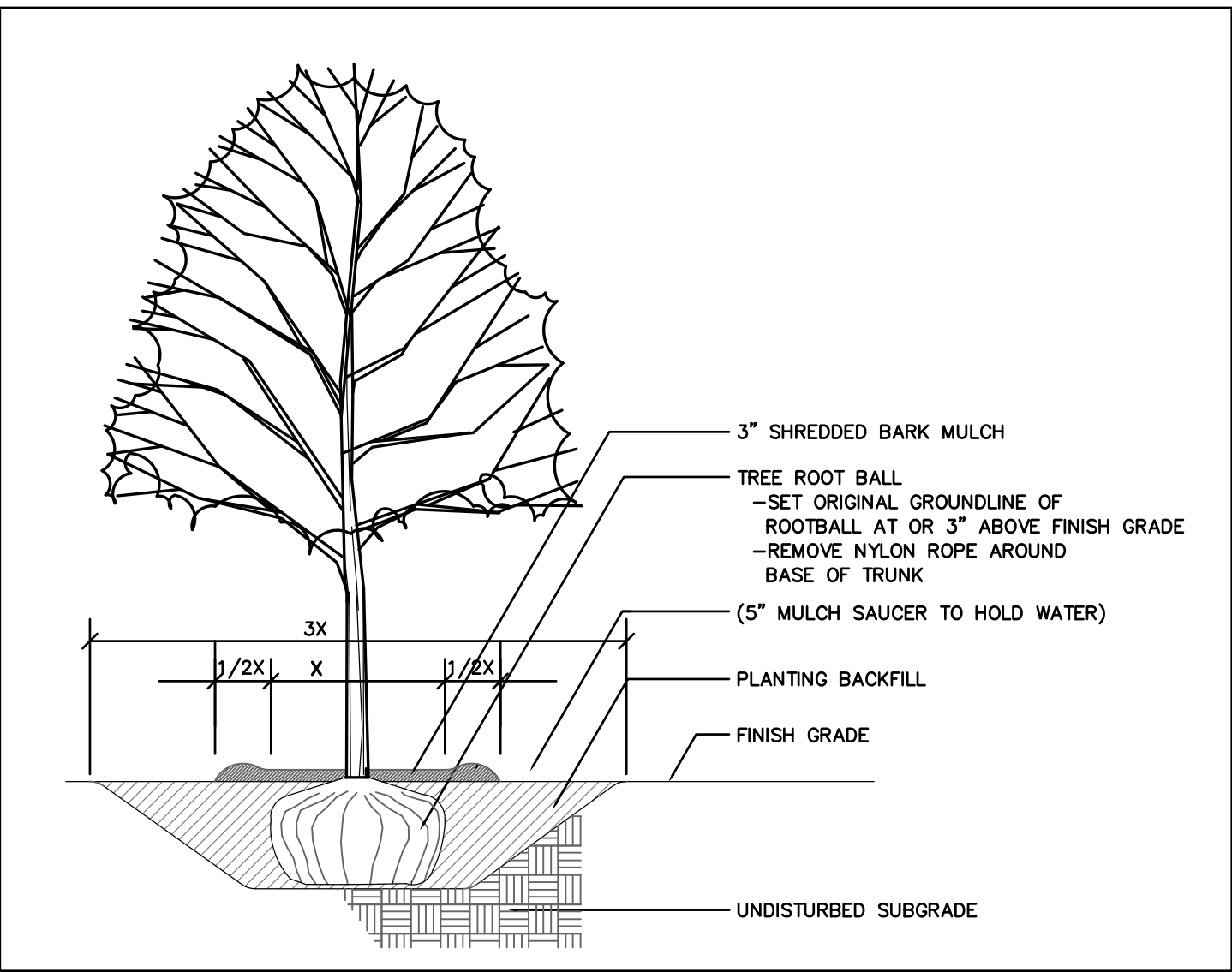
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| ISSUE DATE: | 06-15-2023 |
| REVISIONS | |
| July 11, 2023 | Village Comments |



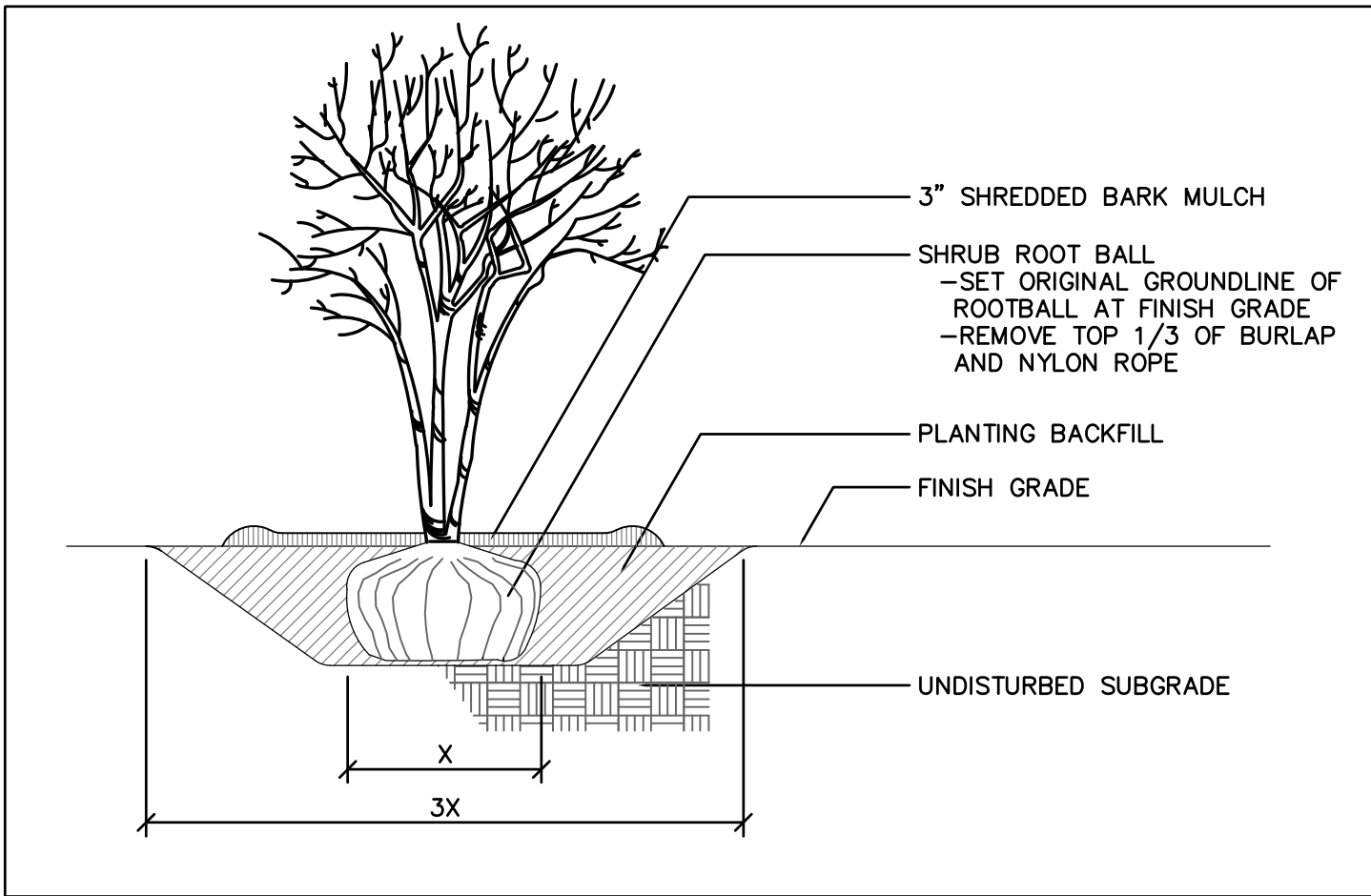
West Point at Harmony Square
Tinley Park, Illinois

JOB NO: LP230045.00 PROJ MGR: TJS
DRAWN: TJS CHECKED: ...
AREA THREE LANDSCAPE PLAN

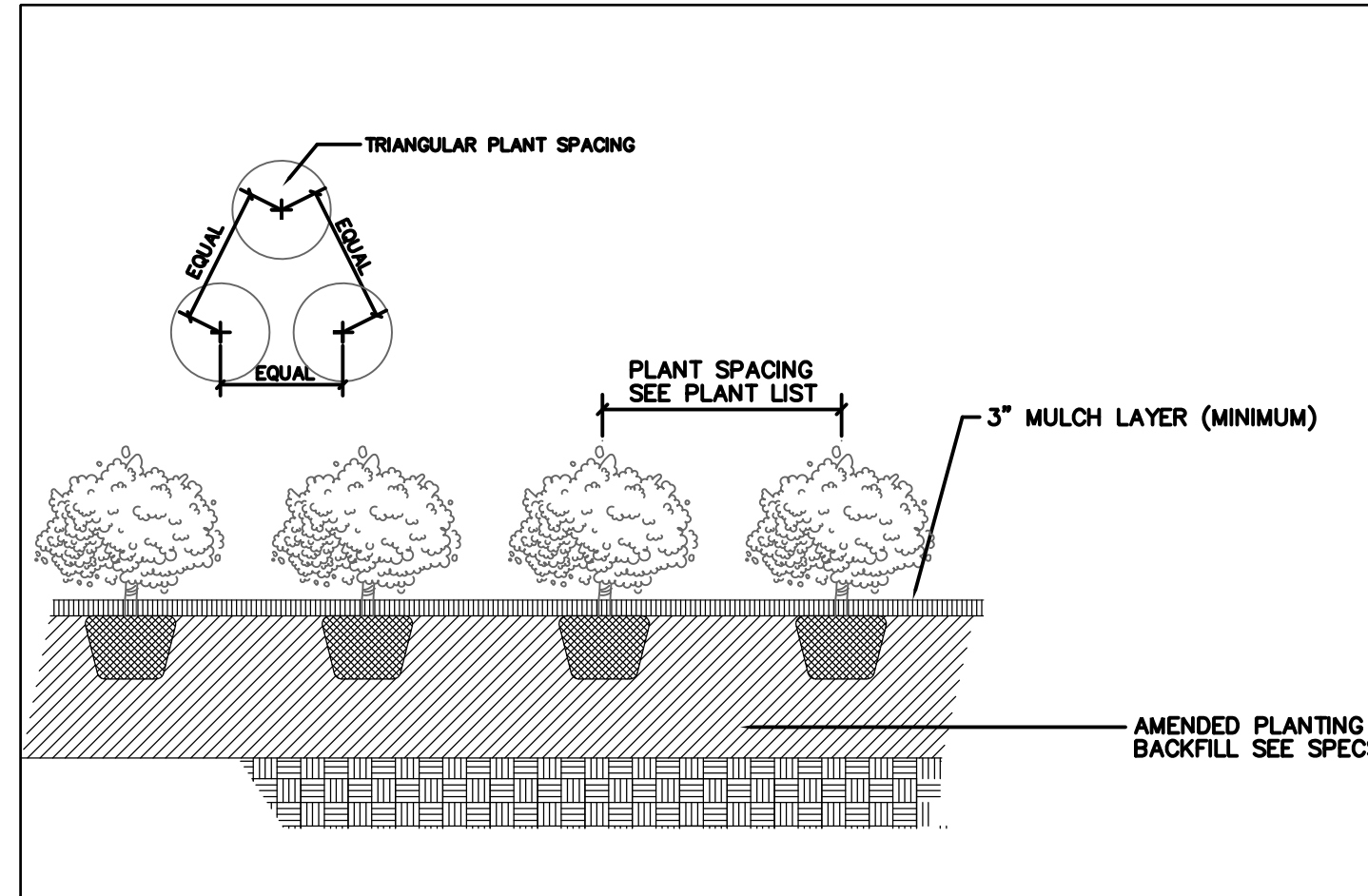
L1.3



1 SHADE TREE PLANTING
L2.4 TREE GRATE DETAIL PENDING VILLAGE STREETScape PLAN
NO SCALE



2 SHRUB PLANTING
L2.4 --
NO SCALE



3 PERENNIAL AND G'DCOVER PLTG.
L2.4 --
NO SCALE

1.1. GENERAL CONDITIONS

A. Included by reference are the "General Conditions of the Contract for Construction", Current Edition, Standard AIA Document A-201-recent edition of the American Institute of Architects, which form is hereby specifically made a part of the Contract Documents with the same force and effect as though set forth full in full.

B. CONTRACTORS LIABILITY INSURANCE

Contractor's liability insurance shall include the coverage's stipulated as minimum amounts in the following sub-subparagraphs:

1.02 CONTRACTOR USE OF PREMISES

A. General: During the construction period the Contractor shall have full use of the premises for construction operations, including use of the site. The Contractor's use of the premises is limited only by the Owner's right to perform construction operations with its own forces or to employ separate contractors on portions of the project.

1. Confine operations to areas within Contractor limits indicated. Portions of the site beyond areas in which construction operations are indicated are not to be disturbed.
2. Keep driveways and entrances serving the premises clear and available to the Owner and the Owner's employees at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.
3. Storage of materials, location of construction trailers, contractor parking will all be limited to the area within the project work limits.
4. Contractor shall take care to assure access for emergency vehicles at all times to adjacent residences.
5. No material or equipment may be stored on the public street and driving and parking areas within the school site that interferes with safe usage of the street and drives or creates a dangerous condition, and unless approved in advance by the Owner's Representative.
6. Areas used for storage shall be restored to original condition and to the satisfaction of the Owner's Representative.

1.03 COOPERATION OF UTILITIES

A. The Contractor shall notify all utilities (J.U.L.I.E. - 811 OR, (800) 892-0123) including the Owner, all affected utility companies and local authorities at least 48 hours prior to commencement of any construction which may interfere with existing utility lines, conduits, cables, etc. The Contractor shall make his own investigation to determine the existence, nature and location of all utility lines and appurtenances within the limits of the improvement.

B. Contractor shall stake plant locations in field and thereafter inform Owner's Representative AND Irrigation Consultant before beginning planting operations. No planting operations may begin until after Owner's Representative and Irrigation Consultant has reviewed staked locations of plant material;

1.04 COORDINATION

- A. Coordination: Coordinate construction activities included under various Sections of these Specifications to assure efficient and orderly installation of each part of the Work. Coordinate construction operations included under different Sections of the Specifications that are dependent upon each other for proper installation, connection, and operations.
- B. Where availability of space is limited, coordinate installation of different component to assure maximum accessibility for required maintenance, service and repair.

1.05 GENERAL INSTALLATION PROVISIONS

- A. Inspection of Conditions: Require the Installer of each major component to inspect both the substrata and conditions under which Work is to be performed. Do not proceed until unsatisfactory conditions have been corrected in an acceptable manner.
- B. Inspection by Owner: The construction shall be under the observation of the Owner's Representative. No work requiring the Owner's Representative's observation shall be performed no earlier than 7:00 a.m. or after 5:00 p.m. or on Saturdays, Sundays or legal holidays, without the approval of the Owner's Representative.
- C. Inspect materials or equipment immediately upon deliver and again prior to installation. Reject damaged and defective items.
- D. Install each component during weather conditions and Project status that will ensure the best possible results. Isolate each part of the completed construction from incompatible material as necessary to prevent deteriorations.

1.06 CLEANING AND PROTECTION

- A. During handling and installation, clean and protect construction in progress and adjoining materials in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- B. Clean and maintain completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

1.07 JOB SAFETY AND PROTECTION

- A. Protect all products and equipment from damage.
- B. Methods:
 1. Store off grade and cover with impervious material all moisture or water vulnerable materials.
 2. Store finished products and equipment in an enclosed building, on or off site.
 3. Maintain integrity or shipping cartons until ready for installation.
 4. Provide separate storage for combustible and non-combustible products.
 5. Follow storage recommendations of product and equipment manufacturers.
 6. Other methods shall be subject to Owner's prior written approval.
- C. The Contractor shall take the necessary precautions when working near or above existing utilities to protect these utilities from an damage resulting from his operations. All work and material necessary to repair or replace any sewer that is damaged due to non-compliance with the provision shall be provided, as directed by the Owner's Representative, at the Contractor's expense, with no extra compensations being allowed.

D. The Contractor shall be entirely responsible for all injuries to water pipes, irrigation lines, electric conduits, or cables, drains, sewers, gas mains, poles, telephones and telegraph lines, streets, pavements, sidewalks, curbs, culverts, retain walls or other structures of any kind met with during the progress of the Work, and shall be liable for damages to public or private property resulting therefrom.

E. Lawn areas shall be left in as satisfactory condition as before the starting of the Work. Where sod is removed, it shall be carefully removed and later replaced, or the area where sod has been removed shall be restored by seeding or sodding the manner described under the appropriate work section. All ruts created by heavy equipment shall be repaired by the Contractor at his expense.

1.9. APPLICATIONS FOR PAYMENT:

- A. Payment for the work included in this contract will be authorized upon its completion and acceptance on behalf of the Client. No payment will be made for work which is found to be unacceptable. The Client reserves the right to replace or otherwise correct, after thirty (30) days of its rejection, any portion of the Work that has been deemed unacceptable by the Client and remains uncorrected by the Contractor be deducted from monies due or to become due the Contractor.
- B. Waivers of Mechanics Lien: With each Application for Payment submit waivers of mechanics liens from subcontractors and suppliers for the construction period covered by the previous application.
 1. Submit partial waivers on each item for the amount requested, prior to deduction for retainage, on each item.
 2. When an application shows completion of an item, submit final or full waivers.
 3. The Owner reserves the right to designate which entities involved in the Work must submit waivers.
 4. Waiver Delays: Submit each Application for Payment with the Contractor's waiver of mechanics lien for the period of construction covered by the applications.
 - a. Submit final Application for Payment with or preceded by final waivers from every entity involved with performance of Work covered by the application who could lawfully be entitled to a lien.
 5. Waiver Forms: Submit waivers of lien on forms, and executed in a manner, acceptable to Owner.
- C. Payments by Owner: The owner will pay ninety percent (90%) of the amount due the Contractor on the account of progress payments, until Work is one hundred percent (100%) complete. .
- D. Final Payment Application: Administrative actions and submittals which must precede or coincide with submittal of the final payment Application for Payment include the following:

1. Completion of Project closeout requirements.
2. Completion of items specified for completion after Substantial Completion.
3. Assurance that unsettled claims will be settled.
4. Assurance that Work not complete and accepted will be completed without undue delay.
5. Transmittal or required Project construction records to Owner.
6. Proof that taxes, fees and similar obligations have been paid.
7. Removal of temporary facilities and services.
8. Removal of surplus materials, rubbish and similar elements.

1.10 SUBMITTALS

A. Unless otherwise stated, prior to commencement of work, submit for review and approval by the Owner, three copies of certificates for all landscape materials used on the project. Provide sources for all plant materials and photographs of all plant material being used. The Owner reserves the right to field tag shade, intermediate and evergreen tree materials once the Contractor has identified the plant sources.

1.11 GENERAL LANDSCAPE NOTES

A. Unless stated otherwise herein, all seeding, sodding and landscape planting work shall be performed in accordance with the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction (latest edition) as specified in Section 200 (Earthwork, Landscaping and Erosion Control).

B. Unless stated herein, all materials shall meet the requirements of the following Articles of Standard the IDOT Specifications for Road and Bridge Construction Section 1000 - Materials.

| Item | Article |
|------------------------------------|-------------------|
| Trees, Shrubs, Vines and Seedlings | 1081.01 |
| Topsoil | 1081.05a |
| Mulch Material | 1081.06b |
| Lawn Seeding | 1081.04 (Class 1) |
| Sodding | 1081.03 |
| Fertilizer | 1081.08 |

1.12 TOPSOIL/FINE GRADING

- A. Approved topsoil shall be supplied and installed at the following depths:
 - a. Seeded and sodded areas - 6" depth
 - b. Shrub bed areas and landscaped islands - 12" depth
 - c. Groundcover/perennial areas - 12" depth (amended soil mix as shown in detail)
- B. Approved topsoil shall be free of roots, noxious weed seeds, sticks, rocks or miscellaneous debris which may impair plant growth. Topsoil shall not be worked or graded while frozen or in an excessively wet or dry condition. Topsoil shall not be accessibly acidic or alkaline and shall not contain any herbicide residue. The Owner reserves the right to have representative samples of the topsoil tested by a qualified soil testing laboratory at no cost to the Owner.
- C. All top-soiled areas shall be fine graded to elevations indicated on the grading plan prior to receiving sod or landscaping. All areas shall drain properly so that there are no puddles or standing water in any lawn or plant bed areas. Areas improperly graded shall be regarded at the Contractor's expense.
- D. Remove rocks, stones and other foreign debris while spreading and grading. If necessary, had spread topsoil around buildings, structures, walks, drives or trees to avoid damage.
- E. Where graded areas interface with non-graded undisturbed edges, remove turf along edge to create a straight smooth transition line between graded and non-graded areas. Fine grade transition area so that finis grades of graded and non graded areas are flush.

- A. Seeding work shall conform to Class 1 Seeding described in Section 250 of IDOT Standard Specifications for Road and Bridge Construction. , latest edition. Mulching of seeded areas shall conform to Method 2 described in Section 251 of IDOT Standard Specifications for Road and Bridge Construction
- B. Prior to work, submit three copies of seed vendor's certificate for grass seed mixture, indicating weight, and percentages of purity, germination and weed seed.
- C. Sodding work shall conform to standard Sod (a) as described in Section 252 of IDOT Standard Specifications for Road and Bridge Construction, latest edition. .
- D. Prior to work, submit three copies of sod grower's location for approval. Sod shall be from a locally grown source. Sod shall be in healthy growing condition, free of weeds, pests and out to the specified thickness. The Owner has the right to reject unacceptable sod at the growing site.
- E. All fine grading for seeded and sodded areas shall be approved by the Owner prior to work.
- F. Install seeding on prepared, finished graded areas and in favorable weather conditions within the following periods: April 1st through May 31st; and August 15th through October 15th.
- G. Install sodded areas per Section 252.04 of the IDOT Standard Specifications for Road and Bridge Construction.
- H. Fertilize seeded areas per Section 250.04 of the IDOT Standard Specifications for Road and Bridge Construction..
- I. Fertilize sodded areas per Section 252.03 of the IDOT Standard Specifications for Road and Bridge Construction.
- J. Guarantee all seeding and sodding work for a period of one year following final acceptance. Areas not accepted upon completion of the guarantee period shall be resodded to fill in voids and areas not covered in seed or sod.
- K. Maintain seeded and sodded areas for a period of 45 days following installation. Maintenance shall consist of watering, mowing and weeding. Repair and reseed bare spots or seeded and sodded areas that have not established or have washed out due to erosion.
- L. Initial mowing shall be done at a 3" cutting height so than not more than 33% of the grass is removed in a single mowing. Cutting heights on follow up mowings can be readjusted to a 2.5" grass blade height.

1.14 TREE, SHRUB AND GROUNDcover PLANTING

- A. The Owner reserves the right to inspect all material at the nursery. Only nursery grown stock will be permitted to be used on the Project.
- B. All tree, shrub and groundcover planting shall be performed between the dates of March 15 and May 31, and August 15 and October 15. Actual planting shall be performed only during periods within this season when weather and soil conditions are suitable and in accordance with locally accepted practice, as approved by the Owner's Representative.
- C. Location for all trees, intermediate trees and evergreen trees shall be staked and outlines of bed areas shall be clearly marked on the ground by a qualified landscape representative of the Contractor, and shall be subject to approval by the Owner's Representative prior to commencement of planting.
- D. All shrub beds shall be mulched with 3" of shredded hardwood bark mulch. Groundcover beds shall be mulched with 2" of mushroom compost. Provide shredded hardwood bark mulch rings (3" depth) for all shade and flowering trees. Diameter of mulch rings shall be equal to diameter of root ball.
- E. Mulch shall comprise partially decomposed shred hardwood bark. Mulch shall be a brown-black color, and, free of oversized pieces (1/2" x4") and fine particles. Prior to work, Contractor shall submit three mulch samples for approval for use prior to work.
- F. Imported topsoil, if necessary, shall consist of fertile, friable natural topsoil typical for this locality. It shall not contain a mixture of subsoil or slag and free of lumps, stones, plants and their roots, stalks and other extraneous matter and shall not be used while in a frozen or muddy condition. Topsoil shall have a pH range of 6.0-7.0 and shall not contain less than 12 percent organic matter. .
- G. Tree, Shrub and Groundcover Establishment Period, Inspections and Guarantees.
 1. Establishment Period. For a period of 60 days after planting of trees, shrubs, and groundcovers, (not including dormancy periods), the Contractor shall properly care for all plants, and planning beds including watering, weeding, fertilizing, cultivating, adjusting or bracings or other maintenance work which is necessary to keep the plants in a healthy condition and in a plumb position. All plants shall be watered as season conditions require, and as directed by the Owner, until provisional acceptance of the planting.
 2. Provisional Acceptance. At the end of the Establishment period, the planting shall be inspected by the Owner for provisional acceptance of the planting. Any plant material which is dead, damaged, untrue to natural form of the species, or otherwise unhealthy, shall be replaced by the Contractor at his expense. The Owner shall accept maintenance responsibilities of the planting after the provisional acceptance.
 3. Guarantee and Final Acceptance. The Contractor shall guarantee that all plants shall be in a healthy and vigorous condition one full growing season after the provisional acceptance. The planting shall be inspected by the Owner at the end of the guarantee period. Any plant material which is dead, damaged, untrue to natural for of the species, or otherwise unhealthy, shall be replaced by the Contractor at his expense.
 4. Provisional acceptance and guaranteed periods of landscaped plantings may be in part or whole.

22023-06-15 - Project Submittal Issued

West Point at Harmony Square

Tinley Park, Illinois

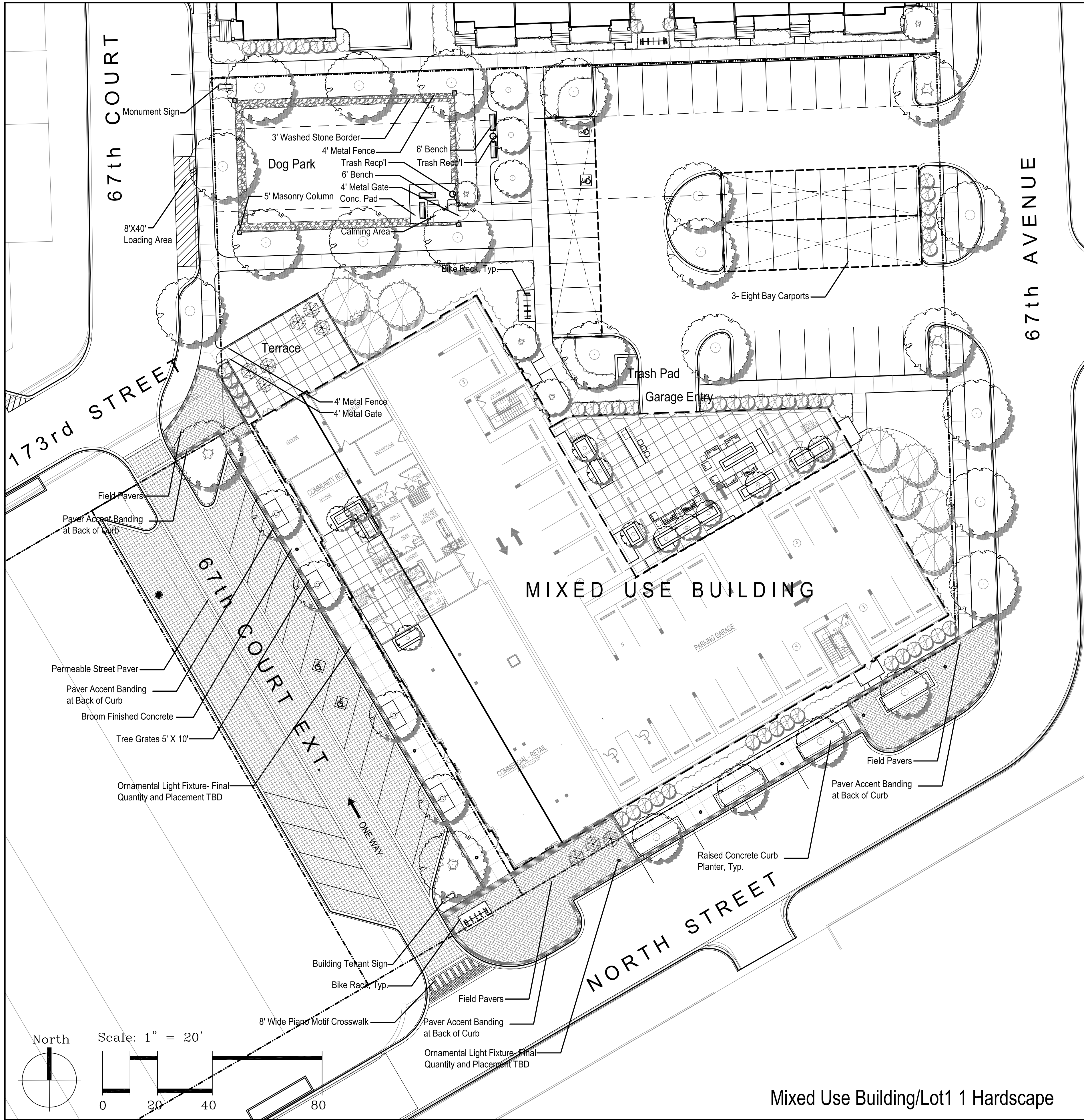
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| ISSUE DATE: | 06-15-2023 |
|---------------|------------------|
| REVISIONS | |
| July 11, 2023 | Village Comments |
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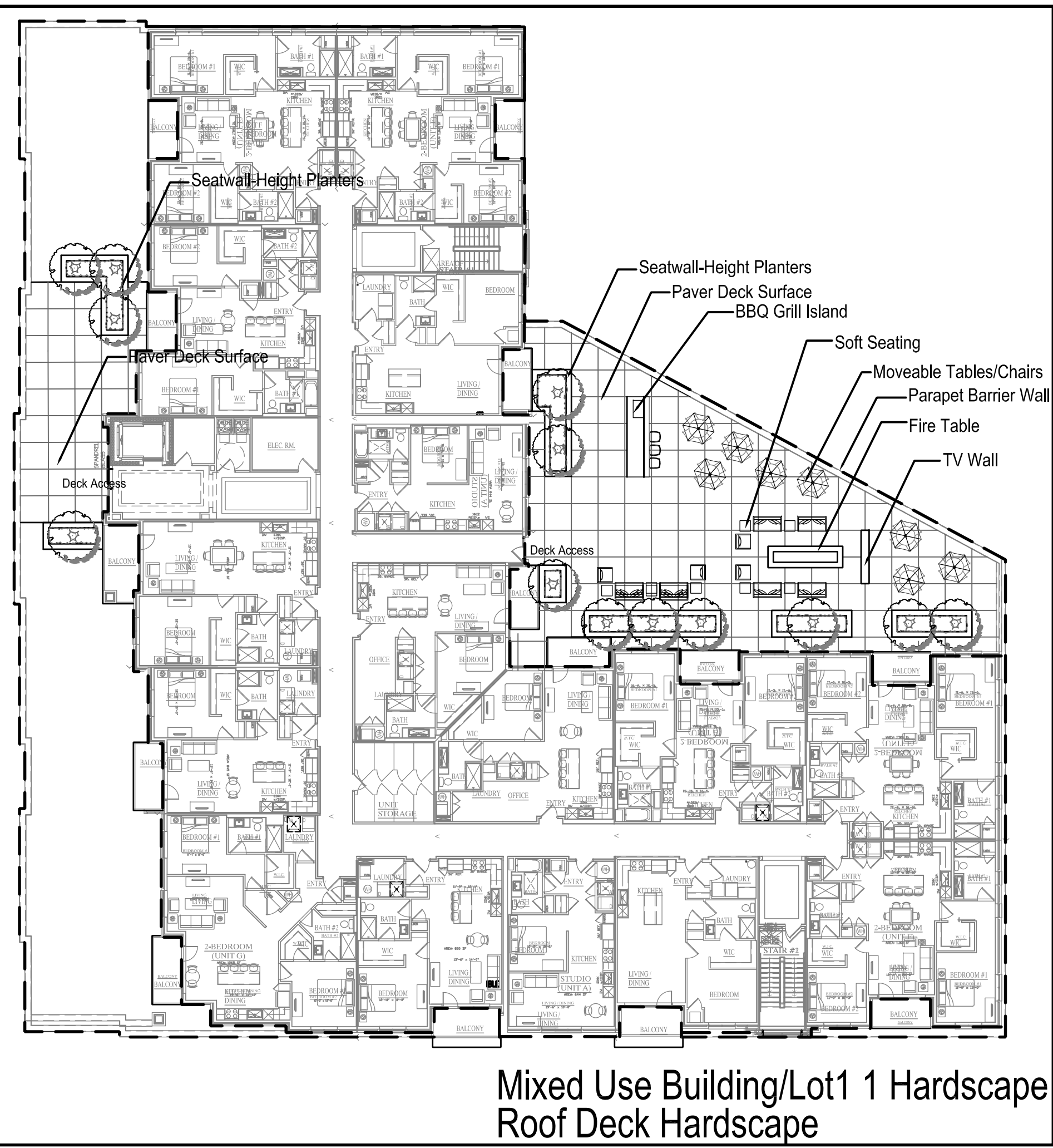


JOB NO: LP230045.00 PROJ MGR: TJS
DRAWN: TJS CHECKED: --
LANDSCAPE NOTES/DETAILS

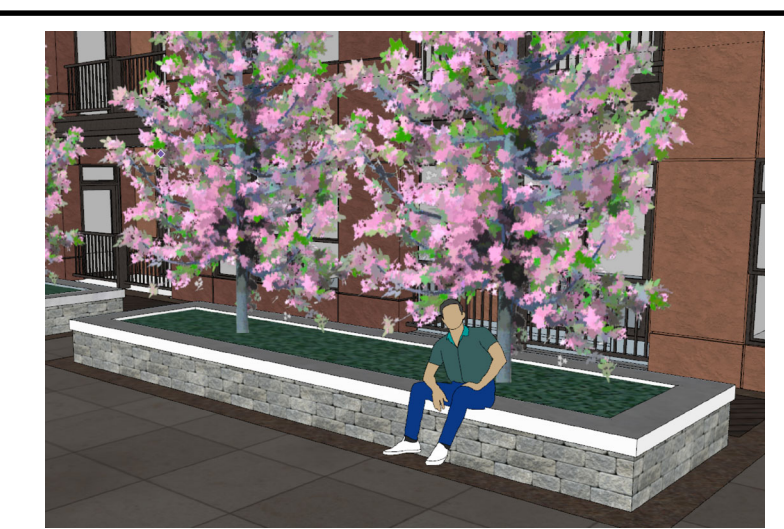
L1.4



Mixed Use Building/Lot1 1 Hardscape



Mixed Use Building/Lot1 1 Hardscape
Roof Deck Hardscape



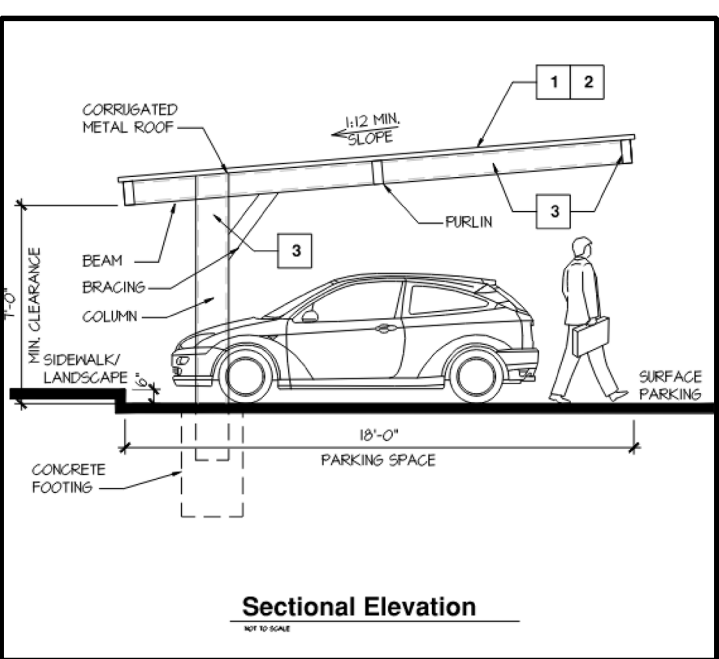
Seatwall-Height Planters



Fire Table, TV Wall, Soft Seating



BBQ Grill Island
Mixed Use Building
Second Floor Roof Deck Character



Sectional Elevation



Reference Photo

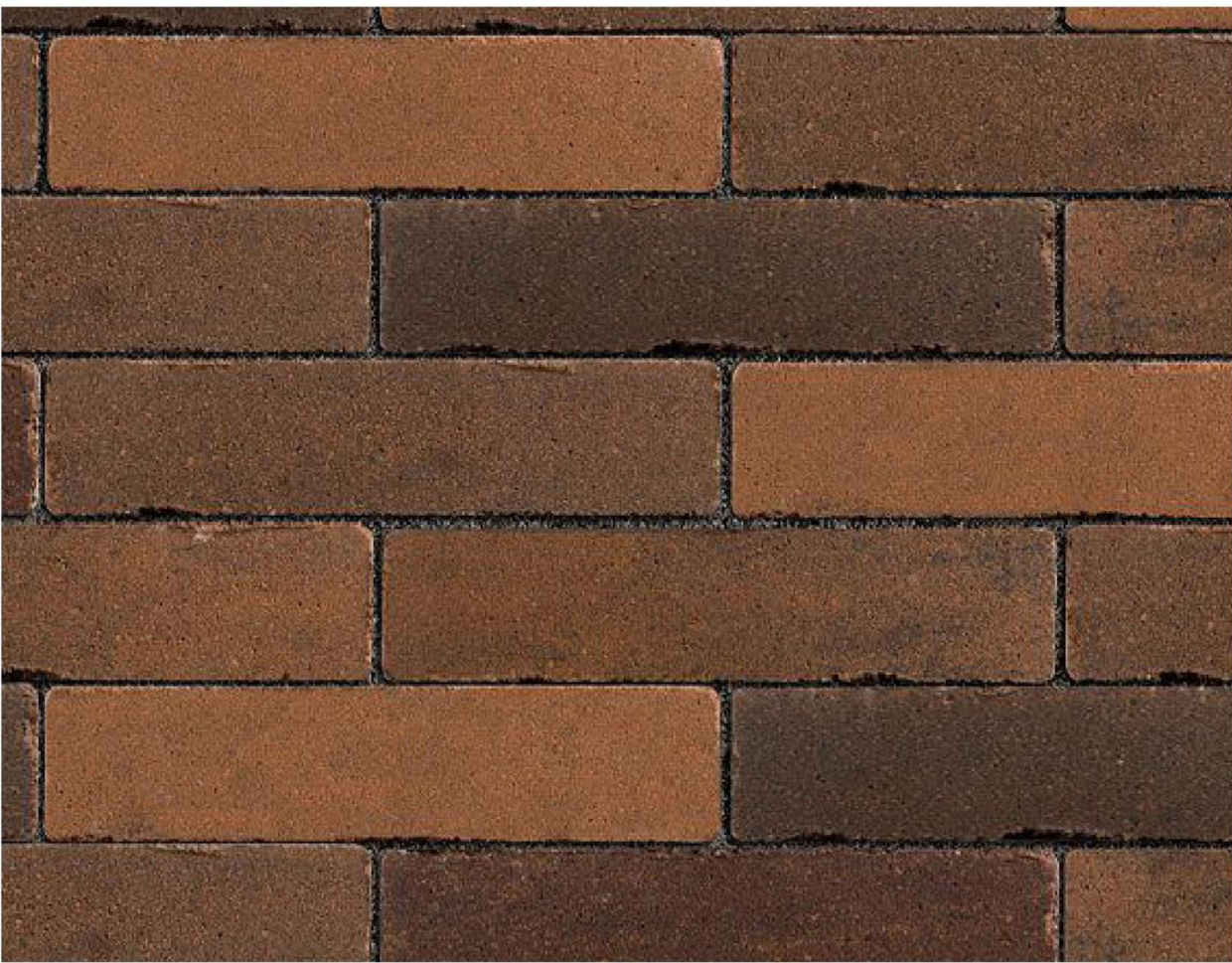
Car Port Character

22023-06-15 - Project Submittal Issued

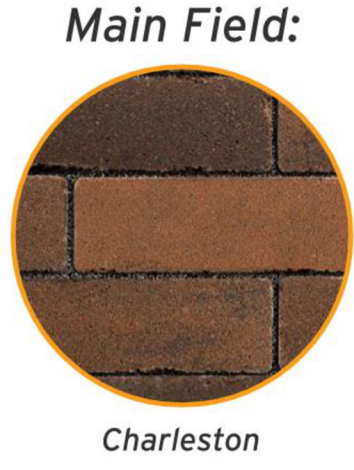
| | |
|---------------|------------------|
| ISSUE DATE: | 06-15-2023 |
| REVISIONS | |
| July 11, 2023 | Village Comments |



Permeable Paver Street - Unilock Eco Priora, 5"x10"



Pavers for Accent Areas - Unilock Mattoni



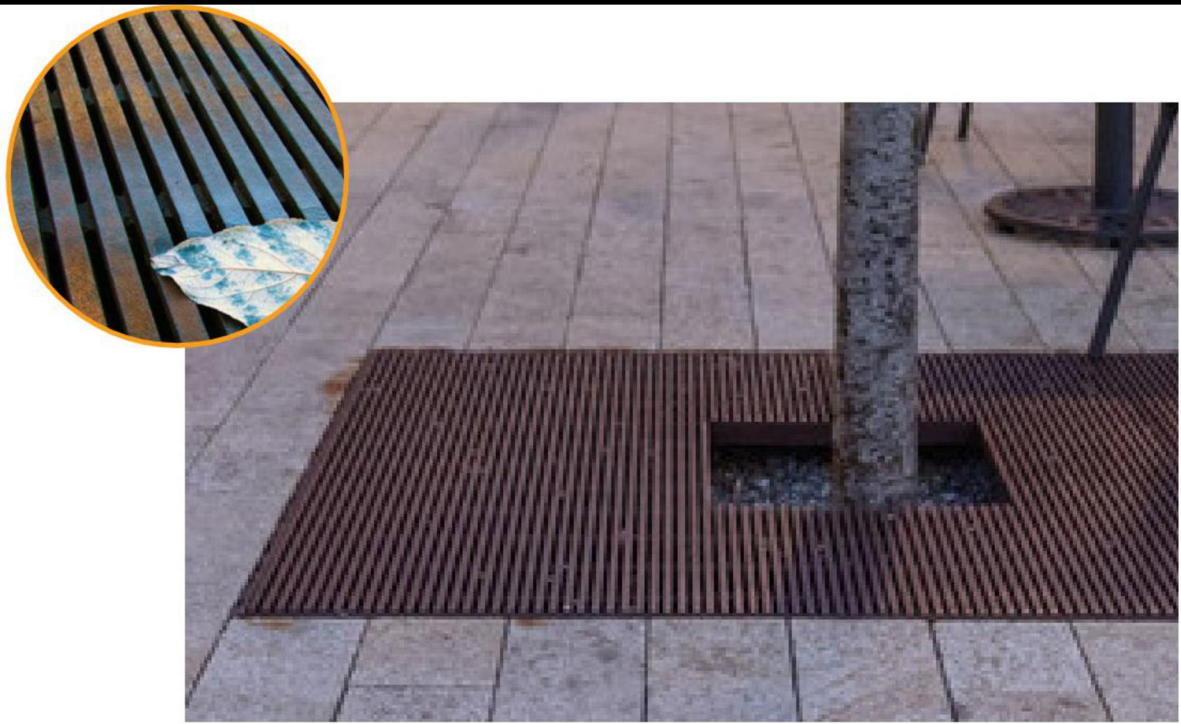
Match Existing Village Streetlights



Raised Concrete Curb Planters



Piano Motif Crosswalk: Unilock Series 3000 Paver - 6"x6"

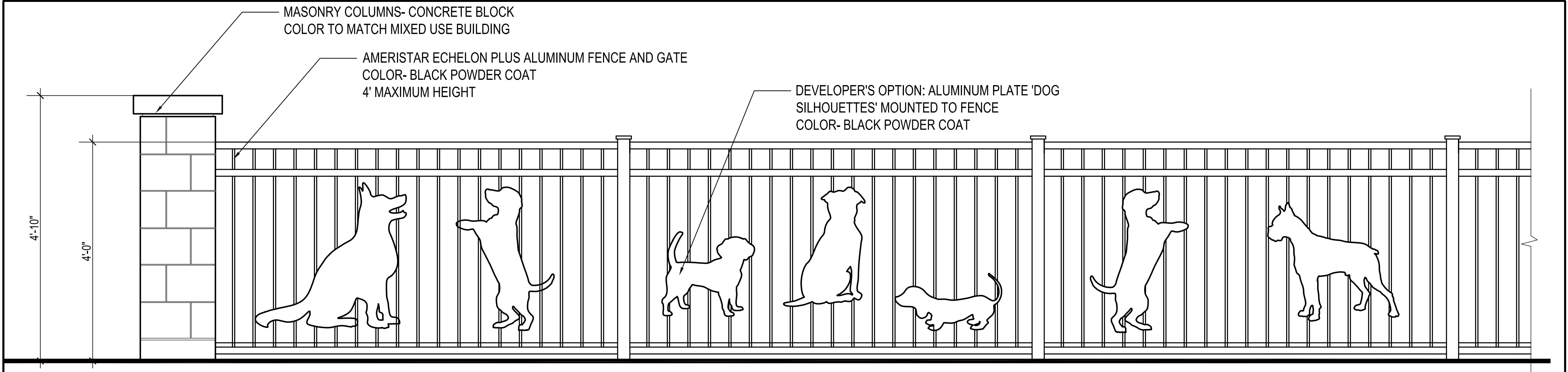


Jamison 5' x 10' Tree Grate | Linear Lines

Note: Bench and Trash Receptacle Selection TBD

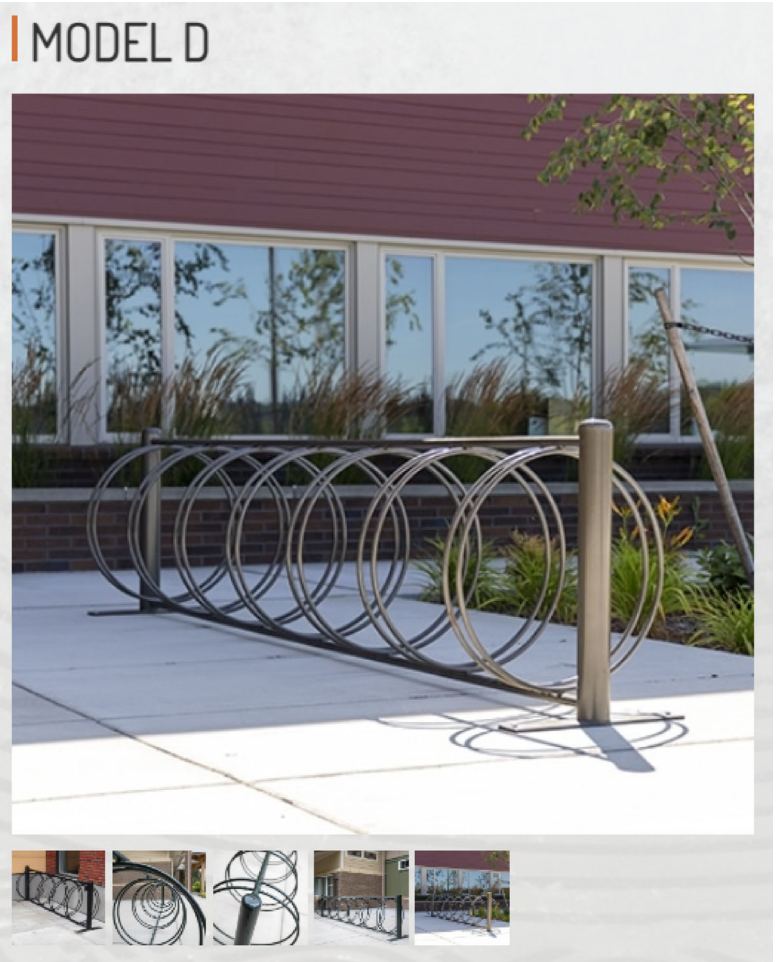
Mixed Use Building Streetscape Details

DETAILS PER LAKOTA STREETSCAPE PLAN - 01/31/2019 No Scale



Dog Park Fence

Scale: 1/16"=1'-0"



Bike Rack- (5 Stall)

Urban Accessories - Model D- Black Finish No Scale

22023-06-15 - Project Submittal Issued

| | |
|---------------|--------------------|
| ISSUE DATE: | 06-15-2023 |
| REVISIONS | |
| July 11, 2023 | Δ Village Comments |
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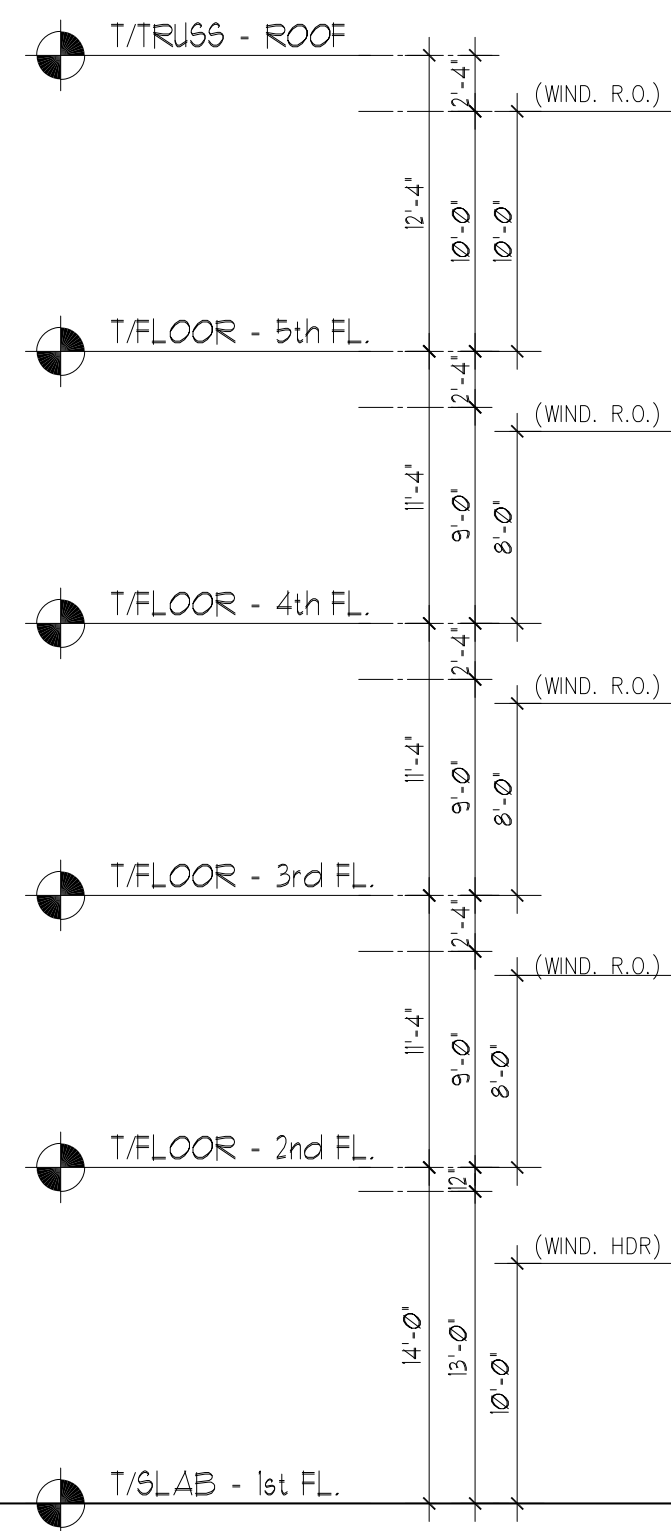


West Point at Harmony Square
Tinley Park, Illinois

JOB NO: LP230045.00 PROJ MGR: TJS
DRAWN: TJS CHECKED: ...
HARDSCAPE MATERIALS



- ① BRICK - BRAMPTON BRICK COMPANY
COLOR RIPLEY WITH GRAY MORTAR
- ② MANUFACTURED STONE
COLOR WHITE
- ③ MANUFACTURED STONE TRIM COLOR WHITE
- ④ FIBER CEMENT PANELS WITH FRY
REGLET SYSTEM
COLOR MONTEREY TAUPE
- ⑤ FIBER CEMENT PANELS
COLOR PEARL GRAY
- ⑥ FIBER CEMENT PANELS
COLOR ARTIC WHITE
- ⑦ HARDIE SMOOTH TRIM
COLOR ARTIC WHITE
- ⑧ 2" HARDIE SMOOTH TRIM
COLOR MIDNIGHT BOOT
- ⑨ WINDOWS, DOORS AND STORE FRONT
COLOR BLACK
- ⑩ DOORS
COLOR WHITE
- ⑪ ALUMINUM GRILLE
COLOR WHITE
- ⑫ ALUMINUM GRILLE TO MATCH BRICK OR
MONTEREY TAUPE
- ⑬ STUCCO TRIM WITH ALUMINUM COPING
COLOR WHITE
- ⑭ ALUMINUM HAND RAILS
COLOR BLACK
- ⑮ FABRIC AWNINGS
COLOR SUNBELLIA FOREST GREEN
- ⑯ ALUMINUM AWNINGS
COLOR BLACK



WEST ELEVATION (HARMONY SQUARE)
SCALE: 1/8"=1'-0"



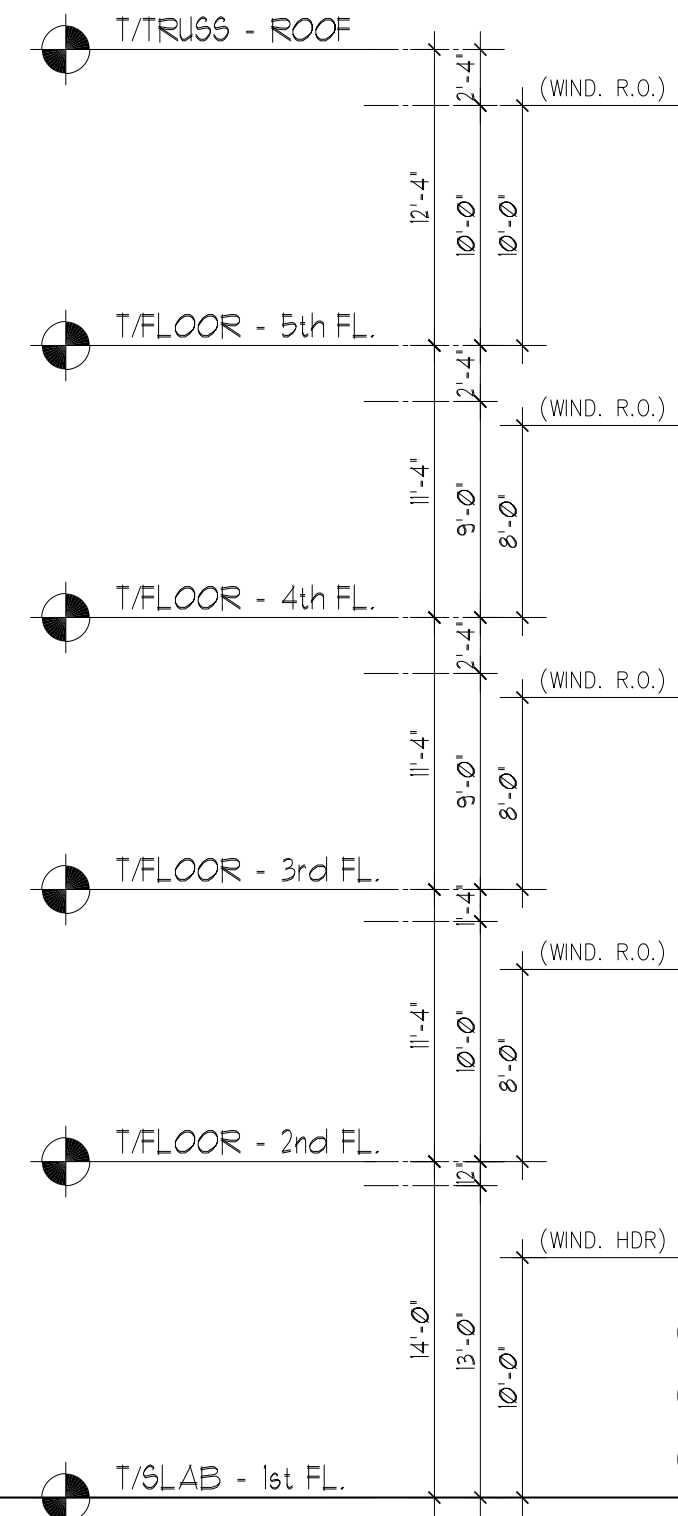
- ① BRICK - BRAMPTON BRICK COMPANY
COLOR RIPLEY WITH GRAY MORTAR
- ② MANUFACTURED STONE
COLOR WHITE
- ③ MANUFACTURED STONE TRIM COLOR WHITE
- ④ FIBER CEMENT PANELS WITH FRY
REGLET SYSTEM
COLOR MONTEREY TAUPE
- ⑤ FIBER CEMENT PANELS
COLOR PEARL GRAY
- ⑥ FIBER CEMENT PANELS
COLOR ARTIC WHITE
- ⑦ HARDIE SMOOTH TRIM
COLOR ARTIC WHITE
- ⑧ 2" HARDIE SMOOTH TRIM
COLOR MIDNIGHT SOOT
- ⑨ WINDOWS, DOORS AND STORE FRONT
COLOR BLACK
- ⑩ DOORS
COLOR WHITE
- ⑪ ALUMINUM GRILLE
COLOR WHITE
- ⑫ ALUMINUM GRILLE TO MATCH BRICK OR
MONTEREY TAUPE
- ⑬ STUCCO TRIM WITH ALUMINUM COPING
COLOR WHITE
- ⑭ ALUMINUM HAND RAILS
COLOR BLACK
- ⑮ FABRIC AWNINGS
COLOR SUNBRELLA FOREST GREEN
- ⑯ ALUMINUM AWNINGS
COLOR BLACK





SOUTH ELEVATION (NORTH ST.)
SCALE: 1/8"=1'-0"

- 1 BRICK - BRAMPTON BRICK COMPANY
COLOR RIFLEY WITH GRAY MORTAR
- 2 MANUFACTURED STONE
COLOR WHITE
- 3 MANUFACTURED STONE TRIM COLOR WHITE
- 4 FIBER CEMENT PANELS WITH FRY
REGLET SYSTEM
COLOR MONTEREY TAUPE
- 5 FIBER CEMENT PANELS
COLOR PEARL GRAY
- 6 FIBER CEMENT PANELS
COLOR ARTIC WHITE
- 7 HARDIE SMOOTH TRIM
COLOR ARTIC WHITE
- 8 2" HARDIE SMOOTH TRIM
COLOR MIDNIGHT SOOT
- 9 WINDOWS, DOORS AND STORE FRONT
COLOR BLACK
- 10 DOORS
COLOR WHITE
- 11 ALUMINUM GRILLE
COLOR WHITE
- 12 ALUMINUM GRILLE TO MATCH BRICK OR
MONTEREY TAUPE
- 13 STUCCO TRIM WITH ALUMINUM COPING
COLOR WHITE
- 14 ALUMINUM HAND RAILS
COLOR BLACK
- 15 FABRIC AWNINGS
COLOR SUNBRELLA FOREST GREEN
- 16 ALUMINUM AWNINGS
COLOR BLACK
- 17 PUBLIC EVENT SIGNAGE



SOUTH ELEVATION (NORTH ST.)
SCALE 1/8"=1'-0"



- ① BRICK- BRAMPTON BRICK COMPANY
COLOR RIPLEY WITH GRAY MORTAR
- ② MANUFACTURED STONE
COLOR WHITE
- ③ MANUFACTURED STONE TRIM COLOR WHITE
- ④ FIBER CEMENT PANELS WITH FRY
REGLET SYSTEM
COLOR MONTEREY TAUPE
- ⑤ FIBER CEMENT PANELS
COLOR PEARL GRAY
- ⑥ FIBER CEMENT PANELS
COLOR ARTIC WHITE
- ⑦ HARDIE SMOOTH TRIM
COLOR ARTIC WHITE
- ⑧ 2" HARDIE SMOOTH TRIM
COLOR MIDNIGHT SOOT
- ⑨ WINDOWS, DOORS AND STORE FRONT
COLOR BLACK
- ⑩ DOORS
COLOR WHITE
- ⑪ ALUMINUM GRILLE
COLOR WHITE
- ⑫ ALUMINUM GRILLE TO MATCH BRICK OR
MONTEREY TAUPE
- ⑬ STUCCO TRIM WITH ALUMINUM COPING
COLOR WHITE
- ⑭ ALUMINUM HAND RAILS
COLOR BLACK
- ⑮ FABRIC AININGS
COLOR SUNDERELLA FOREST GREEN
- ⑯ ALUMINUM AININGS
COLOR BLACK



EAST ELEVATION (67TH AVE.)
SCALE: 1/8"=1'-0"

WEST POINT AT HARMONY SQUARE

MIXED USE
08.09.23

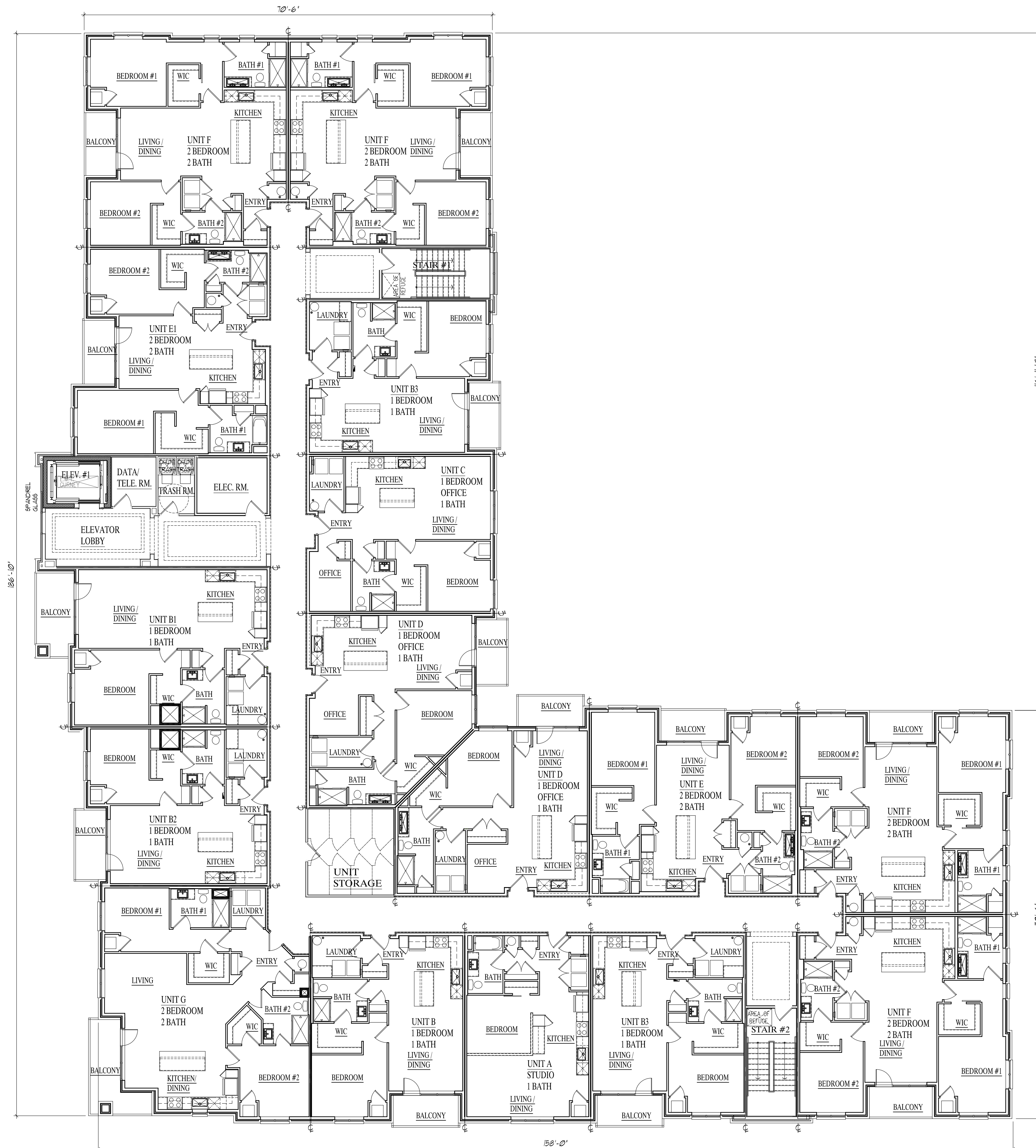


SECOND FLOOR PLAN

SCALE: N.T.S.

WEST POINT AT HARMONY SQUARE

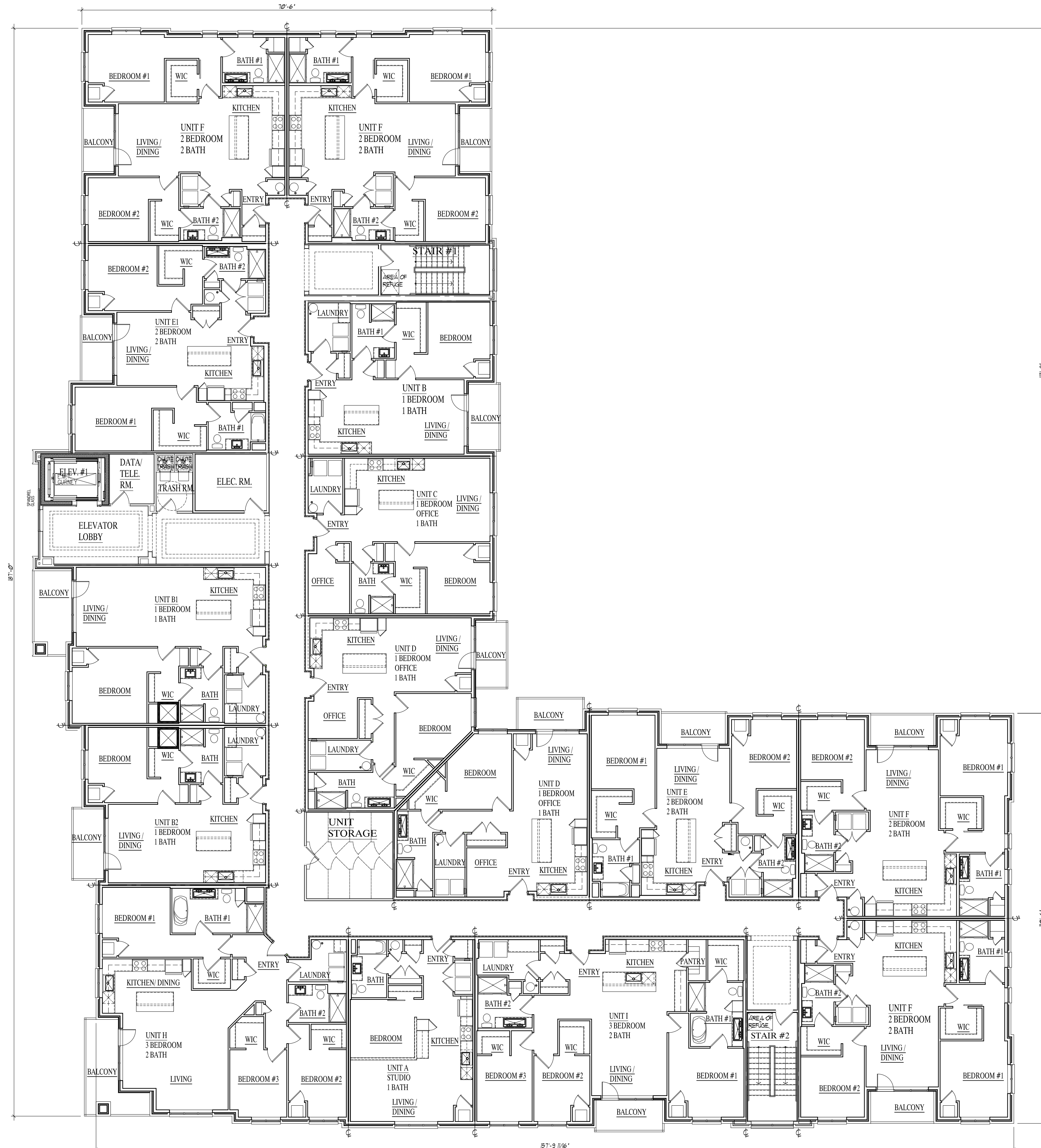
MIXED USE
07.27.23



THIRD & FOURTH FLOOR PLANS

SCALE: N.T.S.

WEST POINT AT HARMONY SQUARE



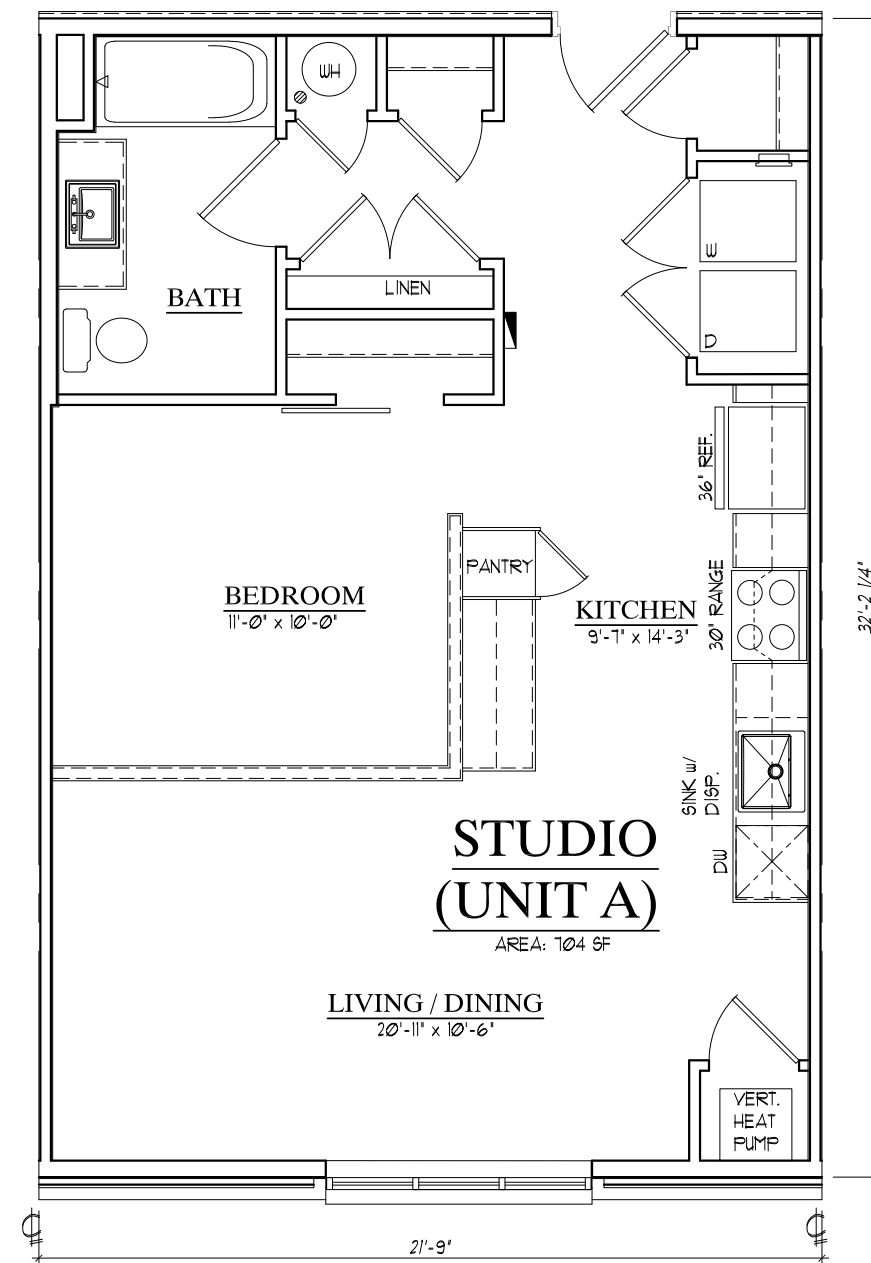
FIFTH FLOOR PLAN

SCALE: N.T.S.

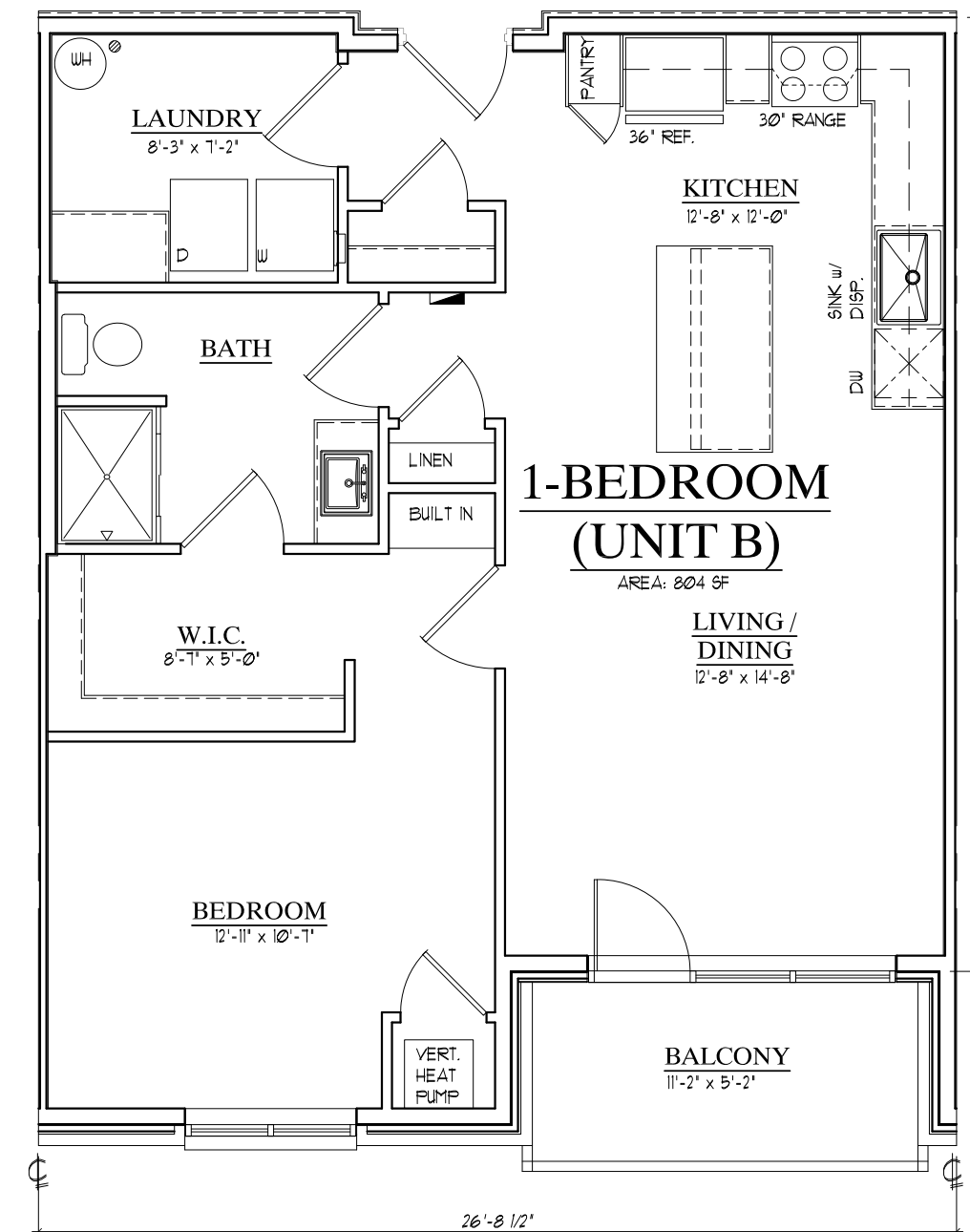
WEST POINT AT HARMONY SQUARE

MIXED USE
07.27.23

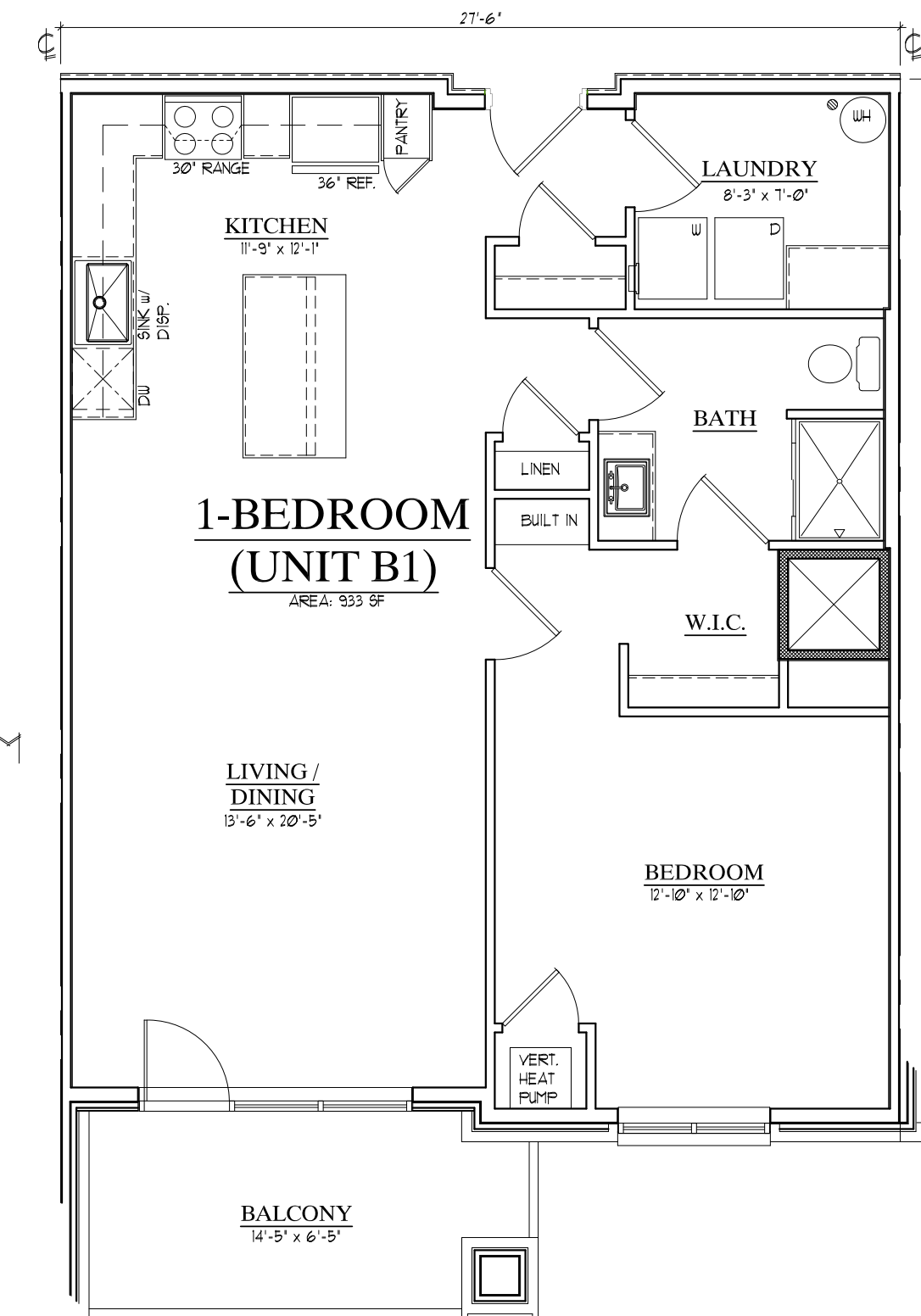
STUDIO/ CONVERTIBLE
-UNIT A
104 sq. ft.



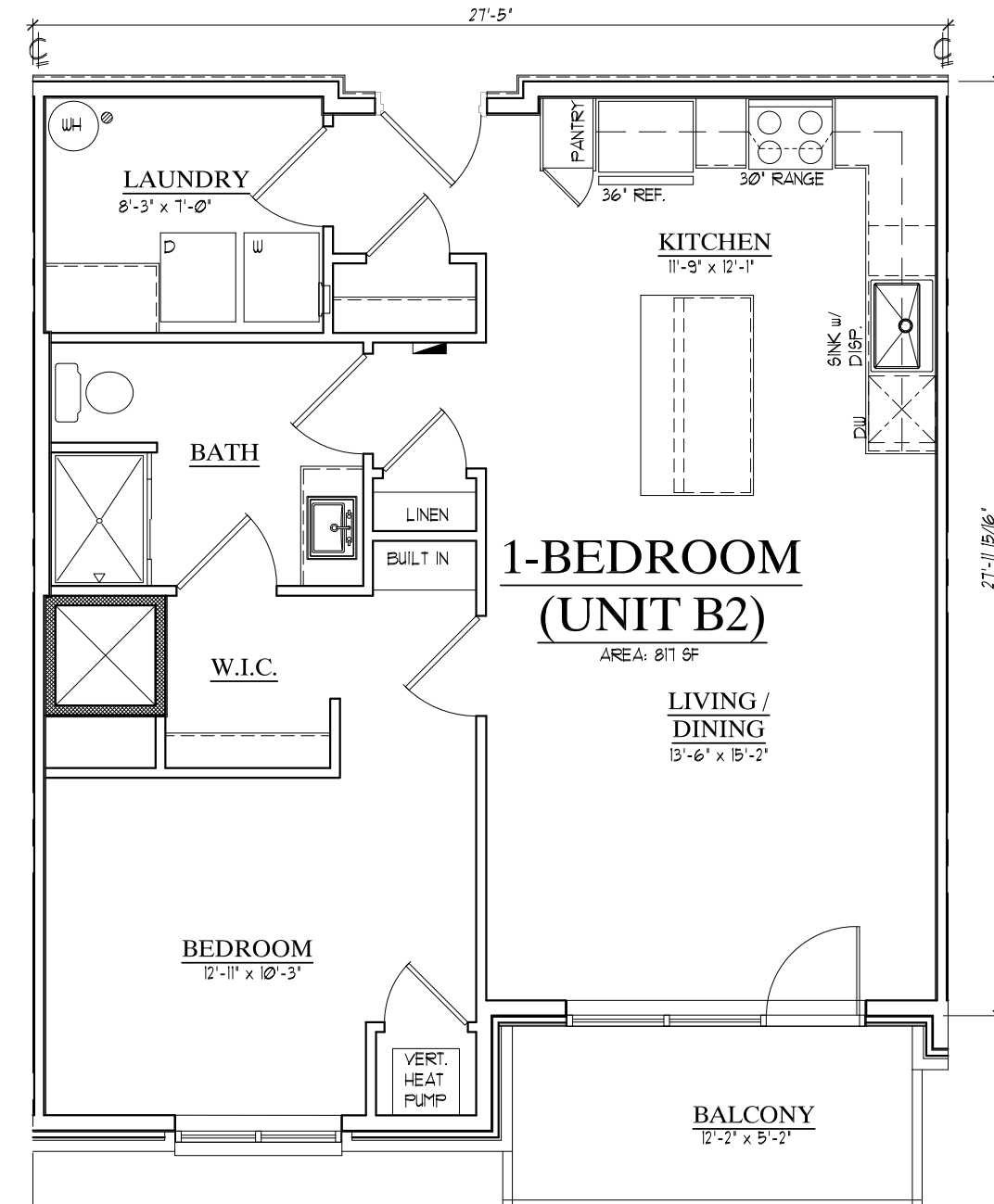
ONE BEDROOM
-UNIT B
808 sq. ft.



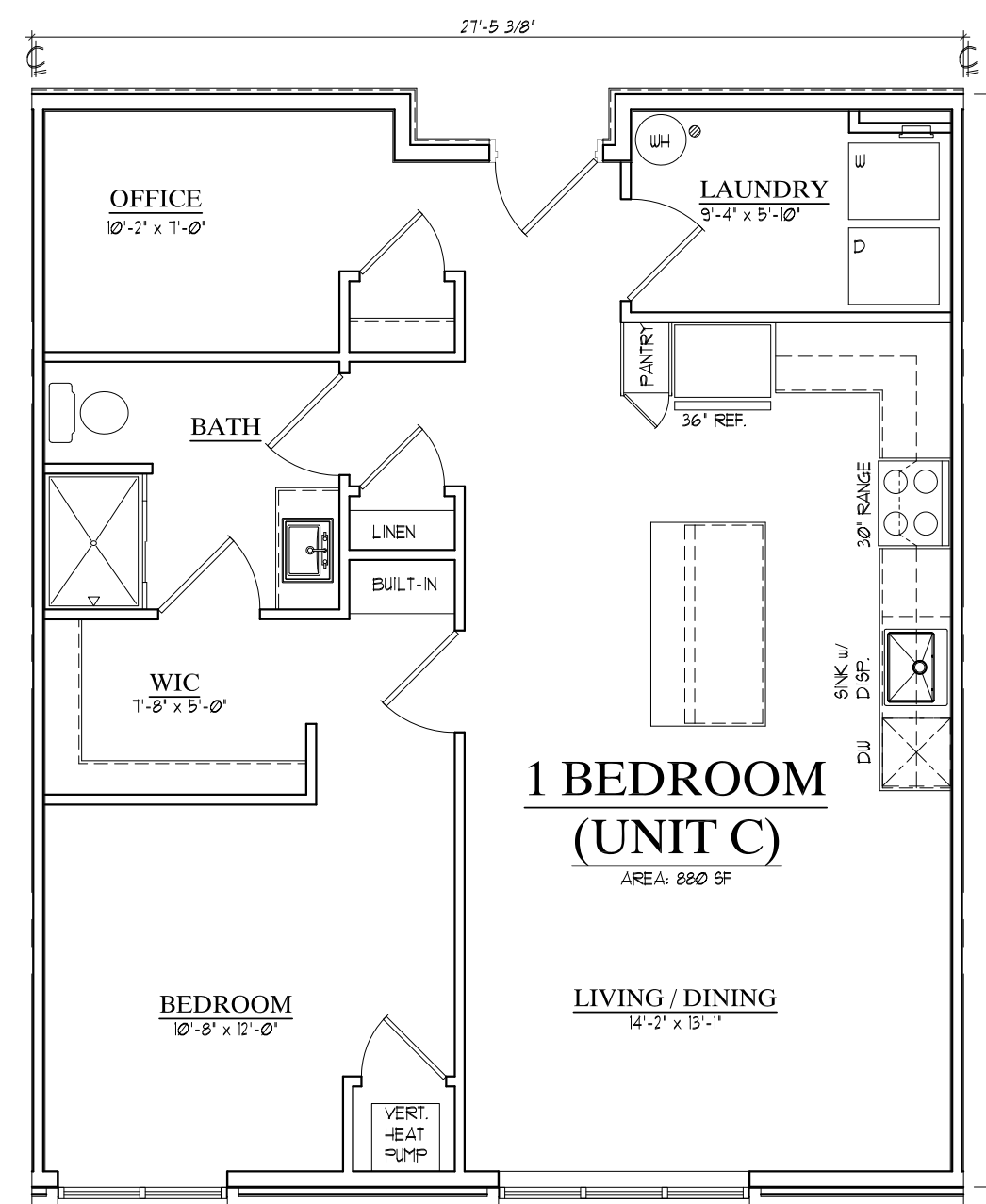
ONE BEDROOM
-UNIT B1
933 sq. ft.



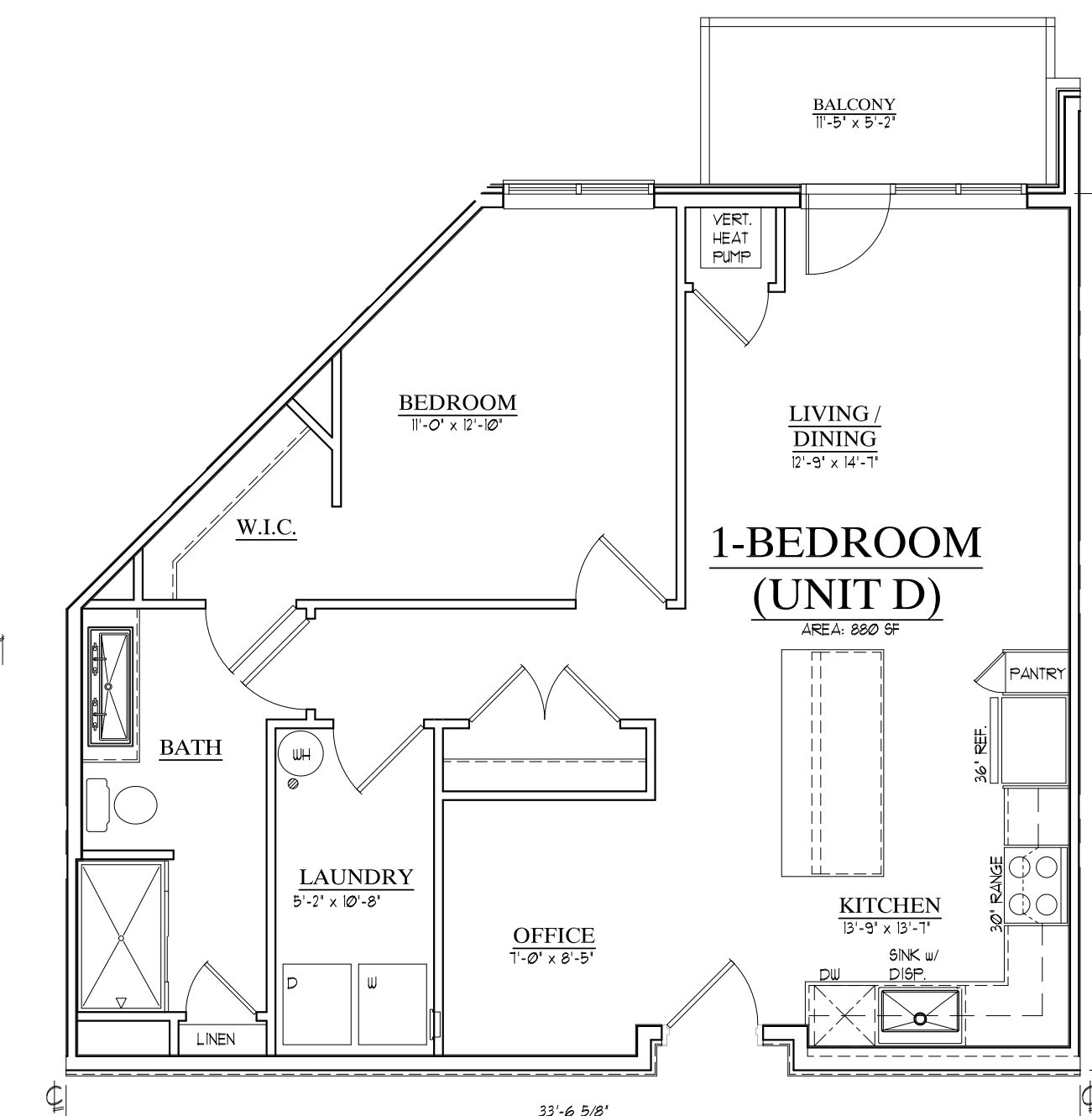
ONE BEDROOM
-UNIT B2
817 sq. ft.

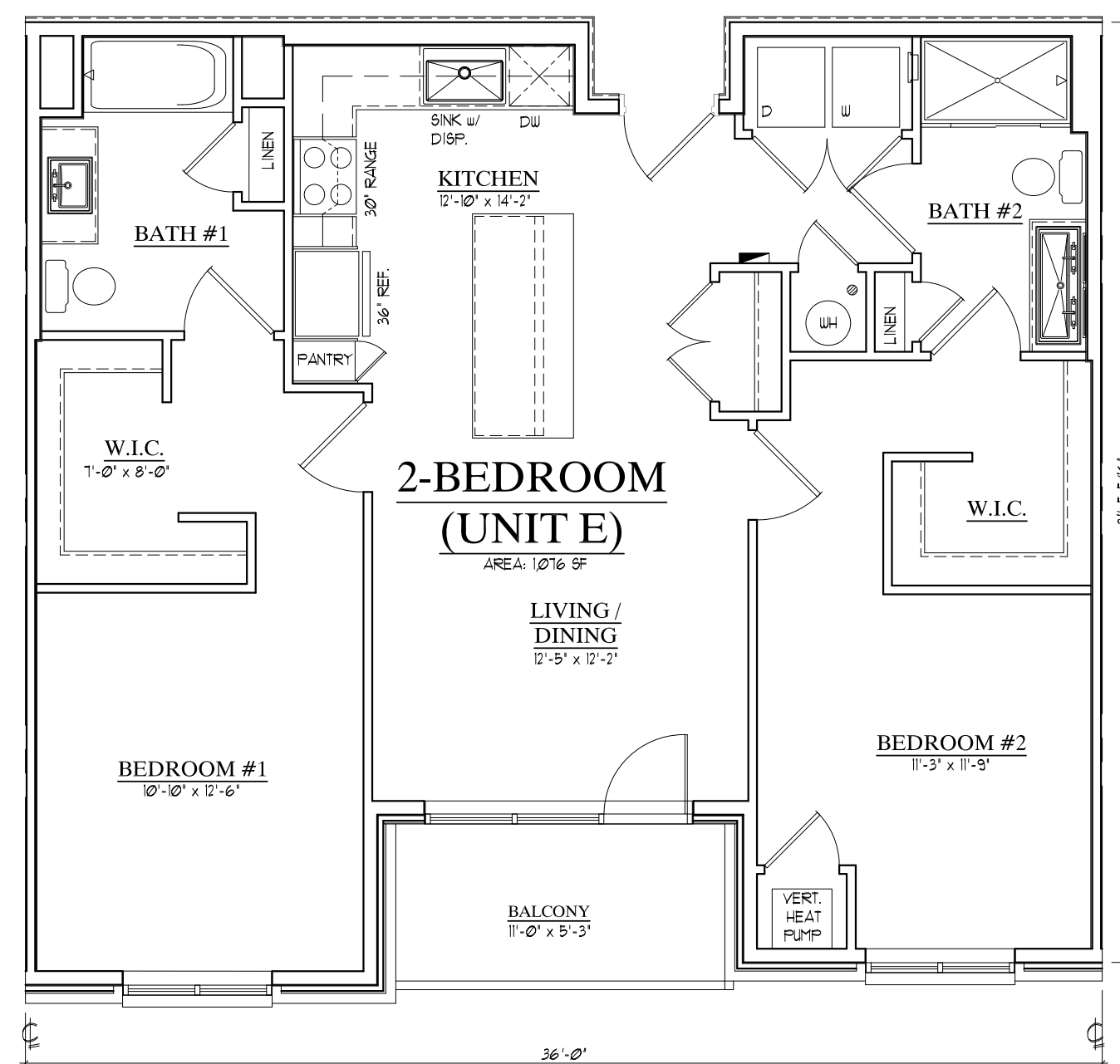


1 BEDROOM
-UNIT C
880 sq. ft.



ONE BEDROOM
-UNIT D
880 sq. ft.

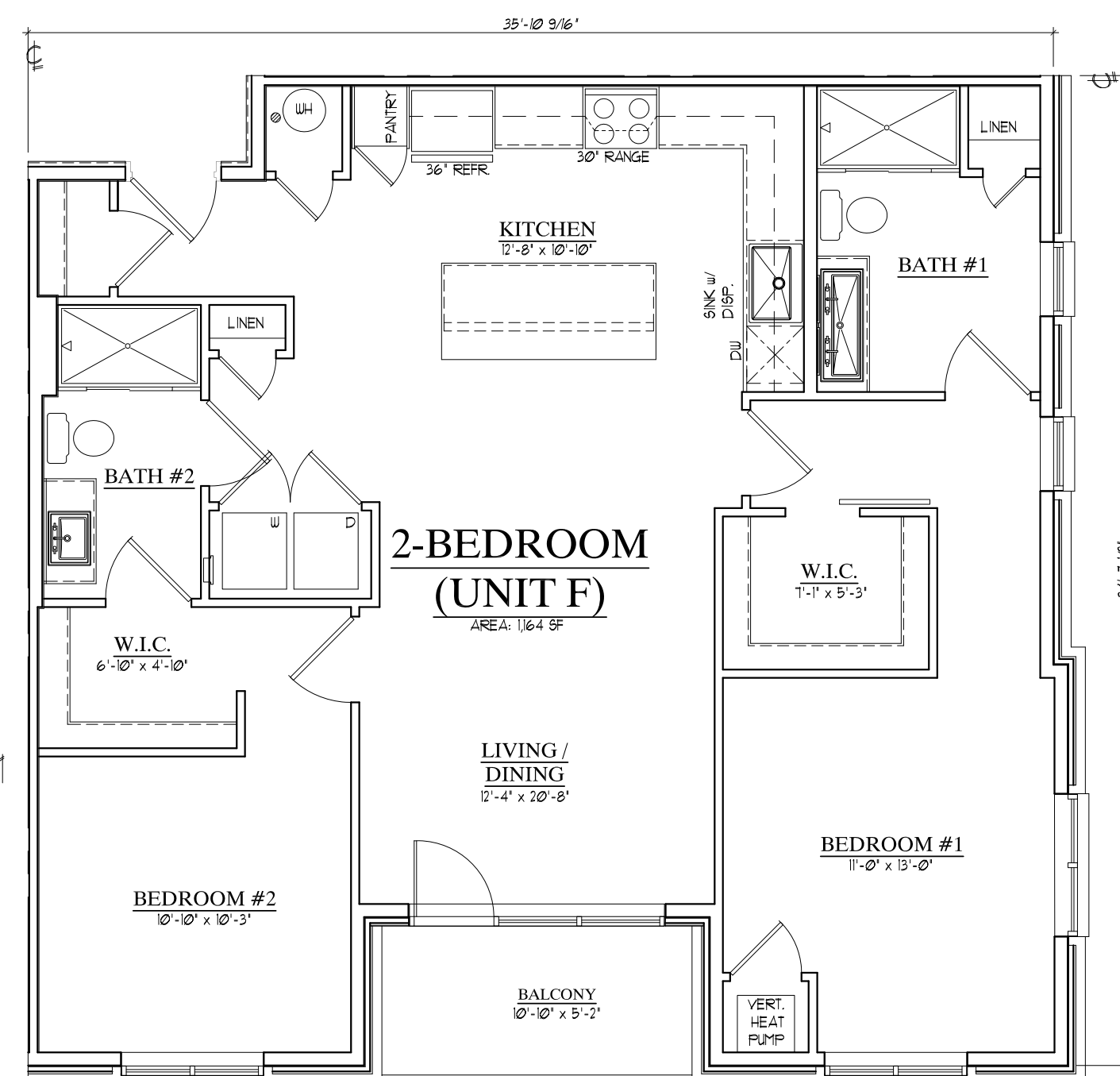




TWO BEDROOM
-UNIT E
1,016 sq. ft.



TWO BEDROOM
-UNIT E1
1,094 sq. ft.



TWO BEDROOM
-UNIT F
1,164 sq. ft.



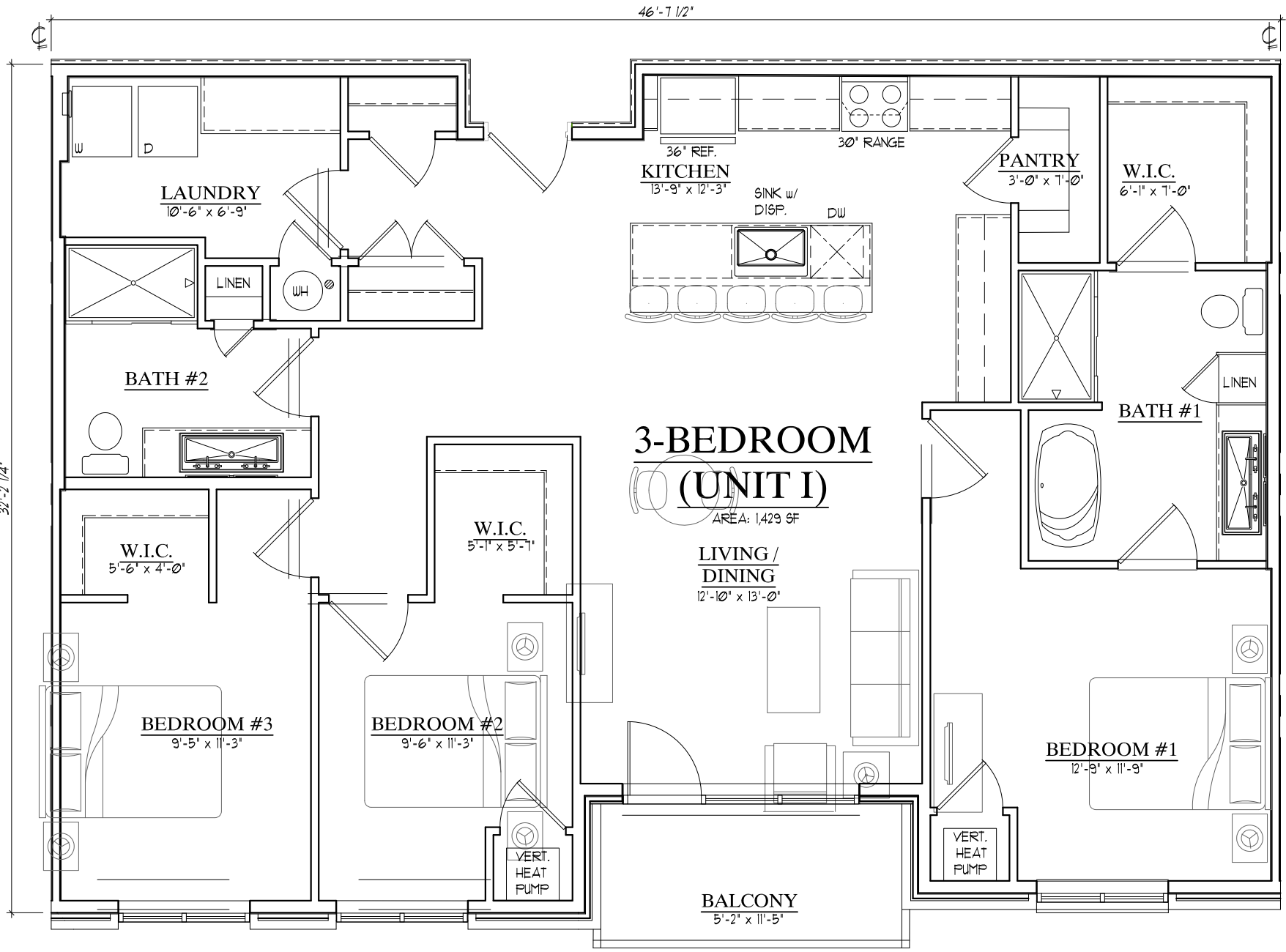
TWO BEDROOM
-UNIT G
1,211 sq. ft.

WEST POINT AT
HARMONY SQUARE

MIXED USE
07.27.23



THREE BEDROOM
-UNIT I
1,429 sq. ft.

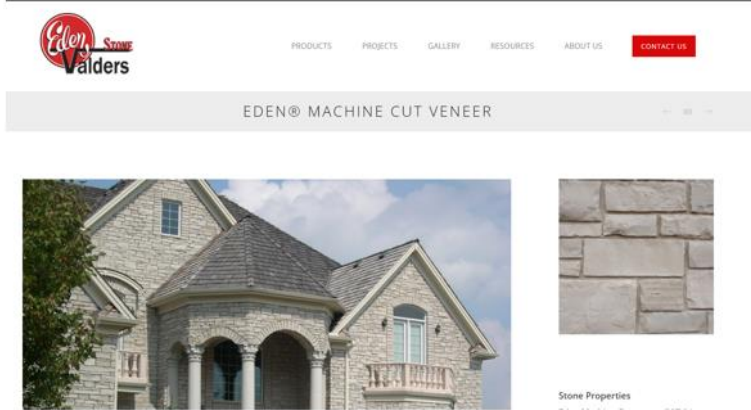


Package One Option

Hardie



Stone Multi family



Brampton Brick- Ripley
Front Door: SW Homberg Gray 7622
Shutters: Gray



Package Two

Hardie



Artic White

Brick General Shale- LWQ Shawdow Grey Tudor
Front Door: SW Iron Ore 7069
Shutters: Black



All roofs – GAF Charcoal

Package Three

Hardie



Brampton Brick- Brownstone

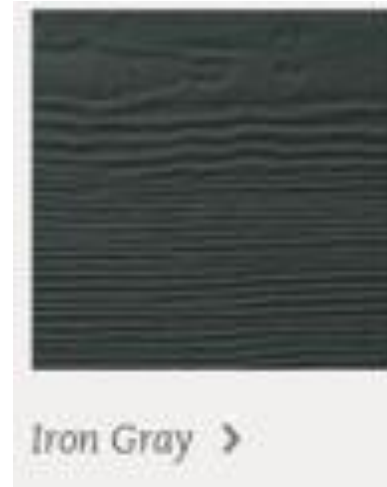
Front Door: Sherwin Williams Pewter Green SW6208

Shutters: Black



Package Four

Hardie



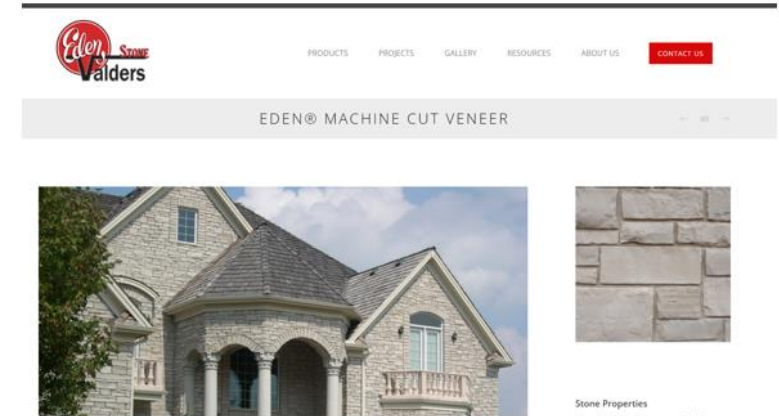
Brampton Brick- Graystone

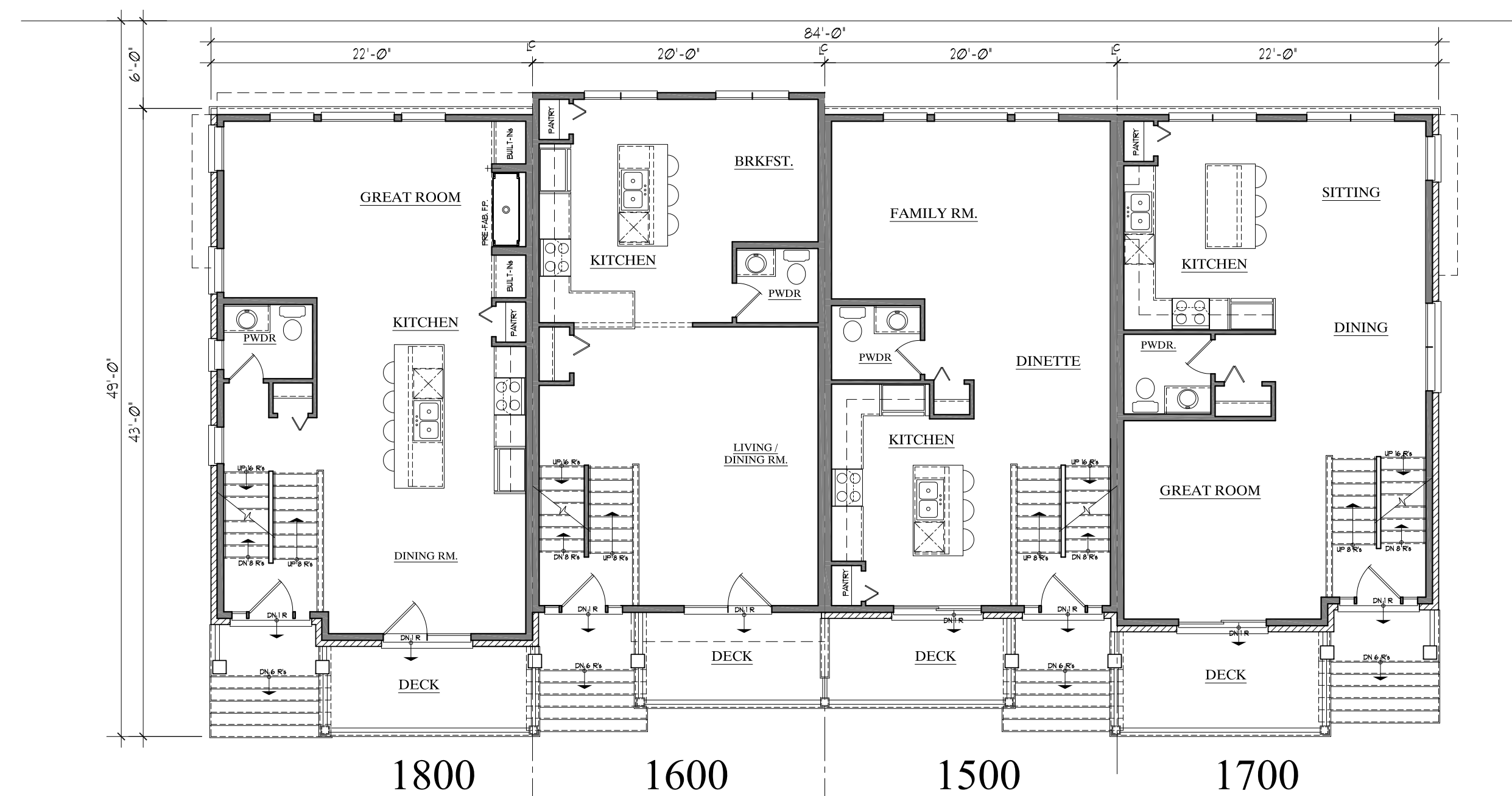
Front Door: Sherwin Williams Auric 6692 | Safer Choice Sherwin Williams Cityscape SW7061

Shutters: Pale Gray

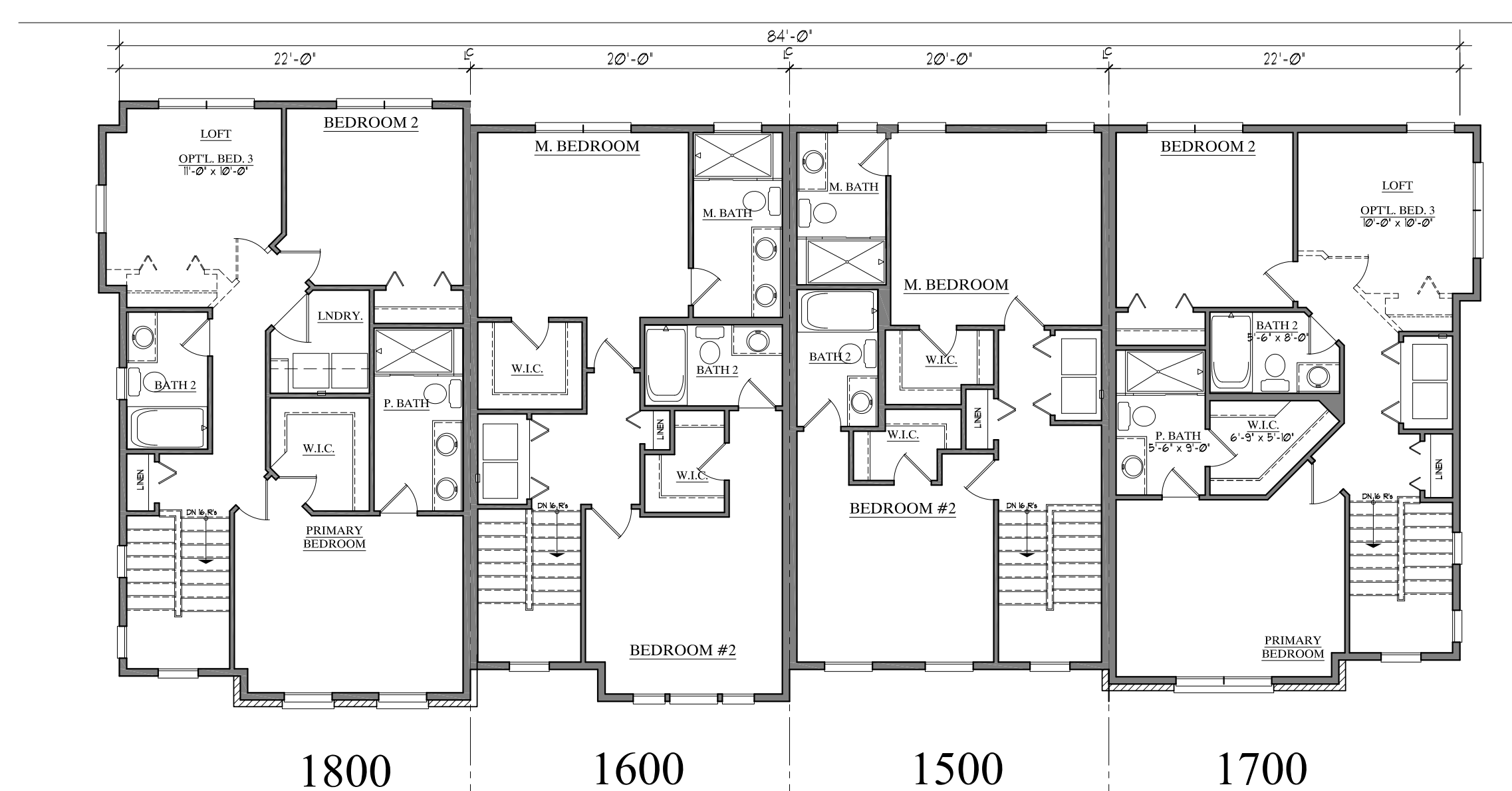


Stone for Multi Family

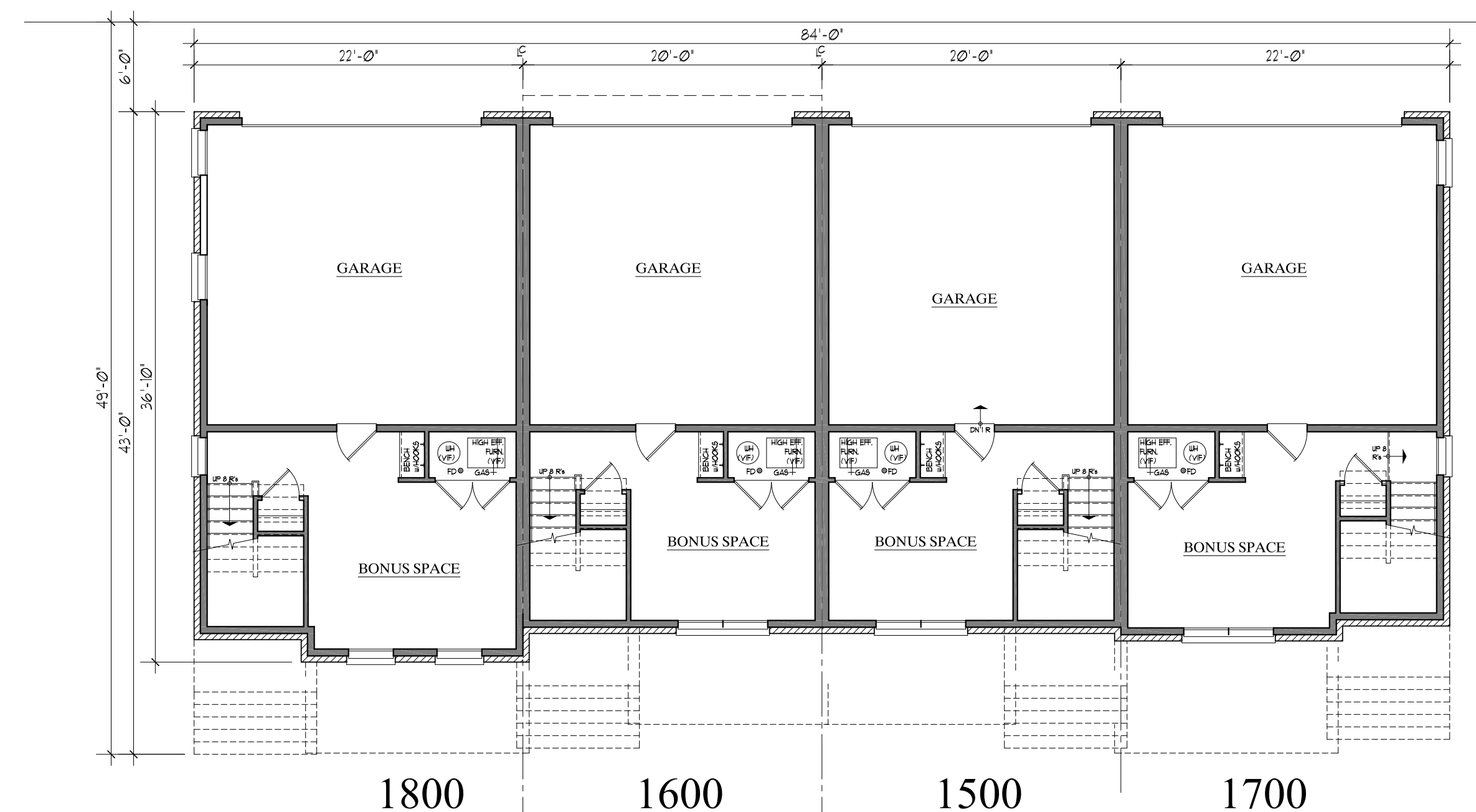




FIRST FLOOR CONTROL PLAN ~ 4 UNIT
SCALE: 1/8"=1'-0"



SECOND FLOOR CONTROL PLAN ~ 4 UNIT
SCALE: 1/8"=1'-0"

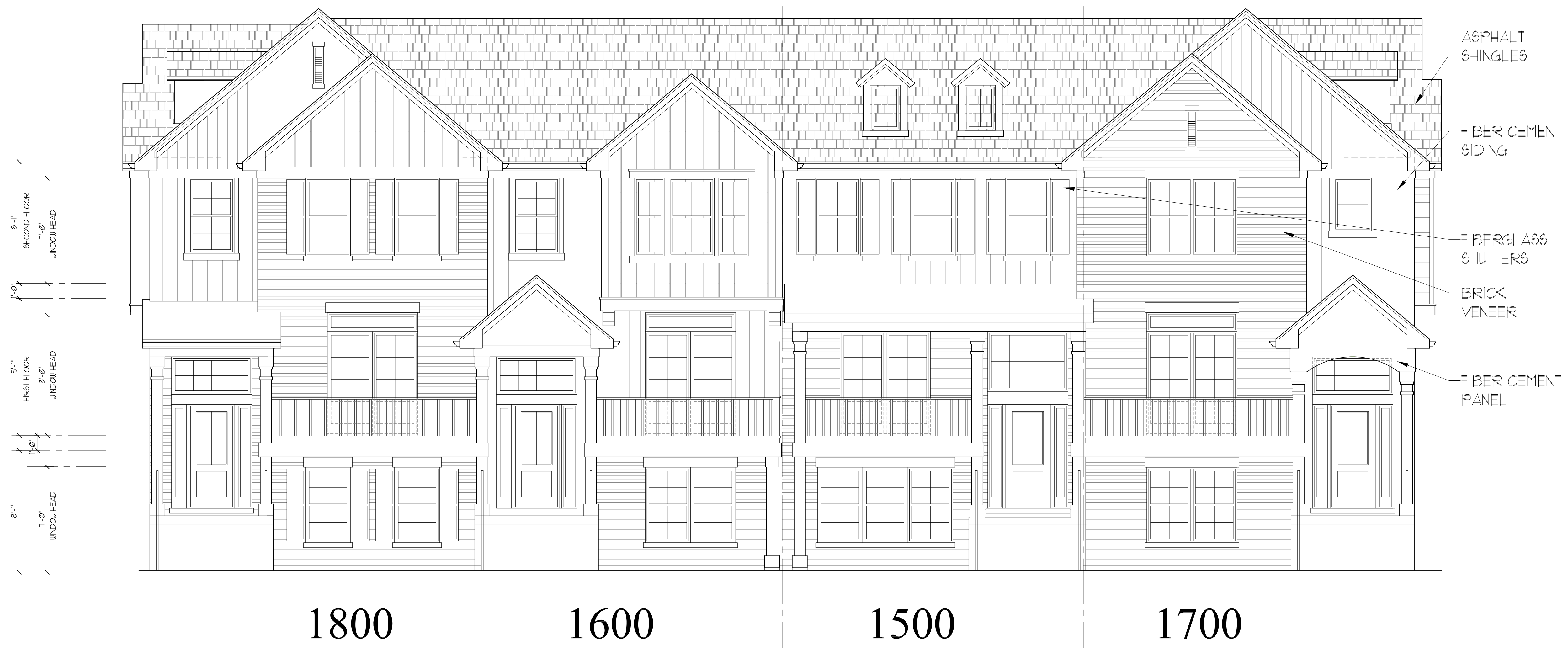


LOWER LEVEL CONTROL PLAN ~ 4 UNIT
SCALE: 1/8"=1'-0"



COURT ELEVATION ~ 4 UNIT

SCALE: 1/4"=1'-0"



COURT ELEVATION ~ 4 UNIT
SCALE: 1/4"=1'-0"



LEFT ELEVATION

SCALE: 1/4"=1'-0"



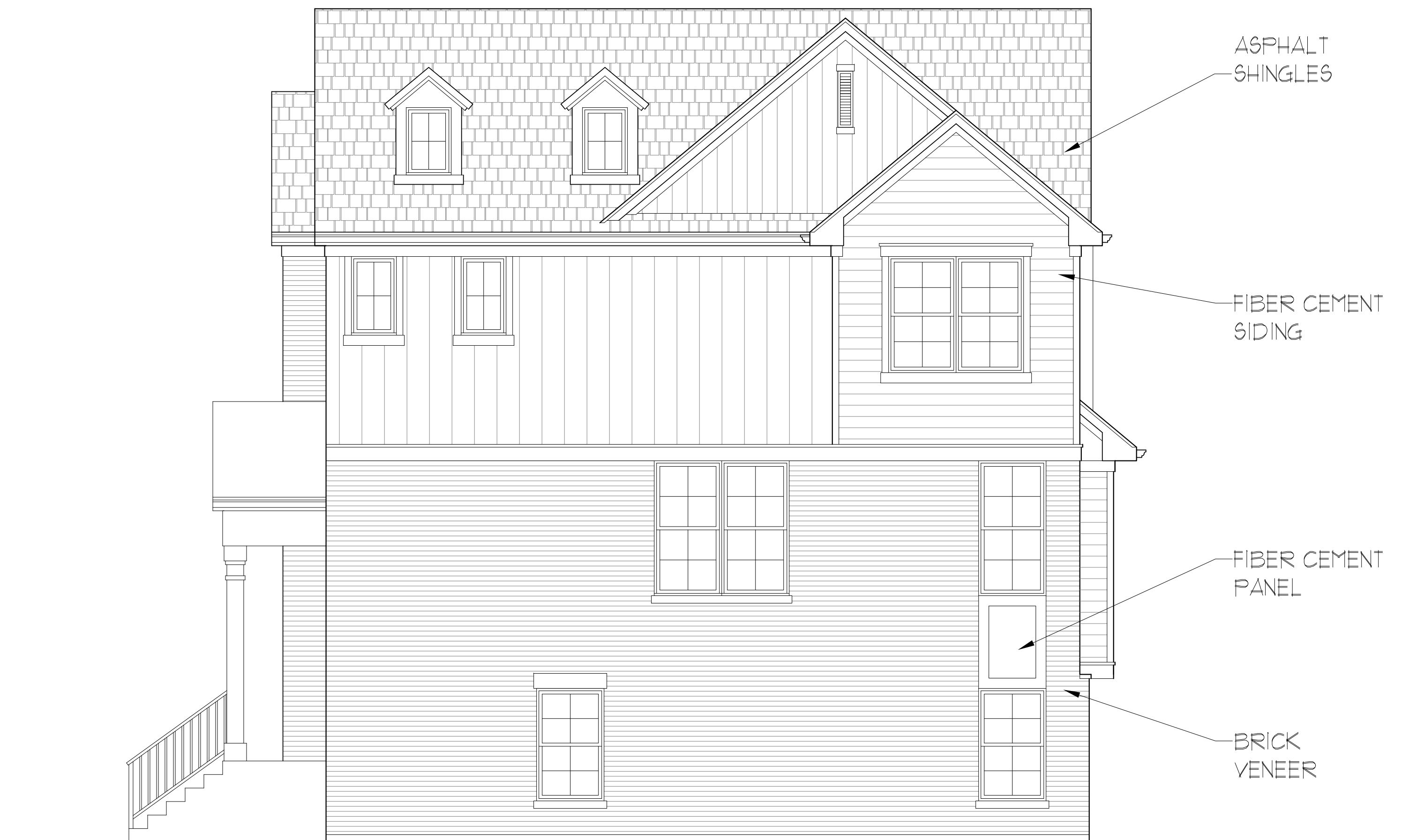
RIGHT ELEVATION

SCALE: 1/4"=1'-0"



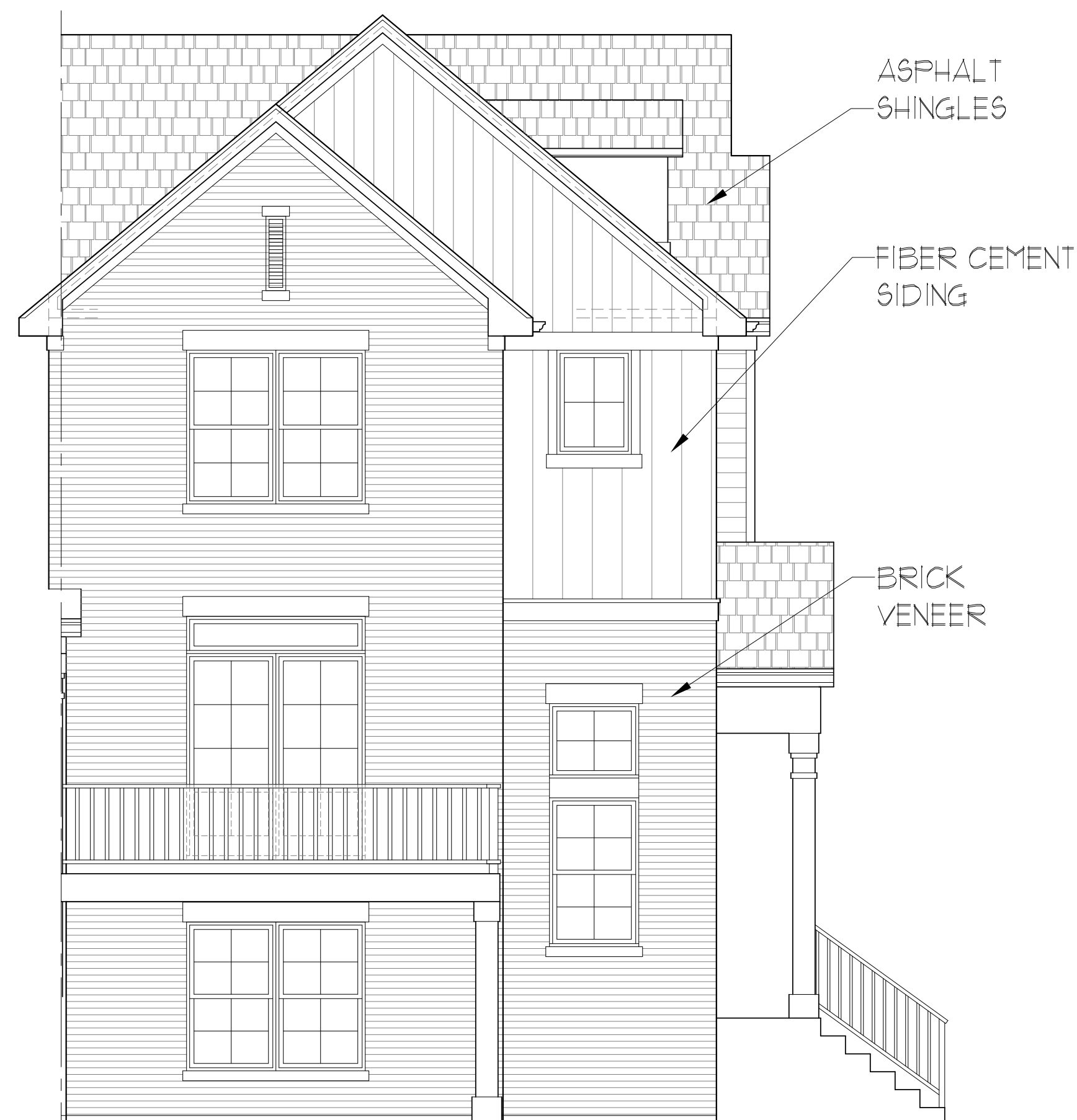
LEFT ELEVATION

SCALE: 1/4"=1'-0"



RIGHT ELEVATION

SCALE: 1/4"=1'-0"



1700

PART'L. COURT ELEVATION

SCALE: 1/4"=1'-0"



1700

RIGHT ELEVATION

SCALE: 1/4"=1'-0"

ALTERNATE END
CONDITION

WEST POINT AT HARMONY SQUARE



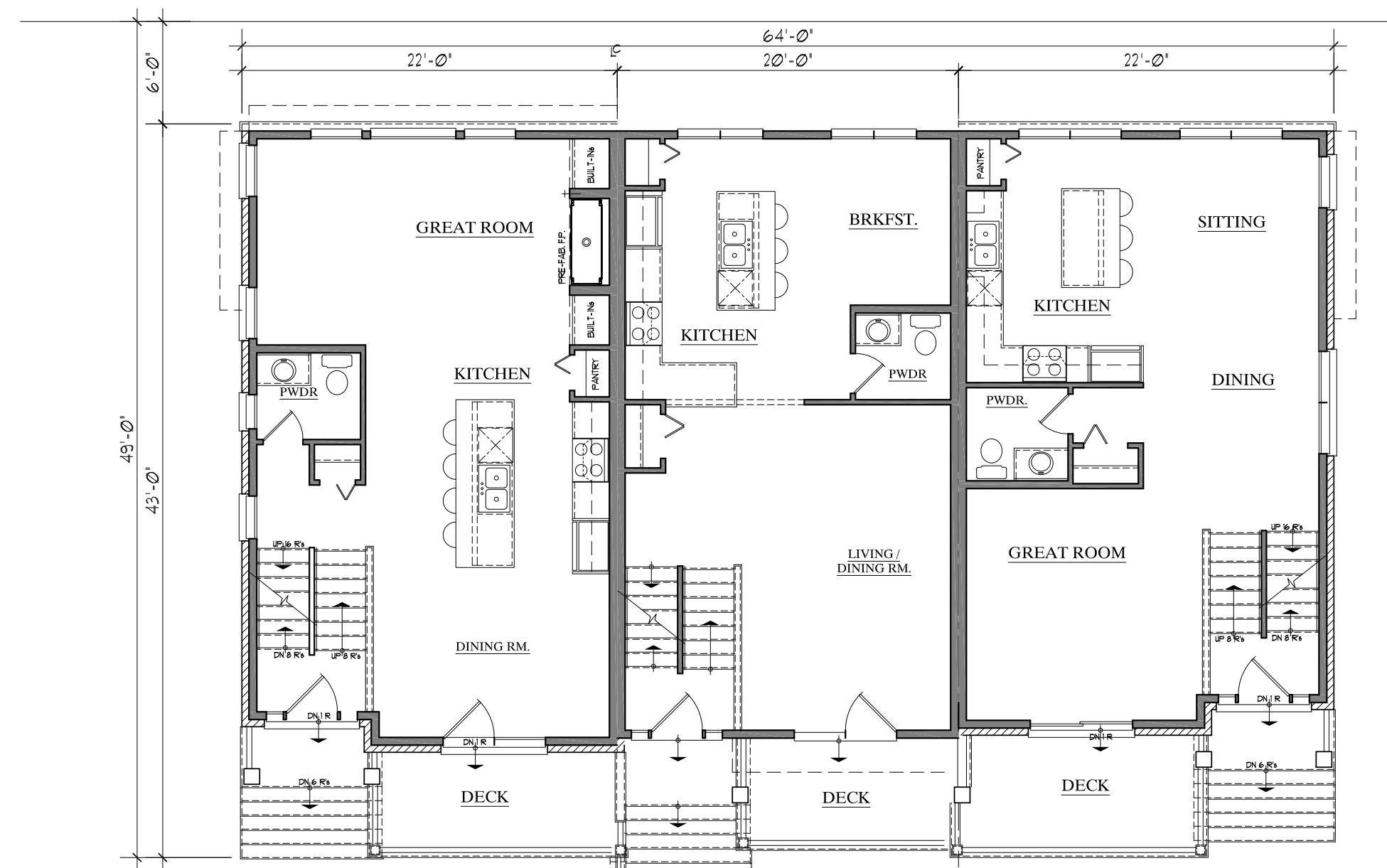
REAR ELEVATION ~ 4 UNIT

SCALE: 1/4"=1'-0"

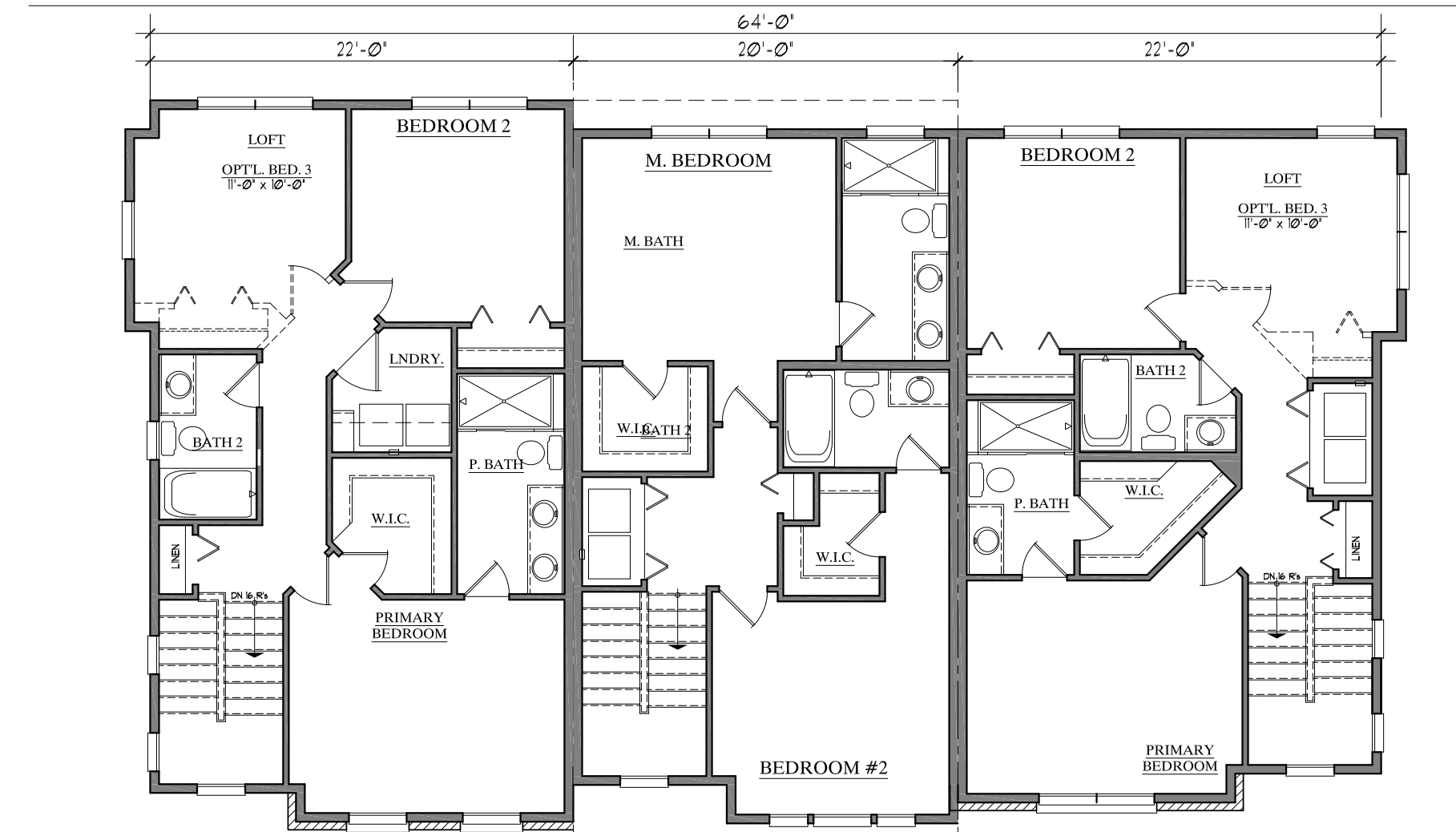


REAR ELEVATION ~ 4 UNIT

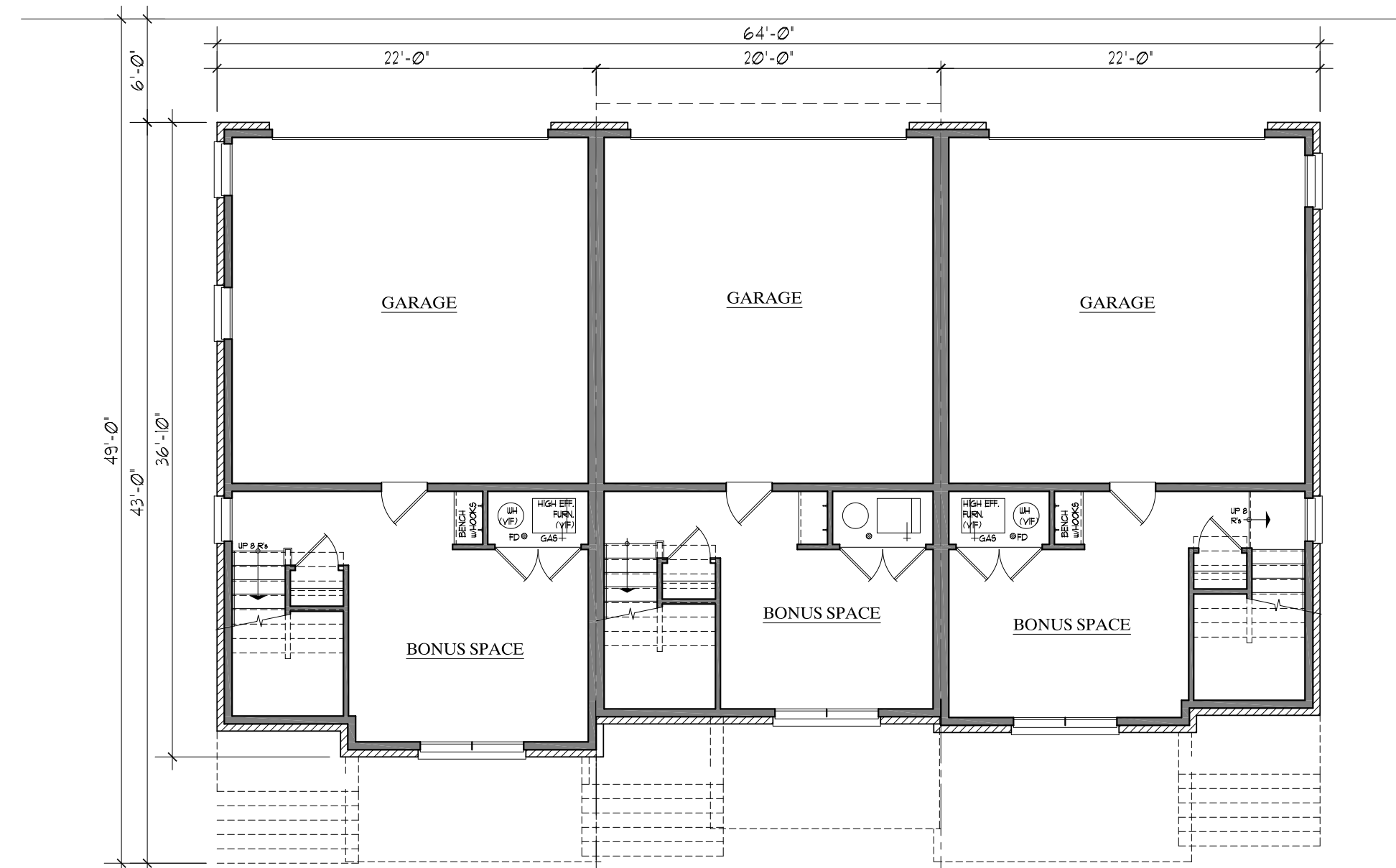
SCALE: 1/4"=1'-0"



1800 1600 1700
FIRST FLOOR CONTROL PLAN ~ 3 UNIT
 SCALE: 1/8"=1'-0"



1800 1600 1700
SECOND FLOOR CONTROL PLAN ~ 3 UNIT
 SCALE: 1/8"=1'-0"



1800 1600 1700
LOWER LEVEL CONTROL PLAN ~ 3 UNIT
 SCALE: 1/8"=1'-0"



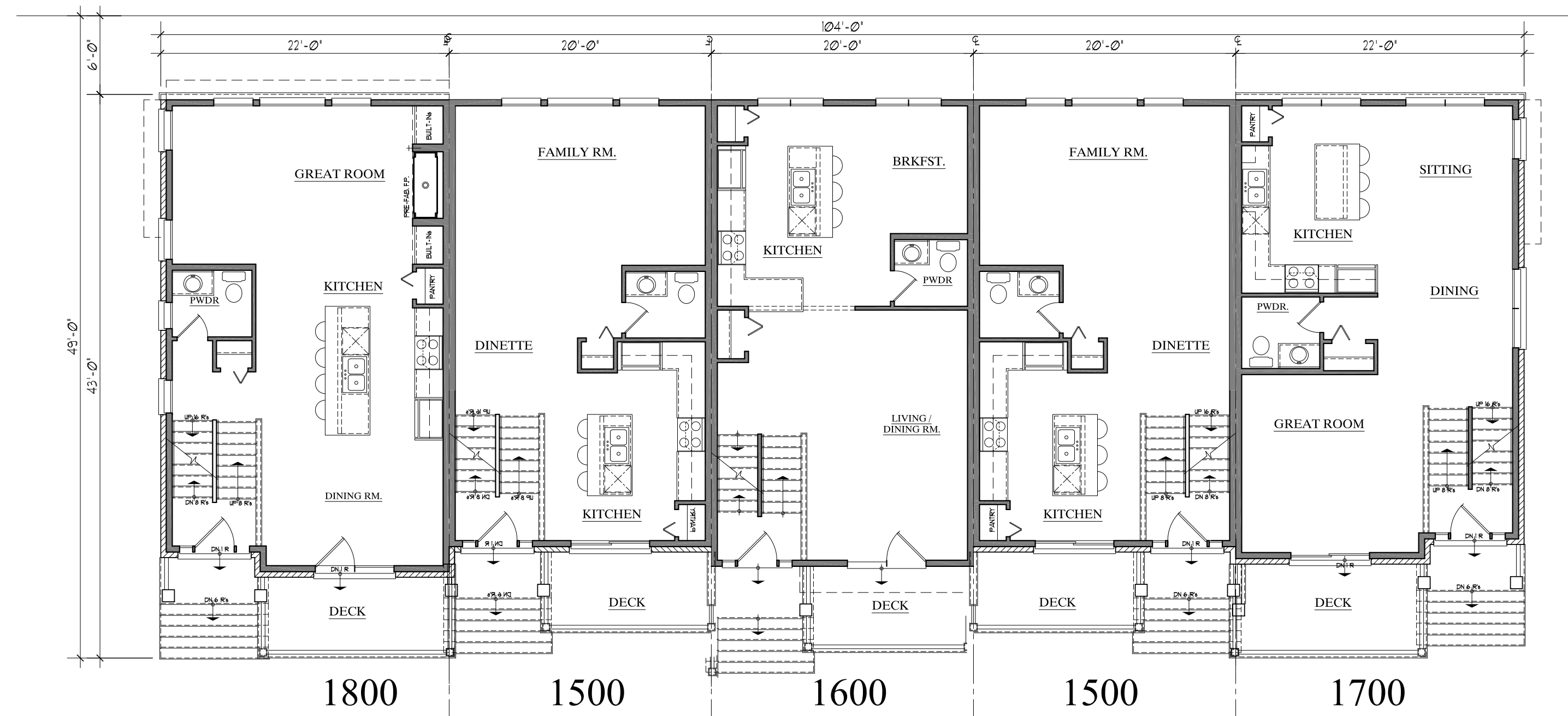
COURT ELEVATION ~ 3 UNIT

SCALE: 1/4"=1'-0"

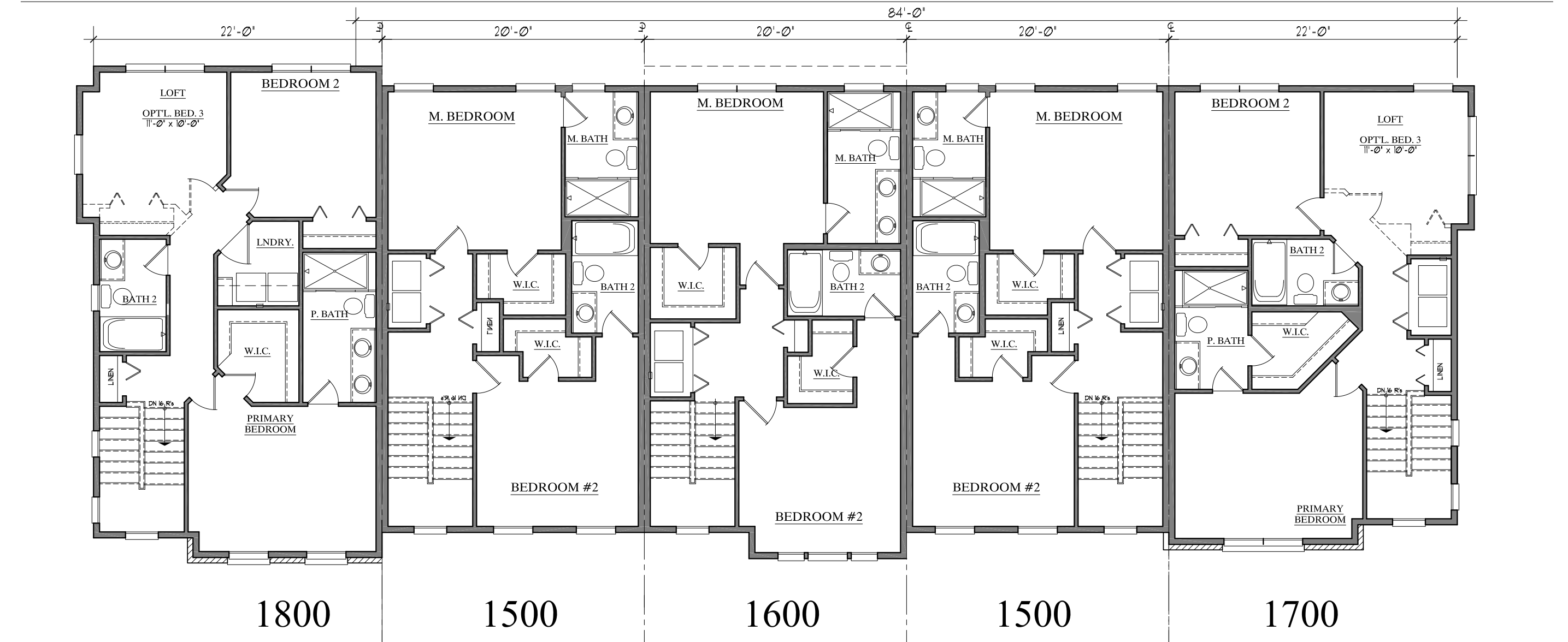


REAR ELEVATION ~ 3 UNIT

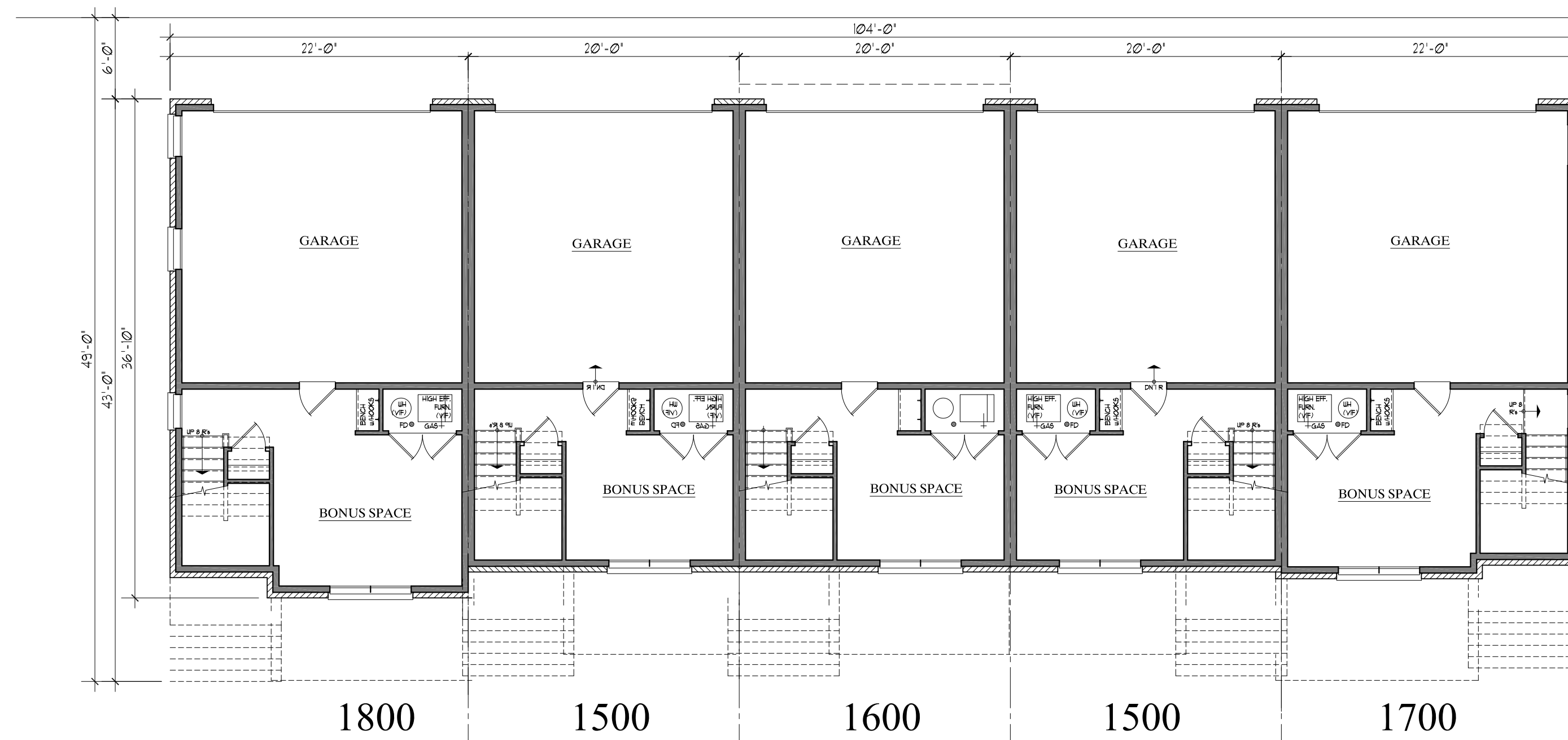
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FIRST FLOOR CONTROL PLAN ~ 5 UNIT
SCALE: 1/8"=1'-0"



SECOND FLOOR CONTROL PLAN ~ 5 UNIT
SCALE: 1/8"=1'-0"



LOWER LEVEL CONTROL PLAN ~ 5 UNIT
SCALE: 1/8"=1'-0"



1800

1500

1600

1500

1700

COURT ELEVATION ~ 5 UNIT

SCALE: 1/4" = 1'-0"

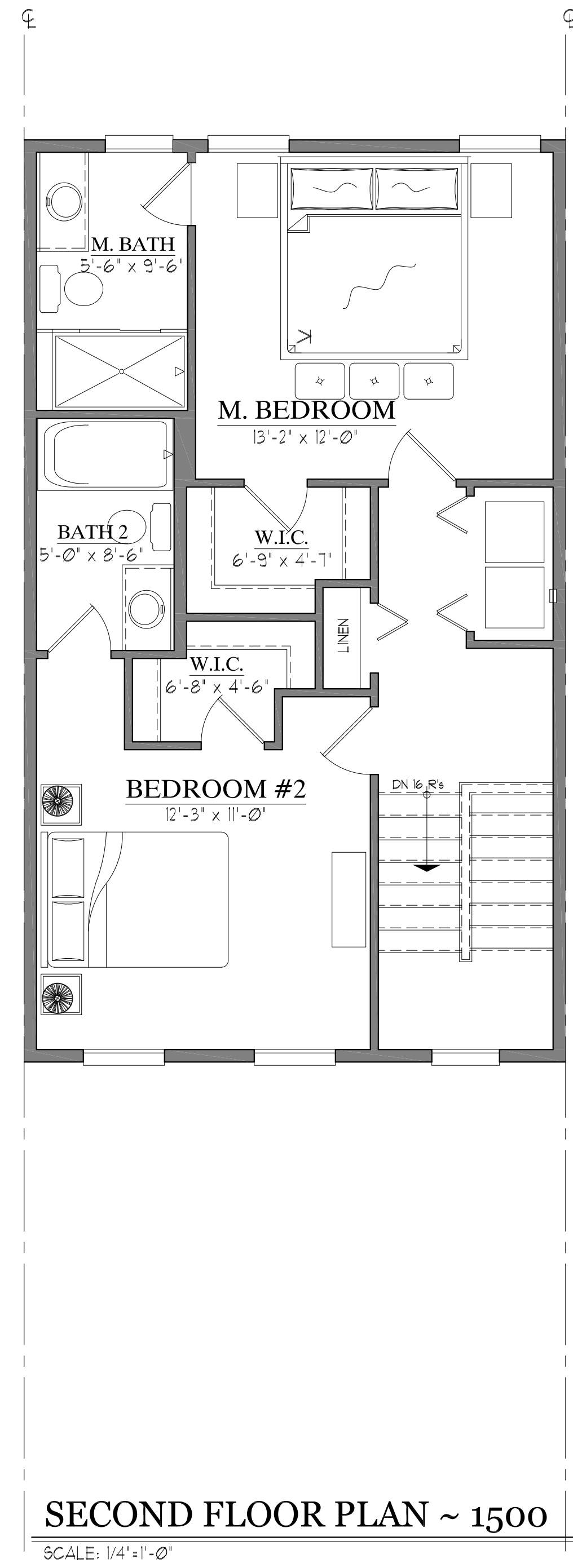
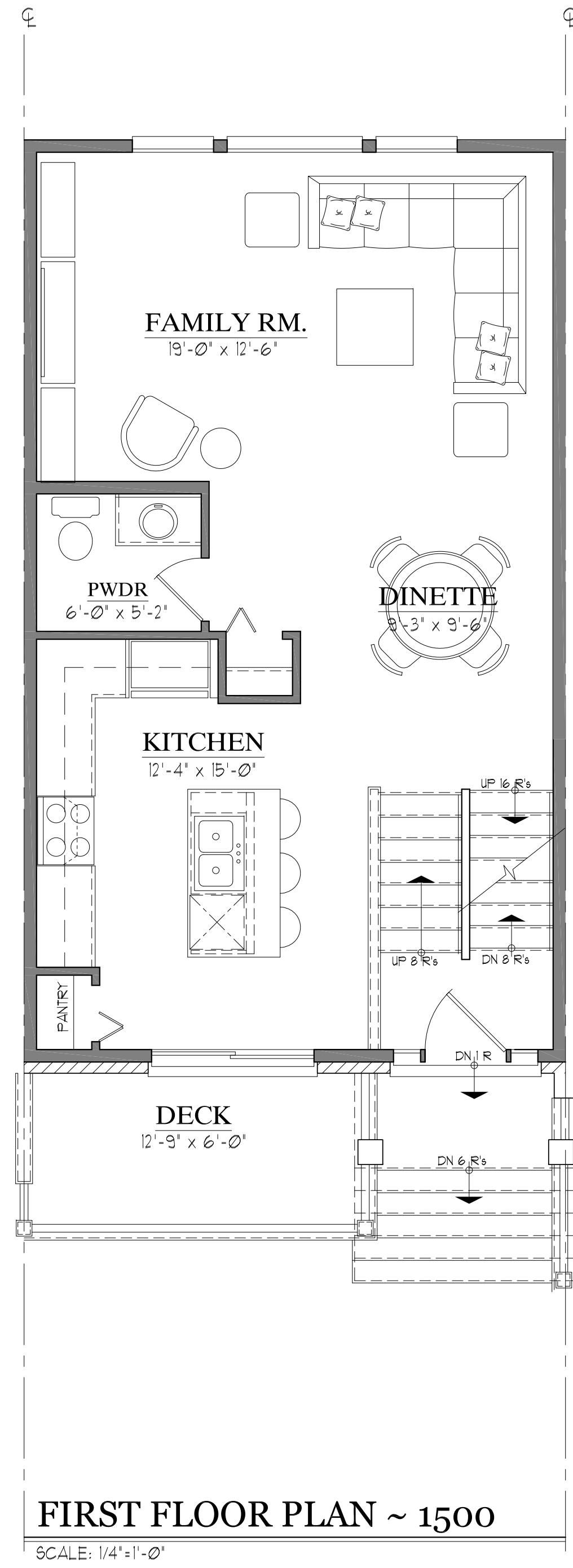
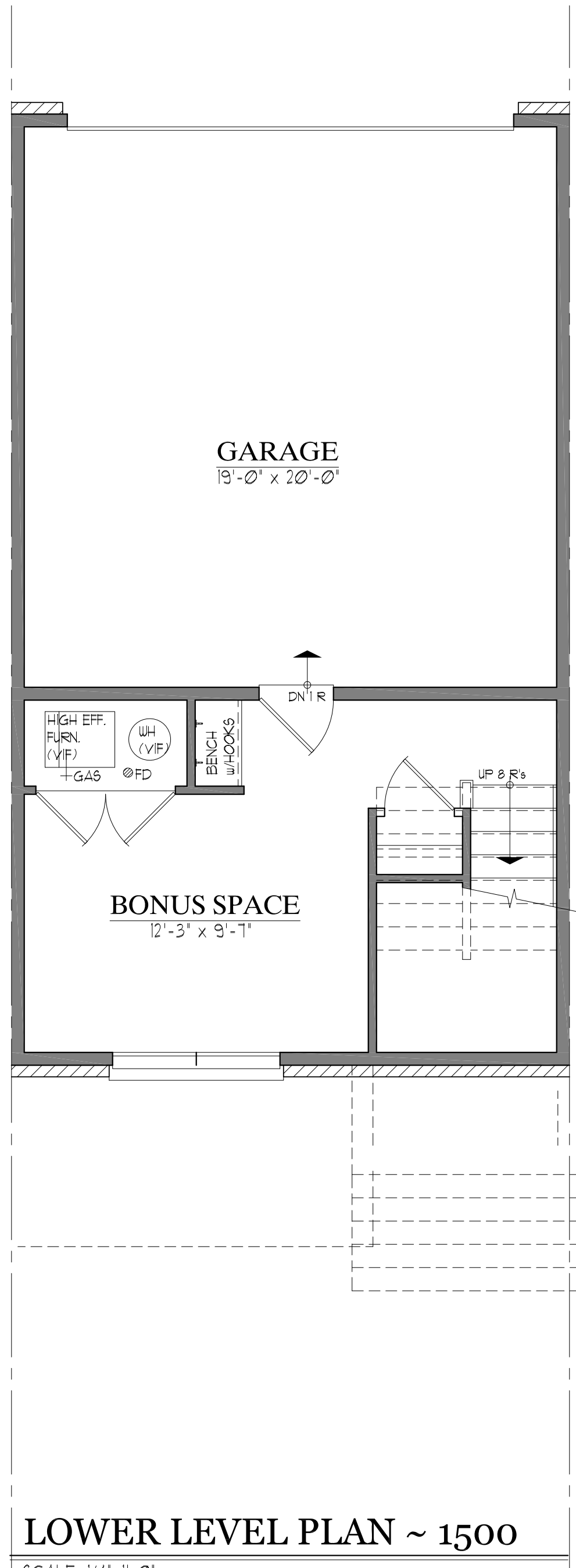


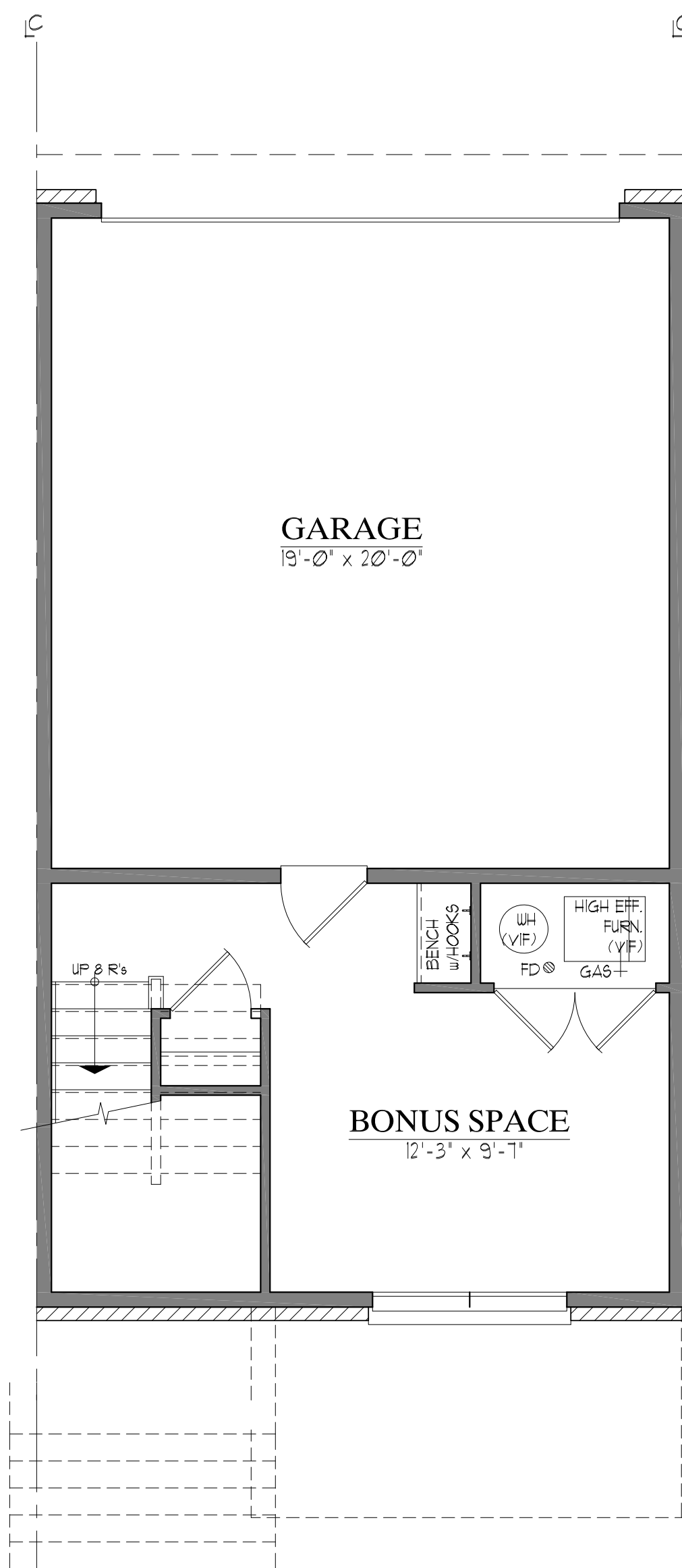
REAR ELEVATION ~ 5 UNIT

SCALE: 1/4"=1'-0"

WEST POINT AT HARMONY SQUARE

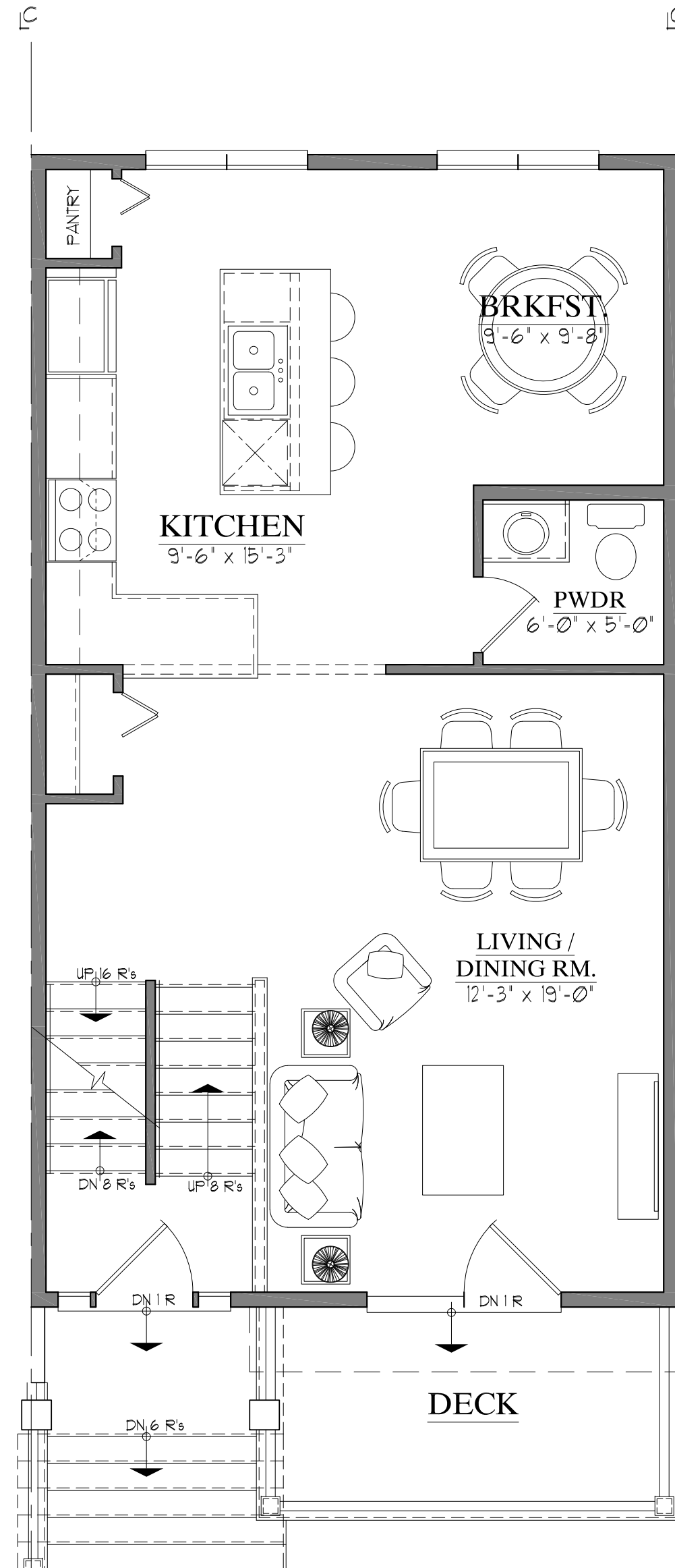
TOWNHOMES
07.27.23





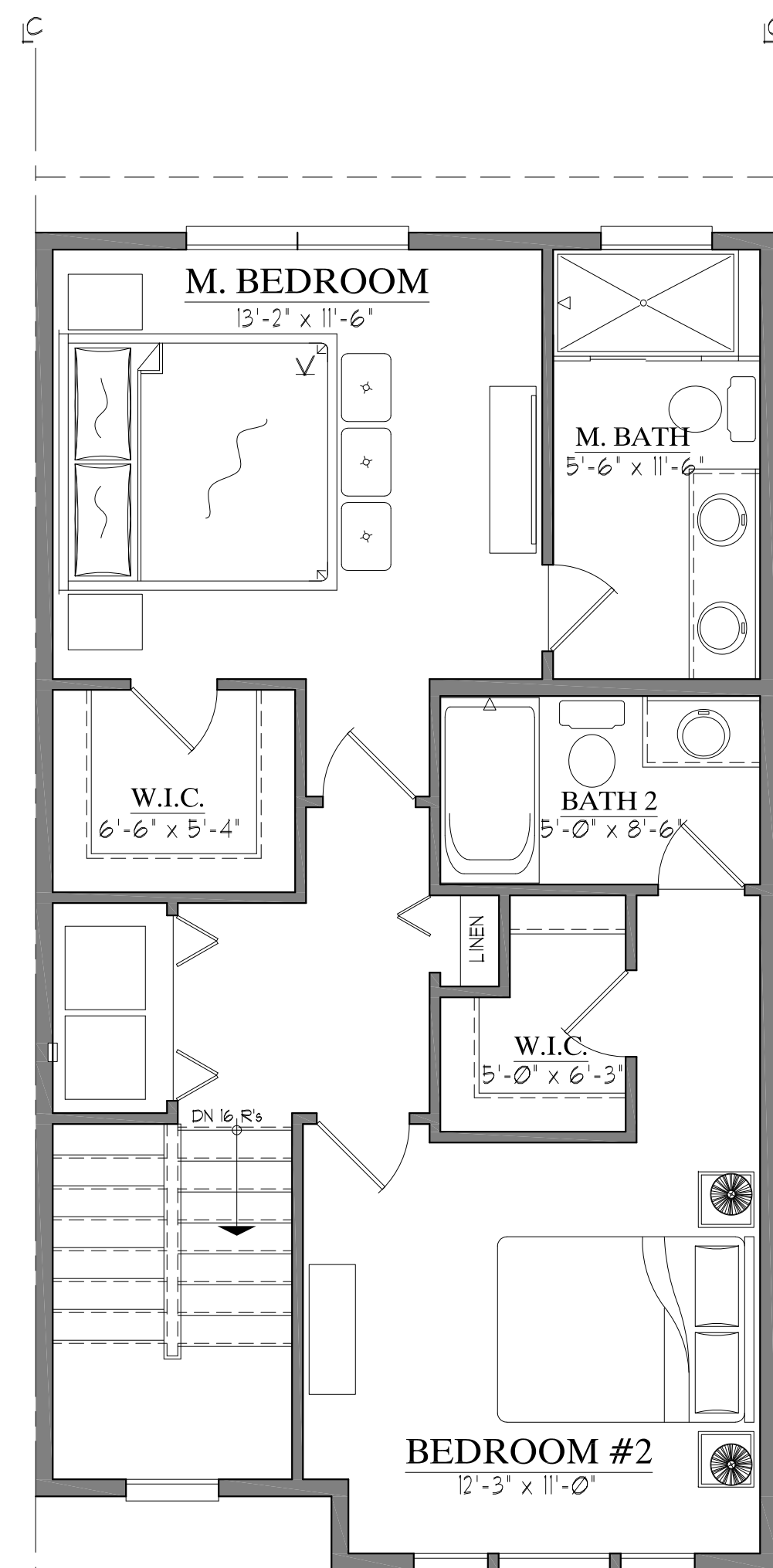
LOWER LEVEL PLAN ~ 1600

SCALE: 1/4"=1'-0"



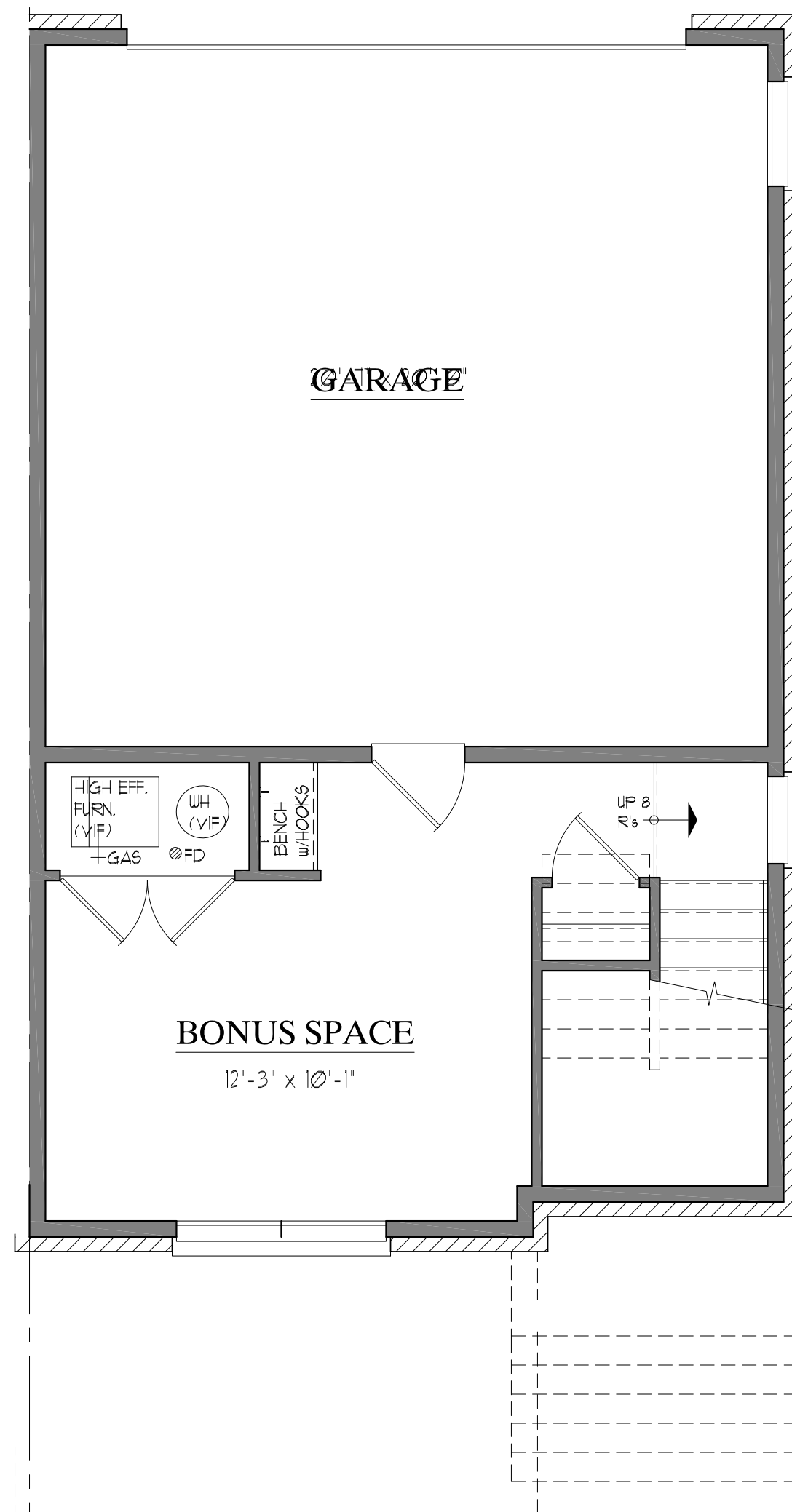
FIRST FLOOR PLAN ~ 1600

SCALE: 1/4"=1'-0"



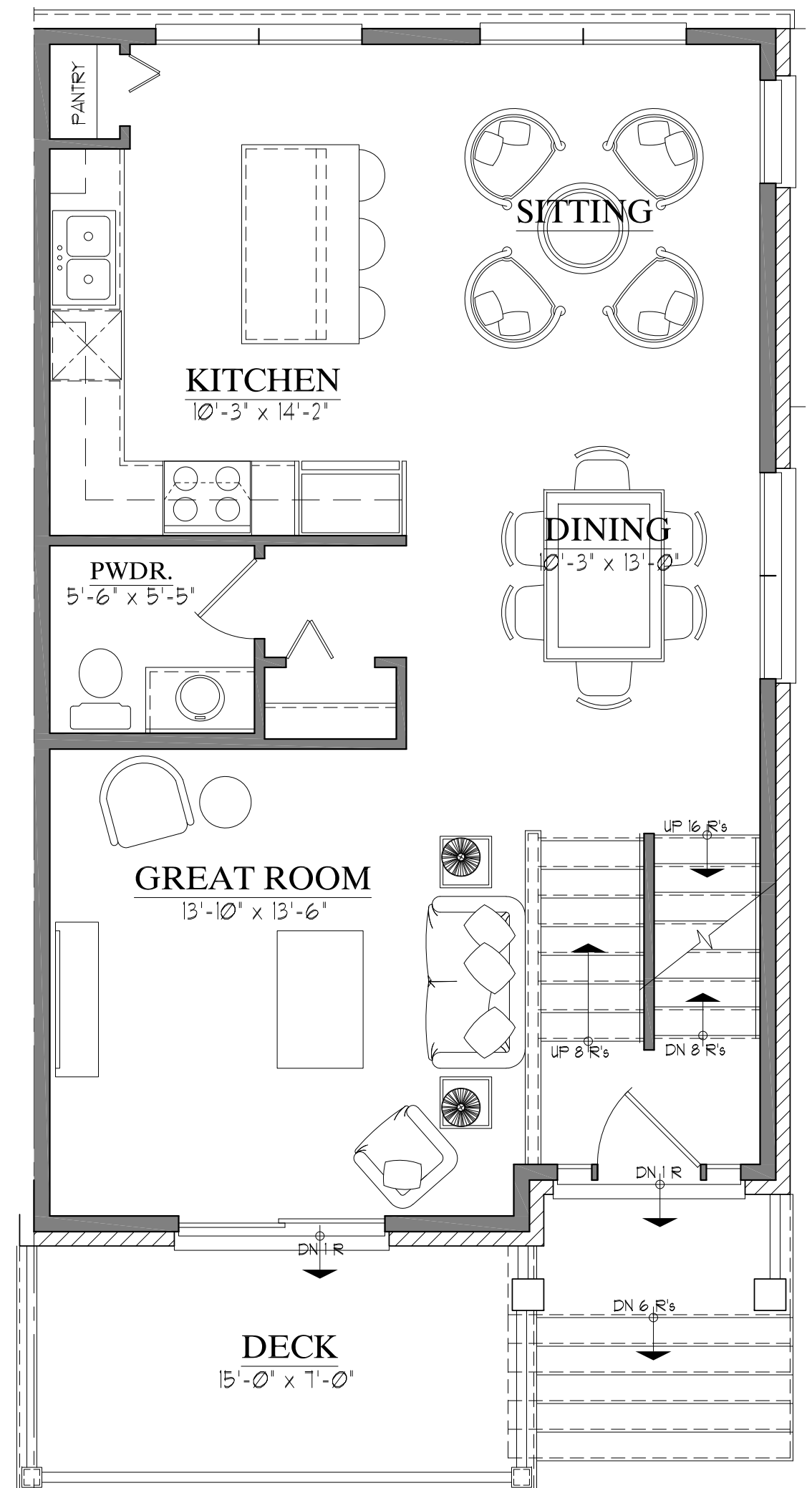
SECOND FLOOR PLAN ~ 1600

SCALE: 1/4"=1'-0"



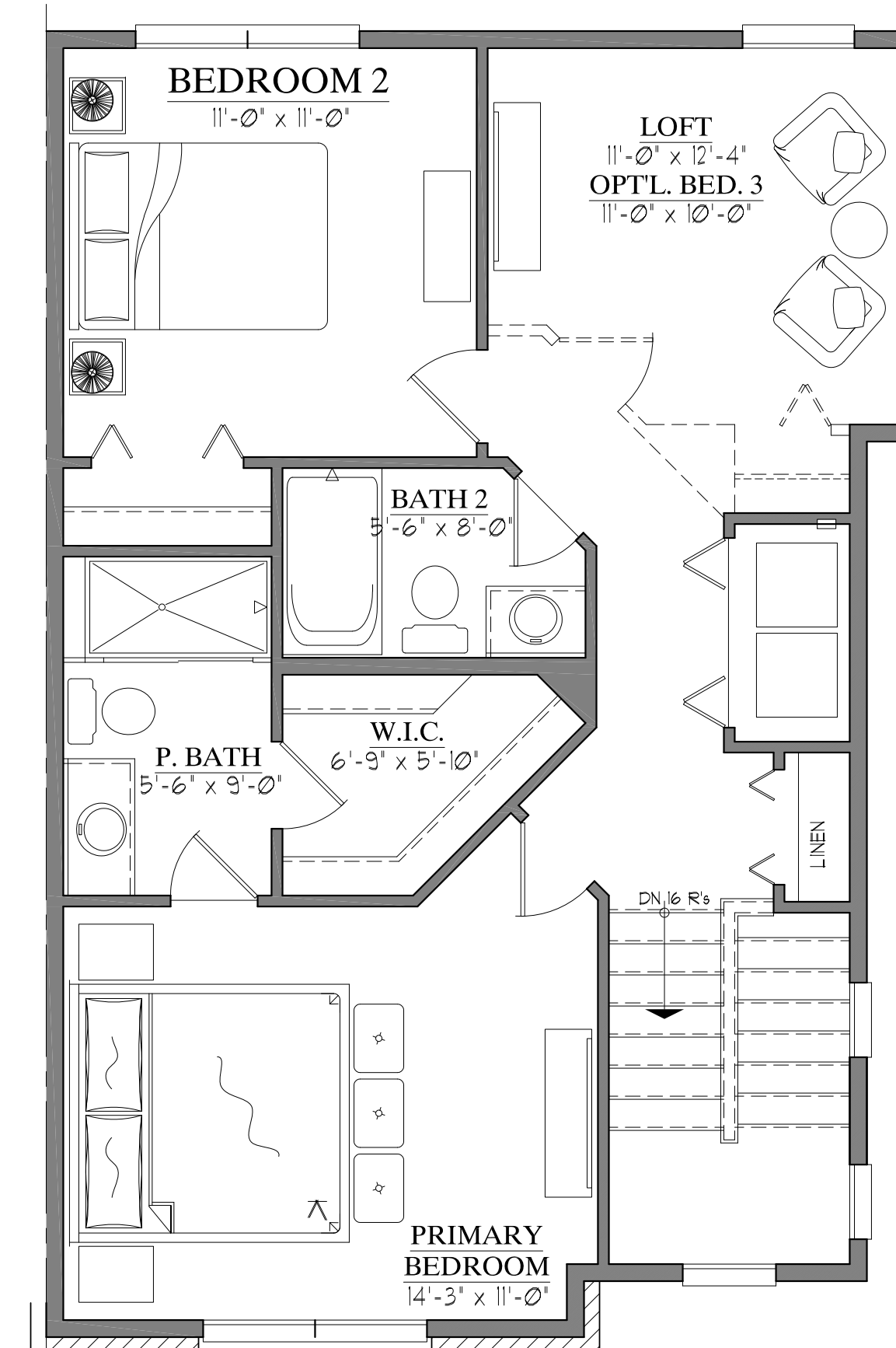
LOWER LEVEL PLAN ~ 1700

SCALE: 1/4"=1'-0"



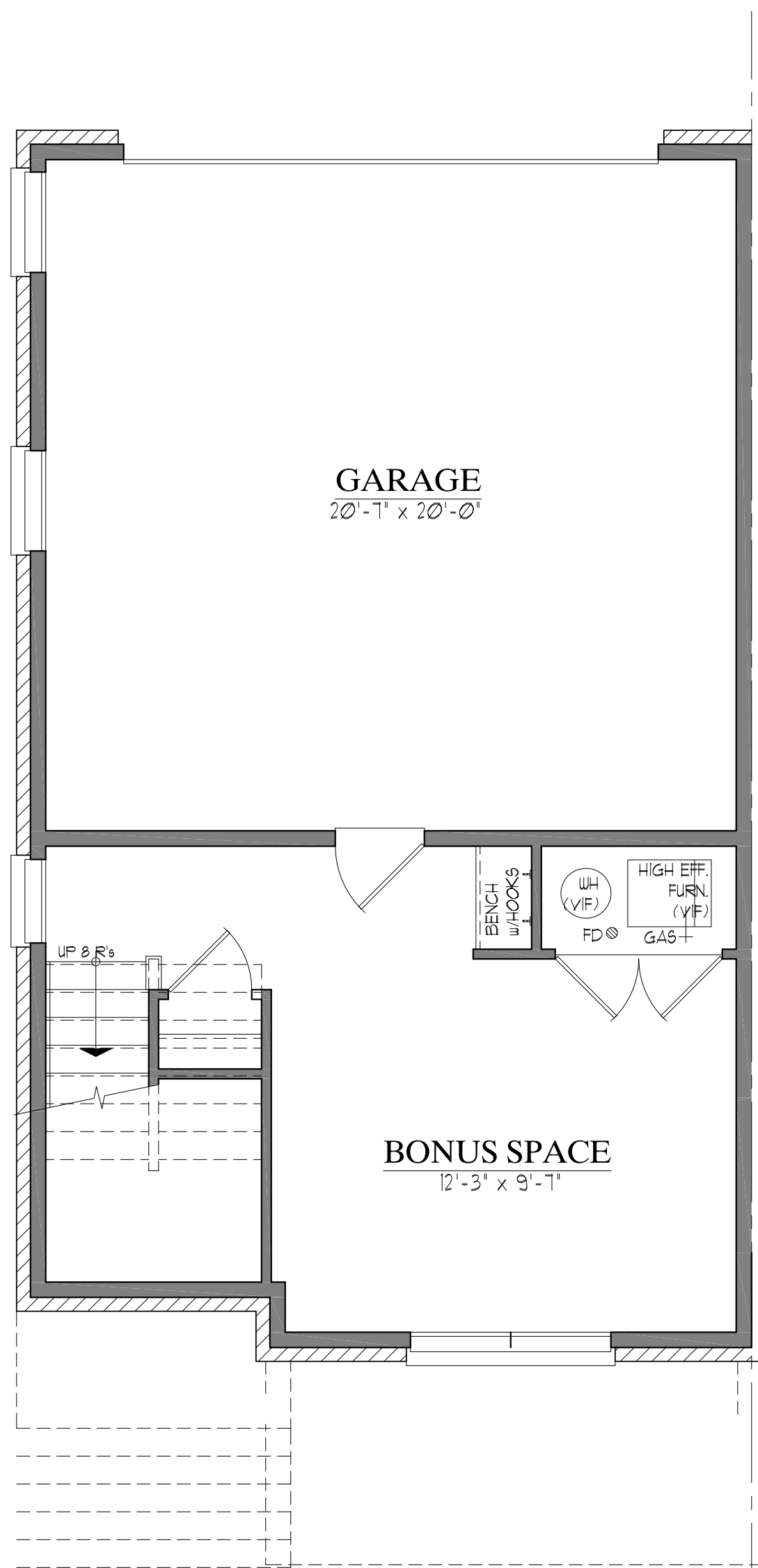
FIRST FLOOR PLAN ~ 1700

SCALE: 1/4"=1'-0"



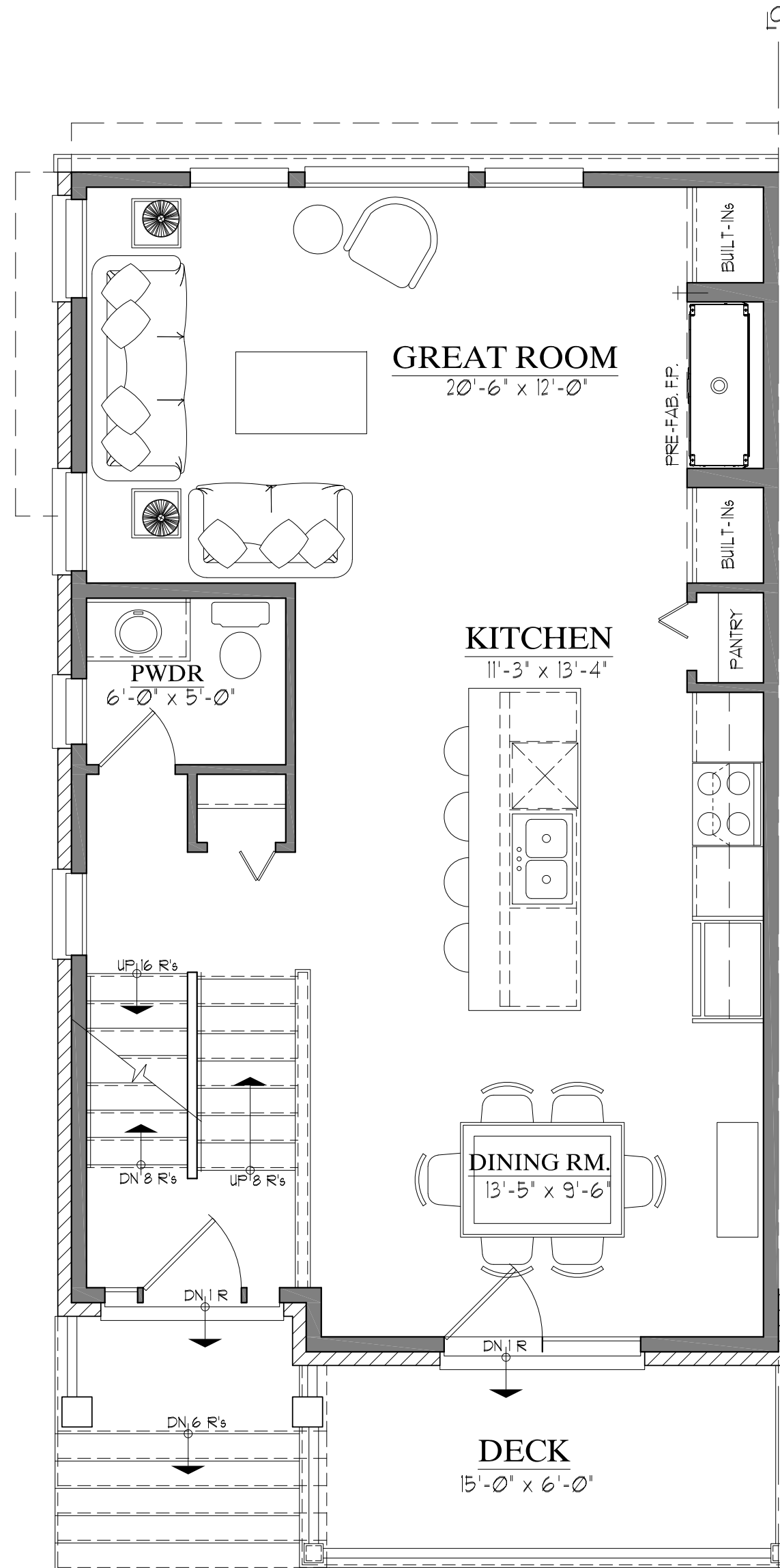
SECOND FLOOR PLAN ~ 1700

SCALE: 1/4"=1'-0"



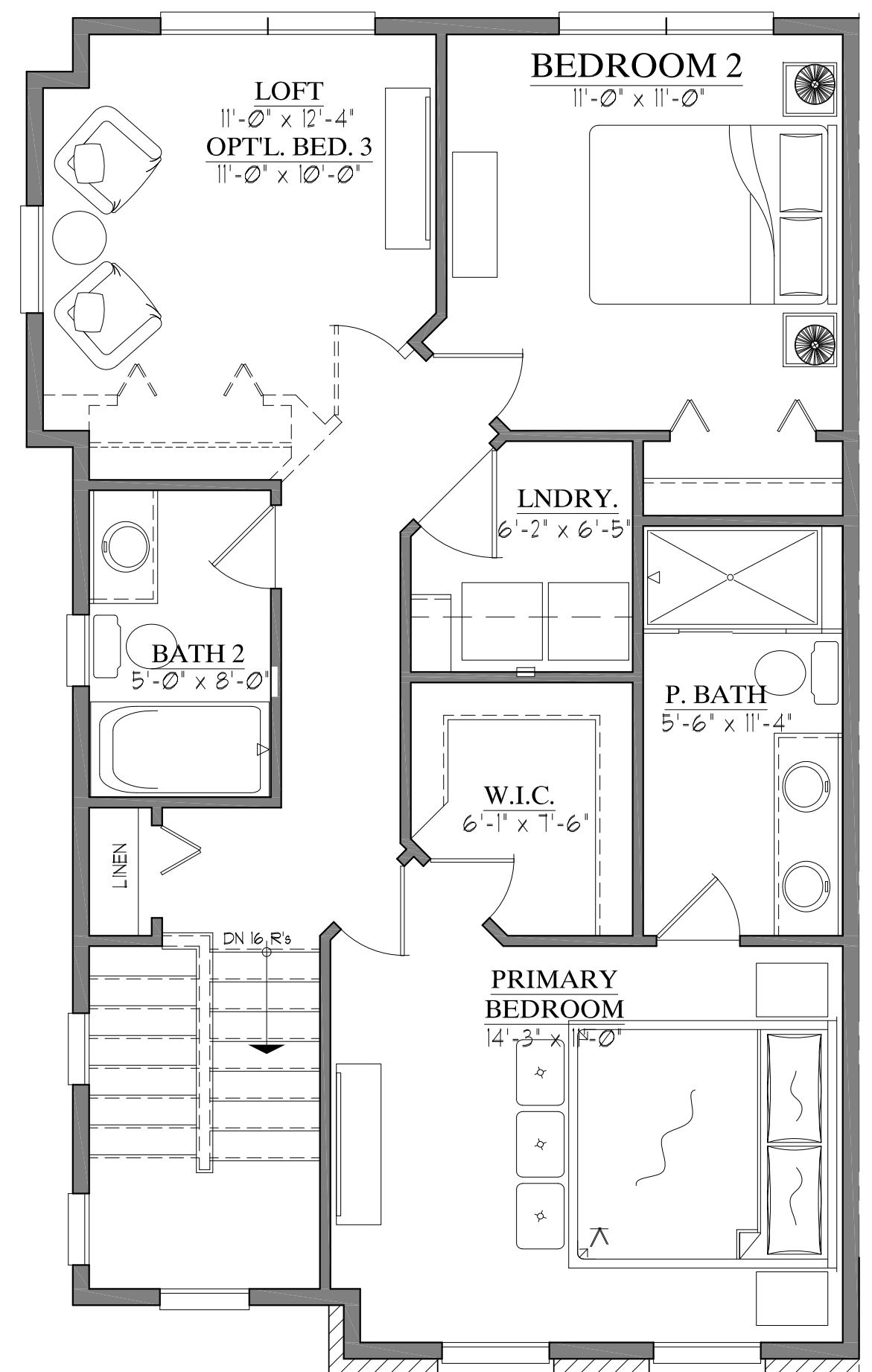
LOWER LEVEL PLAN ~ 1800

SCALE: 1/4"=1'-0"



FIRST FLOOR PLAN ~ 1800

SCALE: 1/4"=1'-0"



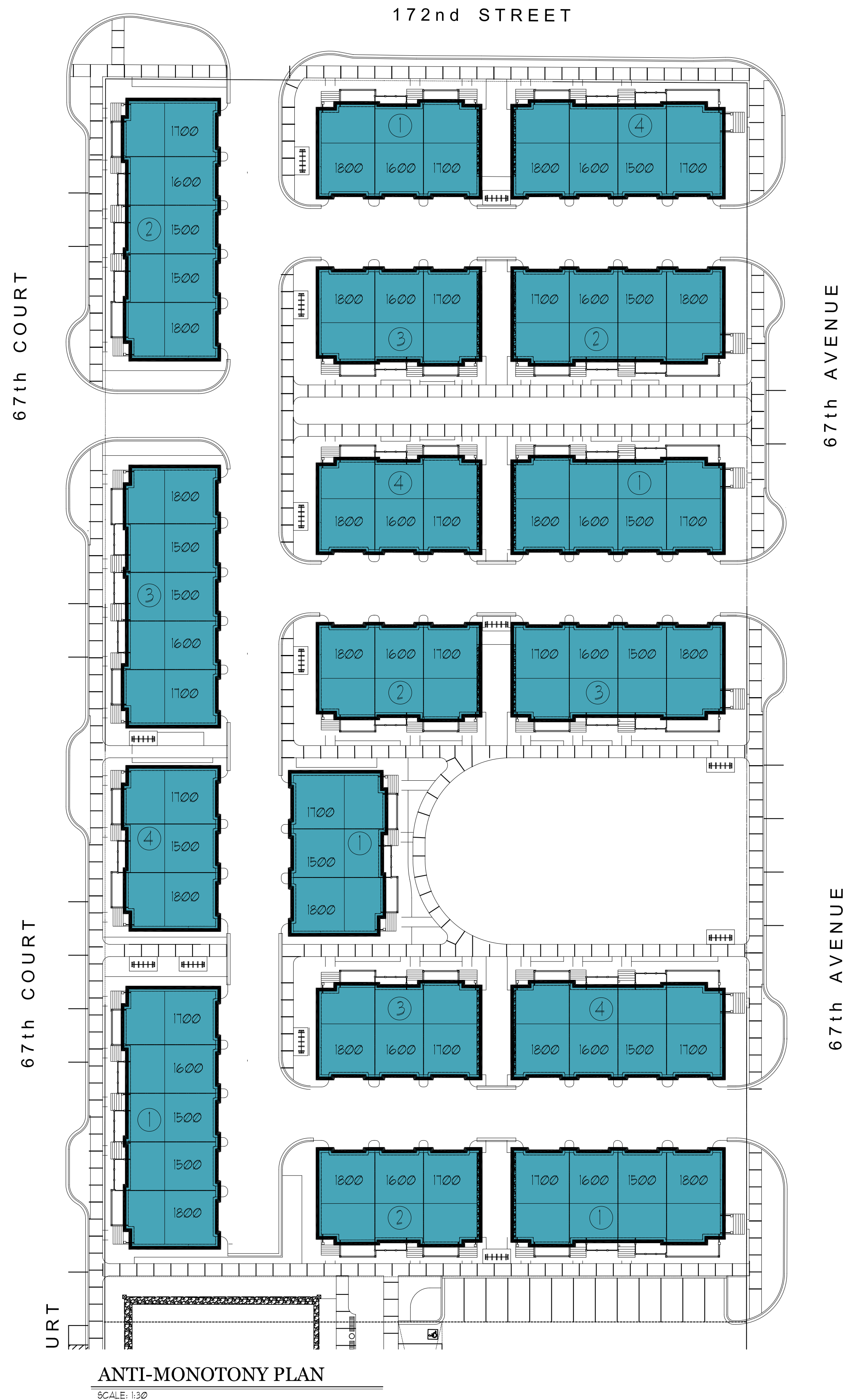
SECOND FLOOR PLAN ~ 1800

SCALE: 1/4"=1'-0"

WEST POINT AT HARMONY SQUARE

TOWNHOMES

07.27.23



| UNIT MIX | |
|----------|------------|
| UNITS | # OF UNITS |
| 1800 | 17 |
| 1700 | 17 |
| 1600 | 14 |
| 1500 | 14 |

| COLOR PACKAGE | |
|---------------|----------------|
| COLORS | # OF BUILDINGS |
| 1 | 5 |
| 2 | 4 |
| 3 | 4 |
| 4 | 4 |

PLAT OF VACATION

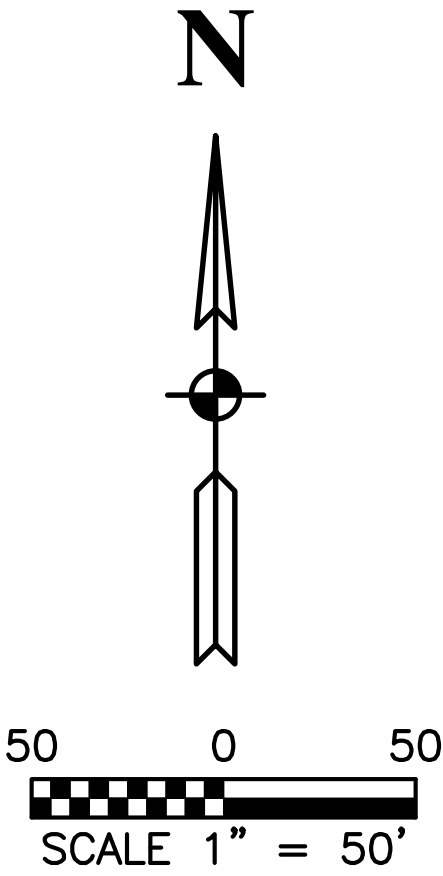
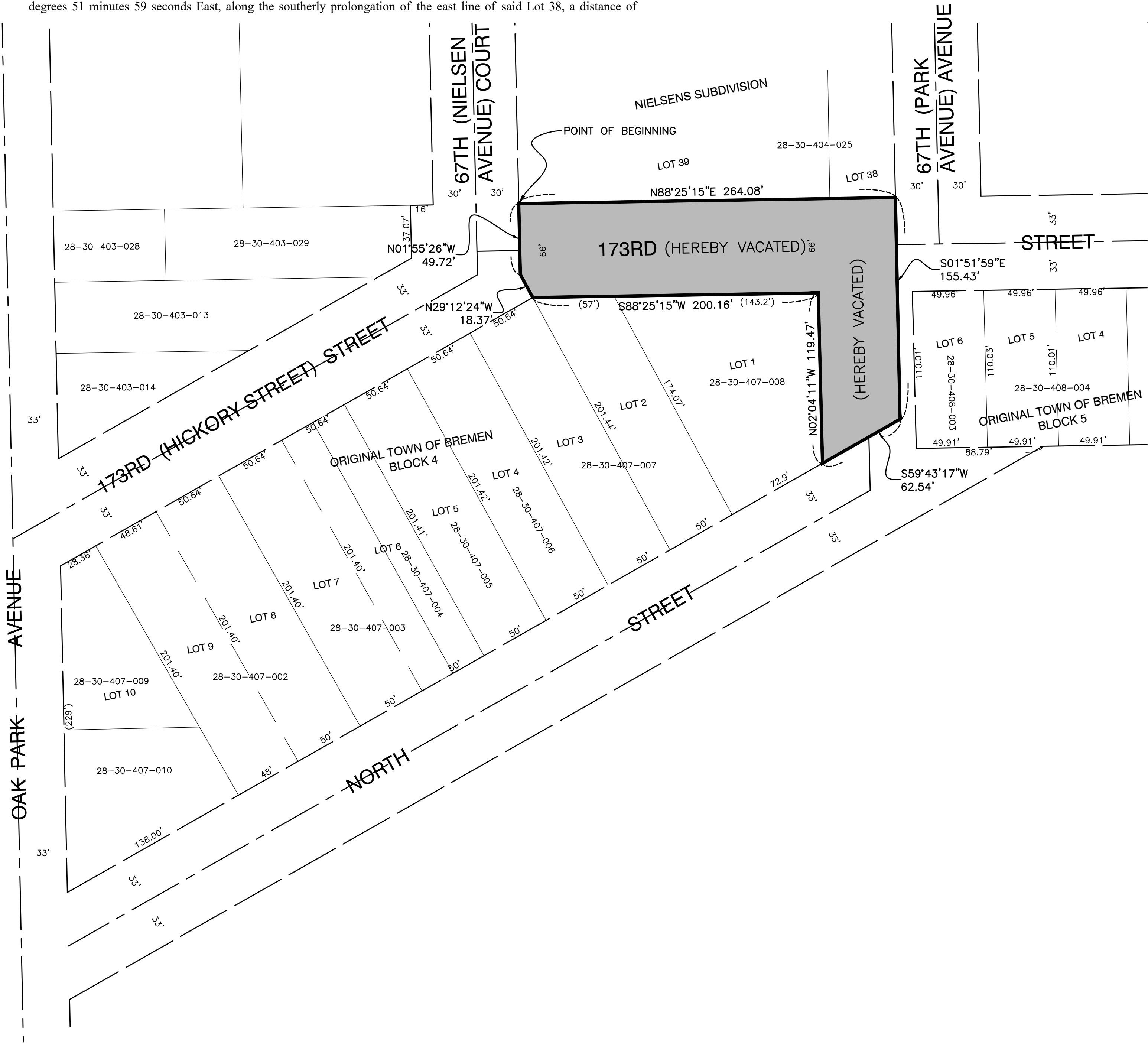
Of:

That part of Hickory Street (commonly known as 173rd Street) along with that part of North Street heretofore dedicated in the Original Village of Bremen (being a subdivision in the Southeast Quarter of Section 30 and in the Northeast Quarter of Section 31, all in Township 36 North, Range 13 East of the Third Principal Meridian, Cook County, Illinois, as per plat thereof recorded June 9, 1853 as document number 42671 in Book of Maps 49 Page 70) described as follows:

Beginning at the southwest corner of Lot 39 in Nielsen's Subdivision (being a subdivision of Block 2 in Original Village of Bremen (except the south 200 feet of the west 266 feet thereof) in the Southeast Quarter of Section 30, Township 36 North, Range 13 East of the Third Principal Meridian, Cook County, Illinois, as per plat thereof recorded October 16, 1894 as document number 2118155; thence North 88 degrees 25 minutes 15 seconds East (bearings as referenced to the Illinois State Plane Eastern Zone Coordinate System (NAD '83 (2011)), along the south line of said Lot 39 and the south line of Lot 38 in said Nielsen's Subdivision, to the east line of said Lot 38; thence South 01 degrees 51 minutes 59 seconds East, along the southerly prolongation of the east line of said Lot 38, a distance of

155.43 feet, to the northeasterly prolongation of the southeasterly line of Lot 1 in Block 4 of said Original Village of Bremen; thence South 59 degrees 43 minutes 17 seconds West, along said northeasterly prolongation, 62.54 feet, to the east line of Lot 1 in Block 4 of said Original Village of Bremen; thence North 02 degrees 04 minutes 11 seconds West, along said east line, 119.47 feet, to the north line of Lot 1 in Block 4 of said Original Village of Bremen; thence South 88 degrees 25 minutes 15 seconds West, along said north line and the north line of Lot 2 in Block 4 of said Original Village of Bremen, 200.16 feet, to the southwest line of said Lot 2; thence North 29 degrees 12 minutes 24 seconds West, along the northwesterly prolongation of the southwest line of Lot 2 in Block 4 of said Original Village of Bremen, 18.37 feet, to the southerly prolongation of the west line of Lot 39 in said Nielsen's Subdivision; thence North 01 degrees 55 minutes 26 seconds West, along said southerly prolongation, 49.72 feet, to the Point of Beginning.

Containing 0.531 acres or 23129 square feet, more or less



Ordinance No. _____ adopted the _____ day of 20 _____

Approved by the President and Board of Trustees of the VILLAGE OF TINLEY PARK, ILLINOIS at a meeting

held this _____ day of _____ 20_____

By: _____ Village President Attest: _____ Village Clerk

I hereby certify that I find no deferred installments of outstanding unpaid special assessments due against the property described hereon.

By: _____ Village Clerk

The hereon described vacation is subject to utility and access easements of record over and across the property described hereon.

The Village of Tinley Park, Illinois reserves unto itself as a corporate municipality and to any public utility, their successors or assigns, the right to maintain and relocate their respective facilities in, under, across and along those parts of the public streets as herein vacated, with the right of access thereto at any and all times for any and all such purposes as may be reasonably required for the efficient operation of said facilities.

State of Illinois }
County of Cook } SS

I, Randell E. Gann, an Illinois Professional Land Surveyor, do hereby state that I have prepared the hereon drawn plat for the purpose of vacating public streets in the manner shown hereon. I hereby designate the Village of Tinley Park, Illinois to record this Plat of Vacation.

South Holland, Illinois June 7, 2023

Randell E. Gann
Certificate No. 035-03241 / Expires November 30, 2024



Do not fold original plat.

Upon recordation of this document,
return signed original or copy thereof
to the following:

Robinson Engineering, Ltd.
17000 South Park Avenue
South Holland, Illinois
(708) 331-6700

Attention: Survey Department

DISCLAIMER:

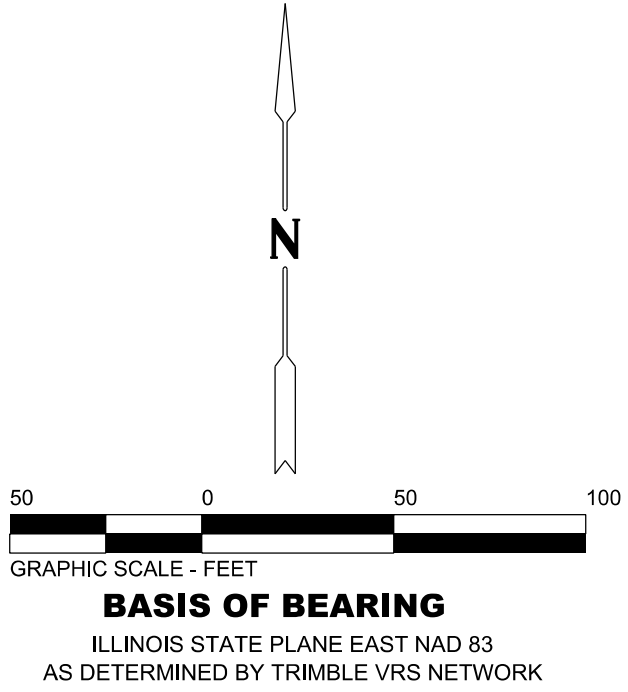
Robinson Engineering, Ltd., and its employees do not warrant or guarantee the accuracy of the information relative to the ownership of the property covered by this instrument.

A thorough search of the title should be made prior to any reliance on the ownership indicated herein. Use of this instrument as evidence of title is done at the user's risk.

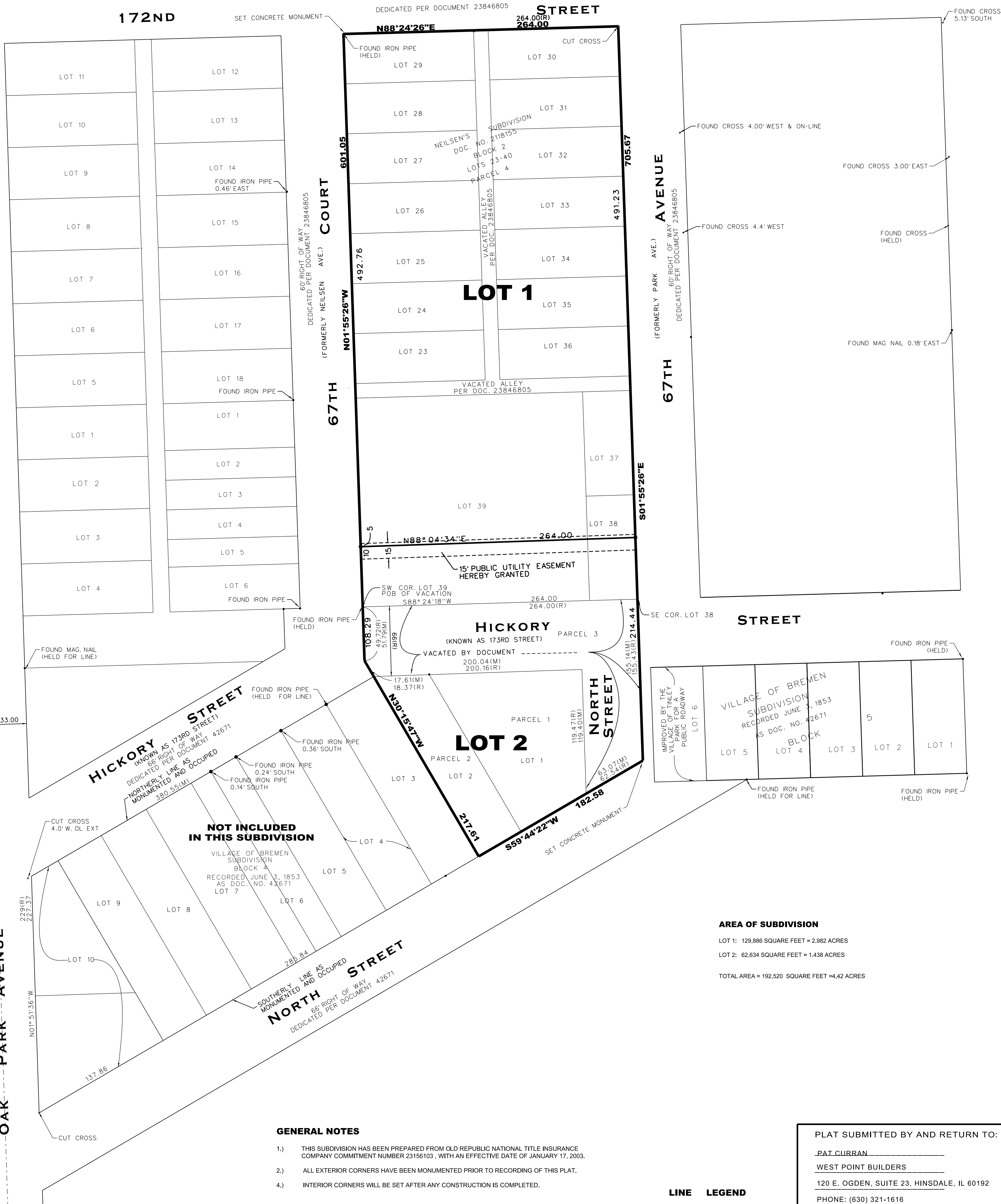
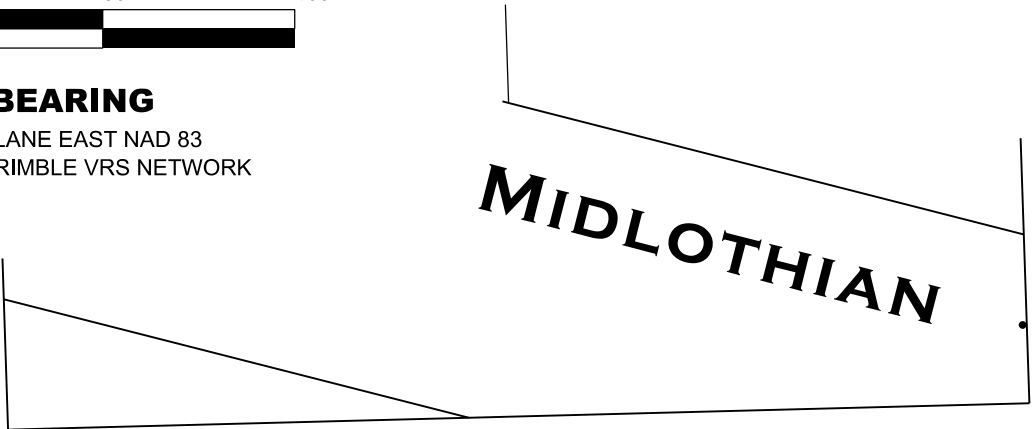
| ROBINSON ENGINEERING, LTD. | | |
|---|-------------------------|--|
| CONSULTING REGISTERED PROFESSIONAL ENGINEERS AND PROFESSIONAL LAND SURVEYORS | | |
| 17000 SOUTH PARK AVENUE SOUTH HOLLAND, ILLINOIS 60473 (708) 331-6700 © COPYRIGHT 2018 FAX (708) 331-3826 | | |
| ILLINOIS DESIGN FIRM REGISTRATION NO. 184001128. | | |
| FOR: VILLAGE OF TINLEY PARK 16250 SOUTH OAK PARK AVENUE TINLEY PARK, ILLINOIS 60477 | | |
| Drawn by: KM | Date: 9-6-18 | |
| Checked by: REG | Scale: 1"=50' | |
| Sheet 1 of 1 | Project No. 18-R0616.01 | |

| REVISIONS | | |
|-----------|------------|------------------------------------|
| No. | Date | Remarks |
| 1 | 06/07/2023 | Revision of dates for certificates |
| | | |
| | | |
| | | |
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| | | |

BEING A SUBDIVISION IN THE WEST HALF OF THE SOUTHEAST 1/4 OF SECTION 30,
TOWNSHIP 36 NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK
COUNTY, ILLINOIS.



P.I.N.
28-30-404-025
28-30-407-006 (PART OF)
28-30-407-007
28-30-407-008



PLAT SUBMITTED BY AND RETURN TO:

PAT CURRAN

WEST POINT BUILDERS

120 E. OGDEN, SUITE 23, HINSDALE, IL 60192

PHONE: (630) 321-1616

AFTER RECORDING SUBMIT TAX BILL TO:

| LINE | LEGEND |
|-----------|-----------------|
| — | = BOUNDARY LINE |
| --- | = LOT LINE |
| - - - - | = EASEMENT LINE |
| - . - . - | = SECTION LINE |

| Rev | Date | Description | By | PLAT OF SUBDIVISION | | | |
|---|---------|----------------------------|-----|---|-------------------|----------|-----------|
| 1 | 7-18-23 | REVISED PER VILLAGE REVIEW | JCV | LOCATION: 6712 NORTH STREET TINLEY PARK, ILLINOIS 60477 | | | |
| 2 | 8-16-23 | REVISED PER REVIEW | JCV | PREPARED FOR: WEST POINT BUILDERS 120 E. OGDEN, SUITE 23 HINSDALE, IL 60192 | | | |
| WEBSTER, McGRATH & AHLBERG LTD. | | | | JOB #: | 44741 | DATE: | 6-15-2023 |
| LAND SURVEYING - CIVIL ENGINEERING - LANDSCAPE ARCHITECTURE | | | | SCALE: | 1"=50' | DRAWN: | JCV |
| 2100 Manchester Road, Building A, Suite 203 Whitton, Illinois 60187 ph: (630) 958-7603 web: www.wmaahld.com Design Firm License No. 184-003101 | | | | SURV: | JCV | DESIGN: | XXX |
| | | | | FILE #: | COOK CO. 30-36-13 | SHEET #: | 1 of 2 |

I. Lighting

1. Intent

The intent of these lighting standards is to increase safety and provide clear views both to and within a site while preventing unnecessary light pollution and promoting pedestrian-scaled fixtures.

2. Applicability

The lighting standards herein shall apply to all districts and developments within the Legacy Code Area.

3. Location

Figure 3.I.1 and Table 3.I.1 show the permitted location on the lot of light sources based upon the height and style of the fixture. Minimum and maximum lighting standards shall be determined by the Village as based upon a submitted photometric plan. The following standards also apply to each of the lighting zones identified:

a. Alley Lighting Zone:

All lots with alleys shall have lighting fixtures within 7 feet of the alley's edge of pavement. When a structure in the lot is within 7 feet of the alley's edge, the lighting fixture shall be attached to the structure and not to a freestanding pole.

b. Parking Lot Lighting Zone:

All lots with surface parking facilities shall have free standing lighting fixtures located no closer than 3 feet to any property line or alley. When a parking lot abuts a structure in the lot, the lighting fixture shall be attached to the structure and not to a freestanding pole.

c. Public Frontage Lighting Zone:

Pedestrian street lights must be placed 2 feet from the back of curb on each side of the street with a maximum average spacing (per block face) of 60 feet on center.

d. Building Lighting Zone:

Exterior lights shall be mounted between 6 feet and 14 feet above adjacent grade.

4. Lighting Elements

Lighting elements shall be compact fluorescent, metal halide, LED, or halogen only.

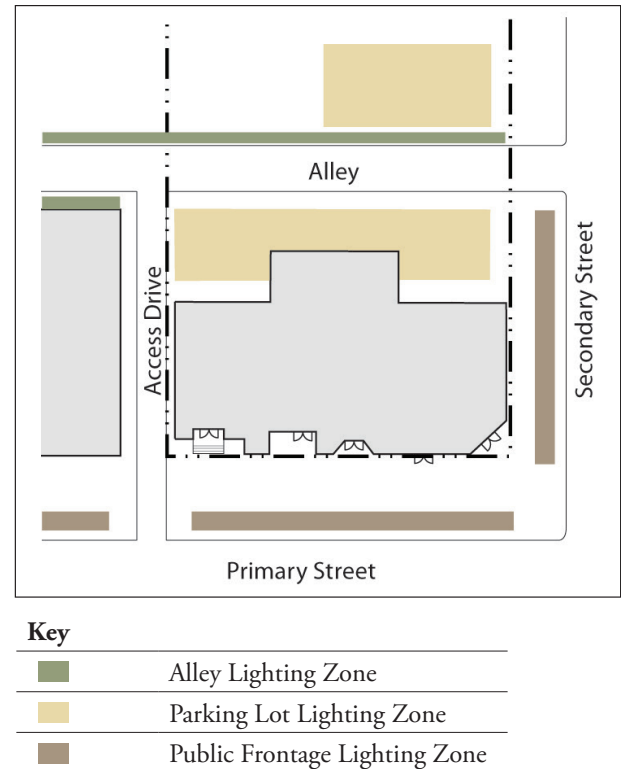


Figure 3.I.1

5. Glare

Fixtures where light is visible to the public in a clear or frosted lamp shall be equipped with refractors to direct light downward and prevent glare.

6. Spillage

All fixtures shall include refractors to direct light away from property lines. The maximum allowable footcandles at any property line shall be 0.5 footcandles, unless it can be demonstrated to the satisfaction of the Village that:

- a. Additional illumination is required for security, outdoor dining, or other use.
- b. Such illumination can be provided without negative impacts on adjacent properties.

7. Standards

The Village shall keep on file, and provide to property owners, the specifications for all lighting fixtures and components located on public property and/or maintained by the Village.






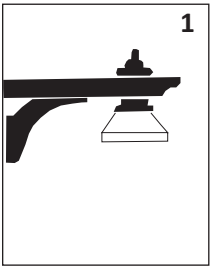
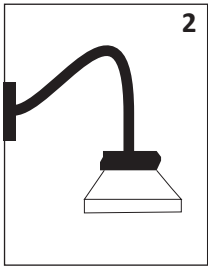

| Light Type | Permitted Location | | | | Standards |
|---|--|--|-----------------|----------|--|
| | Alley | Parking Lot | Public Frontage | Building | |
|  Cobra Head | ● | | | | Height: 20' max. Color: No restrictions |
|  Pipe | ● | ● | | | Height: 20' max. Color: Black or copper |
|  Post | | ● | | | Height: 15' max. Color: Black or copper |
|  Column | | ● | ● | | Height: 12' max. Color: Black or copper |
|  Bollard | | ● | | | Height: 4' max. Color: no restrictions |
| Building Mounted Examples | | | | ● | 1. Structure mounted alley or parking lot light. 2. Commercial Structure mounted accent light. 3. Residential Structure mounted accent light |
|  1 |  2 |  3 | | | |

Table 3.I.1

PROJECT INFORMATION:

| | |
|---------------------|---------------|
| PROJECT NAME: | FIXTURE TYPE: |
| COMPLETE CATALOG #: | DATE: |
| COMMENTS: | |



LumaLens
All Wattages, T5 Only



Open Frame
Full Cutoff, 80w



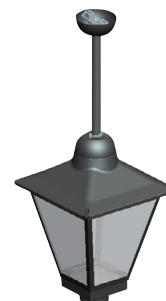
Open Frame
Full Cutoff, 19w



Open Frame
Full Cutoff, 36 & 53w



Wall Mount,
ENHRWS20Q



Pendant Mount,
ENHRP20Q

The Endeavor Stella Post Top Historic Series are available in Type I, II, III, IV or V distributions designed to replace HID lighting systems up to 250w MH or HPS. The fixture mounts to a pole top tenon. Typical area lighting applications include parking areas, walkways, and street lighting applications. Mounting heights of 12 to 30 feet can be used based on light level and uniformity requirements.

Specifications and Features:

Housing:
Die Cast Aluminum Housing, Integral Heat Sinking. Photocell Adaptable.

Listing & Ratings:
CSA: Listed for Wet Locations, ANSI/UL 1598, 8750; IP66 Sealed LED Engine.

Finish:
Black Powdercoat Finish Over a Chromate Conversion Coating. Custom Colors Available Upon Request.

Lens:
Clear UV-Stabilized Polycarbonate Vandal-Resistant Array Lens with Integral Optics or SoftLED LumaLens Opal UV-Stabilized Polycarbonate Vandal-Resistant Array Lens. Gasketed to Seal LED Array.

Mounting:
Post Top Accommodates "P3" 2 7/8" O.D. x 3" Tenon, Wall Mount Includes Cast Aluminum Arm (Wall Attachment Hardware NOT Included, Must be Selected and Provided By Contractor), and Pendant Mount Includes 15" Swivel Stem for Mounting on Flat or Sloped Ceilings.

EasyLED LED:
Aluminum Boards

Wattage:
19w Array: 19w, System: 20w; (35-50w HID Equivalent)
36w Array: 36w, System: 39w; (70-100w HID Equivalent)
53w Array: 53w, System: 58w; (100-150w HID Equivalent)
80w Array: 80w, System: 87w; (150-250w HID Equivalent)

Driver:
Electronic Driver, 120-277V, 50/60Hz or 347-480V 50/60Hz; Less Than 20% THD and PF>0.90. Standard Internal Surge Protection 6kV. 0-10V Dimming Standard for a Dimming Range of 100% to 10%; Dimming Source Current is 150 Microamps.

Controls:
Fixtures Ordered with Factory-Installed Photocell or Motion Sensor Controls are Internally Wired for Switching and/or 1-10V Dimming Within the Housing. Remote Direct Wired Interface of 1-10V Dimming is Not Implied and May Not Be Available, Please Consult Factory. Fixtures are Tested with Endeavor Controls and May Not Function Properly With Controls Supplied By Others. Fixtures are NOT Designed for Use with Line Voltage Dimmers.

Warranty:
5-Year Warranty for -40°C to +50°C Environment.

See Page 4 for Projected Lumen Maintenance Table.

CERTIFICATION & LISTINGS:



225,000 HOURS

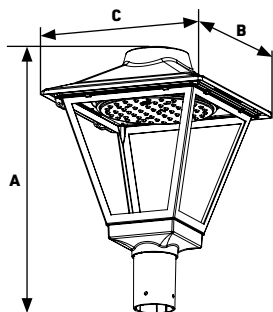
SoftLED

ORDERING

| MODEL | OPTICS | WATTAGE | DRIVER | CCT | LENS | COLOR | OPTIONS |
|---|--|--|--|--|--|---|---|
| ENHR20Q =EasyLED Stella Post Top ENHRWS20Q =EasyLED Wall Mount Stella ENHRP20Q =EasyLED Pendant Mount Stella (15" Pendant) | A =Type I* B =Type II C =Type III D =Type IV F =Type V *80w Models Only | 1X19 =19w 1X36 =36w 1X53 =53w 1X80 =80w | U =120-277V H =347-480V | 3K =3000K 4K =4000K 5K =5000K | O =Open Frame Full Cutoff Optics L =SoftLED LumaLens Opal UV-Stabilized Polycarbonate Lens* *Type V Models Only | B =Black C =Custom (Consult Factory) | P2AB =ENPSRTN Tenon Adaptor, Black P2AC =ENPSRTN Tenon Adaptor, Custom Color (Consult Factory) SF =Single Fuse* DF =Double Fuse* SP =Surge Protection R3 =3-Pin Twist Lock Photocell Receptacle R5 =5-Pin Twist Lock Photocell Receptacle R7 =7-Pin ANSI C136.41-2013 Twist Lock Photocell Receptacle S5 =Microwave Sensor with Dimming for Mounting Heights of 8' to 26'* BU =Battery Backup, 90 Minutes (Up to 65w Max)* BUC =Cold Start Battery Backup, -20°C, 90 Minutes (Up to 65w Max)* HS =Factory Installed House Side Shield *120-277V Models Only. *19, 36, & 53w Models Only. |

ORDER INFORMATION EXAMPLE: ENHR20QF1X53U5KOBSP

DIMENSIONS



| | |
|-------------------|-----------------|
| Height (A) | 24 3/4" (628mm) |
| Length (B) | 16 1/4" (415mm) |
| Width (C) | 16 1/4" (415mm) |

FACTORY INSTALLED HOUSE SIDE SHIELD



"HS" Factory Installed House Side Shield is mounted inside fixture arms around Light Engine, Black finish

ACCESSORIES & REPLACEMENT PARTS:

MOUNTING ACCESSORIES (ORDER SEPARATELY, FIELD INSTALLED)

| | |
|-----------------|---|
| ENPSRTN* | Retrofit Tenon Adaptor, Die Cast with Powdercoat Finish, Hardware Included. Converts a 2 3/8" x 4" Pole Tenon to a 2 1/2" x 3" Tenon. |
|-----------------|---|

*Specify Color: B=Black, C=Custom (Consult Factory)



ENPSRTN

ACCESSORIES (ORDER SEPARATELY, FIELD INSTALLED)

| | |
|----------|--|
| ENP18131 | Twist Lock Non-Shorting (Open) Cap Disconnects Service to Fixture for Temporary or Permanent Disabling (Fixture Always Off). IP65, 480V Maximum. |
| ENP18132 | Twist Lock Shorting Cap Provides Fixed Service to Fixture (Fixture Always On). IP65, Rated Load 7200w Tungsten. |
| ENP18140 | 110-120VAC Instant Twist Lock Photocell |
| ENP18152 | 277VAC Time Delay Twist Lock Photocell |
| ENP18156 | 120-277VAC Universal Twist Lock Photocell |
| ENP18157 | 480VAC Time Delay Twist Lock Photocell. For 480V use only. |
| ENP17126 | Remote Programming Tool for ENP17125 |



Optional Twist Lock Photocell mounts to top of housing.



ENP18131



ENP18132



ENP18140



ENP18152



ENP18156, ENP18157



ENP17126

REPLACEMENT PARTS (ORDER SEPARATELY, FIELD INSTALLED)

| | |
|------------|--|
| ENHR20PCLL | SoftLED LumaLens Opal UV-Stabilized Polycarbonate Vandal-Resistant Lens |
| ENPK3415 | Pendant Mount Kit Includes Top & Bottom Cover, Brackets, 3/4" Dia X 15" L Downrod, and Hardware. Powdercoat Finish |
| ENP17125 | Internal Microwave Sensor with Dimming for Mounting Heights of 8 to 26'. 120-277VAC, 50/60Hz |

For Replacement Battery Backup, see the Endeavor LED Battery Backup Specification Sheet.



ENHR20PCLL





ENPK3415

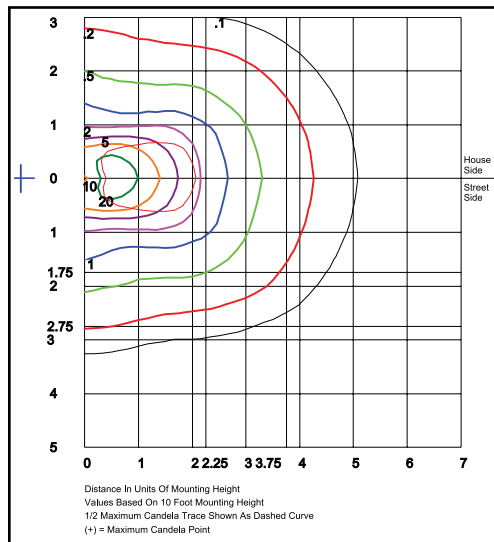


ENP17125

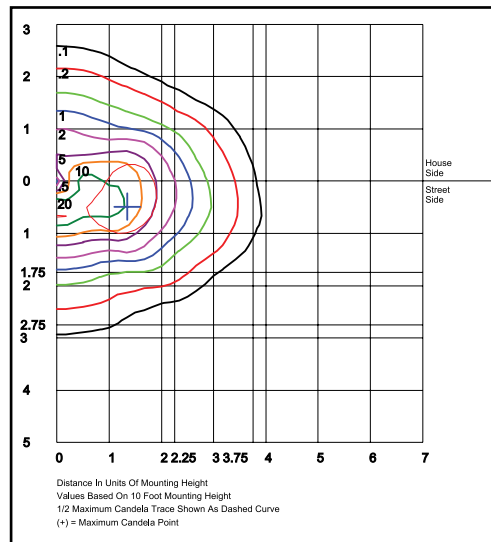
EPA (EFFECTIVE PROJECTED AREA)

| CONFIGURATION | EPA (SQ. FT.) | WEIGHT (LBS.) |
|--|---------------|---------------|
|  Open Frame | 1.2 | 28 Lbs |
|  LumaLens | 1.6 | 28 Lbs |

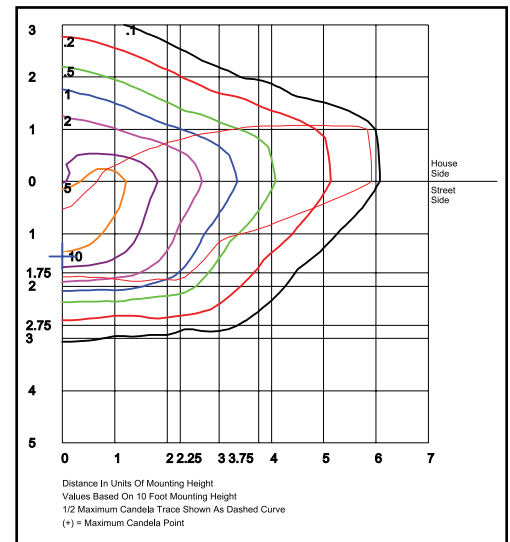
PHOTOMETRIC DATA



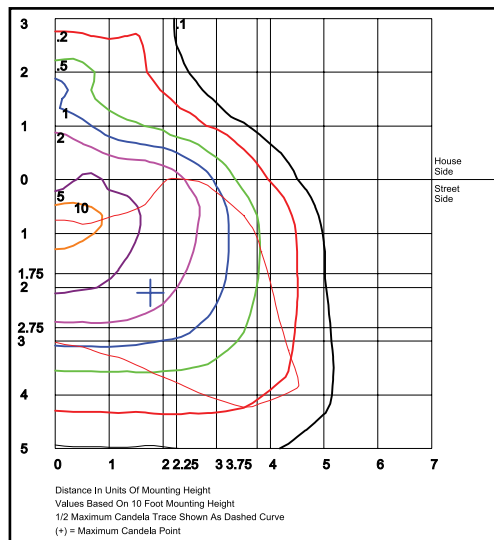
ENHR20QA1X80U5K0
Type I, Open Grid in MH
MH=10 Feet



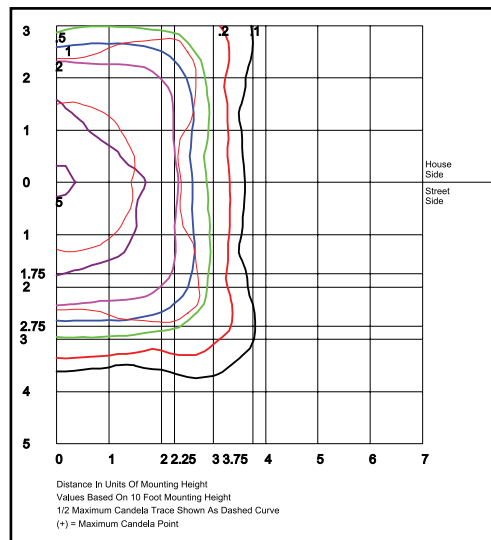
ENHR20QB1X80U5K0
Type II, Open Grid in MH
MH=10 Feet



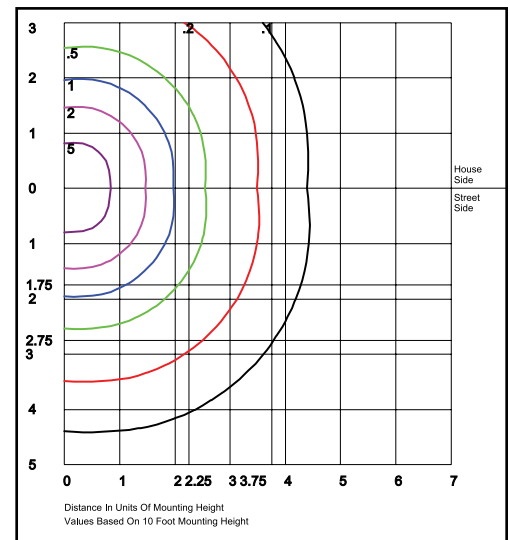
ENHR20QC1X80U5K0
Type III, Open Grid in MH
MH=10 Feet



ENHR20QD1X80U5K0
Type IV, Open Grid in MH
MH=10 Feet



ENHR20QF1X80U5K0
Type V, Open Grid in MH
MH=10 Feet



ENHR20QF1X80U5KL
Type V, LumaLens Grid in MH
MH=10 Feet

PHOTOMETRIC PERFORMANCE

| | | WATTAGE (CATALOG LOGIC) | 19W (1X19) | 36W (1X36) | 53W (1X53) | 80W (1X80) |
|------------------------------|------------|----------------------------|---------------|---------------|---------------|---------------|
| | | INPUT WATTS | 20.4 | 38.5 | 56.4 | 87.3 |
| OPTIC | CCT | DELIVERED LUMENS | | | | |
| Type I Optic Open Frame | 3000K | - | - | - | - | 9,058 |
| | 4000K | - | - | - | - | 9,349 |
| | 5000K | - | - | - | - | 9,714 |
| | BUG Rating | - | - | - | - | B3-U0-G3 |
| Type II Optic Open Frame | 3000K | 3,334 | 4,211 | 6,317 | 9,534 | |
| | 4000K | 3,441 | 4,347 | 6,520 | 9,841 | |
| | 5000K | 3,575 | 4,516 | 6,774 | 10,224 | |
| | BUG Rating | B1-U0-G1 | B1-U0-G1 | B2-U0-G1 | B2-U0-G2 | |
| Type III Optic Open Frame | 3000K | 3,412 | 4,309 | 6,464 | 9,933 | |
| | 4000K | 3,521 | 4,448 | 6,672 | 10,253 | |
| | 5000K | 3,658 | 4,621 | 6,931 | 10,652 | |
| | BUG Rating | B1-U0-G1 | B2-U0-G2 | B2-U0-G2 | B3-U0-G3 | |
| Type IV Optic Open Frame | 3000K | 3,482 | 4,398 | 6,597 | 9,920 | |
| | 4000K | 3,594 | 4,540 | 6,810 | 10,239 | |
| | 5000K | 3,734 | 4,717 | 7,075 | 10,638 | |
| | BUG Rating | B1-U0-G1 | B1-U0-G2 | B2-U0-G2 | B2-U0-G3 | |
| Type V Optic Open Frame | 3000K | 3,580 | 4,522 | 6,783 | 10,527 | |
| | 4000K | 3,695 | 4,668 | 7,001 | 10,865 | |
| | 5000K | 3,839 | 4,850 | 7,274 | 11,289 | |
| | BUG Rating | B2-U0-G1 | B3-U0-G1 | B3-U0-G1 | B4-U0-G2 | |
| Type V Optic LumaLens | 3000K | 1,992 | 3,774 | 5,556 | 8,386 | |
| | 4000K | 2,056 | 3,895 | 5,735 | 8,656 | |
| | 5000K | 2,136 | 4,047 | 5,958 | 8,993 | |
| | BUG Rating | B1-U3-G2 | B2-U4-G3 | B2-U5-G3 | B3-U5-G4 | |

PROJECTED LUMEN MAINTENANCE

| DATA SHOWN FOR 4000 CCT | | | COMPARE TO MH | | | |
|--------------------------------------|--------------------------------------|---------|---------------|------------|-------------|---------------------|
| TM-21-11 | INPUT WATTS | INITIAL | 25,000 HRS | 50,000 HRS | 100,000 HRS | CALCULATED LED LIFE |
| L70 Lumen Maintenance @ 25°C / 77°F | All wattages up to and including 87w | 1.00 | 0.95 | 0.90 | 0.81 | 154,000 |
| L70 Lumen Maintenance @ 50°C / 122°F | | 1.00 | 0.97 | 0.93 | 0.86 | 145,000 |
| L80 Lumen Maintenance @ 40°C / 104°F | | 1.00 | 0.93 | 0.87 | 0.74 | 76,000 |

NOTES:

1. Projected per IESNA TM-21-11. Data references the extrapolated performance projections for the base model in a 25°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.
2. Compare to MH box indicates suggested Light Loss Factor (LLF) to be used when comparing to Metal Halide (MH) systems.

Shaft Styles

4" OD Fluted
.125 Wall



4" OD Smooth
.125 Wall



5" OD Fluted
.156 Wall



5" OD Smooth
.156 Wall



FEATURES

- Strong, lightweight and easy to install
- Extruded aluminum shaft welded to a decorative cast aluminum base
- 3" OD x 3" tall tenon included for luminaire mounting
- Access door for wiring secured with stainless steel screws
- Ground lug included inside base
- Durable powder coat finish
- 1/2" x 18" Anchor Bolts & Template included

MATERIALS

- Base - Cast Aluminum (A356)
- Shaft - Extruded Aluminum (6061-T6)
- Tenon - Cast Aluminum (A356)
- Anchor Bolts - Hot Dipped Galvanized
- Hardware—Stainless Steel

ACCESSORIES

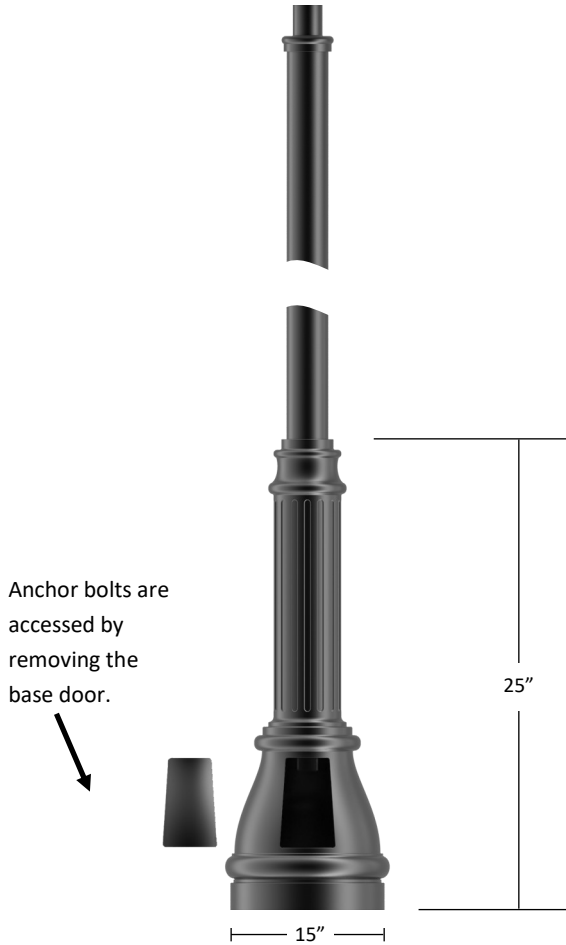
- **GFCI Box** with weatherproof WIUC
(Additional accessories below ordered separately)
(See Accessories Page for ordering guide)
- Clamp on banner arms
- Direct bury extension
- Clamp on flag pole holder

ANCHORAGE

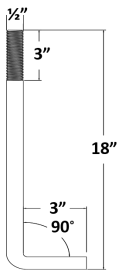
- 1/2" x 18" x 3" Hot-dipped galvanized steel L-type anchor bolts.
- (4) Bolts with (2) nuts, (2) washers per bolt included

| GP53-xx | GP54-xx | GP55-xx | GP56-xx | Actual Height |
|---------|---------|---------|---------|---------------|
| GP53-08 | GP54-08 | GP55-08 | GP56-08 | 8'5" |
| GP53-10 | GP54-10 | GP55-10 | GP56-10 | 10'5" |
| GP53-12 | GP54-12 | GP55-12 | GP56-12 | 12'5" |
| GP53-14 | GP54-14 | GP55-14 | GP56-14 | 14'5" |
| GP53-16 | GP54-16 | GP55-16 | GP56-16 | 16'5" |

Pole Details



Anchor Bolt Details



- (4) 1/2" Galvanized Steel L-Type Anchor Bolts
- (8) 1/2" Galvanized Steel Hex Nuts
- (8) 1/2" Galvanized Steel Flat Washers
- (8) 3/4" Galvanized Steel Flat Washers

Finish

The post will be finished with an electrostatically applied polyester powder coat suitable for exterior use. The poles are pretreated using industry standard environmentally responsible processes for a long lasting and durable finish.

Standard Finishes

- BK** - Black (Gloss)
- BT** - Black (Textured)
- SB** - Statuary Bronze
- GN** - Green

Premium Finishes

- WH** - White (Gloss)
- CV** - Copper Vein
- GV** - Green Vein
- CF** - Custom Finishes

Tenons

3" OD x 3" Tall Tenon Standard

TNS54 - 4" OD x 3" Tall Tenon slip fits over 5" smooth shaft

TNF54 - 4" OD x 3" Tall Tenon slip fits over 5" fluted shaft

LT - Less Tenon

Other tenons available upon request

Check fixture and/or arm spec sheet for tenon requirements

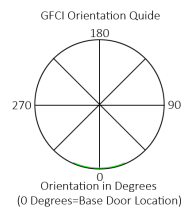
Accessories

GFCI - Provision for Ground Fault Circuit Interrupter outlet with NEC required wet location while in use type cover (WIUC). The cover is made of die cast aluminum and will be painted to match.

GFCI Orientation is stated as degrees from access door and **GFCI Placement** on shaft must be specified in ordering guide below.

TOP - placement will be 6" from top of pole.

BOT - placement will be 6" above the base.

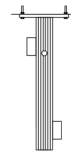


(Additional accessories below ordered separately)
(See Accessories Page for ordering guide)

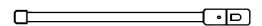
Flag Pole Holder



Direct Bury Extension



Single and Double Sided
Field Rotatable Banner Arm



Ordering Guide

| | Pole/Shaft Style | Height | Tenon | Accessory | GFCI Orientation | GFCI Placement | Finish |
|---------|------------------|--------|--------------------------|-----------|------------------|----------------|------------------------------------|
| EXAMPLE | GP54 | 14 | Leave blank for standard | GFCI | BOT | 180 | BT |
| | GP53 | 08 | TNS54 | GFCI | TOP | 0 | BK |
| | GP54 | 10 | TNF54 | | BOT | 90 | BT |
| | GP55 | 12 | LT | | | 180 | SB |
| | GP56 | 14 | | | | 270 | GN |
| | | 16 | | | | | Premium Finishes WH, CV, GV, CF |
| | Required | | Optional | | | | Choose Finish |

**FEATURES**

- Stylish and efficient 6 sided traditional lighting fixture for post top mounting
- Lightweight cast aluminum fixture base with stainless steel set screws for installation
- Slip fits over common 2 7/8" and 3" OD tenons on most decorative poles
- Durable Powder Coat Finish
- 0-10v Dimming Capability
- 10kV/10kA Surge Protection Standard
- ETL Listed

LED LIGHT SOURCE OPTIONS

- 4 Power Levels
 - 3 Color Temperatures
 - 4 Light Distributions
- (HID Version Available-Consult Factory)

MATERIALS

- Base, Cage, Hat, Finial - Cast Aluminum (A356)
- Hardware - Stainless Steel
- Lenses - Acrylic

LENS OPTION

- **NL** - No Lens (Highest LPW)
- **CA** - Clear Acrylic
- **TA** - Textured Acrylic
- **PA** - Prismatic Acrylic
- **FA** - Frosted Acrylic
- **WA** - White Acrylic

ACCESSORIES

- **PCLL** - PCL for LED Fixtures
- **HSS90** - 90° House Side Shield
- **HSS180** - 180° House Side Shield

LED LIGHT SOURCE CONFIGURATIONS

G2LED40—1 Driver, 1 LED Module, 1 Optic
G2LED65—1 Driver, 1 LED Module, 1 Optic
G2LED80—2 Drivers, 2 LED Modules, 2 Optics
G2LED115—2 Drivers, 2 LED Modules, 2 Optics

DRIVER

0-10v Dimming Compatible
120 to 277 Auto Sensing
Class 2, Class P
Minimum Rating IP66

LED MODULE

12 High efficacy multi-die packages
2x6 LED Configuration
80CRI—2700, 3000, 4000 CCT

LED OPTICS

2x6 Multi Lens
PMMA (Acrylic)
IES Type II, III, IV, V
Silicone Gasket
IP66 System

SURGE PROTECTION

10 kV / 10 kA



Finish

The fixture will be finished with an electrostatically applied polyester powder coat suitable for exterior use. The fixtures are pretreated using industry standard environmentally responsible processes for a long lasting and durable finish.

Standard Finishes

BK - Black (Gloss)
BT - Black (Textured)
SB - Statuary Bronze
GN - Green

Premium Finishes

WH - White (Gloss)
CV - Copper Vein
GV - Green Vein
CF - Custom Finishes

LED Light Source Performance Data For Fixture with CA LENS

| GT1623-CA | | | 2700K (27K) | | 3000K (30K) | | 4000K (40K) | |
|-------------|----------|--------------------|------------------|----------------|------------------|----------------|------------------|----------------|
| MODULE NAME | NOM WATT | LIGHT DISTRIBUTION | DELIVERED LUMENS | EFFICACY (LPW) | DELIVERED LUMENS | EFFICACY (LPW) | DELIVERED LUMENS | EFFICACY (LPW) |
| G2LED40 | 41 | T2 | - | - | - | - | - | - |
| | | T3 | - | - | - | - | - | - |
| | | T4 | - | - | - | - | - | - |
| | | T5 | - | - | - | - | - | - |
| G2LED65 | 63 | T2 | - | - | - | - | - | - |
| | | T3 | - | - | - | - | - | - |
| | | T4 | - | - | - | - | - | - |
| | | T5 | - | - | - | - | - | - |
| G2LED80 | 82 | T2 | - | - | - | - | - | - |
| | | T3 | - | - | - | - | - | - |
| | | T4 | - | - | - | - | - | - |
| | | T5 | - | - | - | - | - | - |

LED Light Source Options

| Light Source | Nominal Power | Distribution | CCT |
|--------------|---------------|-------------------------------|-------------|
| G2LED40 | 41 W | Type II (T2) Type III (T3) | 2700K (27K) |
| G2LED65 | 63 W | Type IV (T4) | 3000K (30K) |
| G2LED80 | 82 W | Type V (T5) | 4000K (40K) |

LED Drivers are auto voltage sensing, standard 120V through 277V (347, 480V Version Available-Consult Factory)

Ordering Guide

| | Luminaire | Lens Material | LED Light Source | Distribution Type | CCT | Optional Photocell | Optional House Side Shield | Finish |
|---------|-----------|---------------|------------------|-------------------|-----|--------------------|----------------------------|------------------|
| EXAMPLE | GT1623 | NL | G2LED80 | T3 | 40K | PCLL | HSS180 | BT |
| | GT1623 | NL | G2LED40 | T2 | 27K | PCLL | HSS90 | BK |
| | | CA | G2LED65 | T3 | 30K | | HSS180 | BT |
| | | TA | G2LED80 | T4 | 40K | | | SB |
| | | PA | G2LED115 | T5 | | | | GN |
| | | FA | | | | | | Premium Finishes |
| | | WA | | | | | | WH, CV, GV, CF |
| | Required | | | | | Optional | | Choose Finish |

LANTERN ML4 SERIES - LAMP INCLUDED



Pagoda with Photocell



Ranch Style with Photocell



Ranch Style with Motion Sensor
and dusk to dawn photocell



*Excludes ML4E121PLBK27

FEATURES:

- Includes a flicker free standard bulb (E26 base)

CONTROLS:

- Available with dusk to dawn photocell or daylight harvesting motion sensors

DIMMING

- 120V, Triac dimming (10%)

CONSTRUCTION:

- Pagoda Style: Die cast Aluminum housing with frosted polycarbonate lens
- Ranch Style: Formed steel housing with high transmission glass lens
- Powder coat finish

LISTINGS:

- cETLus/cULus listed, Outdoor wet locations
- ENERGY STAR certified (exclude item ML4LE109SPLBK2)
- Supports T24 Part 6 high efficacy lighting requirements

WARRANTY:

5-year standard warranty (further details available at www.maxlite.com/warranties) Product may be eligible for a warranty extension to 10 years, for an additional fee. Contact MaxLite for details.

PAGODA STYLE - ORDERING STRUCTURE

| FAMILY | TYPE | OUTPUT | STYLE | FINISH | CCT | OPTIONS |
|---------------|----------------------|--------------|------------------|-----------|-----------|---------------------------------|
| ML4= Lanterns | LE= Edison Base, E26 | 121= 1 x 11W | PL= Pagoda Style | BK= Black | 27= 2700K | [BLANK]= Dusk to Dawn Photocell |




RANCH STYLE - ORDERING STRUCTURE

| FAMILY | TYPE | OUTPUT | STYLE | FINISH | CCT | OPTIONS | GENERATION |
|---------------|----------------------|--------------|------------------------------|------------------------|-----------|--|--------------------------|
| ML4= Lanterns | LE= Edison Base, E26 | 109= 1 x 09W | SPL= Low Output, Ranch Style | BK= Black WH= White | 27= 2700K | [BLANK]= Dusk to Dawn Photocell MSC ² = DHL Motion Sensor and dusk to dawn photocell | [BLANK]= Blank |
| | | 171= 1 x 15W | RL= Ranch Style | | | | -V3 ² = Gen 3 |

¹Contact MaxLite for lead time.

² Only used with the 15W models

ORDER CODE

| ORDER CODES | MODEL NUMBER | ENERGY STAR PRODUCT ID | PRODUCT IMAGE |
|-------------|----------------------|------------------------|---|
| 101077 | ML4E121PLBK27 | 2334204 |  |
| 101309 | ML4LE109SPLBK2 | N/A |  |
| 103726 | ML4LE171RLBK27-V3 | 2334207 | |
| 14098826 | ML4LE171RLBK27MSC-V3 | 2334207 |  |

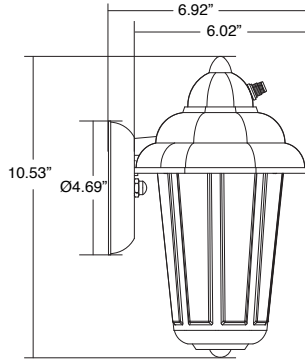
DIMMERS

| DIMMER BRAND | MODELS |
|--------------|---|
| LEVITON | 6631, 603-6631-A, 6631-A, 6631-LA |
| LUTRON | AYCL-153P-WH, AYCL-153PH, S-603PH-WH, TGCL-153PH-WH |

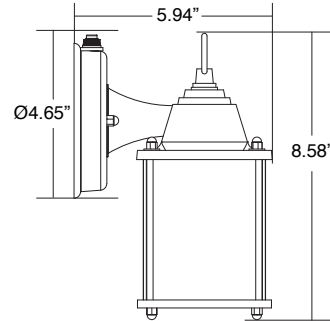
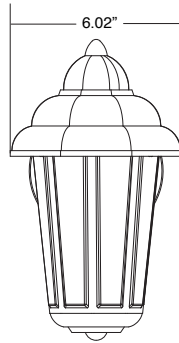
SPECIFICATIONS

| | ML4LE109SPL | ML4E121PL | ML4LE171RL |
|-----------------------|----------------------------|---|--|
| SPECIFICATION | DETAILS | | |
| Nominal Wattage (W) | 09 | 11 | 15 |
| Source Lumens (lm) | 800 | 1100 | 1600 |
| Equivalency | 60W INC | 75W INC | 100W INC |
| CRI | 80 | 90 | 90 |
| Efficacy (lm/W) | 89 | 100 | 106 |
| Color Temperature (K) | 2700K | | |
| L70 Lifetime (hrs) | ≥25,000 Hrs | | |
| Voltage | 120V, Triac dimming (10%) | | |
| Power Factor | ≥0.90 | | |
| Housing | Formed Steel | Die Cast AL | Formed Steel |
| Lens | Glass | Polycarbonate | Glass |
| Mounting | Wall | | |
| Operating Temperature | -4°F to 104°F | | |
| Listings | cETLus, FCC | cULus, ENERGY STAR, FCC, JA8 Compliant bulb, Title 24 | cETLus, ENERGY STAR, FCC, JA8 Compliant bulb, Title 24 |
| Environment | Wet locations, Outdoor | | |
| Warranty | 5 Years | | |

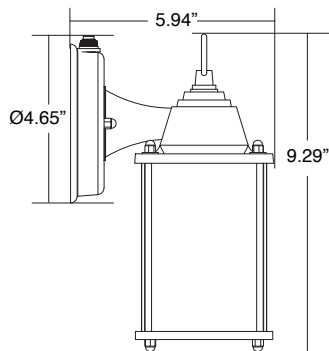
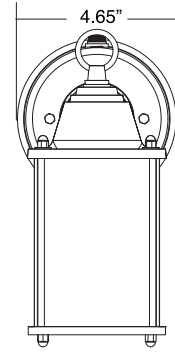
PRODUCT DIMENSIONS



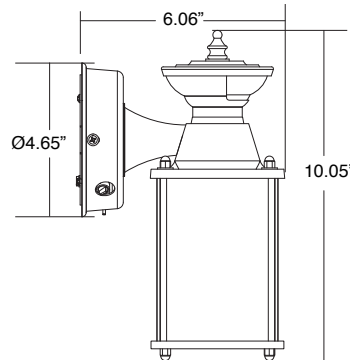
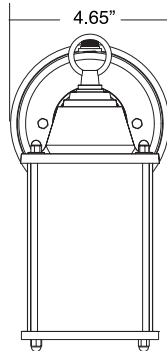
ML4E121PLBK27



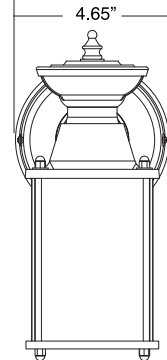
ML4LE109SPLBK2






ML4LE171RLBK27



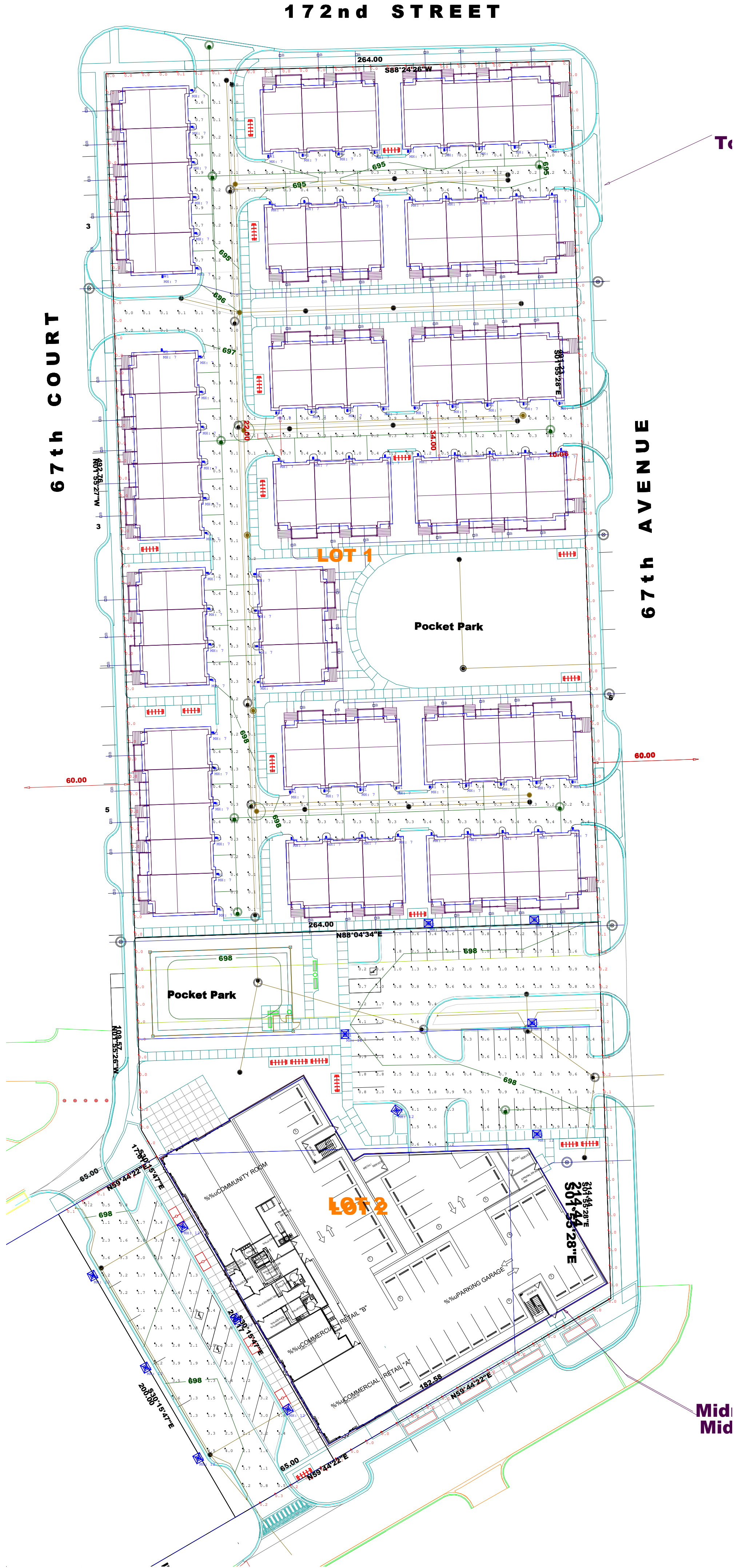
ML4LE171RLBK27MSC-V3



| Luminaire Schedule | | | | | | |
|---|-----|-----|-------|-------------|------------|--------------------------|
| Symbol | Tag | Qty | LLF | Arrangement | Lum. Watts | Description |
|  | W1 | 82 | 0.900 | Single | 9.5 | ML4LE109SPLBK2 |
|  | P1 | 11 | 0.900 | Single | 65 | GT1623-CA_G2LED65-T4-40K |
|  | P2 | 1 | 0.900 | Single | 65 | GT1623-CA_G2LED65-T5-40K |

| Calculation Summary | | | | | | |
|-------------------------|-------------|-------|------|-----|-----|---------|
| Label | CalcType | Units | Avg | Max | Min | Max/Min |
| PARKING LOT - 17 SPACES | Illuminance | Fc | 2.23 | 5.8 | 0.2 | 29.00 |
| PARKING LOT - 37 SPACES | Illuminance | Fc | 1.68 | 5.5 | 0.2 | 27.50 |
| PRIVATE DRIVE | Illuminance | Fc | 0.41 | 1.9 | 0.0 | N.A. |
| PROPERTY LINE | Illuminance | Fc | 0.03 | 0.3 | 0.0 | N.A. |

NOTES:
MOUNTING HEIGHTS AS SHOWN



| # | Date | Comments |
|-----------|------|----------|
| | | |
| | | |
| | | |
| | | |
| Revisions | | |

| |
|-----------------|
| Drawn By: BS |
| Checked By: |
| Date: 7/27/2023 |
| Scale: NTS |

| |
|----------------------------|
| TINLEY PARK HARMONY SQUARE |
| SITE |

OAK PARK AVENUE

172nd STREET

67th COURT

67th AVENUE

Townhomes
63 Units

LOT 1

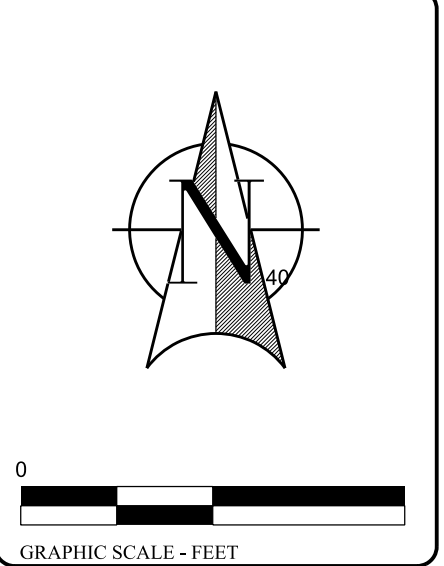
Pocket Park

173rd STREET

LOT 2

Midrise Apartment Building
with Parking Garage
62 Units - 4 stories

NORTH STREET



WEST POINT AT HARMONY SQUARE TOWNHOMES

Prepared For:
West Point Builders
120 E. Ogden, Suite 203
West Point, WI 53188
Phone: 608-321-1515

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DESIGN PROFESSIONAL LICENSE NO. 156000101

| REV# | DATE | REVISION DESCRIPTION | BY |
|------------------------|------------|----------------------|------------|
| 1 | 07/10/2023 | Village Review | |
| Section Township Range | | | |
| Cook: 9EN480-36N-13E | | | |
| JOB # | 44741 | SURV: | JCV |
| DRAWN: | BMB | REVIEW: | RLS |
| SCALE: | | DATE: | 06-20-2023 |
| SHEET NAME | | | |

SIGHT DISTANCE
EXHIBIT
SDE-1



ILLUMINATED SIGN
FINAL SIGN COLORS
TO BE DETERMINED

1/4" SCALE



1/16" SCALE

WEST ELEVATION (HARMONY SQUARE)
SCALE: 1/8" = 1'-0"



FABRICATED ALUMINUM TENANT SIGN PANEL (3" DEEP)
WITH INTERNALLY ILLUMINATED DIMENSIONAL LETTERS
LOGO, NAMES/COLORS VARY PER TENANT

3/8" SCALE



13401 SOUTHWEST HWY.,
ORLAND PARK, ILLINOIS

Since
1925

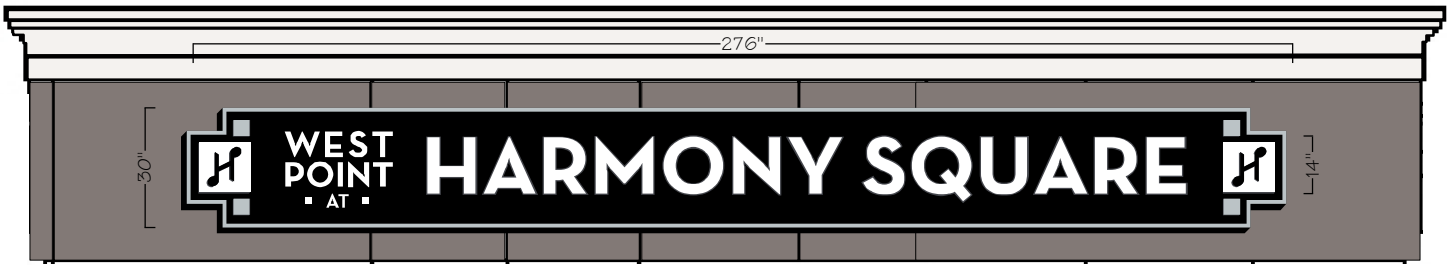
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| | |
|----------|--|
| Approved | |
| Date | |

| | | | | | | |
|----------|---------|--------------|-----------------------|---------|--|-------------|
| Scale | NOTED | Title | WESTPOINT BUILDERS | | | |
| Date | 7-18-23 | Description | WEST STOREFRONT SIGNS | | | |
| Drawn By | ED | Revisions By | ED | ED | | Drawing No. |
| | | Date | 7-27-23 | 8-10-23 | | 23-127.1C |



ILLUMINATED SIGN
FINAL SIGN COLORS
TO BE DETERMINED



EAST ELEVATION (67TH AVE.)
SCALE: 1/16" = 1'-0"

1/16" SCALE



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| Scale | NOTED | Title | WESTPOINT BUILDERS | | | | |
| Date | 7-18-23 | Description | EAST STOREFRONT SIGNS | | | | |
| Drawn By | ED | Revisions By | ED | ED | | | Drawing No. |
| | | Date | 7-27-23 | 8-10-23 | | | 23-127.2C |



1/4" SCALE

ILLUMINATED SIGN
FINAL SIGN COLORS
TO BE DETERMINED



1/16" SCALE



FABRICATED ALUMINUM TENANT SIGN PANEL (3" DEEP)
WITH INTERNALLY ILLUMINATED DIMENSIONAL LETTERS
LOGO, NAMES/COLORS VARY PER TENANT

3/8" SCALE



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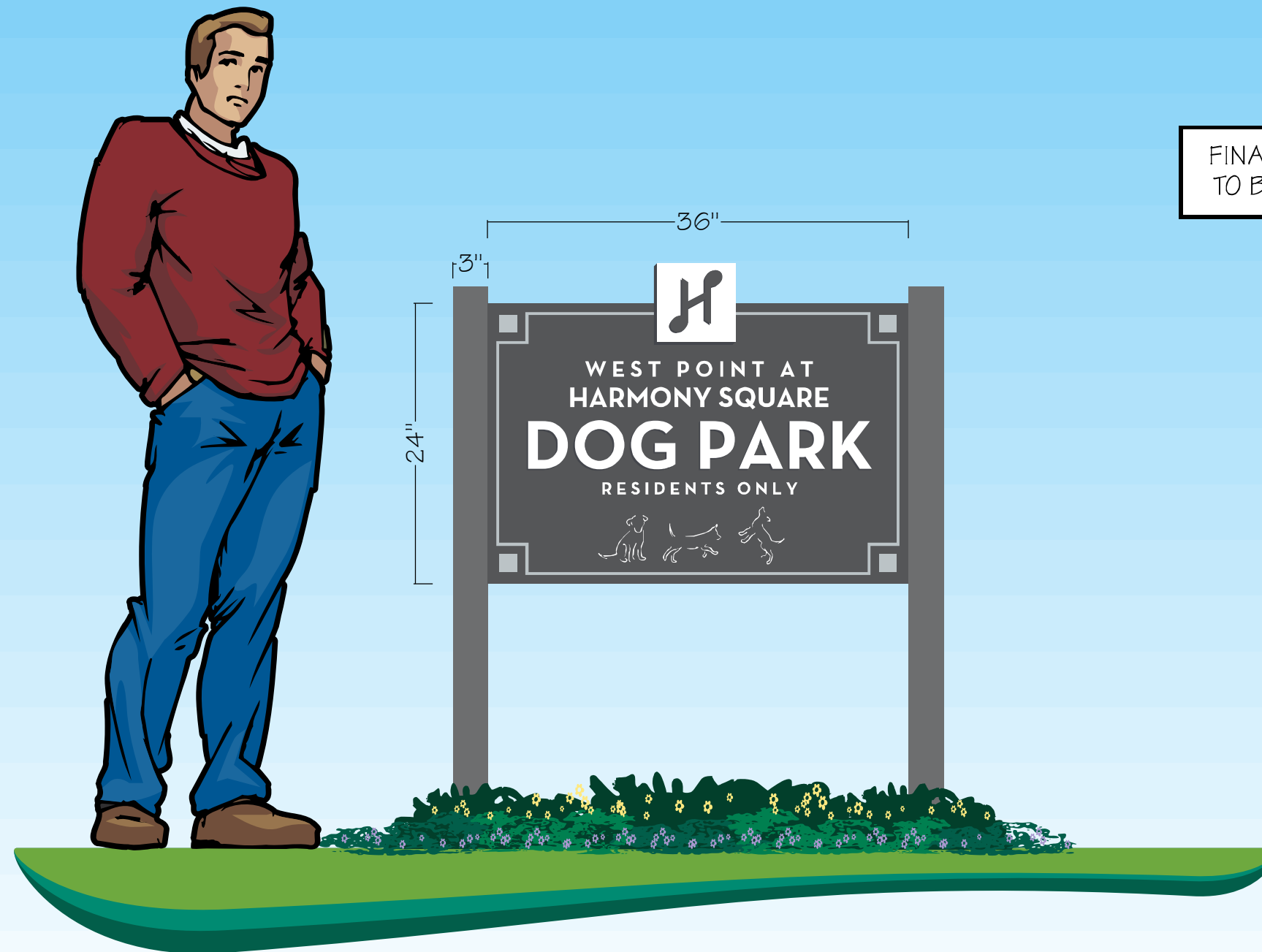
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| Approved | |
| Date | |

| | | | | | | | |
|----------|---------|--------------|------------------------|---------|--|--|-------------|
| Scale | NOTED | Title | WESTPOINT BUILDERS | | | | |
| Date | 7-18-23 | Description | SOUTH STOREFRONT SIGNS | | | | |
| Drawn By | ED | Revisions By | ED | ED | | | Drawing No. |
| | | Date | 7-27-23 | 8-10-23 | | | 23-127.3C |



FINAL SIGN COLORS
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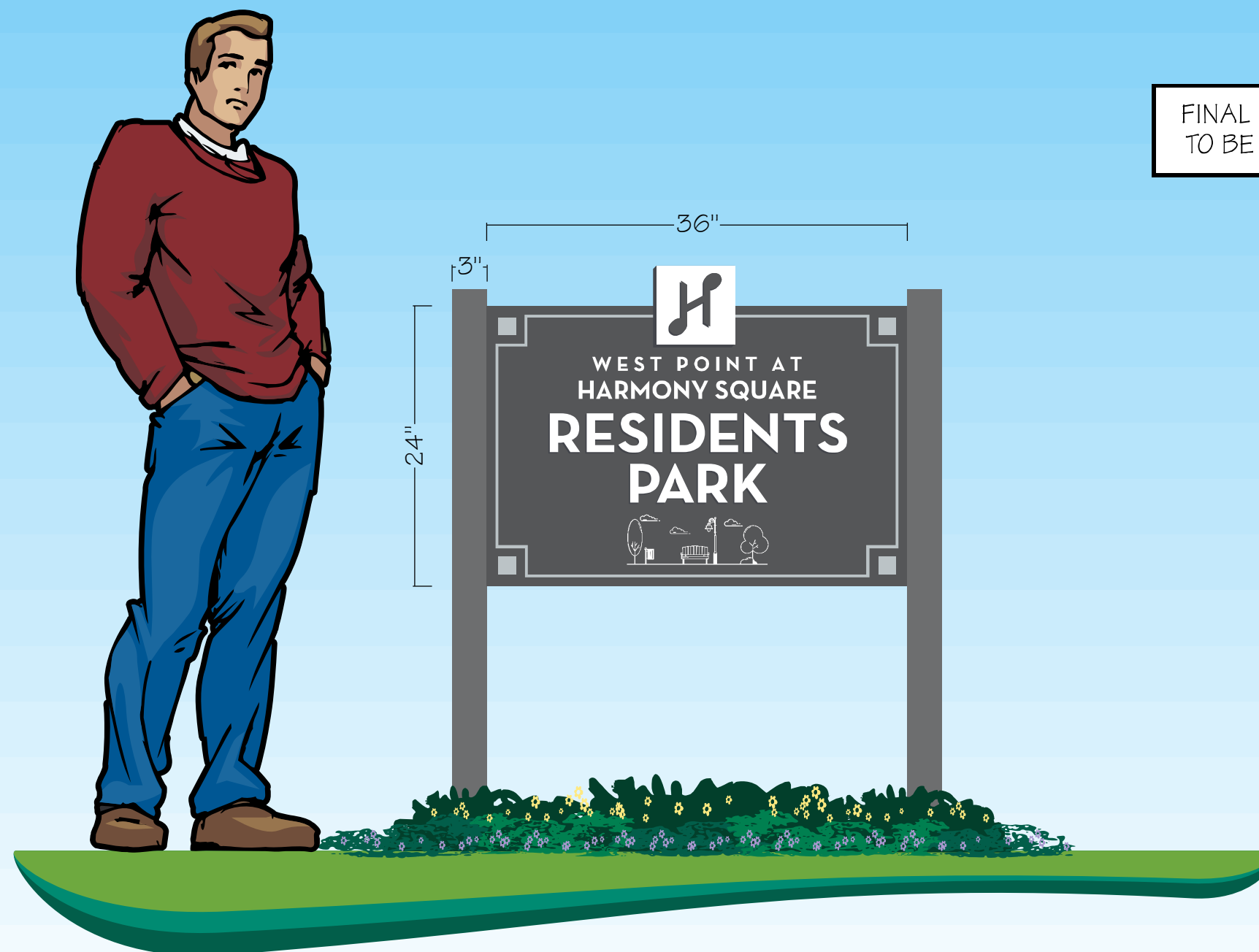
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| Date |

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|----------|---------|--------------|--------------------|--|--|--|--|-------------|-----------|
| Scale | 1" | Title | WESTPOINT BUILDERS | | | | | | |
| Date | 7-18-23 | Description | DOG PARK SIGN | | | | | | |
| Drawn By | ED | Revisions By | ED | | | | | Drawing No. | 23-127.7C |
| | | Date | 7-27-23 | | | | | | |



FINAL SIGN COLORS
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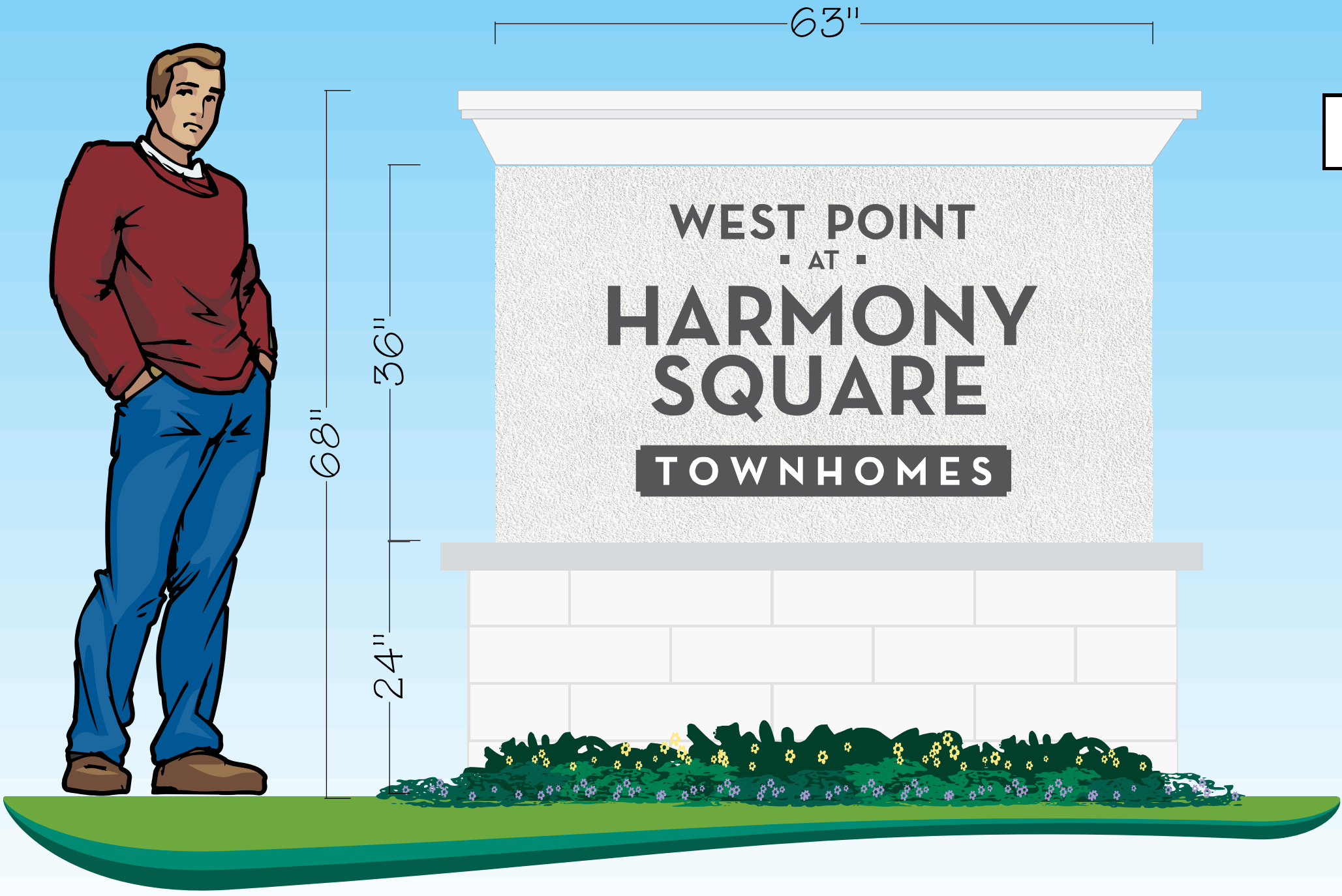
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| |
|----------|
| Approved |
| Date |

| | | | | | | | | |
|----------|---------|--------------|---------------------|--|--|--|-------------|-----------|
| Scale | 1" | Title | WESTPOINT BUILDERS | | | | | |
| Date | 7-18-23 | Description | RESIDENTS PARK SIGN | | | | | |
| Drawn By | ED | Revisions By | ED | | | | Drawing No. | 23-127.8C |
| | | Date | 7-27-23 | | | | | |



FINAL SIGN COLORS
TO BE DETERMINED



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| Date |

| | | | | | | | | |
|----------|---------|--------------|-------------------------|--|--|--|--|-------------|
| Scale | 1" | Title | WESTPOINT BUILDERS | | | | | |
| Date | 7-18-23 | Description | MONUMENT TOWNHOMES SIGN | | | | | |
| Drawn By | ED | Revisions By | ED | | | | | Drawing No. |
| | | Date | 7-27-23 | | | | | 23-127.10C |

Plan Commission Presentation

August 17, 2023



West Point at Harmony Square
Tinley Park, Illinois

Team

Developers:

West Point Builders

Contact – Pat Curran/Bill Hardy

Land Planner/Landscape Architect:

BSB Design

Contact - Terry Smith

Architect:

SCHWARZ LEWIS Design Group, Inc

Contact - Bill Schwarz/Brad Lewis/Paige Richards

Land Use Attorneys:

Sosin, Arnold & Schoenbeck, LTD

Contact – David Sosin

Civil Engineer:

Webster, McGrath & Ahlberg, Ltd.

Contact – Ben Bussman

Marketing Consultant:

Housing Trends, LLC

Contact – Lance Ramella

West Point at Harmony Square

Tinley Park, Illinois



Site Context

West Point at Harmony Square

Tinley Park, Illinois



Proposed Site Plan

- Mixed Use Building- 63 Units
- Townhomes – 63 Units
- Resident Amenities
- All Rental Program

SITE DATA

| Lot | 1 | 2 |
|------------------------------------|--|----------------------------|
| Zoning | DG | DC |
| Land Area | 2.98 acres | 1.44 acres |
| Use | Townhomes | Mixed Use |
| | Allowable | Proposed |
| FAR | Allowable | Proposed |
| Building Height | Min. 3 stories | 3 stories |
| Building Setback | Front (67th Ave) | 5' - 15' |
| | Front (67th Cl.) | 5' - 15' |
| | Front (172nd St.) | 5' - 15' |
| | Side | N/A |
| | Rear (south) | 5' Min. |
| Parking Setback | Front | N/A |
| | Corner Side Yard | N/A |
| | Side | N/A |
| | Rear | N/A |
| MF TH Unit Size | 1,200 SF Min. | 1,500 SF to 1,800 SF |
| MF Apt. Unit Size | | |
| | | UNIT TYPES |
| | | Rentable SF |
| | | Total Rentable SF |
| | | Total |
| | | A, Studio |
| | | B, One Bedroom |
| | | B1, One Bedroom |
| | | B2, One Bedroom |
| | | C, One Bedroom/office |
| | | D, One Bedroom/office |
| | | E, Two Bedroom |
| | | E1, Two Bedroom |
| | | F, Two Bedroom corner |
| | | G, Two Bedroom |
| | | H, Three Bedroom corner |
| | | I, Three Bedroom |
| | | TOTAL SF |
| Apartment SF Total | | |
| Unit Total | | |
| Average Apt. SF | | |
| Commercial SF | | |
| Alley Width | Two-way - Max 20' | 22' |
| | | One-way Max 20' |
| | | 25' |
| Parking | | |
| TH 1 per unit Req. (63 Spaces) | | |
| Garage - TH | 126 | |
| Shared Surface Spaces with Lot One | 8 | |
| Total TH Parking | 134 | |
| | *TH Parking Total Excludes 21 On Street Spaces | |
| Garage - Apartment | | |
| Carport Parking | | |
| Surface - Apartments | | |
| Total Apt. Parking | | |
| | | 68 Bike Stalls |
| | | (63 Interior/ 5 exterior) |
| Commercial | | |
| Total Comm. Parking | | |
| | | 29 Spaces |
| | | 5 Bike Spaces |
| | | 1 - 40' x 8' Loading Space |

Concept Site Plan

West Point at Harmony Square
Tinley Park, Illinois



Proposed Site Plan- Town Home Parking

- Two Garage Spaces/Unit= 126 Total
- Lot One Surface Spaces = 8 Total
- 134 Total

Additional Parking

- On Street Spaces = 21 Total

Proposed Parking

West Point at Harmony Square

Tinley Park, Illinois



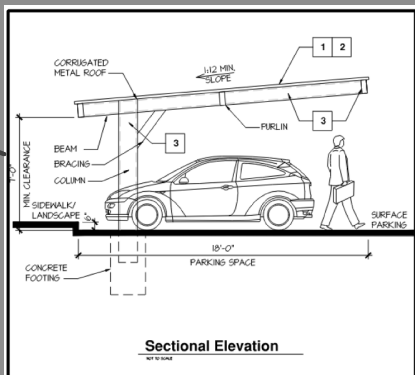
Proposed Site Plan- Mixed Use Parking

Residential Building -63 Units

- **Garage Spaces** = **39 Total**
- **Car Port Spaces** = **24 Total**
- **Lot One Surface Spaces** = **13 Total**
- **76 Total (1.2:1)**

Commercial Parking

- **On Street Spaces = 29 Total (7/1,000)**



Carport Character

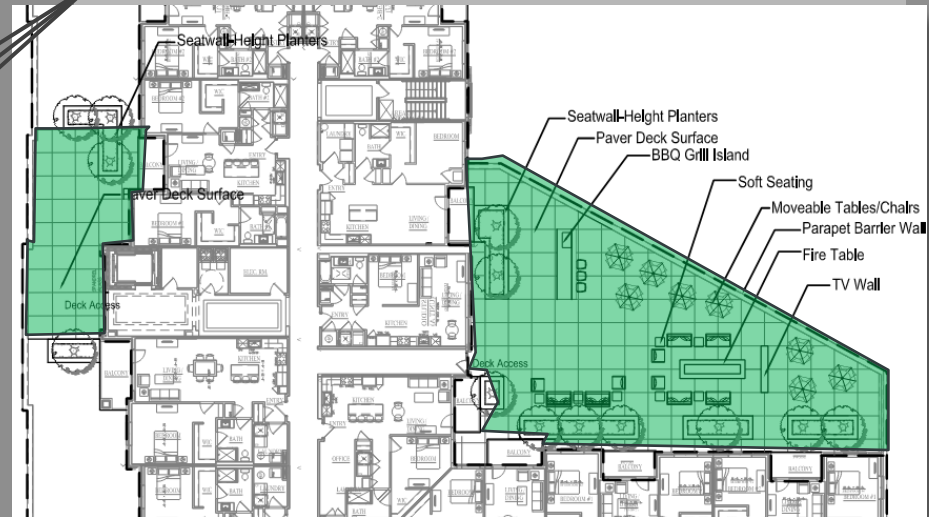
Proposed Parking

West Point at Harmony Square
Tinley Park, Illinois



Proposed Site Plan- Site Amenities

- Pocket Park – Townhome N'Hood
- Dog Park
- Mixed Use Resident Amenities – First Floor Community Room and Patio
- Second Floor Roof Decks



Seatwall-Height Planters



Fire Table, TV Wall, Soft Seating



BBQ Grill Island

Site Amenities

West Point at Harmony Square

Tinley Park, Illinois

Proposed Mixed Use Building-



**Perspective Rendering- 173rd
Street (Harmony Square)**

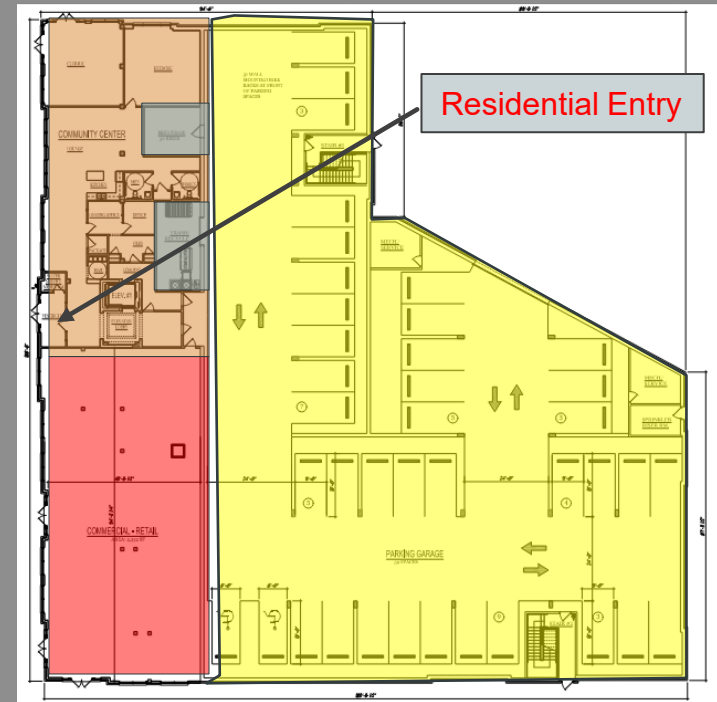
West Point at Harmony Square

Tinley Park, Illinois



Proposed Mixed Use Building- First Floor Uses

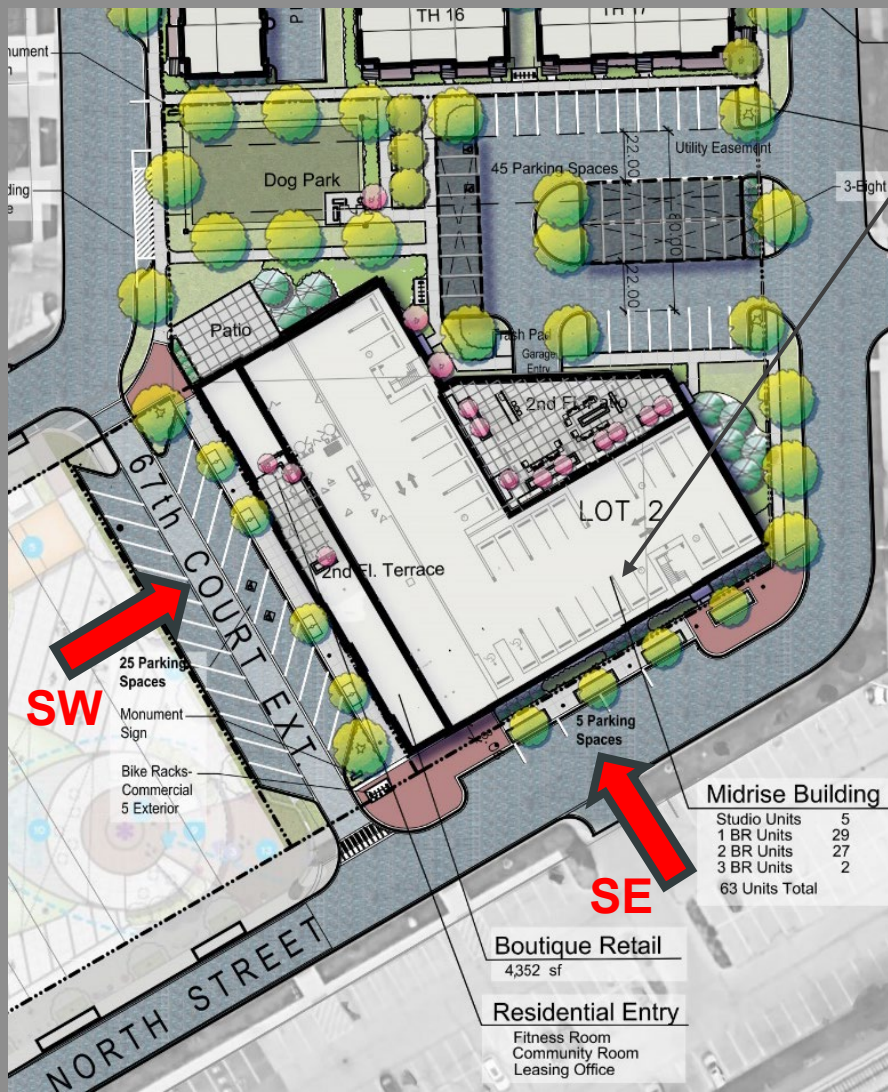
- 4,352 SF Commercial
- 3,500 SF Community Room/Leasing
- BOH- Trash/ Bike Storage
- 39 Space Parking Garage



First Floor Plan

West Point at Harmony Square

Tinley Park, Illinois



Proposed Mixed Use Building- Residential- Second-Fifth Floors

- 63 Units/ Five Floors
- 5 -Studios 705 sf
- 29 -One BR 808-880 sf
- 27 -Two BR 1,076-1,271 sf
- 2 -Three BR 1,476-1,445 sf



Southwest Elevation (Harmony Square)



Southeast Elevation (North Street)

West Point at Harmony Square

Tinley Park, Illinois



Proposed Mixed Use Building- Residential- Second-Fifth Floors

- 63 Units/ Five Floors
- 5 -Studios 705 sf
- 29 -One BR 808-880 sf
- 27 -Two BR 1,076-1,271 sf
- 2 -Three BR 1,476-1,445 sf



Northwest Elevation (173rd Street)



Northeast Elevation (67th Avenue)

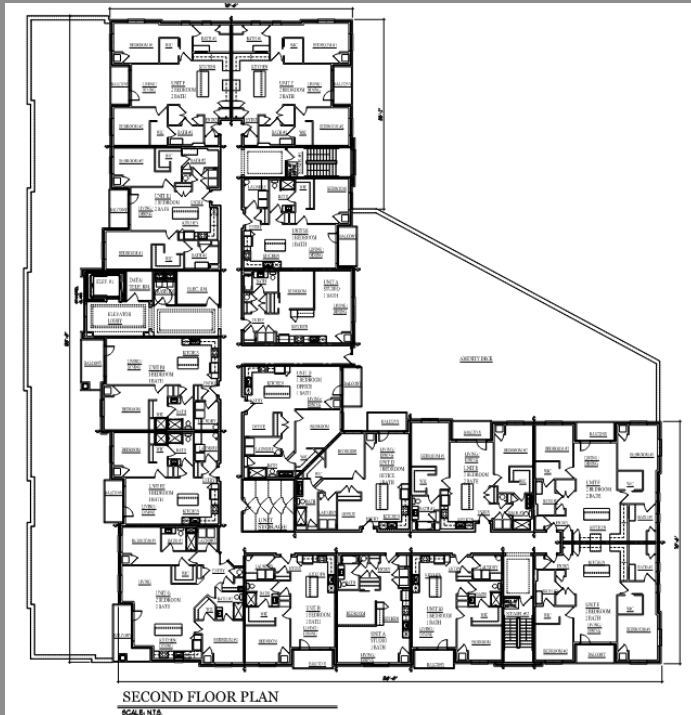
West Point at Harmony Square

Tinley Park, Illinois

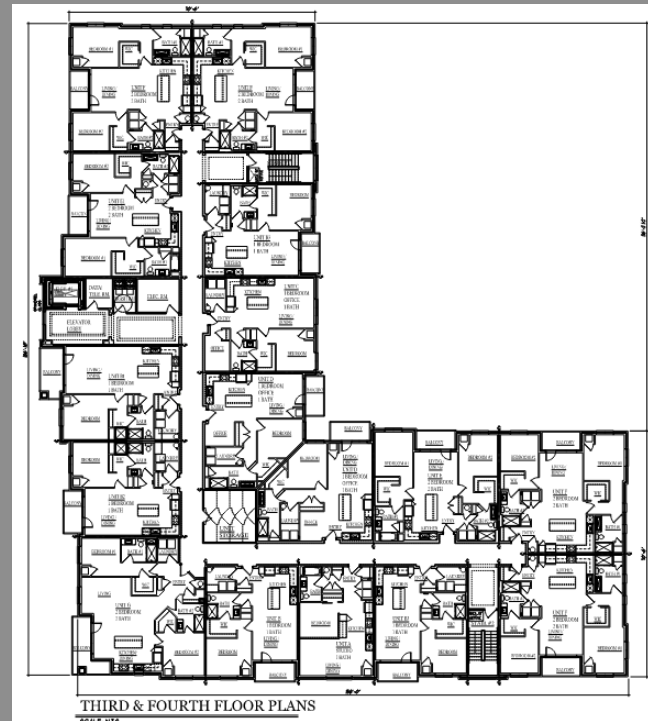


Proposed Mixed Use Building- Residential- Second-Fifth Floors

- 63 Units/ Five Floors
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Floor Plan – Floor Two



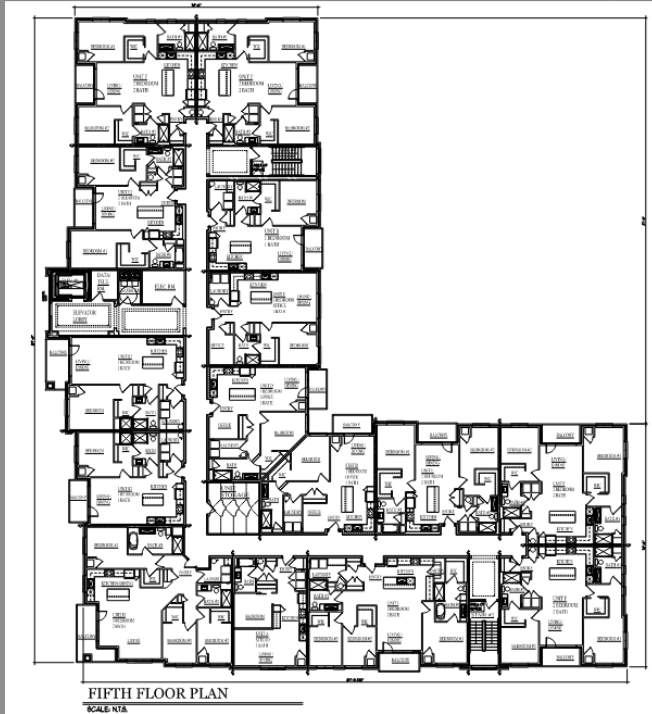
Floor Plan – Floors Three-Four

West Point at Harmony Square
Tinley Park, Illinois



Proposed Mixed Use Building- Residential- Second-Fifth Floors

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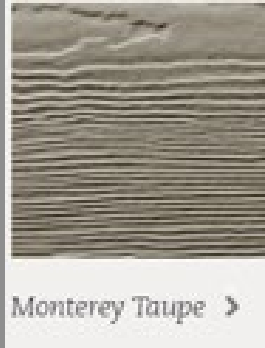


Floor Plan – Floor Five

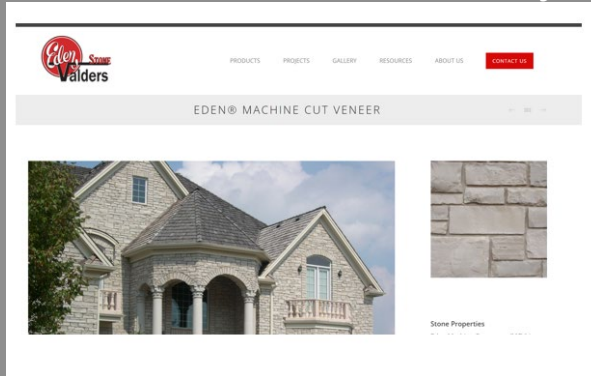
West Point at Harmony Square
Tinley Park, Illinois

Package One Multi Family Option

Hardie



Stone -Muli family



Brampton Brick- Ripley
Front Door: SW Homberg Gray 7622
Shutters: Gray

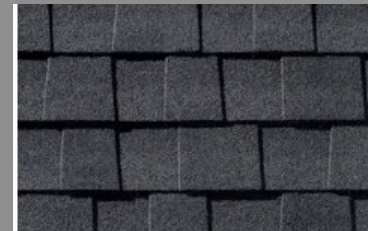


Package Two

Hardie



Artic White
Brick General Shale- LWQ Shawdow Grey Tudor
Front Door: SW Iron Ore 7069
Shutters: Black



All roofs – GAF
Charcoal

Building Materials

West Point at Harmony Square
Tinley Park, Illinois

Package Three

Hardie



Brampton Brick- Brownstone

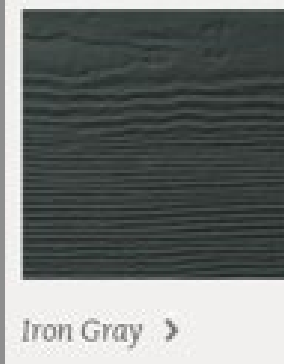
Front Door: Sherwin Williams Pewter Green SW6208

Shutters: Black



Package Four (Multifamily Option)

Hardie

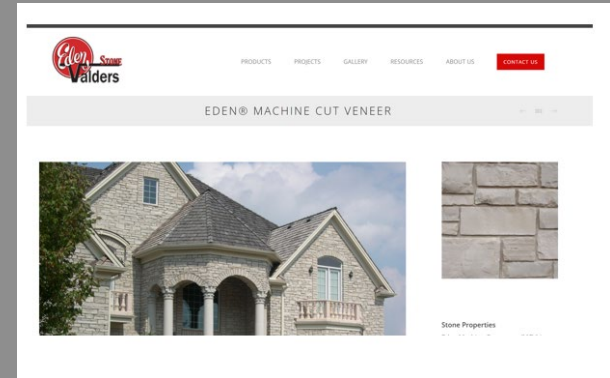


Brampton Brick- Graystone

Front Door: Sherwin Williams Auric 6692| Safer Choice
Sherwin Williams Cityscape SW7061

Shutters: Pale Gray

Stone for Multi Family



Building Materials

West Point at Harmony Square

Tinley Park, Illinois

Mixed Use Building



Proposed Mixed Use Building Materials

Building Materials

West Point at Harmony Square

Tinley Park, Illinois



Front Elevation- Courtyard/Street

Proposed Townhome Elevations

- Townhome Character



Side Elevation



Rear Elevation- Auto court



Street Facing- Side Elevation

West Point at Harmony Square

Tinley Park, Illinois

Proposed Townhome Elevations

- Townhome Character
Alternate Elevation



Front Elevation- Courtyard/Street



Rear Elevation- Auto court

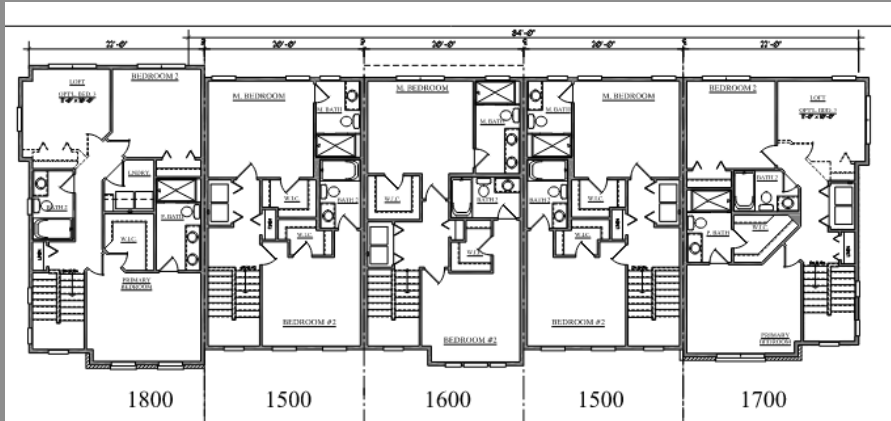


Side Elevation

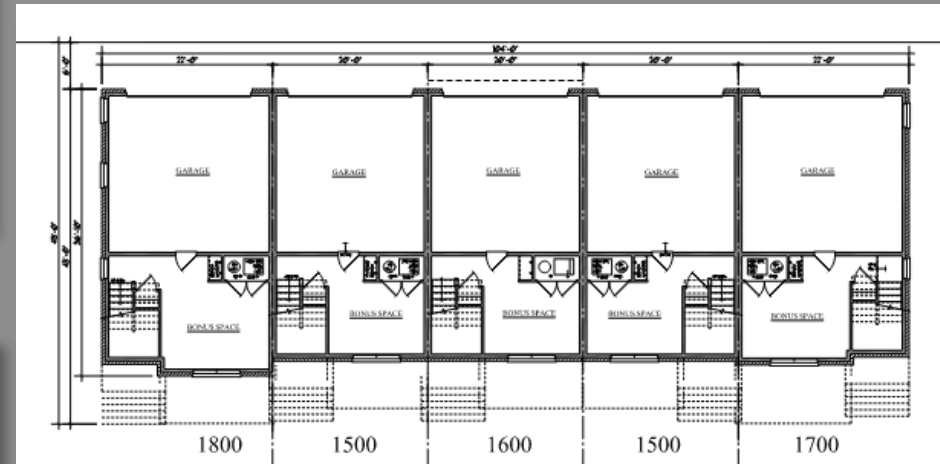
West Point at Harmony Square

Tinley Park, Illinois

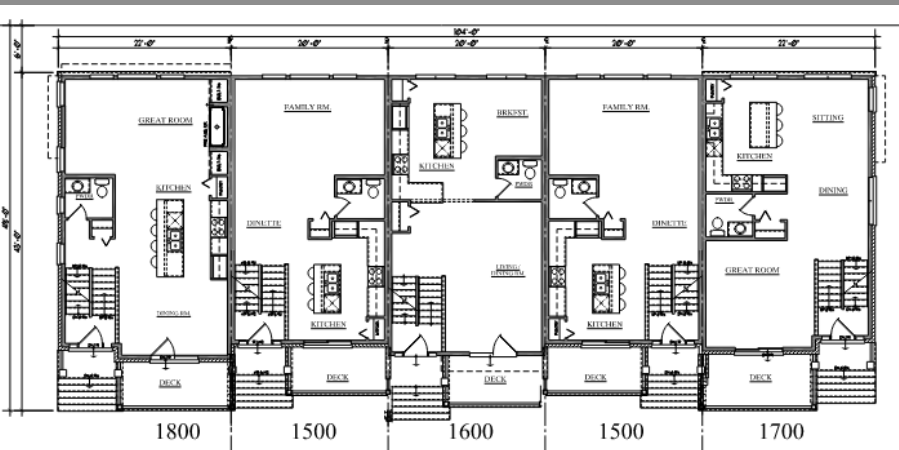
Proposed Townhome Floor Plans



Second Floor Control Plan

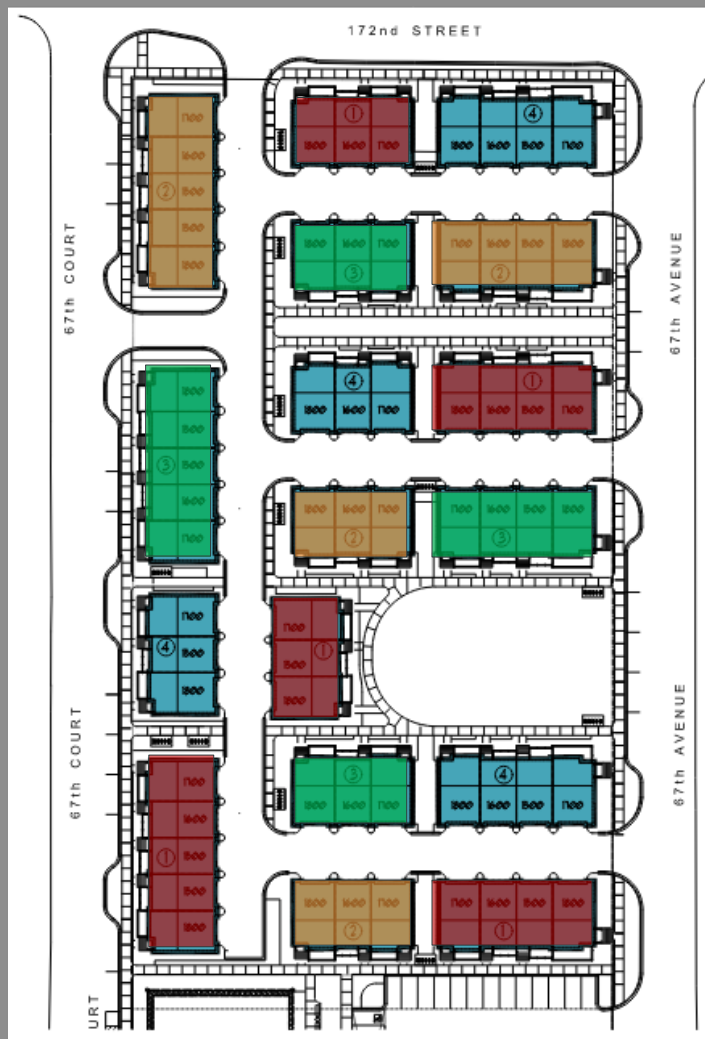


Lower Level Control Plan



First Floor Control Plan





West Point at Harmony Square
Tinley Park, Illinois



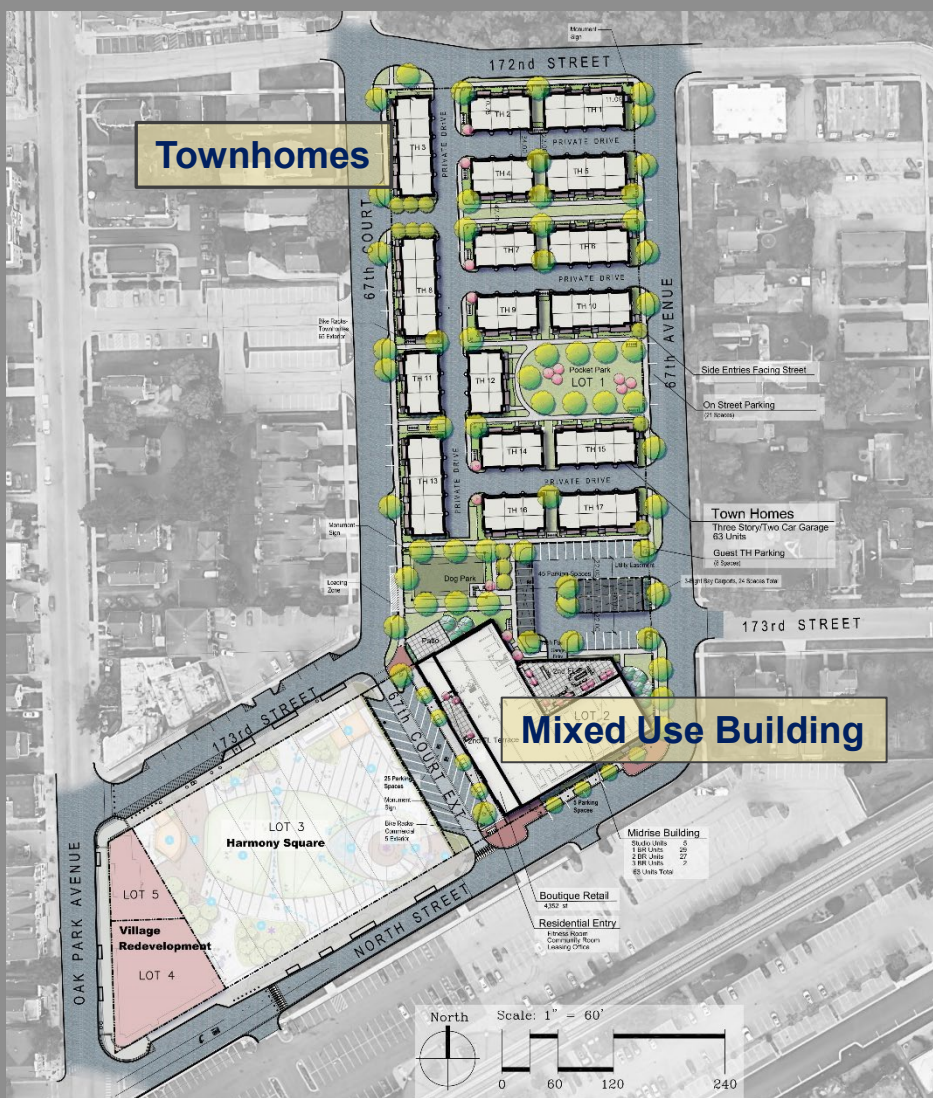
Anti Monotony Key Plan

Proposed Townhome Color Coordination Plan

- Townhome Façade Colors and Materials Coordinated to Avoid Monotonous Streetscape

| COLOR PACKAGE | | |
|---------------|---|----------------|
| COLORS | | # OF BUILDINGS |
| ① |  | 5 |
| ② |  | 4 |
| ③ |  | 4 |
| ④ |  | 4 |

West Point at Harmony Square
 Tinley Park, Illinois



Site Plan and Building Design Changes

Site Plan

- Additional Parking for Townhomes
- Additional Covered Parking for Mixed Use Building Residential Units
- Additional Surface Parking Along 67th Court
- Additional Landscape Enhancements

Building Design

- Additional Commercial Depth and Commercial SF Area
- Enhancement of Second Floor Patio Decks on Mixed Use Building
- Enhancement of North Street Building Façade
- Increase of Studio Unit Area
- Townhome Material and Color Coordination

Plan Changes Made During the Submittal Process

West Point at Harmony Square

Tinley Park, Illinois

Site Plan and Building Design Changes

Building Design

- Enhancement of North Street Building Façade

Mixed Use Building



Original Southeast Elevation- North Street



Revised Southeast Elevation- North Street

Plan Changes Made During
the Submittal Process

West Point at Harmony Square

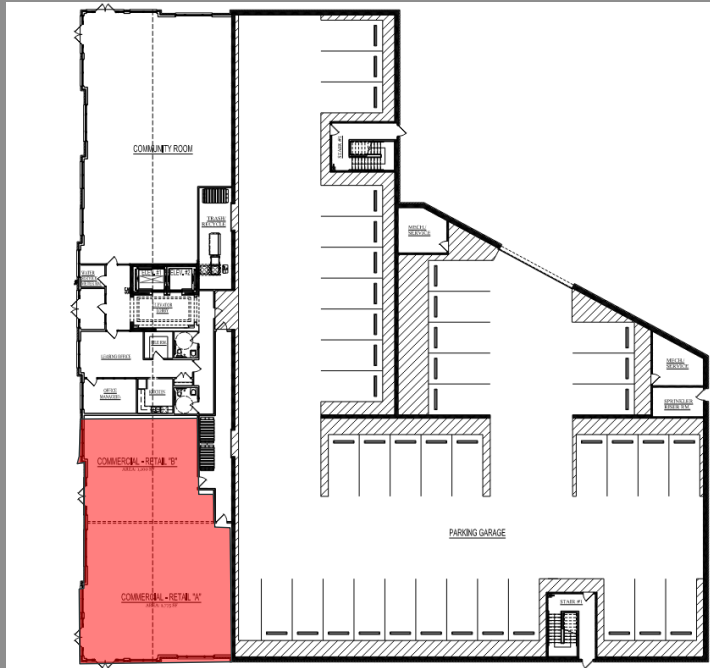
Tinley Park, Illinois

Site Plan and Building Design Changes

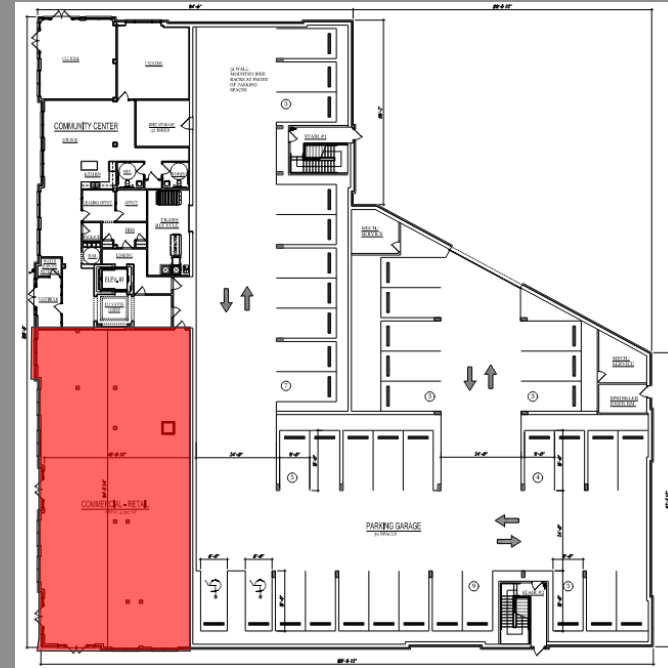
Building Design

- Additional Commercial Depth and Commercial SF Area

Mixed Use Building



Original First Floor Plan
2,875 SF

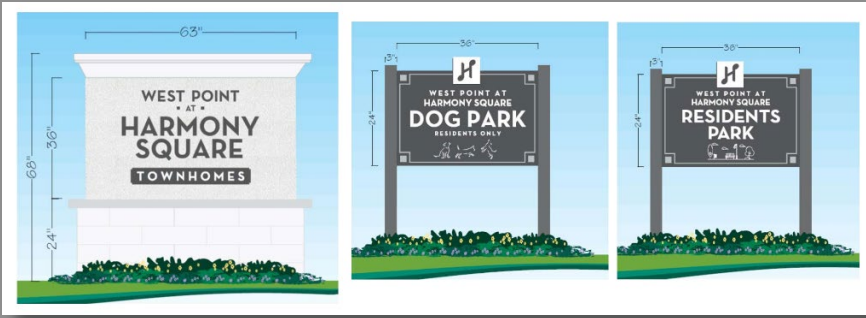


Revised First Floor Plan
4,352 SF

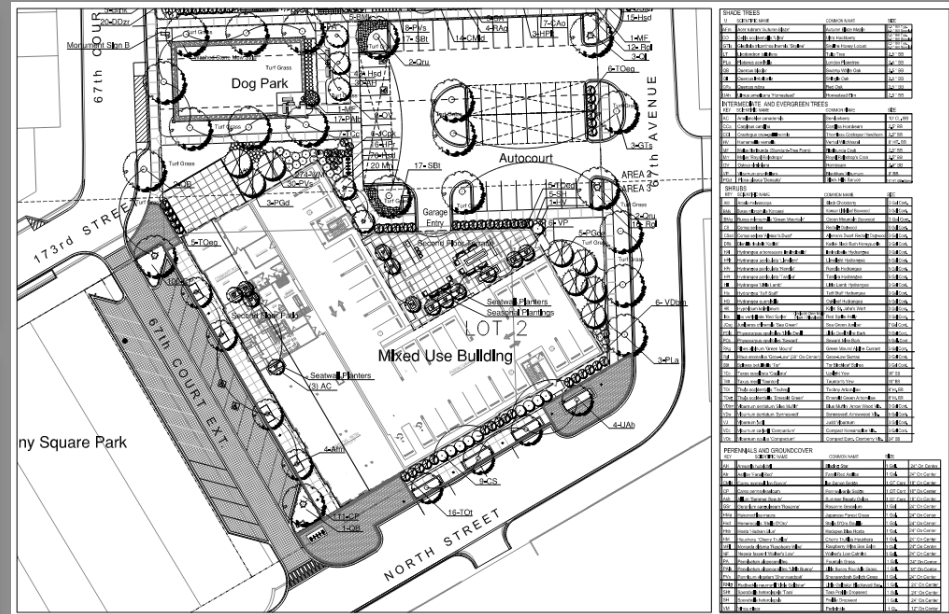
Plan Changes Made During
the Submittal Process

West Point at Harmony Square
Tinley Park, Illinois

Site Plan Elements Signage and Landscaping



Building and Site Signage



Site Landscaping

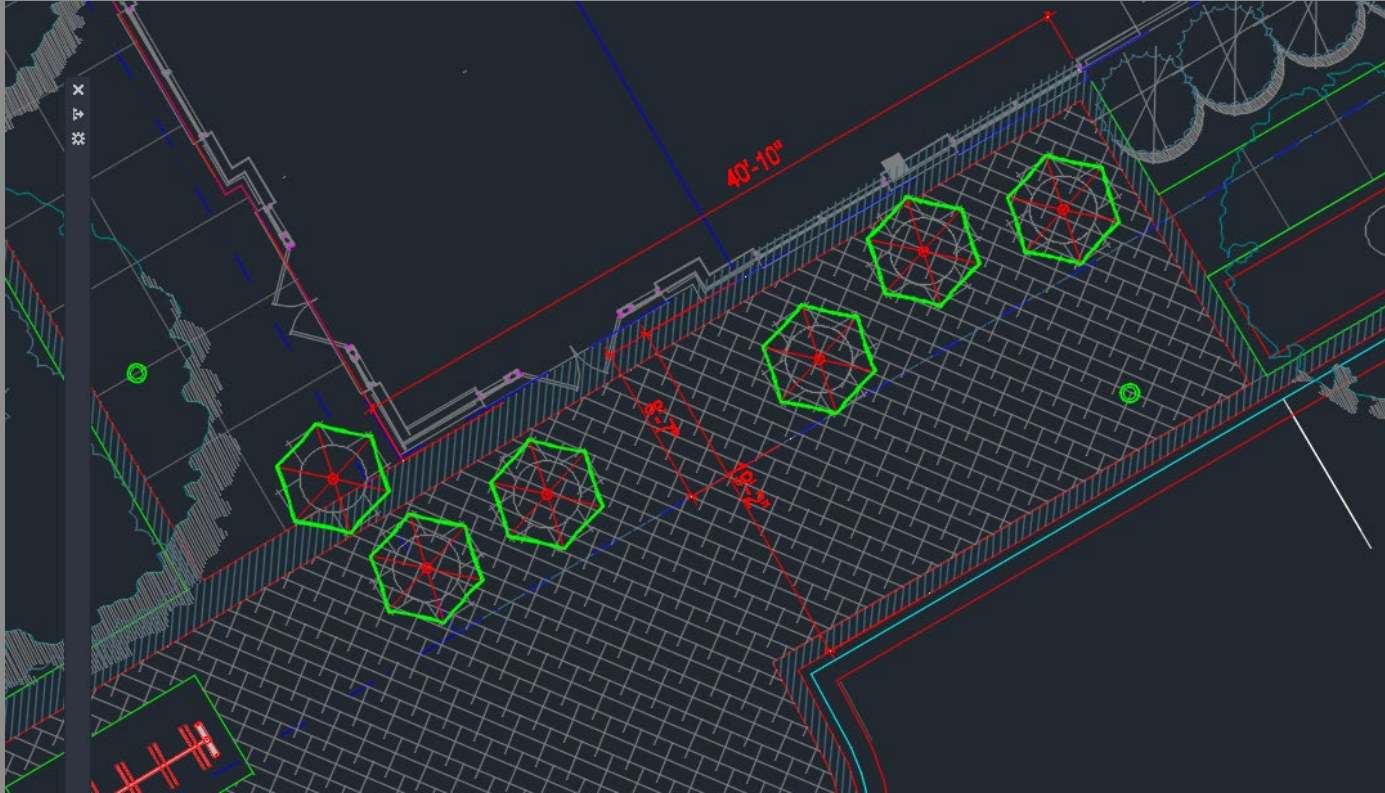
West Point at Harmony Square

Tinley Park, Illinois

Site Plan and Building Design Changes

Building Design

- Outdoor Retail Patio Area



Outdoor Patio Space

West Point at Harmony Square

Tinley Park, Illinois

Thank you. We are happy to answer any questions.



West Point at Harmony Square

Tinley Park, Illinois