BOARD OF ADJUSTMENT
PORTSMOUTH, NEW HAMPSHIRE

Remote Meeting Via Zoom Conference Call

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Per NH RSA 91-A:2, III (b) the Chair has declared the COVID-19 outbreak an emergency and has waived the requirement that a quorum be physically present at the meeting pursuant to the Governor's Executive Order 2020-04, Section 8, as extended by Executive Order 2020-5, and Emergency Order #12, Section 3. Members will be participating remotely and will identify their location and any person present with them at that location. All votes will be by roll call.

7:00 P.M. **MAY 19, 2020**

AGENDA

I. APPROVAL OF MINUTES

A) April 21, 2020

II. PUBLIC HEARINGS – NEW BUSINESS

1) Petition of **Robert Morin III Revocable Trust, Owner**, for property located at **20 Partridge Street** wherein relief is needed from the Zoning Ordinance for installation of a condenser unit which requires the following: A Variance from Section 10.515.14 to allow a 4.5' setback where 10' is required for a mechanical system. Said property is shown on Assessor Map 101 Lot 8 and lies within the General Residence B (GRB) District.

2) Petition of **3201 Lafayette Road, LLC, Owner**, for property located on **Lafayette Road** wherein relief is needed from the Zoning Ordinance to establish a mobile home sales operation on the subject parcel which requires a Special Exception from Section 10.440 Use #11.30 where the use is only permitted by special exception. Appeal of an Administrative Decision of a Code Official in the application of Sections 10.5B83.10 and 10.1113.20 of the Ordinance. If the Appeal is not granted, the Variances necessary to grant the required relief is requested: 1) A Variance from Section 10.5B83.10 and Section 10.1113.20 to allow parking spaces to be located between a principal building and a street. Said property is shown on Assessor Map 291 Lot 8 and lies within the Gateway Neighborhood Corridor (G1) District.

3) Petition of **Todd & Jan Peters, Owners**, for property located at **379 New Castle Avenue** wherein relief is needed from the Zoning Ordinance for a partial demolition and reconstruction of an existing residence and porch which requires the following: 1) A Variance from Section 10.521 to allow: a) a 6' right side yard where 10' is required; b) 22% building coverage where 20% is the maximum allowed. 2) A Variance from Section 10.321 to allow a nonconforming structure or building to be extended, reconstructed or enlarged without conforming to the requirements of the Ordinance. Said property is shown on Assessor Map 207 Lot 4 and lies within the Single Residence B (SRB) District.

4) Petition of **AER RE, LLC, Owner**, for property located at **185 Cottage Street** wherein relief is needed from the Zoning Ordinance to allow a business office use which requires the following: A Variance from Section 10.440 Use #5.20 to allow a business office use where the use is not permitted. Said property is shown on Assessor Map 174 Lot 14 and lies within the General Residence A (GRA) District.

5) Petition of **GIRI Dover, LLC, Owner**, for property located at **99 Durgin Lane** wherein relief is needed from the Zoning Ordinance for installation of concealed wireless communication facilities which requires the following: A Special Exception from Section 10.923.30 to allow the installation of concealed wireless communication facilities where the use is permitted by Special Exception. Said property is shown on Assessor Map 239 Lot 15 and lies within the Gateway Neighborhood Corridor (G1) District.

6) Petition of **Andrew S. Bridges, Owner**, for property located at **10 Fairview Drive** wherein relief is needed from the Zoning Ordinance for construction of a 10 x 12 shed which requires the following: A Variance from Section 10.573.20 to allow a 3' rear and a 3' side yard where 8.5' is required for both. Said property is shown on Assessor Map 219 Lot 18 and lies within the Single Residence B (SRB) District.

7) **REQUEST TO POSTPONE** Petition of the **Donna Pantelakos Revocable Trust, Owner** for property located at **138 Maplewood Avenue** wherein relief is needed from the Zoning Ordinance to create a new dwelling unit by constructing a second floor addition over an existing garage which requires the following; 1) A Variance from Section 10.521 to allow: a) a lot area per dwelling unit of 2,616 where 3,000 is required; and b) a 1’ right side yard where 5’ is required. 2) A Variance from Section 10.321 to allow a nonconforming structure or building to be extended, reconstructed or enlarged without conforming to the requirements of the Ordinance. Said property is shown on Assessor Map 124 Lot 6 and lies within the Character District 4-L1 (CD4-L1) District. **REQUEST TO POSTPONE**

III. OTHER BUSINESS

IV. ADJOURNMENT

BOARD OF ADJUSTMENT MEETING
PORTSMOUTH, NEW HAMPSHIRE

Remote Meeting Via Zoom Conference Call

7:20 P.M. **APRIL 21, 2020**

MINUTES

MEMBERS PRESENT: Chairman David Rheaume, Vice-Chairman Jeremiah Johnson, Jim Lee, Peter McDonell, Christopher Mulligan, Arthur Parrott**,** Alternate Phyllis Eldridge, Alternate Chase Hagaman

MEMBERS EXCUSED: John Formella

ALSO PRESENT: Peter Stith, Planning Department; Juliet Walker, Planning Department Director

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Chairman Rheaume briefly reviewed the Zoom remote meeting format. He noted that Ms. Eldridge would join the meeting at a later time.

I. APPROVAL OF MINUTES

A) April 7, 2020

*It was moved, seconded, and passed by unanimous roll call vote (7-0) to **approve** the April 7, 2020 minutes as presented.*

II. PUBLIC HEARINGS – NEW BUSINESS

1) Petition of **Jeffrey & Delores Ives, Owners,** for property located at **44 Gardner Street** wherein relief was needed from the Zoning Ordinance to demolish existing rear porch and replace with a new sun room and rear landing with steps and kitchen bay expansion which requires the following: 1) A Variance from Section 10.521 to allow 36% building coverage where 30% is the maximum required; and 2) A Variance from Section 10.321 to allow a nonconforming structure or building to be extended, reconstructed or enlarged without conforming to the requirements of the Ordinance. Said property is shown on Assessor Map 103 Lot 42 and lies within the General Residence B (GRB) District.

Alternate Mr. Hagaman assumed a voting seat.

SPEAKING TO THE PETITION

The project architect Anne Whitney was present on behalf of the applicant. She reviewed the site plan and the criteria.

SPEAKING TO, FOR, OR AGAINST THE PETITION

No one spoke to the petition, and Chairman Rheaume closed the public hearing.

DECISION OF THE BOARD

*Mr. McDonell moved to **grant** the variances as requested, with the following stipulation:*

1. *Limit the proposed building coverage to a maximum of 34% instead of the requested 36%, as recommended by the Planning Staff.*

Mr. Hagaman seconded the motion.

Mr. McDonell said the building coverage request of 34% was reasonable. He said granting the variances would not be contrary to the public interest and would observe the spirit of the ordinance, noting that the project would not alter the essential character of the neighborhood and not negatively affect the public's health, safety, or welfare. He said substantial justice would be done and the benefit to the applicant would not outweigh the general public's benefit because the applicant would get valuable living space. He said he didn't see anything that would suggest that granting the variances would diminish the values of surrounding properties, and he thought they would be increased because the renovation would be an improvement to the existing structure and improve the values of surrounding properties. He said the special conditions of the property that distinguished it from others were a relatively modest structure that was already slightly over what was allowed, and doing physical improvements to the structure would necessitate relief from the provisions of the ordinance. He said he saw no fair and substantial relationship between the general purpose of the ordinance as it related to the building coverage and its application to the property. He said the proposal was a reasonable one and that the variances should be granted.

Mr. Hagaman concurred and had nothing to add.

*The motion **passed** by unanimous roll call vote, 7-0.*

2) Petition of **Millport Inc., Owner** and **Thomas Bath, Applicant**, for property located at **1001 Islington Street** wherein relief was needed from the Zoning Ordinance to allow an accessory use on an adjacent lot which requires the following: A Variance from Section 10.1530 to allow an accessory use as defined in this section to be conducted on a lot adjacent to the lot containing the principal use or building. Said property is shown on Assessor Map 172 Lot 4 and lies within the Character District 4-W (CD4-W) District.

Mr. Hagaman retained his voting seat.

SPEAKING TO THE PETITION

The applicant Tom Bath was present. He reviewed the petition, noting that the requested patio would be an outdoor dining and drinking area located behind the brewery and near railroad tracks and was unlikely to affect neighborhood residents. He said he reviewed the criteria in his introduction letter but added that other buildings in the area were similarly zoned and no one had issues with those. He said the patio would provide a benefit in the warmer months and would make the back of the building nicer.

Mr. Hagaman noted the proximity of the railroad tracks and possible safety and noise issues, and he asked whether sound dampening or security fencing was needed. Mr. Bath said the tracks were about 50-60 feet away from the back of the building and the patio would extend only about 15 feet. He said there was a fence beyond that, as well as several trees and shrubs. As far as noise, he said the trains went by very slowly, and no outdoor music was planned.

SPEAKING TO, FOR, OR AGAINST THE PETITION

No one spoke to the petition, and Chairman Rheaume closed the public hearing.

DECISION OF THE BOARD

*Mr. Mulligan moved to **grant** the variance as presented and advertised, and Vice-Chair Johnson seconded.*

Mr. Mulligan said what the applicant proposed was relatively modest and a fairly benign accessory use to an established business and that the reason the variance was required was because the separate parcel was the only place to locate the accessory use. He noted that the city map had several strangely-configured property lines in that area. He said the building was an old industrial one that had been adaptively used over the years, and he thought that continued adaptive re-use should be encouraged because it was a reasonable one and had the support of the neighbors and the property owner. He said granting the variance would not be contrary to the public interest and would observe the spirit of the ordinance. He said the essential character of the neighborhood was mixed-use commercial that seemed to co-exist well and felt the project would not have any effect on it at all or negatively affect the public's health, safety, and welfare. He noted that the nearest abutting property was the railroad and that they wouldn't notice it. He said granting the variance would do substantial justice because the loss to the applicant if the Board required him to site the use somewhere else on the landlord's property other than that waste portion of the abutting property would make no sense, so the loss to the applicant would far outweigh any gain to the public. He said the value of surrounding properties would not be negatively affected because the patio would have a positive effect on the landlord's property and would be a nice addition to the neighborhood. He said the property had several special conditions that distinguished it from other properties, including that the building was an older industrial one that had been adapted to a number of commercial uses that were never contemplated when it was originally carved up. He said the various parcels that had been divided up were haphazard, but there was a boundary line co-extensive with the rear wall of the building, which was a special condition that separated it from others in the area. He said there was no fair and substantial relationship between the purpose of having to site accessory uses on the main lot

and its application to that particular property. He said it was a reasonable use, one that had been there and hadn't caused any problems, so the petition met all the criteria and should be granted.

Vice-Chair Johnson concurred and had nothing to add.

At this point, Ms. Eldridge joined the meeting.

Chairman Rheaume said he would support the motion, remarking that it was a unique situation and that any patron using the patio area wouldn't know that it was went from one piece of property to another.

*The motion **passed** by unanimous roll call vote, 7-0.*

3) Petition of the **Neil A Fitzgerald Family Trust, Owner,** for property located at **226 Park Street** wherein relief was needed from the Zoning Ordinance to demolish an existing garage and construct a slightly larger 315 square foot garage which requires the following: 1) A Variance from Section 10.573.20 to allow a 1' right side yard where 9'2" is required; and 2) A Variance from Section 10.321 to allow a nonconforming structure or building to be extended, reconstructed or enlarged without conforming to the requirements of the Ordinance. Said District.

Ms. Eldridge assumed a voting seat, and Mr. Hagaman returned to alternate status.

SPEAKING TO THE PETITION

Attorney Tim Phoenix was present on behalf of the applicant. He reviewed the petition and said the applicant wanted to move the house a bit further from the lot line. He said the variances were needed to fil in the small bump-out area in the back and to expand the existing nonconformity. He reviewed the criteria and said they would be met.

Chairman Rheaume asked what the client's motivation was for the style of the garage, noting that all the examples given were more traditional styles than the applicant's requested industrial-looking garage. He also noted that the façade of a long brick appearance would be right up against the property line. Attorney Phoenix said he didn't know what his client's motivation was.

SPEAKING TO, FOR, OR AGAINST THE PETITION

No one spoke to the petition, and Chairman Rheaume closed the public hearing.

DECISION OF THE BOARD

*Mr. Mulligan moved to **grant** the variances as presented and advertised, and Mr. McDonell seconded.*

Mr. Mulligan said what the applicant proposed was unusual because when people rebuilt or constructed garages, they tended to go big, yet the applicant's proposal was a modest one that was in keeping with existing and wasn't the typical 'garage mahal' that the Board tended to see. He said the garage would be slightly less nonconforming to the setbacks and slightly larger but didn't require a lot of relief. He said granting the variances would not be contrary to the public interest or to the spirit of the ordinance because the essential residential character of the neighborhood would not be altered by the replacement of the garage with a slightly larger one and that the public's health, safety, and welfare would not be affected. He said substantial justice would be done because the loss to the applicant would outweigh any gain to the public if the Board required the right side yard setback to be maintained. He said granting the variances would not diminish the value of surrounding properties because a new modern garage would enhance them. He said the hardship was that the property had special conditions consisting of a very limited frontage resulting in a small building envelope and it was also trapezoidal in shape with an expanded area toward the rear, and if the applicant had to move the garage into the allowable building envelope, it would compromise the back yard green space. He said there was no fair and substantial relationship between the purpose of the side yard setback and its application to the property, that it was a reasonable use, and that it met all the criteria for granting the variances and should be approved.

Mr. McDonell concurred and had nothing to add.

Chairman Rheaume said it was unusual for the Board to grant a one-foot or so setback for brand new construction but thought the placement of the garage was a characteristic of the neighborhood and that there was sufficient room to be able to work on the garage with permission from the neighbor.

*The motion **passed** by unanimous roll call vote, 7-0.*

4) Petition of the **Islamic Society of the Seacoast Area, Owner**, for property located at **686 Maplewood Avenue** wherein relief was needed from the Zoning Ordinance to construct a 4,000± s.f. building to house a religious place of assembly which includes the following: 1) A Special Exception under Section 10.440, Use #3.11 to allow a religious place of assembly in a district where the use is only allowed by Special Exception; and 2) A Variance from Section 10.521 to allow 47'± of continuous street frontage where 100' is required. Said property is shown on Assessor Map 220 Lot 90 and lies within the Single Residence B (SRB) District.

Mr. Mulligan recused himself from the petition, and Alternates Ms. Eldridge and Mr. Hagaman assumed voting seats.

SPEAKING TO THE PETITION

Attorney John Bosen representing the applicant was present to speak to the petition, and the applicant Mohammed Ibrahim was also present. Attorney Bosen reviewed the petition and emphasized that it was the same proposal as the one granted in 2017. He reviewed the criteria for the variance and special exception requests.

SPEAKING TO, FOR, OR AGAINST THE PETITION

No one spoke to the petition, and Chairman Rheaume closed the public hearing.

DECISION OF THE BOARD

Mr. McDonell said the Board normally wouldn't look favorably on a petition coming back a few years down the road, but the circumstances were reasonable for requesting both the variance and special exception.

*Vice-Chair Johnson moved to **grant** the variance and special criteria for the petition as presented, and Mr. McDonell seconded.*

Vice-Chair Johnson said the site had been visited by the Board several times and that it was a residential neighborhood on the dividing line of Route 95. He noted that more residential had been built out behind the property since the Board originally saw the petition and that it was a hodgepodge. He said that the neighborhood had no other places of worship and that the petition would not affect its general character. He said granting the special exception would pose no hazard to the public or adjacent properties on account of potential fire, explosion, or release of toxic materials. He said there would be no detriment to property values in the vicinity or change in the essential character of the neighborhood because a religious assembly building would bring a new element to that environment and would not be too big or out of scale. He said the site was set up higher in topography but also set back from the street, which would give the applicant an isolated sense yet still be adjacent to the highway. He said granting the special exception would pose no issues with noise, heat, vibration, odor, gas and so on because those types of things would only be occasional once or twice a year when noise could be a factor due to special events. He said there would be no increase in traffic or a traffic safety hazard, noting that it might cause an influx of traffic but only a few hours on a Saturday or Sunday. He was there would be no specific demand on municipal services including but not limited to water, sewer, fire and police protection, schools, and so on. He said the building could place a load on the city's services if it was brand new, but it wasn't expected to have a significantly high population on a regular basis. He said there could be a dedicated traffic flow during times of heavy use but otherwise traffic would not even be perceived. He said it would cause no significant increase of stormwater runoff onto adjacent properties or streets. He said he had faith in the city's civil engineers that proper care would be taken for all those issues and also noted that the petition would go before the Planning Board and the Technical Advisory Committee (TAC) as well.

Vice-Chair Johnson then addressed the variance request. He said the property would have an access entry drive that brought someone off the public way and would provide enough width for two lanes, a driveway in and out, and so on. He said that would cover the spirit of the ordinance and the public interest, and he saw no threat to the public's health, safety, or welfare. He said granting the variance would do substantial justice because the scale tipped toward the owner in that the area was an industrial and residential mix. He said he didn't know if building a new place of worship and assembly would increase surrounding property values, but he didn't think it would downgrade them because it would be a modern and well-constructed building. He saw no

diminution of values for surrounding properties. He said the special conditions that distinguished the property from others was the building's unique shape and the fact that the property was split in half by the highway, which helped create the odd shape of the building and decreased some of the width of the property at some point. He said the proposed use was a reasonable one and that the zoning ordinance allowed for it with special exception permission, which would be an extra set of checks regarding due diligence, stormwater runoff, noise, and so on. He said for those reasons, both the variance and special exception requests should be supported.

Mr. McDonell concurred. He said the purpose of the street frontage requirement in the ordinance as it applied to lots like the applicant's was to prevent houses from being crowded. He said the lot was 47 feet wide at the road that was probably too narrow for a house but not for a driveway that moved back to an expansive back area. He said it was a reasonable request in that context.

Mr. Parrott said it was an unusual situation and that he first thought when the petition was originally presented that it was a difficult lot to develop in an SRB neighborhood and would have been done before if it was appropriate, but he said it was a reasonable request. He said the use would be an appropriate one and would not be a distraction to anyone because it would be tucked away on land unlikely to be used for anything else. Chairman Rheaume recalled that the Board had concerns with the original petition regarding incoming and outgoing traffic but had noted that there were other places of worship on even busier roads that had worked out. He said the property was close to the bypass, so most of the congregation would likely head out that way. He said the neighborhood had come to understand the applicant's context within the last few years and that the number of objections had decreased, and that no one spoke against the petition that evening, indicating that the applicant had worked through the issues.

*The motion **passed** by unanimous roll call vote, 7-0.*

5) Petition of **John Byron, Owner** and **Joseph Bezanson, Applicant**, for property located on **Bartlett Street** wherein relief was needed from the Zoning Ordinance for construction of a new single family dwelling which requires: 1) A Variance from Section 10.521 to allow the following: a) 37% building coverage where 25% is the maximum allowed; and b) an 8.5' right side yard where 10' is required. Said property is shown on Assessor Map 162 Lot 54-1 and lies within the General Residence A (GRA) District.

Mr. Mulligan and Mr. Lee recused themselves from the petition, and Alternates Ms. Eldridge and Mr. Hagaman assumed voting seats.

SPEAKING TO THE PETITION

Attorney Derek Durbin presented the petition on behalf of the applicants and noted that the applicant Mr. Bezanson and realtor Todd Hudson were present. Attorney Durbin reviewed the petition, noting that the Board granted several variances in 2019 based on a different house design. He said the owner sold the abutting house lot and that the property had been on the market for a long time due to the infeasibility of the previously-proposed house design. Mr. Hudson said the average days on the market were 70 and that the lot had been on the market

about four times that amount. He said most properties with an existing plan would go under contract quickly and thought the main reason that the property had not was due to its location. He also noted that the new house design was larger. Attorney Durbin said the design was important to meet the applicant's minimal needs for a growing family and that it was becoming more common to have an in-home office. He noted that there were a few public concerns about drainage but said the applicant intended to have a drainage plan approved by the Planning Department and the Division of Public Works (DPW) and could meet with surrounding property owners to create a better drainage situation for the overall area. He reviewed the criteria, noting that most properties on Bartlett Street didn't conform to the maximum building requirements.

Mr. Hagaman asked what made the previous plan infeasible as opposed to just a lack of interest, noting that a lot of factors including a high price could have caused the property to be on the market longer than average. Mr. Hudson said the original asking price was $335,000 but had since dropped. He explained that area of town was assessed with the second highest increase in taxes and that building the proposed home was problematic because the applicant wouldn't get the value of the loan due to construction and land costs.

Mr. McDonell said a building coverage variance wasn't necessary when the petition was approved the previous year, and he asked what the building coverage was back then. Attorney Durbin said it was 25 percent. Chairman Rheaume said it was 24 percent, just under what was allowed. He said the garage went from a single to a two-car one, which took up some of the footprint, and that the study and office space took up additional room. He asked what the design's motivation was. Attorney Durbin said the applicants looked at several plans and wanted to separate their work lives from their home lives. Mr. Bezanson agreed, saying he and his wife chose the plan because it met all their requirements and all the setbacks. Chairman Rheaume asked whether there would be mitigation to prevent water runoff to the neighboring properties. Attorney Durbin said they spoke to John Chagnon of Ambit Engineering about doing a drainage study and that the DPW could approve a drainage plan.

Chairman Rheaume stated that the Board had reviewed some correspondence from the public that was in opposition to the petition. He opened the public hearing.

SPEAKING IN FAVOR OF THE PETITION

No one spoke in favor.

SPEAKING IN OPPOSITION TO THE PETITION

Katheryn Miles of 339 Bartlett Street said she lived directly across from the applicant's lot and felt that the requested increase in building coverage was significant and the proposed design wasn't in keeping with the neighborhood's architecture. She said most of the homes were about 1,200 square feet and had water in the basements and that ponding was a big issue that would be exacerbated by the project. She said the EPA Great Bay Nitrogen Reduction Plan was also in play, which the community would have to mitigate financially, and she didn't think they should have to mitigate the costs of new construction.

SPEAKING TO, FOR, OR AGAINST

Attorney Durbin said Ms. Miles made a valid point about the drainage issue but that it wasn't true that no homes were greater than 1,500 feet in size.

Mr. Hudson said he did a similar project that had the same problems with basements flooding, but in-ground cisterns were installed to prevent standing water.

Colby Gamester of 187 Woodbury Avenue said his concern was whether anyone reviewed mitigation. He said he and his neighbors would work with the applicant to see if there could be a global approach.

Attorney Durbin said the drainage issue was outside the Board's purview. He noted that the previous plan was approved with no stipulations but felt that the applicant made an appropriate concession that would mitigate a lot of drainage concerns.

No one else spoke to the petition, and Chairman Rheaume closed the public hearing.

DISCUSSION OF THE BOARD

Chairman Rheaume said the Board granted a 7-ft setback in 2019 and that the applicant was asking for an 8-1/2 foot setback. He asked whether it would be an advantage to include that variance. Mr. Stith said that, due to the change in the intensity of the structure in a different location and the fact that the design was for a completely different house, he felt it was safer to request the variance based on the proposed design. Mr. McDonell said he looked at the 2019 approval and saw that three separate variances were approved, two for the lot and one for the street frontage. He said they were reasonable in that context and the lot's orientation made it crooked and drove the side yard setback request, which made sense back then and still made sense, but he was concerned about the building coverage request because it could negatively impact the neighborhood's character and the public's health, safety and welfare. Mr. Parrott agreed. He said it was ambitious to have the build cover a third of the lot, and there were serious drainage problems, but on the other hand, those conditions could be addressed by the construction and could make the applicant's lot and the adjacent lots better; however, there was a lack of specifics as to the techniques that could be applied to the lot and whether they had been successful in other situations. He said he would feel better if there was a specific engineering proposal to address that particular house on that particular lot. Ms. Eldridge said the abutters' concerns involved the streetscape and drainage issues. She said Bartlett Street was a very mixed area and that the applicant's house covered a lot of the property, but she didn't know if the house would really stand out in that neighborhood. She said the drainage issues could be verified but wasn't sure that the house's increase in size was based on any other hardship. Mr. Hagaman said he was leaning toward denying the petition because the building coverage piece seemed like a self-created hardship and it wasn't demonstrated that a 1900-s.f. house or something similar could be put on that lot without severely compromising the lot coverage requirements.

Chairman Rheaume said when the applicant previously went before the Board, the lot size was comparable to others in the neighborhood and the street frontage was also similar. He said the unique shape of the lot made the house's placement difficult. He said that the original minimum lot coverage was also sufficient for a reasonable house to be built back then but that he was struggling to see a hardship with the present application in justifying the additional size. He said there had to be something unique about the property from others around it, and he didn't see a driver for the requested building coverage other than an economic one. He felt that the lot was on the market for too long because the sale price was too high, which wasn't a convincing argument that there was something so unique about the property that it couldn't be developed, and he didn't think the requested variances were justified. He believed that the size of the footprint taken up on the lot only added to the lot's complications and drove the negative consequence.

Ms. Eldridge said the present application had to be evaluated on its own instead of comparing it with the original application and all its baggage. Mr. Hagaman agreed but said he was hung up on the hardship because it seemed almost entirely economic as opposed to the building coverage being driven by some aspect of the property.

DECISION OF THE BOARD

*Mr. Hagaman moved to **deny** the application, and Mr. Parrott seconded.*

Mr. Hagaman said that in order to request a variance, the applicant had to meet all five criteria. He said it failed on two, meeting the spirit of the ordinance and the hardship. He said the spirit of the ordinance protected light, air, and space, and that one of his biggest concerns with the application was the building coverage on the site that went well beyond what was permitted, which led into the hardship criteria. He said the building coverage request was not driven by any hardship within the land itself and that the Board had seen the previous application, where variances were sought to put a reasonably-sized residence on the property and were in direct relation to the shape, size and location of the lot. He said the economically-driven hardship that the applicant expressed did not meet the requirements of the hardship criterion, and that he sympathized with the applicant but the variance request fell short of meeting all five criteria.

Mr. Parrott concurred and said his main concern was the lot coverage. He said he was fine with the setback request but could not see that the ordinance allowed the Board to take into account self-created hardships. He said the lot was a vacant one that could be built upon and meet all the requirements of the ordinance, so he didn't think the argument that it was financially impossible to do was something that the Board could base its decision on.

Vice-Chair Johnson said some of Chairman Rheaume's points convinced him and that he agreed to deny the petition based on the building coverage variance requested.

*The motion to deny **passed** by unanimous roll call vote, 6-0.*

*It was moved, seconded, and passed unanimously to **extend** the meeting beyond the 10:00 p.m. deadline.*

6) Petition of **Mark Broderick and Emily Spencer, Owners**, for property located on **Sims Avenue** wherein relief was needed from the Zoning Ordinance to construct a single family dwelling on a nonconforming lot which requires: 1) A Variance from Section 10.521 to allow the following: a) a lot area and lot area per dwelling unit of 12,850 square feet where 15,000 square feet is required for each; and b) 57 feet of continuous street frontage where 100 feet is required. Said property is shown on Assessor Map 233 Lot 76-1 and lies within the Single Residence B (SRB) District.

Mr. Lee resumed his voting seat, and Mr. Mulligan recused himself from the petition. Alternates Ms. Eldridge and Mr. Hagaman assumed voting seats.

Attorney John Bosen representing the applicants spoke to the petition and noted that the applicants were also present. He reviewed the petition and criteria. He stated that two letters were submitted by neighbors in opposition because they were concerned that their lots would become wet and damaged. He said the applicant's lot was a dry lot and that the house was on one of the highest points in the neighborhood, and that it wasn't up to the applicant to solve water problems that might exist in other parts of the neighborhood.

Chairman Rheaume verified that the applicant would not require any additional lot coverage. He said the Board had three site plans, one of which showed the lot being subdivided into two lots. He asked whether the lot would remain one large lot and was told that it would. He also noted that there were two different plans, one of which showed a bigger home. Attorney Bosen said they would stipulate that whatever was built would be well within the building envelope.

Chairman Rheaume noted that the Board received a few letters from the abutters. He opened the public hearing.

SPEAKING IN FAVOR OF THE PETITION

Chris Gallo of 10 Fletcher Street said he lived across the street from the lot. He said he supported the project, pointing out that his house was the same elevation as the applicant's proposed house and that there were no existing water or drainage issues.

The applicants Emily Broderick and Mark Broderick said the lot was taxed as a buildable one and that they had a great relationship with all the neighbors and would address any concerns. Mr. Broderick said the lot was one of the largest in the area.

Mike Conway of 2 Fletcher Street said he never had an issue with water in his basement.

SPEAKING IN OPPOSITION TO THE PETITION

Judy Pope of 66 Benson Street said she was a direct abutter. She said no one on Fletcher Street would have water issues because they were uphill, but her house was downhill. She said more diligence was needed relating to the water impact. She said there was a significant change in elevation of 24 feet and was concerned about where all the water would go. She said the Director

of Public Works had issues about water in the street and flooded driveways but couldn't do anything because the land on the other side was wetlands. She said it would be a hardship for her to invest in water mitigation systems to protect her property.

Angela Lambert of 65 Benson Street said she had drains and a sump pump in her basement and was concerned that less land to absorb some of that water would result in more drainage issues. She said the proposed house was significantly larger than any house in the neighborhood. She asked that the water issues be addressed before the petition was approved.

SPEAKING TO, FOR, OR AGAINST THE PETITION

Emily Broderick said the garage made the house look much bigger and that she and her husband would work with the neighbors and would be flexible with the proposed design.

Chairman Rheaume said there was a recommendation on the Board's previous approval that the Board would require any drainage concerns to be approved and that an engineering review would be done for potential impacts on adjoining properties. Attorney Bosen said the applicant was willing to work with the Department of Public Works.

Angela Lambert said it sounded like there would be an opportunity to have the water issue investigated before the project moved forward. Chairman Rheaume said the applicant would have their home fit into the 20 percent lot coverage allowed and would get additional approvals for the DPW to investigate the water issues and submit an engineering plan outlining the impacts of minimizing the water issues.

No one else spoke to the petition, and Chairman Rheaume closed the public hearing.

DISCUSSION OF THE BOARD

Mr. Stith said that as a general practice, you could not create a situation where you create more runoff onto adjacent properties, and the Inspections Department is involved in that oversight. Chairman Rheaume agreed that there were some protections in place but thought there might be additional options for review by TAC and the Planning Board. Mr. Lee asked whether the Inspection Department determined possible water runoff, and Mr. Stith said he believed they did because they were involved in mitigating water runoff onto adjacent properties. Vice-Chair Johnson said a comprehensive stormwater study would be appropriate because it would appease people's concerns and that he had no problem approving the motion with a stipulation to do an engineering study. Mr. McDonell said he saw a distinction between water running off an upland area and whether the surface was impermeable as opposed to the previous petition the Board had heard that evening. He agreed that an engineering study would probably resolve the neighbors' concerns about water runoff. He said the petition was a bit more like what the Board had previously approved because it was based on the nature of the site, regardless of what was built there, but he said the applicant wasn't asking for building coverage relief, so he didn't have the same concerns he did before.

Chairman Rheaume said it was a larger lot than most of the surrounding ones and was okay percentage-wise. He said the 1917 subdivision lot called for two separate lots at the time, which made for a substantial but not quite conforming lot that was more than adequate for a single-family home, and that the applicant was willing to build a suitably-sized house within the allowable footprint. He said the lot was nonconforming as a result of Fletcher Street not having been filled out to its full length back in 1917, with also constituted a hardship. He said the project met all the criteria. As for the water concerns, he said there were enough unique aspects of the lot that drove the Board to demand a little extra and that the applicant was willing to do so.

DECISION OF THE BOARD

*Mr. Lee moved to **grant** the variances for the petition, with the following stipulation:*

1. *That the water issues be addressed by the property developer by conducting an engineering draining evaluation and mitigation of any drainage impacts or future water issues, to be approved by the DPW and the Inspection Department.*

Vice-Chair Johnson seconded the motion.

Mr. Lee said granting the variances would not be contrary to the public interest and would observe the spirit of the ordinance, and would allow the applicant to make reasonable use of their property. He said the Board was addressing the potential water issue by requesting an engineering survey. He said substantial justice would be done because there would be no benefit to the public by denying the variance. He said granting the variances would not diminish the value of surrounding properties. He said literal enforcement of the provision of the ordinance would result in a hardship by not letting the applicant build a new house on their property. He said the use was a reasonable one and that the property had special conditions because the lot had been there 100 years without a house on it. He said there was no fair and substantial relationship between the purpose of the ordinance and its specific application to the provision of the property. He said the proposed use was a reasonable one and should be granted with the stipulation to address potential water issues.

Vice-Chair Johnson concurred and said the unfinished condition of Fletcher Street added a hardship to the property. He said the ordinance stated that 15,000 square feet for a single family home lot was sufficient but noted that the city had housing stock on typically quarter-acre lots, so it helped that there was a lot of unoccupied property around the applicant. He said he was happy the applicant would work with the neighbors to come up with a design that was more to scale.

Chairman Rheaume said he would support the motion and referred to his previous comments. Mr. Stith said the stipulation was adequate but suggested that the plan also be viewed by Public Works to get their input. Mr. Lee and Vice-Chair Johnson agreed to amend the motion.

*The **amended** motion was as follows:*

*Mr. Lee moved to **grant** the variances for the petition, with the following stipulation:*

1. *An engineered drainage and water runoff evaluation must be conducted for any proposed development of the lot and this evaluation must be approved by the Department of Public Works and the Inspection Department before granting a Building Permit.*

Vice-Chair Johnson seconded the motion.

*The motion **passed** by unanimous roll call vote, 7-0.*

III. OTHER BUSINESS

Chairman Rheaume asked the Board to submit any concerns or comments about the Zoom meeting format to Mr. Stith. Mr. Hagaman thanked Mr. Stith and Mr. Walker for facilitating a successful meeting. Chairman Rheaume said he appreciated that the City was going above and beyond and thanked the Board members for their cooperation.

IV. ADJOURNMENT

*The meeting was **adjourned** at 10:56 p.m.*

Respectfully submitted,

Joann Breault
BOA Recording Secretary

TO: Zoning Board of Adjustment
FROM: Peter Stith, AICP, Planning Department
DATE: May 12, 2020
RE: Zoning Board of Adjustment May 19, 2020 Meeting

NEW BUSINESS

1. 20 Partridge Street
2. Lafayette Road
3. 379 New Castle Avenue
4. 185 Cottage Street
5. 99 Durgin Lane
6. 10 Fairview Drive
7. 138 Maplewood Avenue – Request to Postpone

NEW BUSINESS

1.

Petition of **Robert Morin III Revocable Trust, Owner**, for property located at **20 Partridge Street** wherein relief is needed from the Zoning Ordinance for installation of a condenser unit which requires the following: A Variance from Section 10.515.14 to allow a 4.5' setback where 10' is required for a mechanical system. Said property is shown on Assessor Map 101 Lot 8 and lies within the General Residence B (GRB) District.

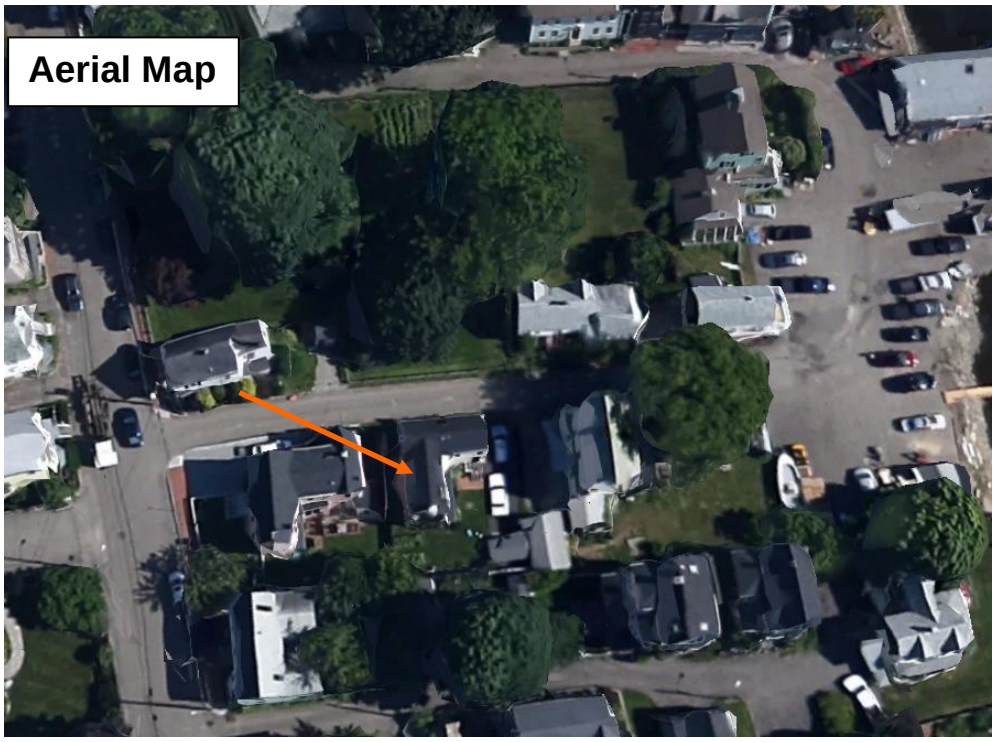
Existing & Proposed Conditions

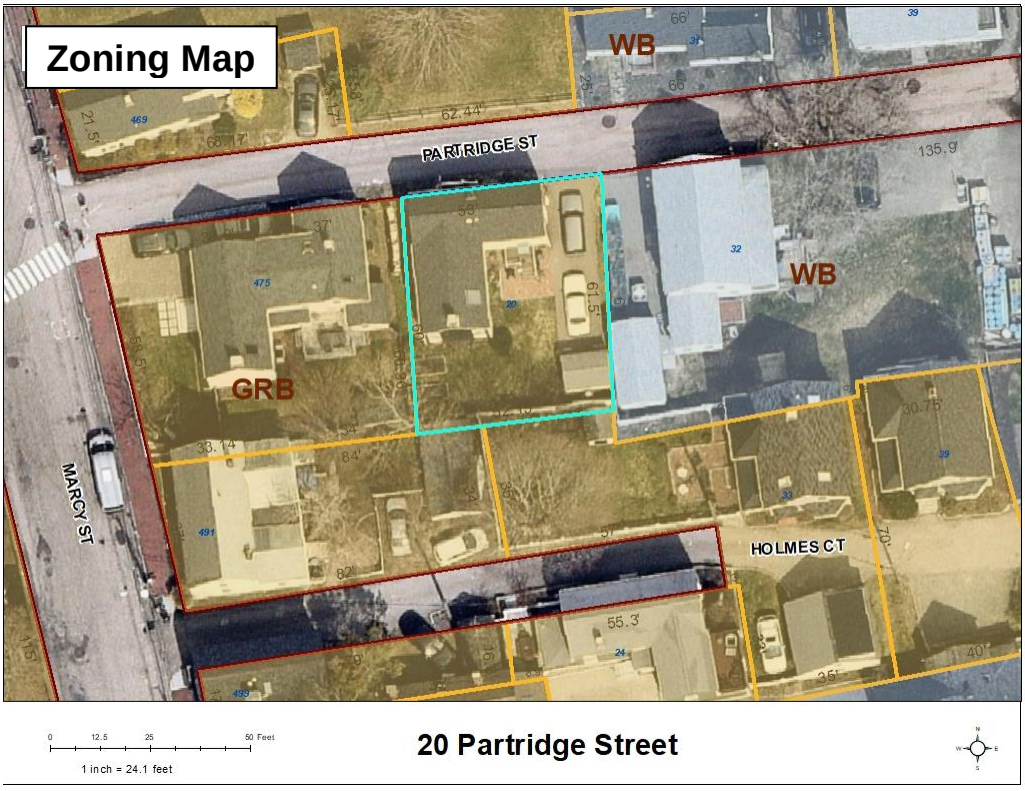
	Existing	Proposed	Permitted / Required	
Land Use:	Single Family	Condenser unit	Primarily residential uses	
Lot area (sq. ft.):	3,049	3,049	5,000	min.
Lot Area per Dwelling Unit (sq. ft.):	3,049	3,049	5,000	min.
Street Frontage (ft.):	53	53	80	min.
Lot depth (ft.):	60	60	60	min.
Primary Front Yard (ft.):	5	5	5	min.
Left Side Yard (ft.):	12	12	10	min.
Right SideYard (ft.):	7	**4.5**	10	min.
Rear Yard (ft.):	18	18	25	min.
Height (ft.):	<35	<35	35	max.
Building Coverage (%):	<30	<30	30	max.
Open Space Coverage (%):	>25	>25	25	min.
Parking	ok	Ok	1.3	
Estimated Age of Structure:	1850	Variance request shown in red.		

Other Permits/Approvals Required

Historic District Commission

Neighborhood Context





Previous Board of Adjustment Actions

September 28, 1993 – The Board granted variances as follows: 1) a Variance from Article III, Section 10-302 to allow the construction of a two-story 16.5' x 22' addition with: a) a 17.5' front yard where a 20' front yard is required; and, b) a 4' side yard were

a 20' side yard is required. And, 2) a Variance from Article IV, Section 10-401(5) to allow an expansion of an existing non-confirming single family dwelling in a district where dwellings are not allowed. These variance were granted as presented.

Planning Department Comments

The applicant is seeking relief to allow placement of a condenser unit within the 10 foot setback. The applicant indicated a setback of 4'11", however the legal notice advertised a 4.5' setback which will account for any discrepancies and allow a plus/minus if the variance is granted.

Review Criteria

This application must meet all five of the statutory tests for a **variance** (see Section 10.233 of the Zoning Ordinance):

1. *Granting the variance would not be contrary to the public interest.*
2. *Granting the variance would observe the spirit of the Ordinance.*
3. *Granting the variance would do substantial justice.*
4. *Granting the variance would not diminish the values of surrounding properties.*
5. *The "unnecessary hardship" test:*
   (a)The property has special conditions that distinguish it from other properties in the area.
   AND
   (b) Owing to these special conditions, a fair and substantial relationship does not exist between the general public purposes of the Ordinance provision and the specific application of that provision to the property; and the proposed use is a reasonable one.
   OR

Owing to these special conditions, the property cannot be reasonably used in strict conformance with the Ordinance, and a variance is therefore necessary to enable a reasonable use of it.

2.

Petition of **3201 Lafayette Road, LLC, Owner**, for property located on **Lafayette Road** wherein relief is needed from the Zoning Ordinance to establish a mobile home sales operation on the subject parcel which requires a Special Exception from Section 10.440 Use #11.30 where the use is only permitted by special exception. Appeal of an Administrative Decision of a Code Official in the application of Sections 10.5B83.10 and 10.1113.20 of the Ordinance. If the Appeal is not granted, the Variances necessary to grant the required relief is requested: 1) A Variance from Section 10.5B83.10 and Section 10.1113.20 to allow parking spaces to be located between a principal building and a street. Said property is shown on Assessor Map 291 Lot 8 and lies within the Gateway Neighborhood Corridor (G1) District.

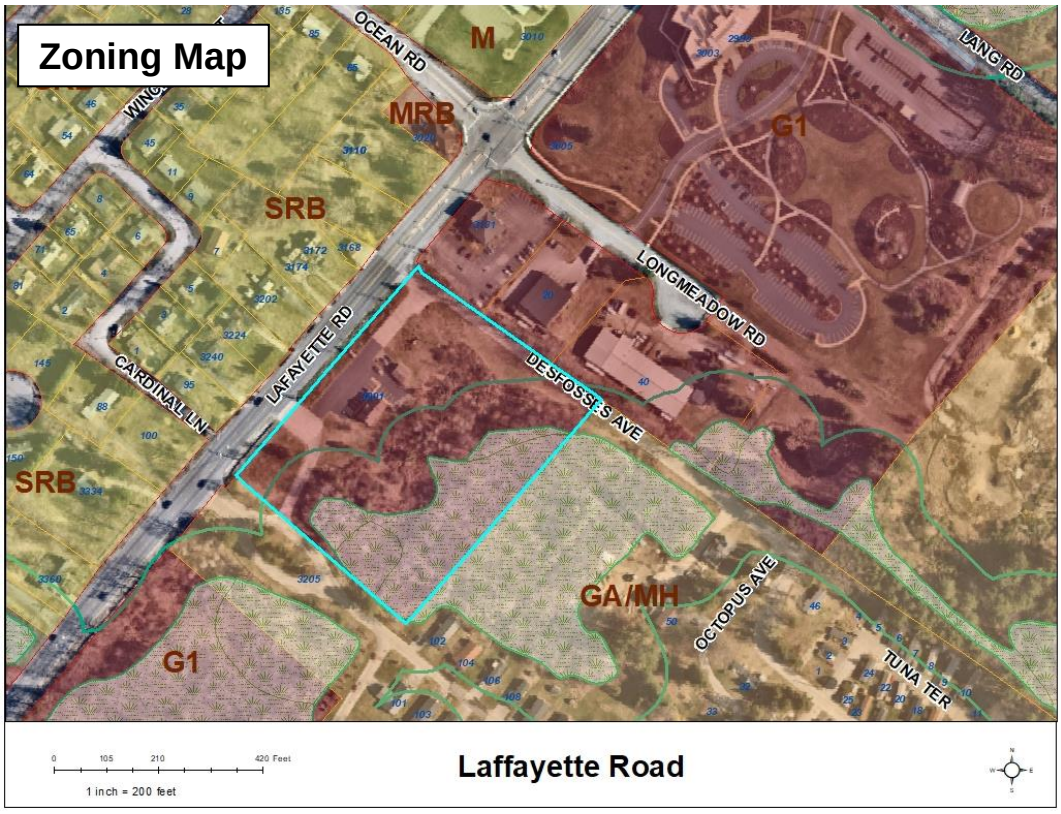
Existing & Proposed Conditions

	Existing	Proposed	Permitted / Required
Land Use:	Office	**Mobile home sales**	Primarily mixed uses
Lot Area (sq. ft.):	262,281	262,281	No Req. min.
Setback from Lafayette Rd.(ft.):	106	130 (mobile home office/units)	80' from CL or 30' from side line
Parking	16	21	20
		Variance/Special Exception request shown in red.	

Other Permits/Approvals Required

Planning Board/TAC – Site Plan Review

Neighborhood Context



Previous Board of Adjustment Actions

October 1, 1985 – The Board granted a variance as follows: a Variance from Article II, Section 10-206(25) to allow the continuance of the use of a mobile home and two trailers for storage for a period of time in excess of 90 days. This variance was granted provided that the storage vehicles be moved 200' back from the front property line.

November 12, 1985 – The Board denied a variance as follows: a Variance from Article IX, Section 10-906 to erect 2 free-standing signs with 12 ft. and 17 ft. front yards where a minimum yard of 35 ft. is required.

Planning Department Comments

The applicant is proposing to add mobile home sales to the property where the use is permitted by special exception in the G1 district. The addition of the mobile home sales use requires additional parking which is proposed to be located in front of the principal structure. Two sections of the ordinance prohibit parking between the street and the principal structure. The full text of both sections is below:

10.5B83.10 Required **off-street parking** spaces shall not be located between a **principal building** and a **street** or within any required perimeter buffer area.

10.1113.20 Location of Parking Facilities on a Lot

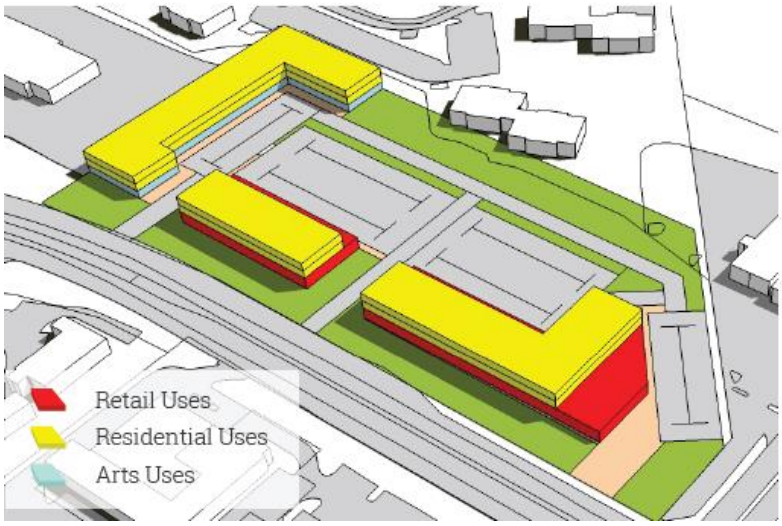
Required **off-street parking** spaces shall not be located in any required **front yard**, or between a **principal building** and a **street** (including on a **corner lot**). This restriction shall not apply to required **off-street parking** for a **single-family dwelling** or **two-family dwelling**.

The applicant is appealing the determination that these two sections apply to their proposal, arguing that Lafayette Road is not a street. As stated in the Planning Director's response, when you read the Ordinance as a whole, it is clear the intent of Section 10.5B83.10 is to prohibit parking between a building and a public way in this district. If we were to read the definition of street to exclude Lafayette Road from this provision, we would intentionally construe the Ordinance to have a meaning other than the one intended by its drafters. The common meaning of a street clearly includes Lafayette Road, and any reading of this ordinance provision which does not include Lafayette Road frustrates the purpose of the ordinance.

This is also supported by the Master Plan, with specific examples of buildings located closer to the street and parking located in the rear of the property. Below is an excerpt from the Plan along with a rendering of redevelopment along Lafayette Road.

"A rendering of a typical site on Lafayette Road can be used to demonstrate what a new mixed-use development could look like based of the existing Gateway Planned Development standards. The site features buildings along the street with parking in the rear, and significant open space, and offers an improvement from existing conditions."

Below. *A redevelopment study of a parcel on Lafayette Road, showing new structures built according to existing zoning regulations for a Gateway Planned Development. An analysis of this site is described in the* Future Development Objectives: Land Use *section of this chapter.*



An affirmative vote of at 4 members is required to overturn a decision of a Code Official. If the appeal is not granted, the applicant is seeking variances for the location of the 5 additional parking spaces.

Review Criteria

The application must meet all of the standards for a **special exception** (see Section 10.232 of the Zoning Ordinance).

1. *Standards as provided by this Ordinance for the particular use permitted by special exception;*
2. *No hazard to the public or adjacent property on account of potential fire, explosion or release of toxic materials;*
3. *No detriment to property values in the vicinity or change in the essential characteristics of any area including residential neighborhoods or business and industrial districts on account of the location or scale of buildings and other structures, parking areas, accessways, odor, smoke, gas, dust, or other pollutant, noise, glare, heat, vibration, or unsightly outdoor storage of equipment, vehicles or other materials;*
4. *No creation of a traffic safety hazard or a substantial increase in the level of traffic congestion in the vicinity;*
5. *No excessive demand on municipal services, including, but not limited to, water, sewer, waste disposal, police and fire protection and schools; and*
6. *No significant increase of stormwater runoff onto adjacent property or streets.*

This application must meet all five of the statutory tests for a **variance** (see Section 10.233 of the Zoning Ordinance):

1. *Granting the variance would not be contrary to the public interest.*
2. *Granting the variance would observe the spirit of the Ordinance.*
3. *Granting the variance would do substantial justice.*

4. *Granting the variance would not diminish the values of surrounding properties.*
5. *The "unnecessary hardship" test:*
   (a)The property has special conditions that distinguish it from other properties in the area.
   AND
   (b) Owing to these special conditions, a fair and substantial relationship does not exist between the general public purposes of the Ordinance provision and the specific application of that provision to the property; and the proposed use is a reasonable one.
   OR

Owing to these special conditions, the property cannot be reasonably used in strict conformance with the Ordinance, and a variance is therefore necessary to enable a reasonable use of it.

3.

Petition of **Todd & Jan Peters, Owners**, for property located at **379 New Castle Avenue** wherein relief is needed from the Zoning Ordinance for a partial demolition and reconstruction of an existing residence and porch which requires the following: 1) A Variance from Section 10.521 to allow: a) a 6' right side yard where 10' is required; b) 22% building coverage where 20% is the maximum allowed. 2) A Variance from Section 10.321 to allow a nonconforming structure or building to be extended, reconstructed or enlarged without conforming to the requirements of the Ordinance. Said property is shown on Assessor Map 207 Lot 4 and lies within the Single Residence B (SRB) District.

Existing & Proposed Conditions

	Existing	Proposed	Permitted / Required	
Land Use:	Single family	Partial demo and reconstruction	Primarily residential uses	
Lot area (sq. ft.):	8,744	8,744	15,000	min.
Lot Area per Dwelling Unit (sq. ft.):	8,744	8,744	15,000	min.
Street Frontage (ft.):	55	55	100	min.
Lot depth (ft.):	112	112	100	min.
Front Yard (ft.):	>30	>30	30	min.
Right Yard (ft.):	6	**6**	10	min.
Left Yard (ft):	11	11	10	min.
Rear Yard (ft.):	>30	>30	30	min.
Height (ft.):	<35	<35	35	max.
Building Coverage (%):	21.5	**22**	20	max.
Open Space Coverage (%):	66	66	40	min.
Parking	2	2	1.3	
Estimated Age of Structure:	1850	Variance request shown in red.		

Other Permits/Approvals Required
None.

Neighborhood Context

Previous Board of Adjustment Actions

No BOA history found.

Planning Department Comments

The applicant is proposing to demolish the existing porch that is nonconforming and construct a new porch in the same footprint and second story addition. The foundation is proposed to be repaired and a small increase in the footprint is proposed, increasing the building coverage slightly.

Review Criteria

This application must meet all five of the statutory tests for a **variance** (see Section 10.233 of the Zoning Ordinance):

1. *Granting the variance would not be contrary to the public interest.*
2. *Granting the variance would observe the spirit of the Ordinance.*
3. *Granting the variance would do substantial justice.*
4. *Granting the variance would not diminish the values of surrounding properties.*
5. *The "unnecessary hardship" test:*
   (a)The property has special conditions that distinguish it from other properties in the area.
   AND
   (b) Owing to these special conditions, a fair and substantial relationship does not exist between the general public purposes of the Ordinance provision and the specific application of that provision to the property; and the proposed use is a reasonable one.
   OR

Owing to these special conditions, the property cannot be reasonably used in strict conformance with the Ordinance, and a variance is therefore necessary to enable a reasonable use of it.

4.

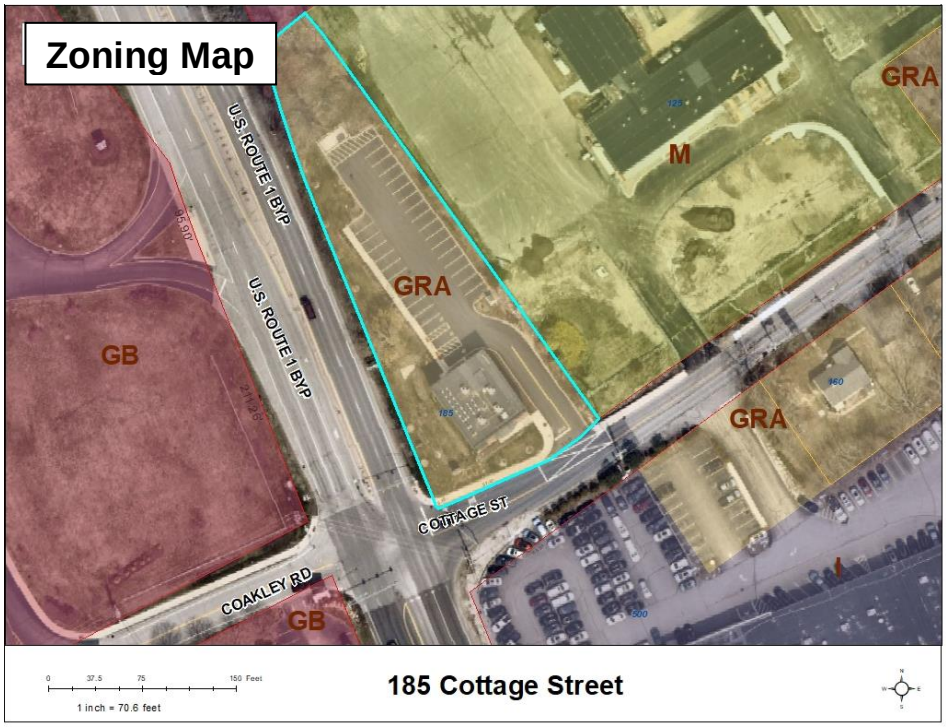
Petition of **AER RE, LLC, Owner**, for property located at **185 Cottage Street** wherein relief is needed from the Zoning Ordinance to allow a business office use which requires the following: A Variance from Section 10.440 Use #5.20 to allow a business office use where the use is not permitted. Said property is shown on Assessor Map 174 Lot 14 and lies within the General Residence A (GRA) District.

Existing & Proposed Conditions

	Existing	Proposed	Permitted / Required	
Land Use:	Medical facility	**Business office**	Primarily Residential Uses	
Lot area (sq. ft.):	38,768	38,768	7,500	min.
Lot Area per Dwelling Unit (sq. ft.):	NA	NA	7,500	min.
Street Frontage (ft.):	>100	>100	100	min.
Lot depth (ft.):	>70	>70	70	min.
Primary Front Yard (ft.):	27	27	15	min.
Right Yard (ft.):	43	43	10	min.
Secondary Front Yard (ft.):	15	15	15	min.
Rear Yard (ft.):	>20	>20	20	min.
Height (ft.):	<30	<30	30 (flat)	max.
Building Coverage (%):	11	11	25	max.
Open Space Coverage (%):	46	46	30	min.
Parking:	31	31	22 (based on new use)	
Estimated Age of Structure:	2019	Variance request shown in red.		

Other Permits/Approvals Required
None.

Neighborhood Context



Previous Board of Adjustment Actions

<u>October 25, 2016</u> – The Board denied the following variances as follows:

1) A Variance from Section 10.440 to allow a fast food restaurant in a district where the use is not allowed.
2) A Variance from Section 10.1112.30 to allow 23 parking spaces t be provided where 33 parking spaces are required.
3) A Variance from Section 10.1113.20 to allow off-street parking spaces to be located in a required front yard or between a principal building and a street.

June 26, 2018 – The Board granted a variance as a follows: a Variance from Section 10.440, Use #620 to allow medical (dental) offices where medical offices are not permitted.

July 16, 2019 – The Board granted the following variances:

1) Section 10.1215 to allow 113 s.f. of signage where 40 s.f. of aggregate sign area is available.
2) Section 10.1214 to allow a freestanding sign where freestanding signs are not allowed.
3) Section 10.1253.10 to allow a 10' high freestanding sign 15' from a lot line where a freestanding sign is not allowed.
4) Section 10.1251.20 to allow a 44.4 s.f. wall sign where 4 s.f. is the maximum sign area allowed for a wall sign and a 60 s.f. freestanding sign.
5) Section 10.1261.10 to allow halo illumination where no illumination is permitted.

Planning Department Comments

As is shown in the history above, the medical office was approved in 2018 and subsequently, the signage was approved in 2019. The medical office occupies the second floor of the building and the applicant originally anticipated a similar use for the first floor. The proposal is for a business office use in the first floor which is not permitted in the GRA zone. The original parking analysis was based on medical office occupying the entire building which required 28 spaces and 31 were provided. Business office use requires less parking so there is adequate parking for both uses on the property.

Review Criteria

This application must meet all five of the statutory tests for a **variance** (see Section 10.233 of the Zoning Ordinance):

1. *Granting the variance would not be contrary to the public interest.*
2. *Granting the variance would observe the spirit of the Ordinance.*
3. *Granting the variance would do substantial justice.*
4. *Granting the variance would not diminish the values of surrounding properties.*
5. *The "unnecessary hardship" test:*
   (a)The property has special conditions that distinguish it from other properties in the area.
   AND
   (b) Owing to these special conditions, a fair and substantial relationship does not exist between the general public purposes of the Ordinance provision and the specific application of that provision to the property; and the proposed use is a reasonable one.
   OR

Owing to these special conditions, the property cannot be reasonably used in strict conformance with the Ordinance, and a variance is therefore necessary to enable a reasonable use of it.

5.

Petition of **GIRI Dover, LLC, Owner**, for property located at **99 Durgin Lane** wherein relief is needed from the Zoning Ordinance for installation of concealed wireless communication facilities which requires the following: A Special Exception from Section 10.923.30 to allow the installation of concealed wireless communication facilities where the use is permitted by Special Exception. Said property is shown on Assessor Map 239 Lot 15 and lies within the Gateway Neighborhood Corridor (G1) District.

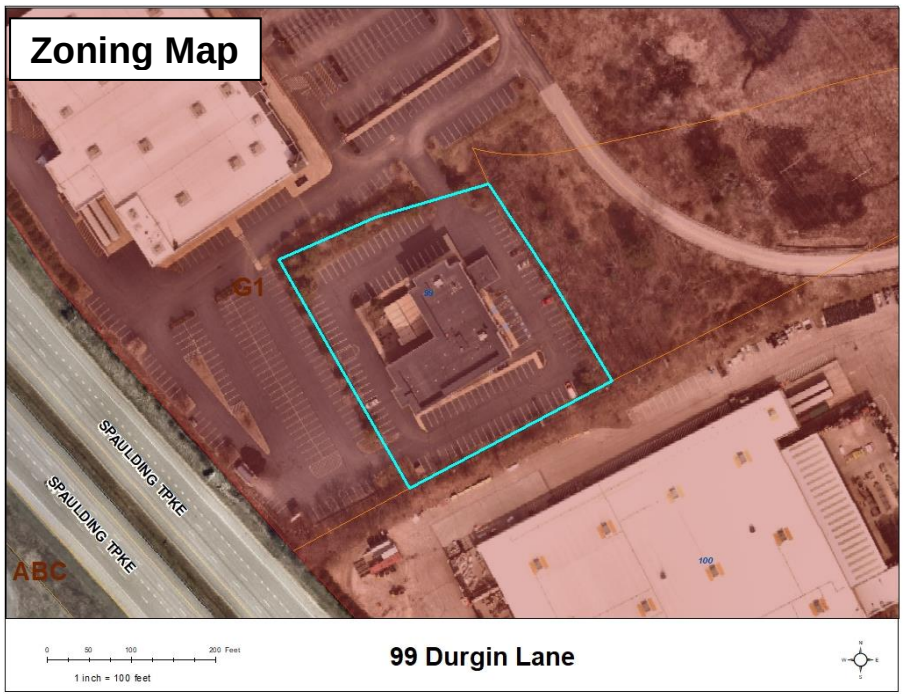
Existing & Proposed Conditions

The Hampton Inn occupies this parcel that is adjacent to the Spaulding Turnpike and located behind Home Depot. The proposal consists of 6 concealed wireless communications facilities that will be inserted into the parapet wall of the Hampton Inn and supporting structures will be located on the roof. This type of facility is allowed by Special Exception in the G2 district under Section 10.923.30. Section 10.926 outlines specific information that must be provided in the application for a Special Exception.

Other Permits/Approvals Required

None.

Neighborhood Context



Previous Board of Adjustment Actions

April 20, 1999 – The Board granted a variance as follows: a Variance from Article IX, Section 10-908 Table 11 to allow a 74.58 s.f. attached sign creating: a) 242 s.f of attached signage where 200 s.f. is the maximum allowed and b) 242 s.f. of aggregate signage where 200 s.f. is the maximum allowed. This variance was granted with the following stipulation:

1. The attached sign be reduced from 74.58 s.f. to 62 s.f. reducing the total aggregate signage from 242 s.f. to 230 s.f.

March 23, 2018 – The Board granted the following variances:

1) a Variance from Section 10.1271 to allow signage where it is not allowed;
2) a Variance from Section 10.1251.10 to allow signage where there is no aggregate signage allowed;
3) a Variance from Section 10.1251.20 to allow canopy signs greater than 20 s.f.
4) a Variance from Section 10.1251.20 to allow a wall sign greater than 200 s.f.
5) a Variance from Section 10.1242 to allow more than one wall sign above the first floor on three sides of the building without a street façade.

Review Criteria
The application must meet all of the standards for a **special exception** (see Section 10.232 of the Zoning Ordinance).

1. *Standards as provided by this Ordinance for the particular use permitted by special exception;*
2. *No hazard to the public or adjacent property on account of potential fire, explosion or release of toxic materials;*
3. *No detriment to property values in the vicinity or change in the essential characteristics of any area including residential neighborhoods or business and industrial districts on account of the location or scale of buildings and other structures, parking areas, accessways, odor, smoke, gas, dust, or other pollutant, noise, glare, heat, vibration, or unsightly outdoor storage of equipment, vehicles or other materials;*
4. *No creation of a traffic safety hazard or a substantial increase in the level of traffic congestion in the vicinity;*
5. *No excessive demand on municipal services, including, but not limited to, water, sewer, waste disposal, police and fire protection and schools; and*
6. *No significant increase of stormwater runoff onto adjacent property or streets.*

6.

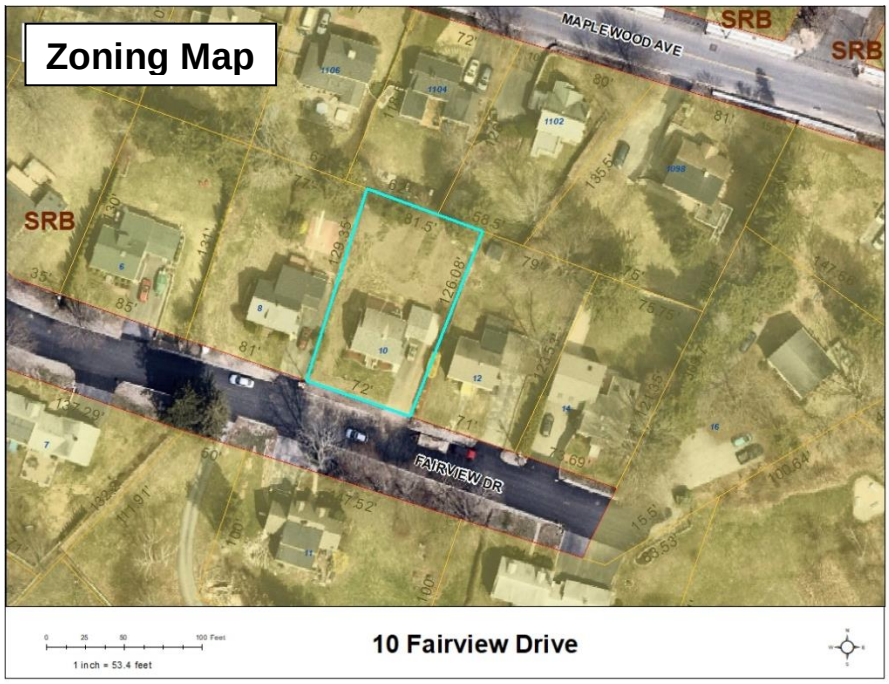
Petition of **Andrew S. Bridges, Owner**, for property located at **10 Fairview Drive** wherein relief is needed from the Zoning Ordinance for construction of a 10 x 12 shed which requires the following: A Variance from Section 10.573.20 to allow a 3' rear and a 3' side yard where 8.5' is required for both. Said property is shown on Assessor Map 219 Lot 18 and lies within the Single Residence B (SRB) District.

Existing & Proposed Conditions

	Existing	Proposed	Permitted / Required	
Land Use:	Vacant	Construct single-family dwelling	Primarily residential uses	
Lot area (sq. ft.):	9,583	9,583	15,000	min.
Lot Area per Dwelling Unit (sq. ft.):	9,583	9,583	15,000	min.
Street Frontage (ft.):	72	72	100	min.
Lot depth (ft.):	127	127	100	min.
Front Yard (ft.):	21	21	30	min.
Right Side Yard (ft.):	5	**3** (shed)	8.5 (shed)	min.
Left Side Yard (ft):	24	24	10	min.
Rear Yard (ft.):	63	**3** (shed)	8.5 (shed)	min.
Height (ft.):	<35	8.5	35	max.
Building Coverage (%):	11.5	13	20	max.
Open Space Coverage (%):	>40	>40	40	min.
Parking		2	1.3	
		Variance request shown in red.		

Other Permits/Approvals Required
None.

Neighborhood Context



Previous Board of Adjustment Actions

No BOA history found.

Planning Department Comments

The applicant is proposing to construct a 10 x 12 shed in the back right corner of the lot. Accessory structures over 100 square feet must be setback the height of the structure or the applicable setback, whichever is less. In this instance, the required rear yard is 30' and side yard is 10', however the height of the shed is 8.5', therefore both the rear and the side yard requirement is 8.5'.

This application must meet all five of the statutory tests for a **variance** (see Section 10.233 of the Zoning Ordinance):

1. *Granting the variance would not be contrary to the public interest.*
2. *Granting the variance would observe the spirit of the Ordinance.*
3. *Granting the variance would do substantial justice.*
4. *Granting the variance would not diminish the values of surrounding properties.*
5. *The "unnecessary hardship" test:*
   (a)The property has special conditions that distinguish it from other properties in the area.
   AND
   (b) Owing to these special conditions, a fair and substantial relationship does not exist between the general public purposes of the Ordinance provision and the specific application of that provision to the property; and the proposed use is a reasonable one.
   OR

Owing to these special conditions, the property cannot be reasonably used in strict conformance with the Ordinance, and a variance is therefore necessary to enable a reasonable use of it.

7.

Petition of the **Donna Pantelakos Revocable Trust, Owner** for property located at **138 Maplewood Avenue** wherein relief is needed from the Zoning Ordinance to create a new dwelling unit by constructing a second floor addition over an existing garage which requires the following; 1) A Variance from Section 10.521 to allow: a) a lot area per dwelling unit of 2,616 where 3,000 is required; and b) a 1' right side yard where 5' is required. 2) A Variance from Section 10.321 to allow a nonconforming structure or building to be extended, reconstructed or enlarged without conforming to the requirements of the Ordinance. Said property is shown on Assessor Map 124 Lot 6 and lies within the Character District 4-L1 (CD4-L1) District.

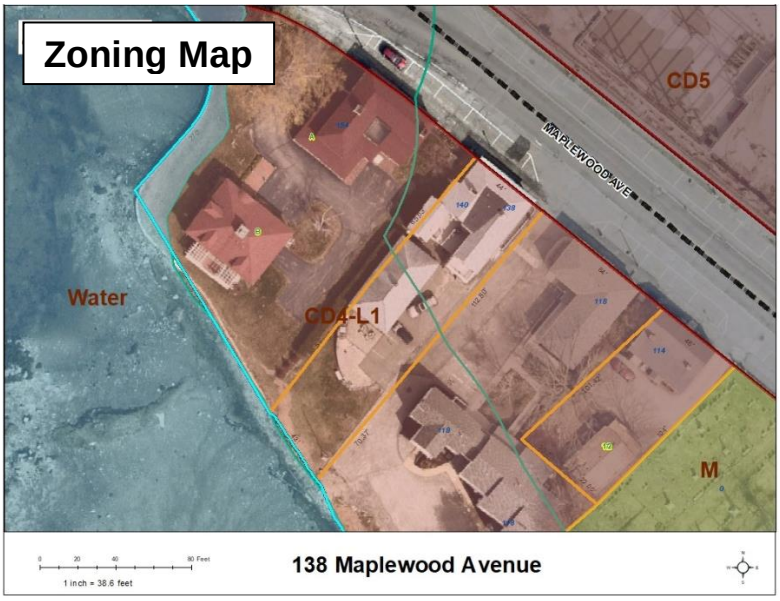
Request to Postpone

Existing & Proposed Conditions

	Existing	Proposed	Permitted / Required	
Land Use:	Two family	Garage addition/3 dwelling units	Primarily mixed residential uses	
Lot area (sq. ft.):	7,850	7,850	3,000	min.
Lot Area per Dwelling Unit (sq. ft.):	3,925	**2,616**	3,000	min.
Front Yard (ft.):	0	0	15	max.
Right Side Yard (ft.):	1	**1**	5' min to 20' max.	
Left Side Yard (ft):	10	10	5' min to 20' max.	
Rear Yard (ft.):	68	62	5	min.
Height (ft.):	<35	<35	35	max.
Building Coverage (%):	39	41	60	max.
Open Space Coverage (%):	32	32	25	min.
Parking	6	6	4	
		Variance request shown in red.		

Other Permits/Approvals Required
Historic District Commission
Planning Board/TAC – Site Review

Neighborhood Context



Previous Board of Adjustment Actions

No BOA history found.

Planning Department Comments

The applicant is proposing to add a third dwelling unit to the property by constructing a second floor addition on the existing garage which includes a rear addition onto the garage. The garage sits approximately 1' from the property line on the right side. The applicant has requested to postpone as they are seeking an easement from the neighbor for a no-build area.

This application must meet all five of the statutory tests for a **variance** (see Section 10.233 of the Zoning Ordinance):

1. *Granting the variance would not be contrary to the public interest.*
2. *Granting the variance would observe the spirit of the Ordinance.*
3. *Granting the variance would do substantial justice.*
4. *Granting the variance would not diminish the values of surrounding properties.*
5. *The "unnecessary hardship" test:*
   (a)The property has special conditions that distinguish it from other properties in the area.
   AND
   (b) Owing to these special conditions, a fair and substantial relationship does not exist between the general public purposes of the Ordinance provision and the specific application of that provision to the property; and the proposed use is a reasonable one.
   OR

Owing to these special conditions, the property cannot be reasonably used in strict conformance with the Ordinance, and a variance is therefore necessary to enable a reasonable use of it.

March 14, 2020

City of Portsmouth
Portsmouth NH 03801
Attn: Board of Adjustment

We are writing to request the approval for the installation of a ductless Mitsubishi M-Series multi-zone outdoor heat pump unit. One condenser will be outside along the West side of the house towards the backyard.

The dimensions of the heat pump are:
Product Height: 31 17/48 Inches
Product Width: 37 5/12 Inches
Product Depth: 13 Inches

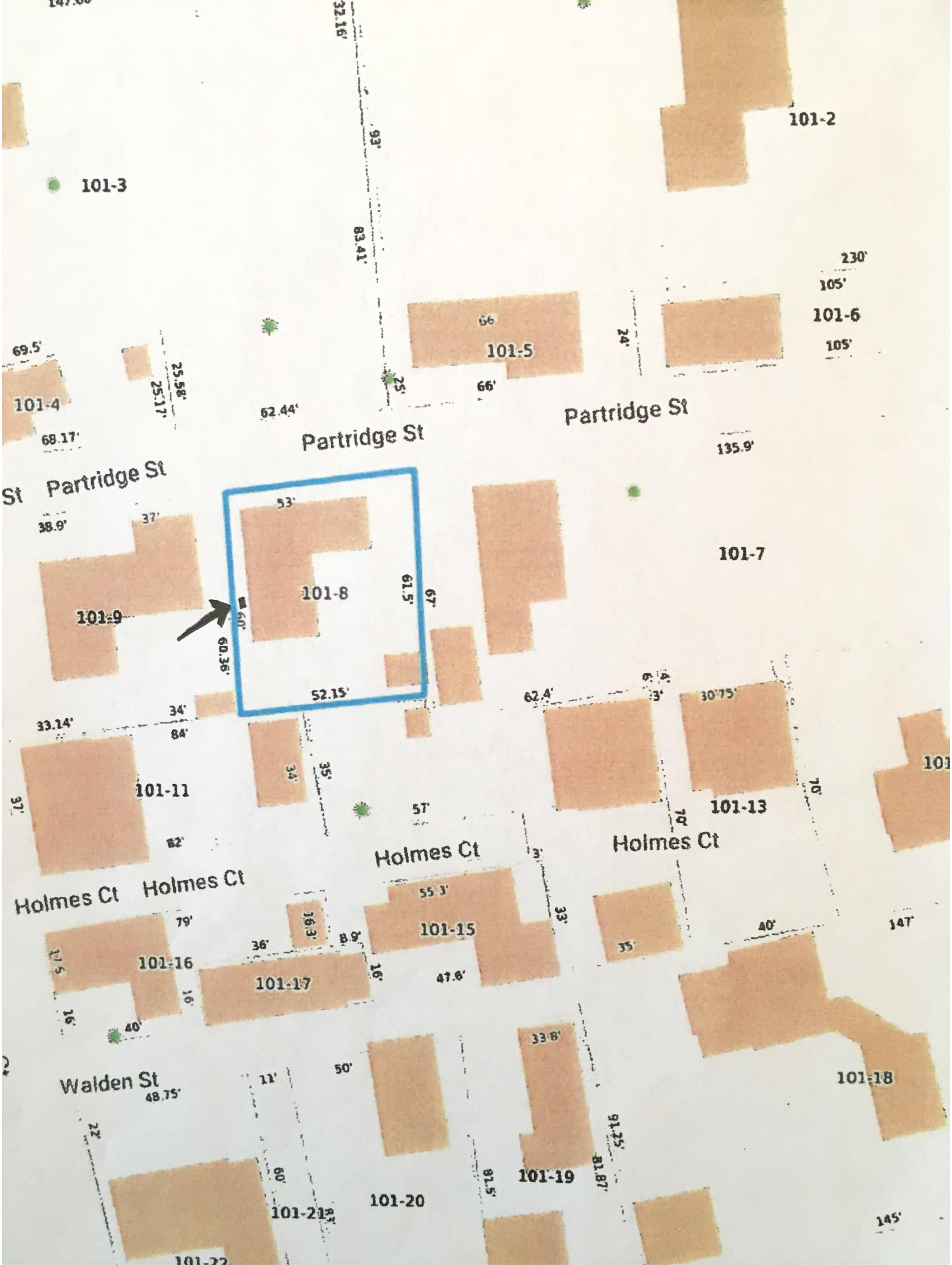
Please see attached tax diagrams and photos.

Our house to the neighbors (structure to structure) is 8.5'.
Our house to the property line (brick pathway) is 7'.
We asked our neighbors if they have any issues with this and they said they do not.

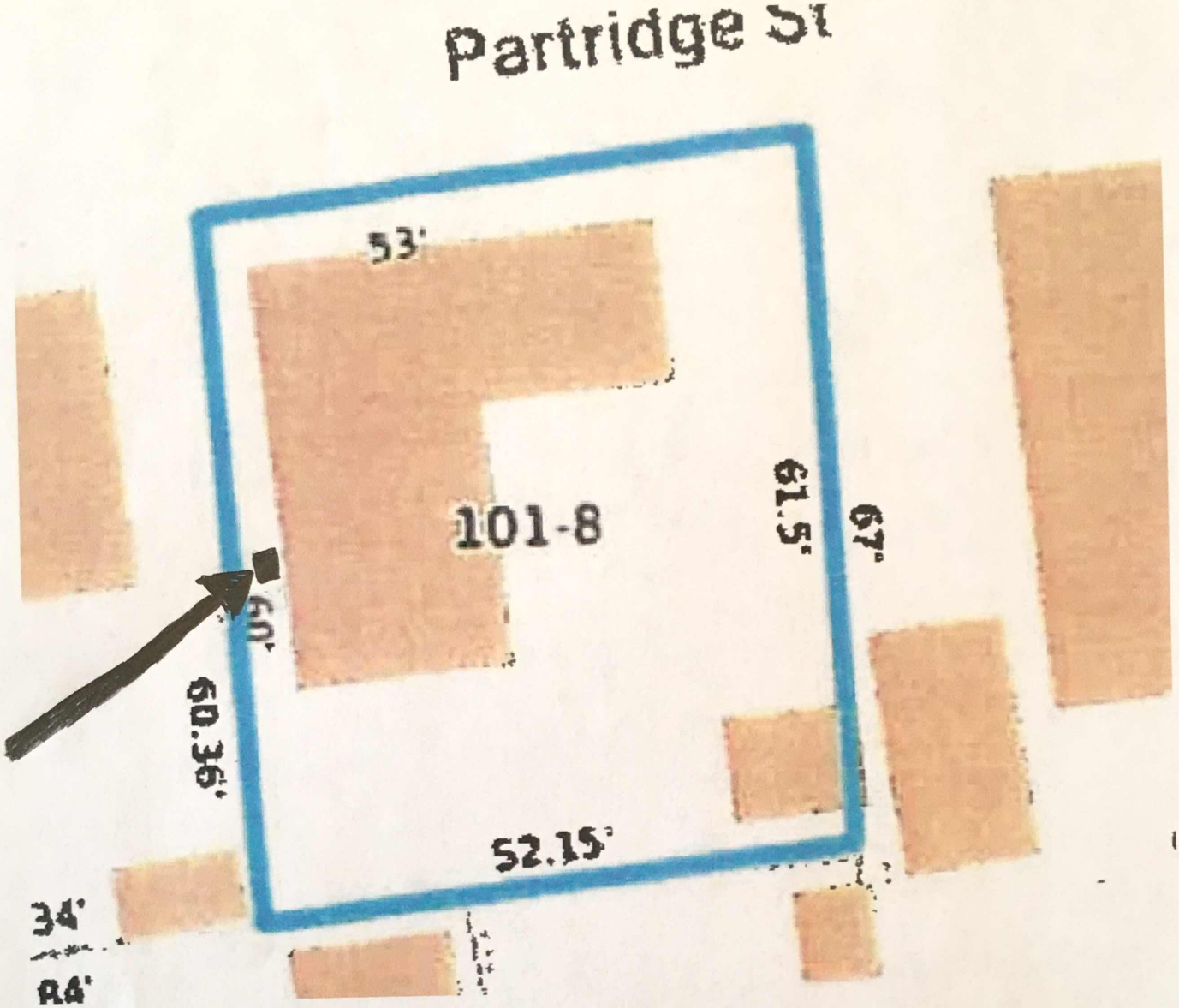
We understand that this request complies with the requirements of the Zoning Ordinance as provided in Article 2 (Section 10.233.20 for Variances, Section 10.232.20 for Special Exceptions).

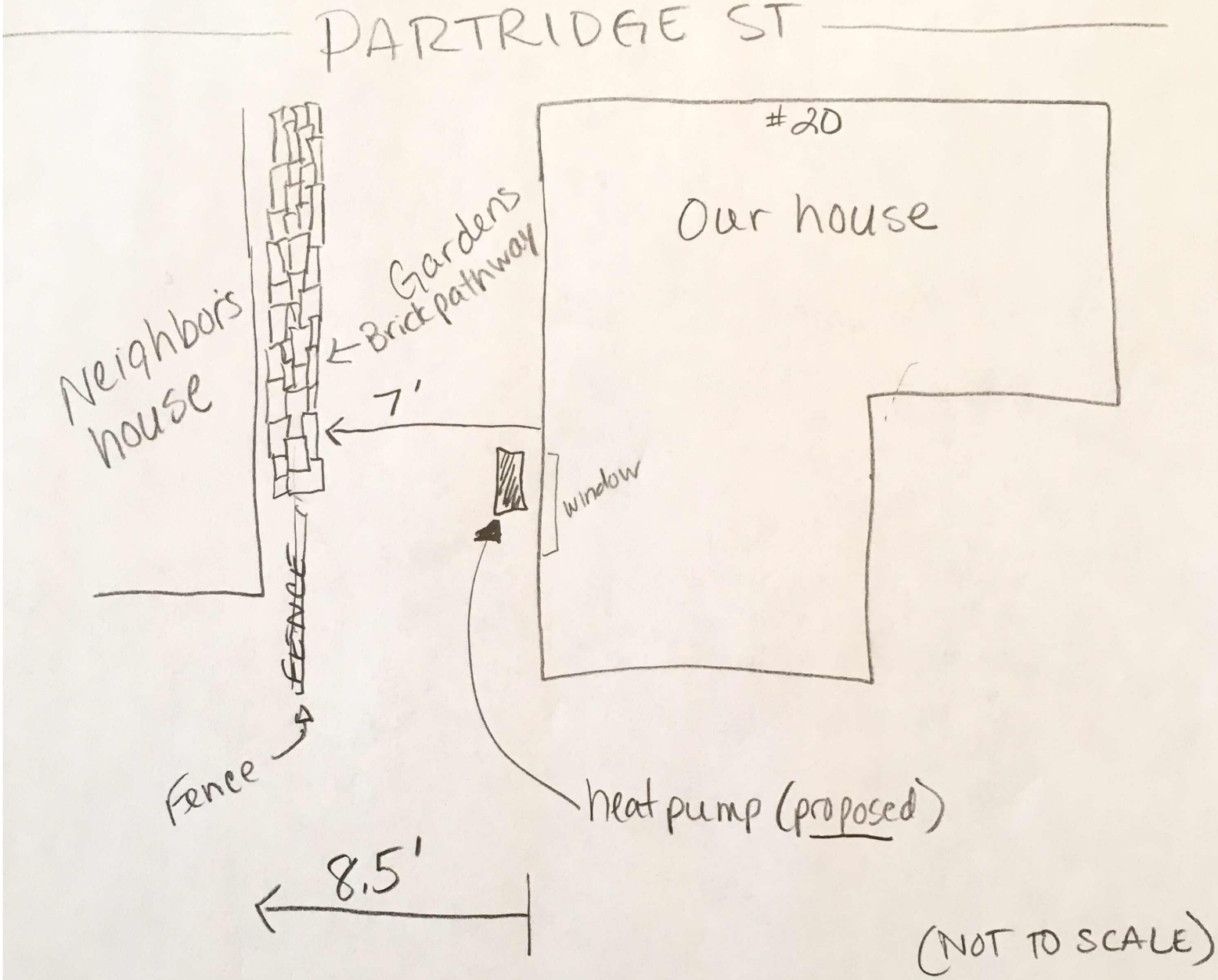
Thank you,

Rob & Joyce Morin
20 Partridge St.
Portsmouth, NH 03801



101-2
101-3
93'
83.41'
230'
105'
101-6
105'
66
101-5
24'
69.5'
25.58'
25.17'
25'
66'
101-4
62.44'
Partridge St
Partridge St
68.17'
135.9'
St
Partridge St
38.9'
37'
53'
101-7
101-8
61.5'
67'
101-9
60'
60.36'
52.15'
62.4'
30.75'
34'
33.14'
84'
34'
35'
101-11
101-13
37'
57'
70'
70'
82'
Holmes Ct
Holmes Ct
3'
Holmes Ct
Holmes Ct
55.3'
16.3'
79'
101-15
33'
40'
147'
36'
8.9'
35'
101-16
101-17
16'
47.6'
16'
16'
40'
33.8'
Walden St
11'
50'
101-18
48.75'
91.25'
60'
81.5'
101-19
81.87'
101-21
101-20
145'


Partridge St
53'
101-8
61.5'
67'
60'
60.36'
52.15'
34'
84'



Between our house and the neighbors, there is 8.5' (structure to structure). From our house to their property line (brick pathway) is 7'.

March 19, 2020

City of Portsmouth
Portsmouth NH 03801
Attn: Board of Adjustment

We'd like to add air conditioning to our home. Last summer we tried the window units but they could not cool our house. We are getting older, spending more time at home and are noticing hotter summers than normal.

We are writing to request the approval for the installation of a ductless Mitsubishi M-Series multi-zone outdoor heat pump unit. One condenser will be outside along the West side of the house towards the backyard.

The dimensions of the heat pump are:
Product Height: 31 17/48 Inches
Product Width: 37 5/12 Inches
Product Depth: 13 Inches

Please see attached tax diagrams and photos.

Our house to the neighbors (structure to structure) is 8 ft 6 inches.
Our house to the property line (brick pathway) is 7 ft.
The pump needs to be 12 inches from our house according to the supplier.
The pump to the neighbor's property line is 4 ft 11 inches.

We asked our neighbors if they have any issues with this and they said they do not. The surrounding area and property will not be diminished in any way and the pump most likely will go unnoticed. This is the best position for this pump as it is an unused piece of space, out of the way, and conducive to the installation of the inside control units. There is no foot traffic in the area where the pump will be located.

We understand that this request complies with the requirements of the Zoning Ordinance as provided in Article 2 (Section 10.233.20):

10.233.21 The variance will not be contrary to the public interest and 10.233.22 The spirit of the Ordinance will be observed:

The condenser will not alter the character of the neighborhood, nor will it threaten public health safety or welfare. It will be used specifically as intended and will not conflict with the ordinance.

10.233.23 Substantial justice will be done:

The benefit offered to us (air conditioning) will not harm the general public, or any individuals and will only be used as intended, and during the hottest time of the year. For the most part, the condenser will go unnoticed.

10.233.24 The values of surrounding properties will not be diminished:

We asked our neighbors if they have any issues with this and they said they do not. The surrounding area and property will not be diminished in any way . Our proposed location of the condenser will be in a space that is an unused piece of land, out of the way, and conducive to the installation of the inside control units. There is no foot traffic in the area where the pump will be located.

10.233.25 Literal enforcement of the provisions of the Ordinance would result in an unnecessary hardship:

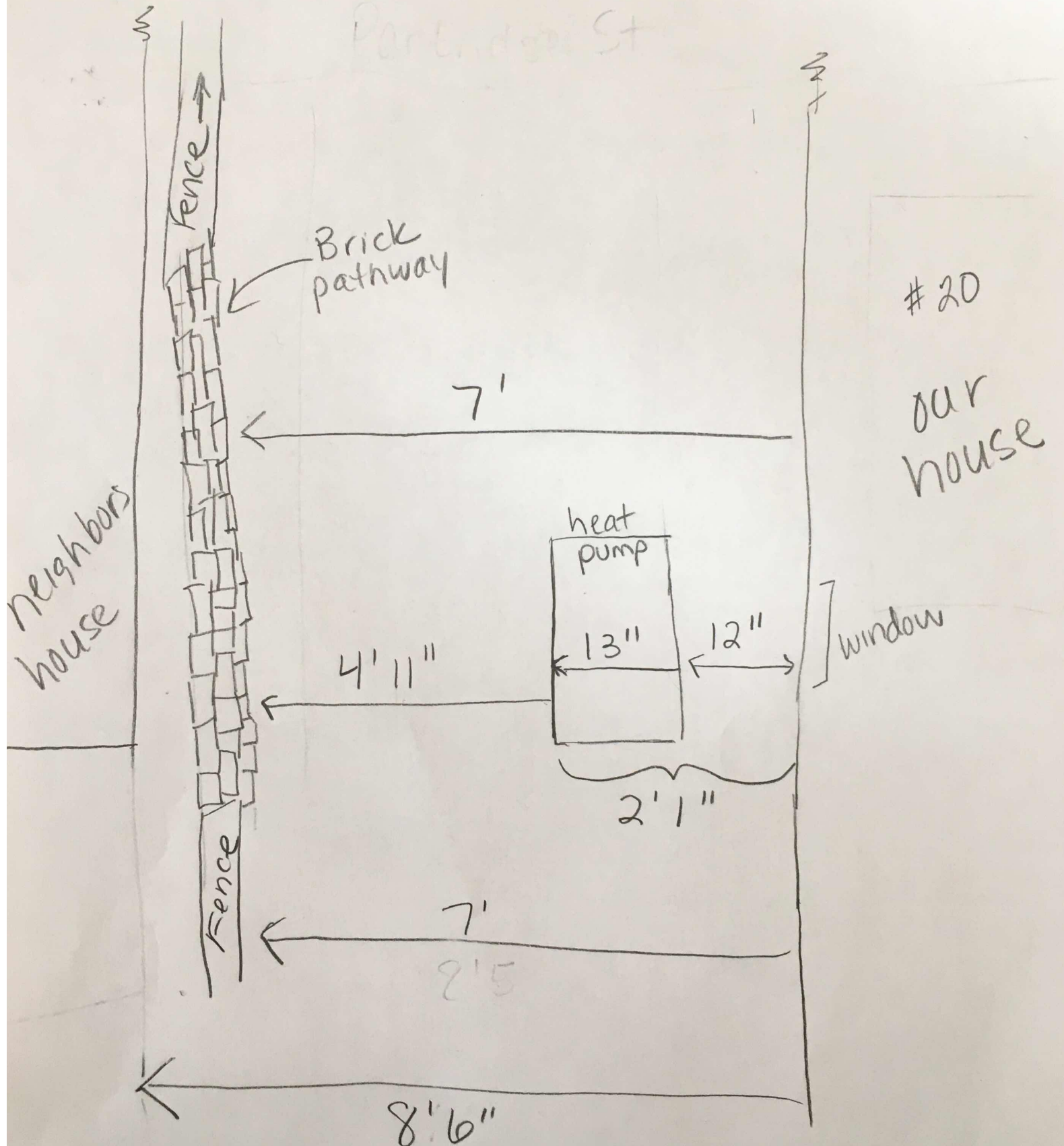
The location proposed for the condenser is the only option for the installation for the entire system to work properly. Because of the special conditions of our property – and the proximity of our property to that of our neighbor's, the literal enforcement of a 10 foot setback creates a hardship for us. Because of this hardship, we are asking for the approval for the condenser to be located in the proposed location.

Please let us know if you need additional information.

Thank you,

Rob & Joyce Morin
20 Partridge St.
Portsmouth, NH 03801

PARTRIDGE ST



John Kuzinevich, Esq.
Law Office of John Kuzinevich

71 Gurnet Road
Duxbury, Massachusetts 02332

Telephone: 781 536-8835
Cell: 508 245-2105

E-mail: jjkuz@comcast.net

March 23, 2020

Chair and Members of the Zoning Board of Adjustment
Municipal Complex
One Junkins Ave.
Portsmouth, NH 03801

Re: 3210 Lafayette Rd, Portsmouth
Appeal of Decision of Code Official, Request for Special Exception, and Request for Variances
Tax Map 291, Lot 8

Dear Mr. Chairman and Members:

Please be advised that I represent 3210 Lafayette Rd., LLC, which is the appealing party and the applicant concerning a manufactured housing business at the above location. The parcel is approximately 6 acres in the Gateway Corridor, G1 zone. There is a significant amount of wetlands on the parcel none of which are impacted by these requests. It has approximately 561 feet of frontage on Route 1. Currently, it is used for a small office building housing medical offices. The proposed development would continue this office use and to the north of the office use and add a display of new manufactured housing for sale. One of the units will be used as an office and serviced by utilities. It will be staffed by one person with about 150 square feet devoted to an office. The other display units will not be connected to water or sewer. In addition, limited boat and RV storage behind the displayed manufactured homes would be available to residents of Hillcrest Estates which abuts the parcel. At issue in the appeal and the variances is the allowance of five parking spots[1] in front of the displayed model which will be used as an office. At issue in the special exception is the allowance of manufactured housing in the G1 zone.

[1] Previously the site had been used as a display for manufactured housing dating back to the 1950's. An office building from the previous use still exists with two front parking spots. Thus, the proposed development is adding only three additional spaces.

I. The Appeal

Section 10.5B83.10 provides: "Required off-street parking shall not be located between a principal building and a street or within any required buffer area."

Section 10.1113.20 provides: "Required off-street parking shall not be located in any required front yard, or between a principal building and a street."

The applicant is seeking to add five parking spots in front of the office in one of the manufactured homes which places them between the principal building and Lafayette Road. The Planning Director and Staff contend that these sections preventing parking in front are applicable as they consider Lafayette Road to be a street. See the attached email trail which constitutes a decision of the code official. However, as a matter of law, that interpretation is incorrect; Lafayette Road is not a street as defined in the Ordinance; hence the above sections cannot apply and no variances are needed for the plan as presented.

Section 10.1511states: "Unless expressly stated the following words and terms shall have the meanings shown in the Article." "Street" is then defined to be "a thoroughfare or roadway which is either (a) formally accepted by the City or (b) shown on an approved subdivision plan constructed to City subdivision specifications or for which surety has been posted to guarantee construction of all improvements required by the Planning Board."

Definitions cannot be overlooked. *Hannigan v. City of Concord, 144 N.H. 69 (1999).* Words which are defined in an ordinance must be given the meaning as defined. *Batchelder v. Town of Plymouth,* 160 N.H. 253 (2010), *Healy v. New Durham*, 140 N.H. 232 (1995). Put another way, the definition must be followed. Where an ordinance defines terms, the definition controls. *Trottier v. City of Lebanon*, 117 N.H. 148 (1997). This is reinforced by the Ordinance's use of the word "shall" in mandating that the words shall be given their defined meaning. Shall is a word of command or mandate and does not allow any discretion in its execution. *Anderson v. Robitaille*, 172 N.H. 20 (2019). It is beyond question that Lafayette Road does not meet the definition. As a state road, it was never, and can never, be accepted by the City. Nor was it built as a subdivision road. Since it is not a street, as a matter of law the sections concerning parking cannot apply.

The City may argue that the overall intent of the Ordinance is to regulate along Lafayette Road. However, when words are unambiguous, as here, the subjective intent of the drafter is irrelevant as the court will not go further than the words alone to determine legislative intent. *Severance v. Town of Epsom*, 159 N.H. 359 (2007). While the City may have wanted comprehensive regulation along Lafayette Road, it should not be allowed to enforce a position in conflict with the clear words of the ordinance. To do so would eliminate the definition section and its mandate. It would set a precedent that the definitions could be ignored at all times. This would rise to a level of unconstitutionality as a developer could never rely on the words of the Ordinance but would be subject to the whims of the staff and the Boards.

The decision of the code officials that Lafayette Road is a street must be reversed.

II. The Special Exception.

Manufactured housing is allowed in the G1 zone by special exception.[2] Ordinance 10.44011.30. Here the applicant proposes the siting of 6 unoccupied manufactured homes as a sales display. One of the homes will be used as an office, usually staffed during the day with one person. Only 5 homes will be visible from Lafayette Road. There will be five parking spots available for customers, although it is not anticipated there will be many times when all five are in use.

The criteria for granting a special exception are listed in the ordinance, Section 10.232.

> No hazard to the public or **adjacent** property on account of potential fire, explosion or release of toxic materials;
>
> No detriment to property values in the vicinity or change in the essential characteristics of any area including residential neighborhoods or business and industrial districts on account of the location or scale of **building**s and other **structure**s, parking areas, **accessway**s, odor, smoke, gas, dust, or other pollutant, noise, **glare**, heat, vibration, or unsightly **outdoor storage** of equipment, vehicles or other materials;
>
> No creation of a traffic safety hazard or a substantial increase in the level of traffic congestion in the vicinity;
>
> No excessive demand on municipal services, including, but not limited to, water, sewer, waste disposal, police and fire protection and schools; and
>
> No significant increase of stormwater runoff onto **adjacent** property or **street**s.

The proposed manufactured homes readily meet all these criteria. They pose no hazard of any nature as they are new unoccupied factory built homes. Since they are not occupied and not connected to water or sewer, they will not even have a minimal amount of hazardous material usually found in occupied residences. There is no detriment to property values as this is a heavily commercial area of Lafayette Road so the character of the neighborhood is unchanged. The only residences are across Lafayette Road and already have adjacent commercial businesses. Thus, those homes will not be affected. There is no traffic hazard. The sale of new manufactured homes is a low volume business as established by the applicant seeking only five

---

[2] It is unclear if the exclusion applies to unoccupied manufactured homes displayed for sale. Presumably the Ordinance was designed to regulate manufactured homes which are occupied and being used by their residents. Since the proposed use so readily meets the criteria for a special exception, this point is not being argued.

parking spaces. Fewer than five occasional customers cannot be considered to create a traffic hazard on Lafayette Road. There will be virtually no demand for municipal service. Finally, as established by the drainage calculations, there is no increase in runoff, particularly in light of the wetlands to the east and the large distance from Lafayette Road to the west. Since the proposal meets all the criteria, a special exception should be made.

III. Variance Requests

Variances are requested from sections 10.5B83.10 and 10.1113.20. Since they have similar language and the same effect, they will be analyzed together. Initially, it is important to note, that if the Board grants the appeal as to the definition of street, argued above, then this request is rendered moot and need not be considered.

Section 10.233.20 of the ordinance sets out the standards for granting a variance.
The variance will not be contrary to the public interest.

The spirit of the Ordinance will be observed.

Substantial justice will be done.

Values of surrounding properties will not be diminished.

Literal enforcement of the provisions of the Ordinance would result in an unnecessary hardship.

Unnecessary hardship is further described in the ordinance.

Owing to special conditions of the property that distinguish it from other properties in the area, (a) no fair and substantial relationship exists between the general public purposes of the Ordinance provision and the specific application of that provision to the property; and (b) the proposed use is a reasonable one. (Under this provision, an unnecessary hardship shall be deemed to exist only if both elements of the condition are based on the special conditions of the property) or

Owing to special conditions of the property that distinguish it from other properties in the area, the property cannot be reasonably used in strict conformance with the Ordinance and a variance is therefore necessary to enable a reasonable use of it. (Under this provision, an unnecessary hardship shall not be deemed to exist if any reasonable use, including an existing use, is permitted under the Ordinance.)

As will be demonstrated below, the requests meet these standards. Not contrary to the public interest and the spirit of the Ordinance are correlated and can be discussed together. The intent of the ordinance is to limit large parking lots fronting on Lafayette Road. It appears about one-half of the business have this type of large grand-fathered parking lot. Five occasional use

parking spots on a large parcel will have no adverse visual impact and therefore are not contrary to the public interest and they are within the spirit of the ordinance. In fact, the plan includes demolishing a small run down building with two front parking spaces. This will notably improve the aesthetic. In addition, a vast amount of frontage with a green landscaped island is being preserved to provide the aesthetic sought by the Gateway Zone.

Substantial justice is done by allowing the use of a large parcel for display of manufactured housing, a use that has minimal impact on adjoining properties and no impact on City services. Further, there is an abutting manufactured housing park to the east of the property providing a special reason why the use is appropriate and substantial justice done.

Surrounding properties are not affected. This is a highly developed area with many commercial properties. There are a few homes across Lafayette Road but this addition of a minor impact use would not affect values as all of the commercial development in the area should have already had whatever commercial impacts would exist.

Finally, the property is a long narrow strip bisected by an office building. Since it is relatively narrow, it is impossible to configure parking in a manner which does not need a variance. Parking behind the display cannot be safely accomplished as customers would not have sufficient room to turn around and they would be forced to back out onto Desfosses Avenue which is a main entrance to Hillcrest Estates. Nor can more parking be placed around the office building as there is a steep grade change which would pose a hazard to customers, who tend to be elderly and unable safely cross this grade change.This distinguishes it from other properties in the area. In addition it is one of the few properties with development potential whereas there are many properties that have grand-fathered front parking. There is no reasonable relation between the purpose of the ordinance and its application here. The purpose of the ordinance is to prohibit large front parking lots. It allows residential parking in front of homes. Thus, manufactured homes should be treated like homes with front parking allowed. Further, since only five spots are proposed, they do not create the type of parking the Ordinance was addressing. A display area with limited parking is entirely reasonable for this commercial area.

Accordingly, the Applicant asks the Board to grant the appeal, or in the alternative grant the variances and to allow a special exemption to the extent needed.

Sincerely,

John Kuzinevich

Copy to: client

From: **Juliet T.H. Walker** jthwalker@cityofportsmouth.com
Subject: RE: 3201 Lafayette
Date: March 12, 2020 at 2:52 PM
To: John Kuzinevich jjkuz@comcast.net
Cc: Glenn Gidley (glenn@salemmh.com) glenn@salemmh.com, J. Corey Colwell ccolwell@tfmoran.com, Peter M. Stith pmstith@cityofportsmouth.com

John,

We do not agree with your interpretation of the zoning ordinance. When you read the Ordinance as a whole, it is clear the intent of Section 10.5B83.10 is to prohibit parking between a building and a public way in this district. If we were to read the definition of street to exclude Lafayette Road from this provision, we would intentionally construe the Ordinance to have a meaning other than the one intended by its drafters. The common meaning of a street clearly includes Lafayette Road, and any reading of this ordinance provision which does not include Lafayette Road frustrates the purpose of the ordinance. A variance is required in order to locate the parking as proposed per the requirements of Section 10.5B83.10. If you disagree with the Planning Department, you may appeal the decision per the procedures outlined in Section 10.234.

Best,

Juliet T. H. Walker, AICP
Planning Director
Planning Department
1 Junkins Ave
Portsmouth, NH 03801
(603) 610-7296
www.cityofportsmouth.com/planportsmouth
Twitter: @PlanPortsmouth

-----Original Message-----
From: John Kuzinevich [mailto:jjkuz@comcast.net]
Sent: Wednesday, March 11, 2020 12:29 PM
To: Peter M. Stith <pmstith@cityofportsmouth.com>
Cc: Glenn Gidley (glenn@salemmh.com) <glenn@salemmh.com>; J. Corey Colwell <ccolwell@tfmoran.com>; Juliet T.H. Walker <jthwalker@cityofportsmouth.com>; Robert P. Sullivan <rpsullivan@cityofportsmouth.com>
Subject: 3201 Lafayette

Peter - Just checking in as I have not heard from you. Would you please confirm that Lafayette Rd does not meet the definition of street and therefore the sections you cited on parking do not apply. This is important in deterring the scope of relief needed and the preparation of the applications. If you have any question concerning our position I would be happy to have a conference call with you, Juliet and Bob Sullivan. If you do contend Lafayette Rd is a street as defined by the ordinance, please provide me the basis of your contention.

Thanks, John

Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

Photo Exhibits
for
3201 Lafayette Road, LLC

3201 Lafayette Road

Portsmouth, NH

Photo 1: View of the property from the intersection of Lafayette Road and Desfosses Avenue.

Photo 2: View of the existing garage/former sales building and 2-story office building from Lafayette Road / Route 1.

Photo 3: View of the existing garage/former sales building and 2-story office building from Lafayette Road / Route 1.

Photo 4: View of the paved driveway. Existing office building at 3201 Lafayette Road is on the left.

Photo 5: View of vacant land and garage/former sales building, where new manufactured homes would be displayed.

Photo 6: View of vacant land where manufactured homes will be displayed. Boat/trailer parking is proposed behind displayed units.

Photo 7: View of the existing garage/former sales building and office building as seen from Lafayette Road.

Photo 8: View of the parking lot at the front of the office building.

Photo 9: View of the paved driveway at the front of the garage/former sales building and office building.

Photo 10: Vacant land on the property of 3201 Lafayette Road, LLC in the area adjacent to Desfosses Avenue.

Photo 11: Vacant land on the property of 3201 Lafayette Road, LLC in the area adjacent to Desfosses Avenue.

Photo 12: View of the property from Desfosses Avenue toward Lafayette Road where storage area is proposed.

Photo 13: View of Desfosses Avenue toward the intersection with Lafayette Road.

Proposed Model Home

Proposed Model Home

Proposed Model Home

Proposed Model Home

Proposed Model Home

Proposed Model Home

Proposed Model Home

GENERAL INFORMATION

OWNER/APPLICANT
MAP 291 LOT 8
3201 LAFAYETTE ROAD, LLC
72 SOUTH BROADWAY
SALEM, NH 03079

RESOURCE LIST
PLANNING DEPARTMENT
1 JUNKINS AVENUE
PORTSMOUTN, NH 03801
(603) 610-7216
JULIET WALKER, PLANNING DIRECTOR

ENVIRONMENTAL SERVICES
TES ENVIRONMENTAL CONSULTANTS, LLC
1494 ROUTE 3A, UNIT 1
BOW, NH 03304
(603) 856-8925
THOMAS E. SOKOLOSKI, WETLANDS SCIENTIST

ZONING RELIEF PLANS

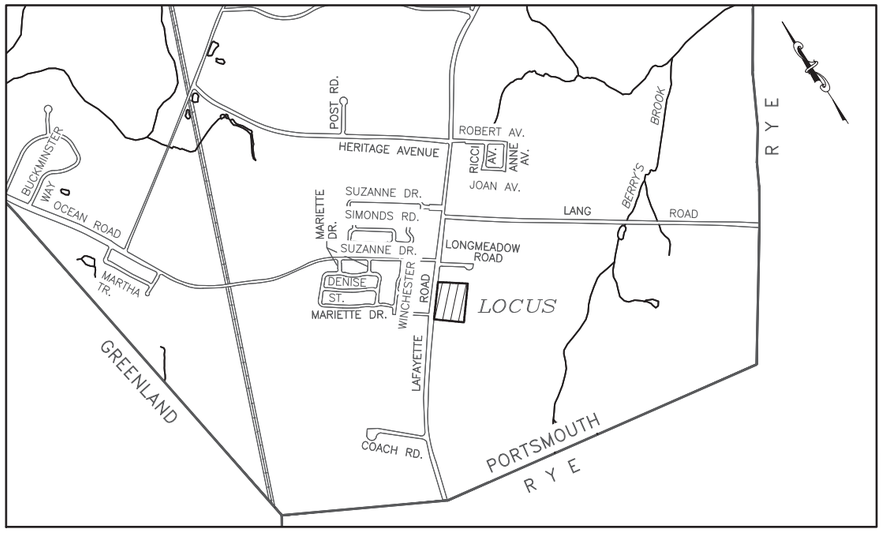
3201 LAFAYETTE ROAD, LLC

3201 LAFAYETTE ROAD
PORTSMOUTH, NEW HAMPSHIRE

FEBRUARY 20, 2020

INDEX OF SHEETS

VICINITY PLAN



NOT TO SCALE

REQUIRED RELIEF

VARIANCES:

1. SECTION 10.5B83.10 – REQUIRED OFF-STREET PARKING SHALL NOT BE LOCATED BETWEEN A PRINCIPAL BUILDING AND A STREET OR WITHIN ANY REQUIRED BUFFER AREA.
2. SECTION 10.113.20 – REQUIRED OFF-STREET PARKING SHALL NOT BE LOCATED IN ANY REQUIRED FRONT YARD, OR BETWEEN A PRINCIPAL BUILDING AND A STREET.

SPECIAL EXCEPTION:

1. SECTION 10.44011.3 – TO ALLOW MOBILE HOMES IN THE G1 ZONE.

TFM
Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists

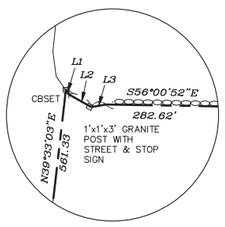
170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.tfmoran.com

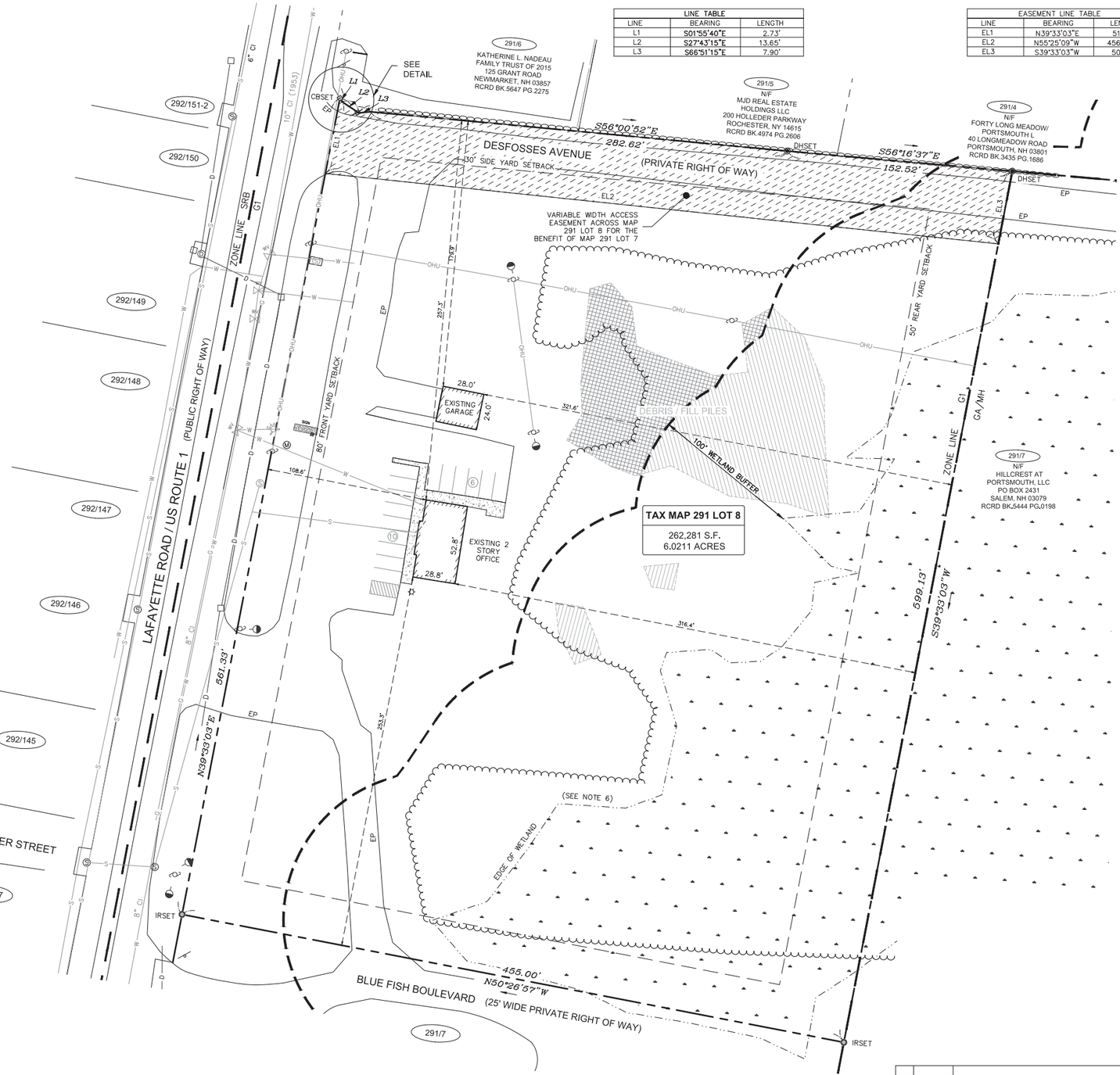
FILE	45407.31	DR	IID	FB		C-0
		CK	JCC	CADFILE		

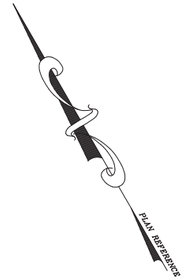
LEGEND:

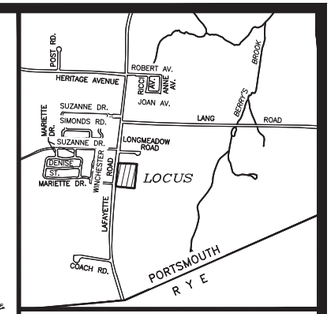
CBSET	CONCRETE BOUND SET ON 06/14/2013
CI	CAST IRON PIPE
DHSET	DRILL HOLE SET ON 06/14/2013
EP	EDGE OF PAVEMENT
GA/MH	GARDEN APARTMENT/ MOBILE HOME ZONE
G1	GATEWAY CORRIDOR
IRSET	IRON ROD SET ON 06/14/2013
L1	LINE LENGTH
S.F.	SQUARE FEET
	PROPERTY LINE
	STONE WALL
	TREE LINE
	EDGE OF WETLANDS
W	EXISTING WATER LINE
G	EXISTING GAS
S	EXISTING SEWER
D	EXISTING SEWER
	GUY POLE
	UTILITY POLE
	LIGHT POLE
	SIGN
	CATCH BASIN
S	SEWER MANHOLE
D	DRAIN MANHOLE
	HYDRANT
M	MANHOLE
W	WATER VALVE
	WETLANDS
	CONCRETE
	DEBRIS/FILL PILE IN WETLAND
	DEBRIS/FILL PILE IN WETLAND BUFFER

DETAIL
NOT TO SCALE









LOCATION PLAN

NOTES:

1. THE PARCEL IS LOCATED IN THE CITY OF PORTSMOUTH GATEWAY CORRIDOR (G1) ZONE.
2. THE PARCEL IS AS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 291 AS LOT 8.
3. THE PARCEL IS LOCATED IN FLOOD ZONE X AS SHOWN ON FLOOD INSURANCE RATE MAP, ROCKINGHAM COUNTY, NEW HAMPSHIRE, PANEL 270 OF 681, MAP NUMBER 33015C0270E, EFFECTIVE DATE MAY 17, 2005.
4. OWNER OF RECORD:

   3201 LAFAYETTE ROAD, LLC
   72 SOUTH BROADWAY
   SALEM, NH 03079
   RCRD BK.5617 PG.1045

5. ZONING REQUIREMENTS:

   SEE ARTICLE 5B, SECTION 10.5B20 – GENERAL STANDARDS FOR ALL BUILDINGS AND DEVELOPMENT OF THE CITY OF PORTSMOUTH, NEW HAMPSHIRE ZONING ORDINANCE.

5. TOTAL PARCEL AREA:

   262,281 S.F.
   6.0211 ACRES

6. PETER S. SCHAUER, CERTIFIED WETLAND SCIENTIST #48, OF SCHAUER ENVIRONMENTAL CONSULTANTS, L.L.C. OF LOUDON, NH AND THOMAS SOKOLOSKI, CERTIFIED WETLAND SCIENTIST #127, OF TES ENVIRONMENTAL CONSULTANTS, L.L.C. OF BOW, NH, PERFORMED THE WETLAND MAPPING BETWEEN MARCH 26, 2014 AND AUGUST 25, 2017 ACCORDING TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL AND THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012, US ARMY CORPS OF ENGINEERS.
7. ALL MONUMENTS SHOWN HEREON WERE OBSERVED OR SET AS PART OF THIS SURVEY.
8. FIELD SURVEY WAS COMPLETED BY TCE BETWEEN NOVEMBER 2014 AND JANUARY 2020, WITH A TOPCON DS103 AND TOPCON TESLA DATA COLLECTOR.
9. HORIZONTAL DATUM IS NORTH AMERICAN DATUM OF 1983.
10. THE INTENT OF THIS PLAN IS TO SHOW THE LOCATION OF BOUNDARIES IN ACCORDANCE WITH THE CURRENT LEGAL DESCRIPTIONS. IT IS NOT AN ATTEMPT TO DEFINE UNWRITTEN RIGHTS, DETERMINE THE EXTENT OF OWNERSHIP OR DEFINE THE LIMITS OF TITLE.
11. UTILITIES SHOWN HEREON ARE A COMPILATION OF FIELD LOCATION AND RECORD PLANS. THEY ARE APPROXIMATE LOCATION ONLY. CONTACT DIGSAFE AT 811 OR 1-888-DIG-SAFE TO VERIFY UTILITIES.

PLAN REFERENCE:

1. "OVERALL SUBDIVISION PLAN, MAP 289 LOT 1 & MAP 291 LOT 7 (PORTSMOUTH) & MAP 15 LOT 24 (RYE) PROPERTY OF HILLCREST AT PORTSMOUTH LLC, 3201–3203 LAFAYETTE ROAD/LANG ROAD, PORTSMOUTH & RYE, NEW HAMPSHIRE COUNTY OF ROCKINGHAM", BY MSC CIVIL ENGINEERS AND LAND SURVEYORS, INC, DATED APRIL 15, 2013 WITH REVISIONS #6 DATED 12/23/2013. RCRD PLAN D–38075.

ABUTTERS ACROSS LAFAYETTE ROAD

292/151-2	WEEKS REALTY TRUST PO BOX 100 HAMPTON FALLS, 03844 RCRD BK.2738 PG.818
292/150	CHRIS G. & LISA ALEXANDROPOULOS 3168 LAFAYETTE ROAD PORTSMOUTH, NH 03801 RCRD BK.4175 PG.1509
292/149	ELIZABETH BATICK RICCI REVOCABLE TRUST OF 1993 55 HARDING ROAD PORTSMOUTH, NH 03801 RCRD BK.5189 PG.1131
292/148	KERRIGAN REVOCABLE TRUST 3202 LAFAYETTE ROAD PORTSMOUTH, NH 03801 RCRD BK.5296 PG.1541
292/147	KERRY E. RILEY 3224 LAFAYETTE ROAD PORTSMOUTH, NH 03801 RCRD BK.5239 PG.2663
292/146	YANG CHU FAMILY REVOCABLE TRUST OF 2019 6 DRURY PLAINS ROAD STRATHAM, NH 03885 RCRD BK.6022 PG.2118
292/145	LINDSAY A. BLAKEY 95 CARDINAL LANE PORTSMOUTH, NH 03801 RCRD BK.5791 PG.0929
292/247	KAREN E. KAPELOS REVOCABLE TRUST OF 1995 1537B OYSTER CATCHER POINT NAPLES, FL 34105 RCRD BK.3569 PG.2269

TAX MAP 291 LOT 8

EXISTING CONDITIONS PLAN
3201 LAFAYETTE ROAD
PORTSMOUTH, NEW HAMPSHIRE

PREPARED FOR

3201 LAFAYETTE ROAD, LLC

SCALE: 1" = 40' (22"x34")
1" = 80' (11"x17")

FEBRUARY 20, 2020

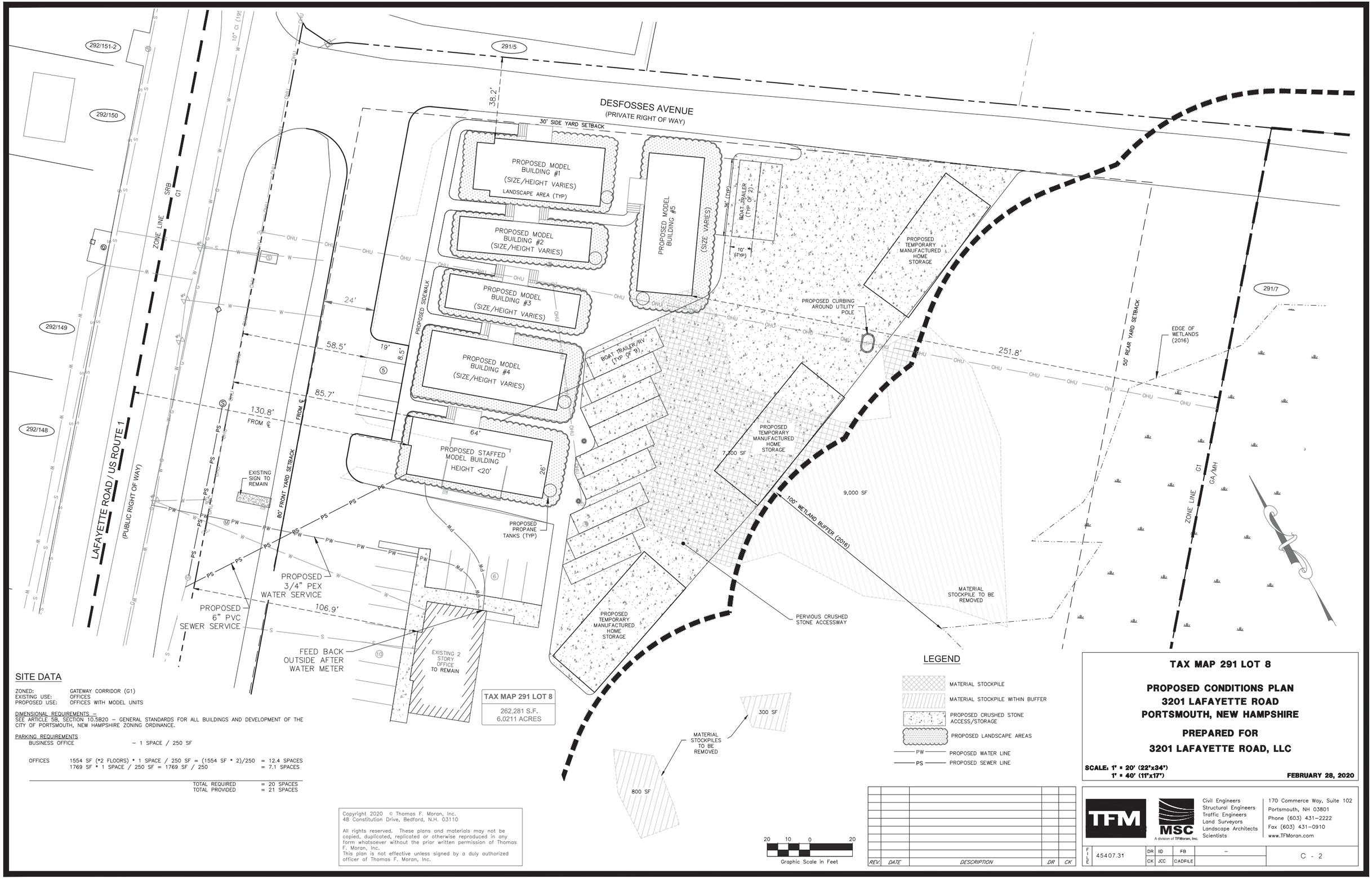
40 20 0 40
Graphic Scale in Feet

REV.	DATE	DESCRIPTION	DR	CK

TFM MSC
A division of TFMoran, Inc.
Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists
170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431–2222
Fax (603) 431–0910
www.TFMoran.com

FILE	45407.31	DR	IID	FB	–	C-1
		CK	JCC	CADFILE		

Mar 23, 2020 - 7:48am
F:\MSC Projects\45407 - Lafayette Road - Portsmouth\45407.31 - Hillcrest Estates OFFICE\dwg\45407.31_ZBA Existing.dwg



SITE DATA

ZONED: GATEWAY CORRIDOR (G1)
EXISTING USE: OFFICES
PROPOSED USE: OFFICES WITH MODEL UNITS

DIMENSIONAL REQUIREMENTS –
SEE ARTICLE 5B, SECTION 10.5B20 – GENERAL STANDARDS FOR ALL BUILDINGS AND DEVELOPMENT OF THE CITY OF PORTSMOUTH, NEW HAMPSHIRE ZONING ORDINANCE.

PARKING REQUIREMENTS
BUSINESS OFFICE – 1 SPACE / 250 SF

OFFICES	1554 SF (*2 FLOORS) * 1 SPACE / 250 SF = (1554 SF * 2)/250	= 12.4 SPACES
	1769 SF * 1 SPACE / 250 SF = 1769 SF / 250	= 7.1 SPACES
	TOTAL REQUIRED	= 20 SPACES
	TOTAL PROVIDED	= 21 SPACES

TAX MAP 291 LOT 8
262,281 S.F.
6.0211 ACRES

LEGEND

- MATERIAL STOCKPILE
- MATERIAL STOCKPILE WITHIN BUFFER
- PROPOSED CRUSHED STONE ACCESS/STORAGE
- PROPOSED LANDSCAPE AREAS
- PW — PROPOSED WATER LINE
- PS — PROPOSED SEWER LINE

Graphic Scale in Feet: 20 10 0 20

TAX MAP 291 LOT 8

PROPOSED CONDITIONS PLAN
3201 LAFAYETTE ROAD
PORTSMOUTH, NEW HAMPSHIRE

PREPARED FOR
3201 LAFAYETTE ROAD, LLC

SCALE: 1" = 20' (22"x34")
1" = 40' (11"x17")
FEBRUARY 28, 2020

REV.	DATE	DESCRIPTION	DR	CK

TFM / MSC — A division of TFMoran, Inc.
Civil Engineers
Structural Engineers
Traffic Engineers
Land Surveyors
Landscape Architects
Scientists
170 Commerce Way, Suite 102
Portsmouth, NH 03801
Phone (603) 431-2222
Fax (603) 431-0910
www.TFMoran.com

FILE	45407.31	DR	IID	FB	–	C - 2
		CK	JCC	CADFILE		

3201 LAFAYETTE RD, LLC
PO BOX 54
SALEM, NH 03079

3/23/2020

To: Whom it May Concern

Re: Letter of Authorization

This letter hereby authorizes TF Moran and Atty. John Kuzinevich to represent 3201 Lafayette Rd LLC before any municipal land use boards as it pertains to obtaining permitting for 3201 Lafayette Rd Portsmouth, NH.

Sincerely,

Glenn Gidley
Manager

379 New Castle Ave.
Map 207 Lot 4

To permit the following:

1. Right Side Setback of 6' where 10' is required
2. Building Coverage of 21.6% where 20% is allowed.
3. Expansion of a Non-Conforming Structure

The undersigned agrees that the following circumstances exist.....

1. The East Porch will be rebuilt to match the footprint of the Existing Porch. both Existing & Proposed Porch have a 6' Right Side Setback.

2. The Existing Building Coverage is 21.5%, adding 12sf increases that to 21.6%.

3. Property is Non-Conforming as to 6' Right Side Setback and Building coverage over 20%

Criteria for the Variance:

1. The Variances are not contrary to the public interest in that it will not affect adjacent properties. The Exist. Residence is in poor condition and Proposed Changes will improve both the appearance and the livability of the Residence.

2. The Variances are consistent with the spirit of the ordinance in that it will allow these modest changes, without impacting the immediate abutters.

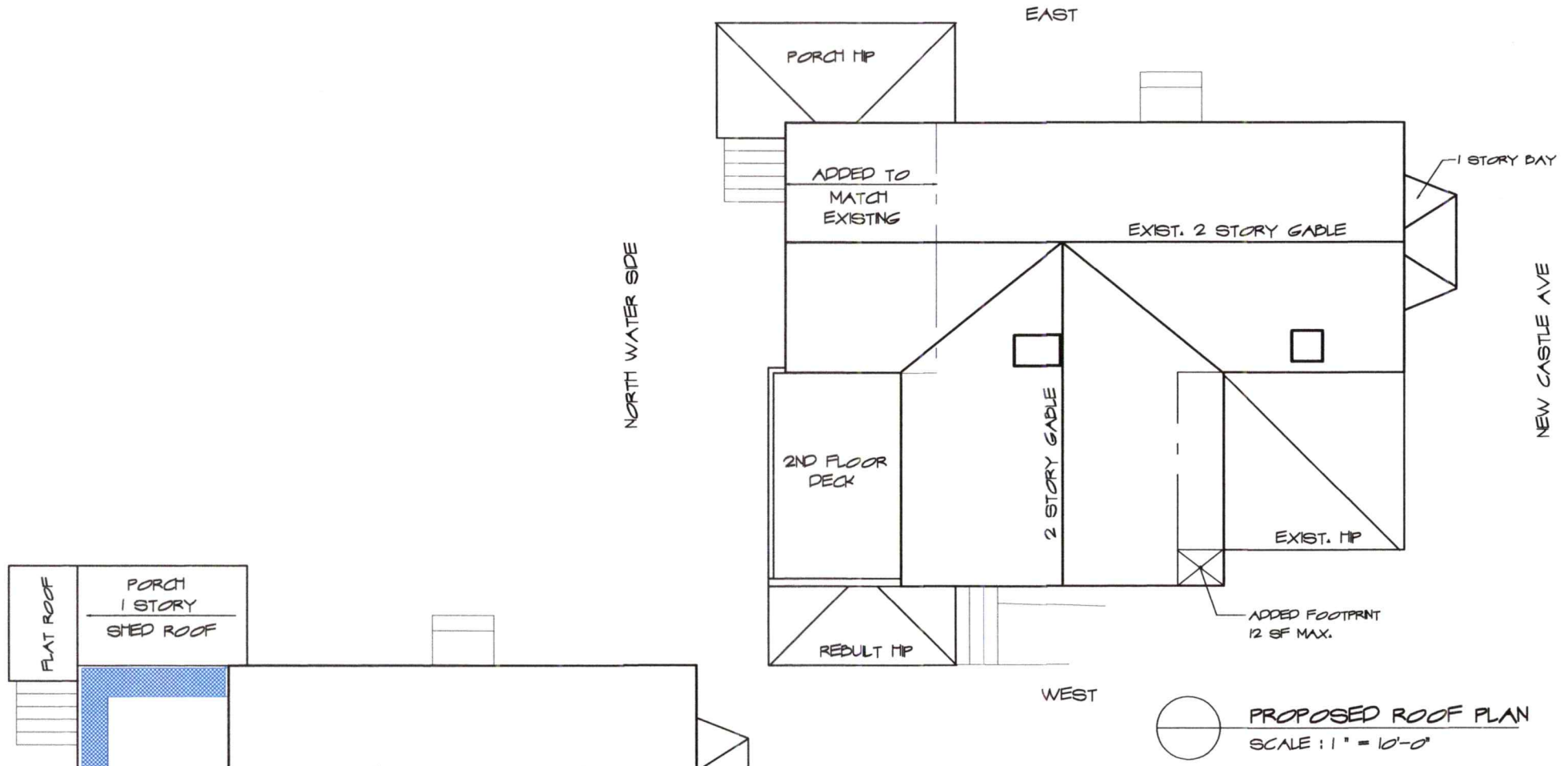
3. Substantial justice will be done, as this work will allow the owner to improve the the Property without adversely affecting adjacent properties.

4. These Variances will not diminish the value of surrounding properties, and have the support of the neighbors.

5. The special condition of this property is the location and existing building coverage of the structures.

3/31/20, Anne Whitney Architect

For: Todd & Jan Peters



PROPOSED ROOF PLAN
SCALE : 1 " = 10'-0"

EXISTING ROOF PLAN
SCALE : 1 " = 10'-0"

KEY

STRUCTURES TO BE REMOVED & FOUNDATIONS TO BE REPAIRED OR REPLACED

379 NEW CASTLE AVE.

9 Sheafe Street
Portsmouth
NH 03801
603-427-2832

ANNE WHITNEY ARCHITECT

Project:	Date:	
#1910	3/31/20	

EXIST ENTRY ELEVATION

VIEW FROM EAST SIDE YARD

EXIST FRONT DOOR

EAST, RIGHT SIDE ELEVATION
SCALE : 3/16" = 1'-0"

SCHEMATIC DESIGN

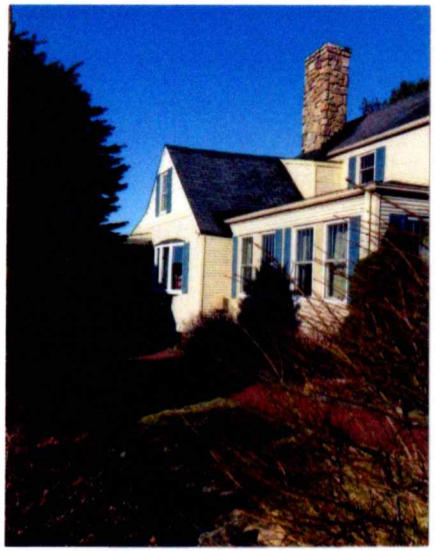
9 Sheafe Street
Portsmouth
NH 03801
603-427-2832

ANNE WHITNEY ARCHITECT

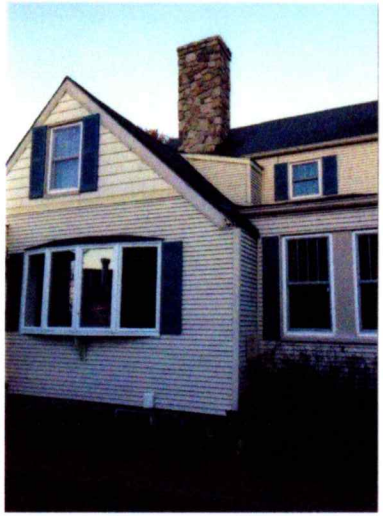
RENOVATIONS, PETERS RESIDENCE
379 NEW CASTLE AVE. PORTSMOUTH, NH

Project: 1910
Revisions:

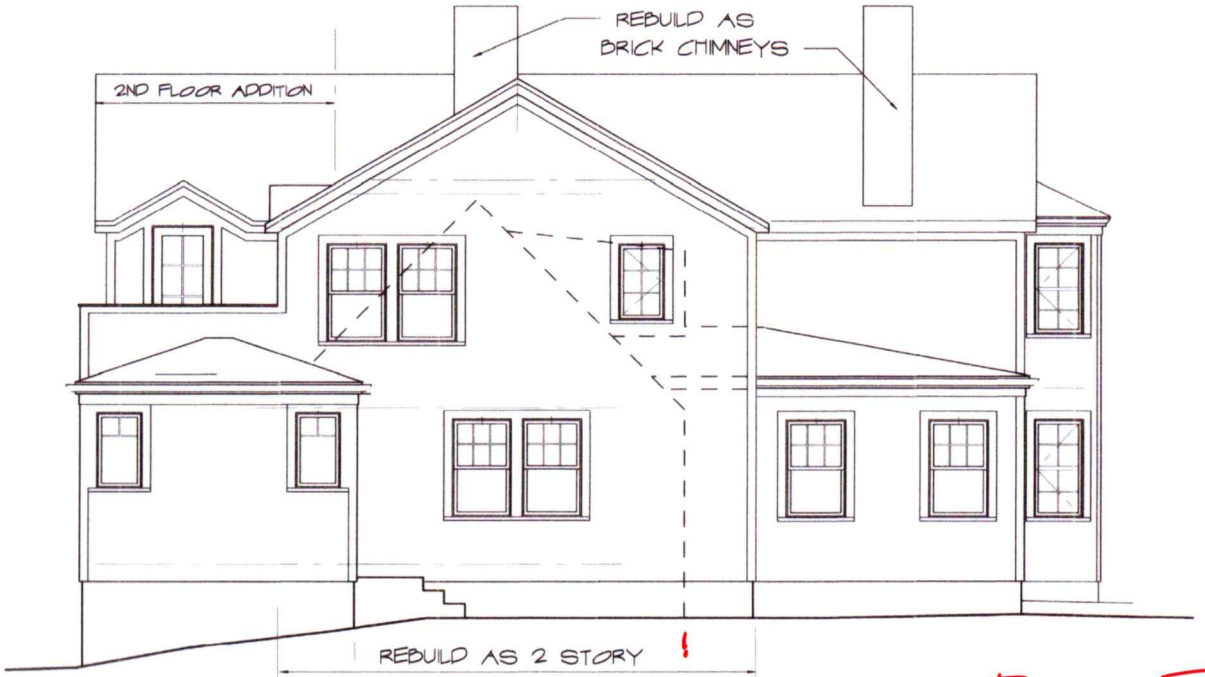
Date: 3/4/20



VIEW FROM LEFT SIDE YARD



EXISTING LEFT SIDE ELEVATIONS



WEST, LEFT SIDE ELEVATION
SCALE : 3/16" = 1'-0"

SCHEMATIC DESIGN

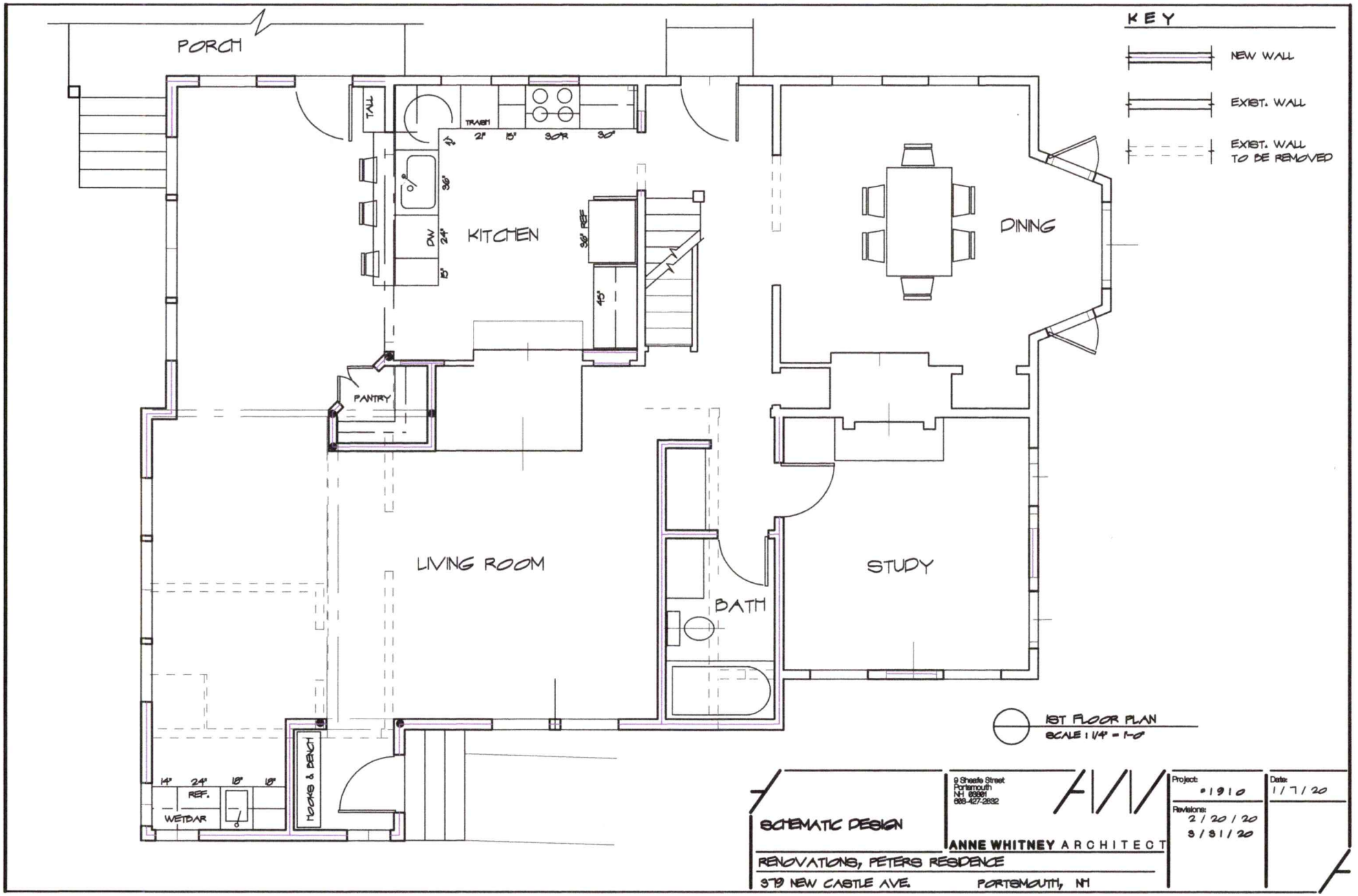
9 Sheafe Street
Portsmouth
NH 03801
603-427-2832

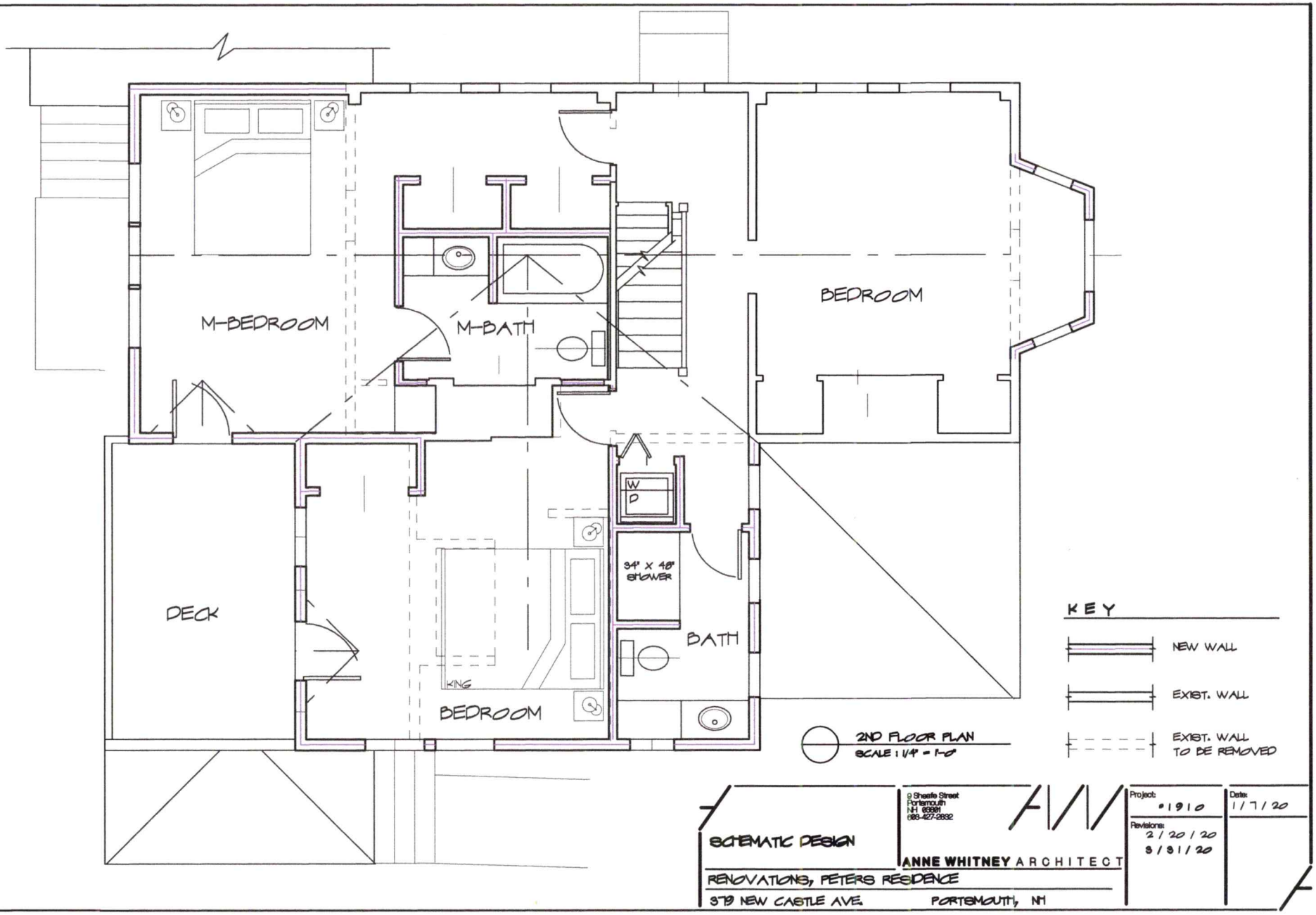
ANNE WHITNEY ARCHITECT

RENOVATIONS, PETERS RESIDENCE
379 NEW CASTLE AVE. PORTSMOUTH, NH

Project: 1910
Revisions:

Date: 3/4/20


KEY
NEW WALL
EXIST. WALL
EXIST. WALL TO BE REMOVED
PORCH
TALL
TRASH
21"
15"
30"R
30"
42"
36"
DW
24"
15"
KITCHEN
36" REF
45"
DINING
PANTRY
LIVING ROOM
BATH
STUDY
HOOKS & BENCH
14"
24"
18"
18"
REF.
WETBAR
1ST FLOOR PLAN
SCALE: 1/4" = 1'-0"
SCHEMATIC DESIGN
9 Sheafe Street
Portsmouth
NH 03801
603-427-2832
ANNE WHITNEY ARCHITECT
RENOVATIONS, PETERS RESIDENCE
379 NEW CASTLE AVE. PORTSMOUTH, NH
Project:
1910
Revisions:
2/20/20
3/31/20
Date:
1/7/20



9 Sheafe Street
Portsmouth
NH 03801
(603-427-2832

SCHEMATIC DESIGN

ANNE WHITNEY ARCHITECT

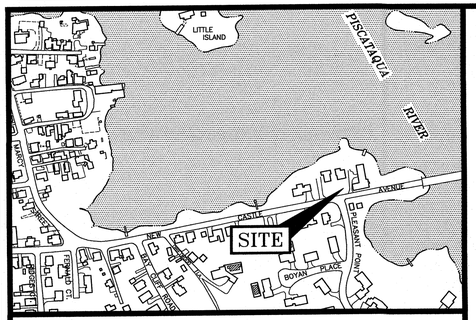
RENOVATIONS, PETERS RESIDENCE

379 NEW CASTLE AVE. PORTSMOUTH, NH

Project: 1910

Revisions: 2/20/20
3/31/20

Date: 1/7/20



LOCATION MAP SCALE 1"=300'

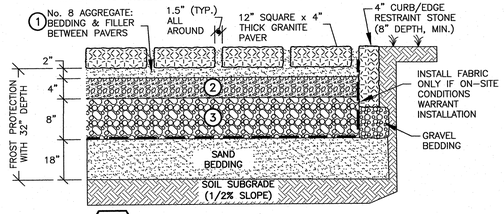
IMPERVIOUS SURFACE AREAS
(AREA TO PROPERTY LINE)

STRUCTURE	PRE–CONSTRUCTION IMPERVIOUS (S.F.)	POST–CONSTRUCTION IMPERVIOUS (S.F.)
MAIN STRUCTURE	1,347	1,360
GARAGE	409	409
PORCH	106	106
BRICK WALKWAYS & EDGING	337	304
PAVED DRIVE	815	815
CONCRETE	14	14
STEPS/STAIRS	23	23
TOTAL	3,014	2,994
LOT SIZE	8,744	8,744
% LOT COVERAGE	34.5%	34.2%

ASTM D 448 GRADATION TABLE

① ASTM No. 8 BEDDING & JOINT FILLER		② ASTM No. 57 STONE OPEN GRADED BASE		③ ASTM No. 2 STONE SUBBASE	
SIEVE SIZE	PASSING BY WEIGHT (%)	SIEVE SIZE	PASSING BY WEIGHT (%)	SIEVE SIZE	PASSING BY WEIGHT (%)
1/2" (12.5mm)	100	1.5" (37.5mm)	100	3" (75mm)	100
3/8" (9.5mm)	85–100	1" (25mm)	95–100	2.5" (63mm)	90–100
No. 4 (4.75mm)	10–30	1/2" (12.5mm)	25–60	2" (50mm)	35–70
No. 8 (2.36mm)	0–10	No. 4 (4.75mm)	0–10	1.5" 37.5mm)	0–15
No. 16 (1.16mm)	0–5	No. 8 (2.36mm)	0–5	3/4" (19mm)	0–5

NOTES:
1) PAVING SYSTEM BASE DESIGN IS SIMILAR TO BASE REQUIRED FOR THE UNI ECO–STONE PAVER. INSTALLATION SHALL FOLLOW MANUFACTURER'S INSTRUCTIONS FOR PLACEMENT OF BASE MATERIALS.
2) ALL STONE SHALL BE ANGULAR, WITH 90% FRACTURED FACES. STONE SHALL BE WASHED WITH LESS THAN 1% PASSING THE 200 SIEVE.
3) CONTRACTOR SHALL SUBMIT SIEVE ANALYSIS FOR EACH COURSE MATERIAL TO PROJECT ENGINEER FOR APPROVAL PRIOR TO PLACEMENT.

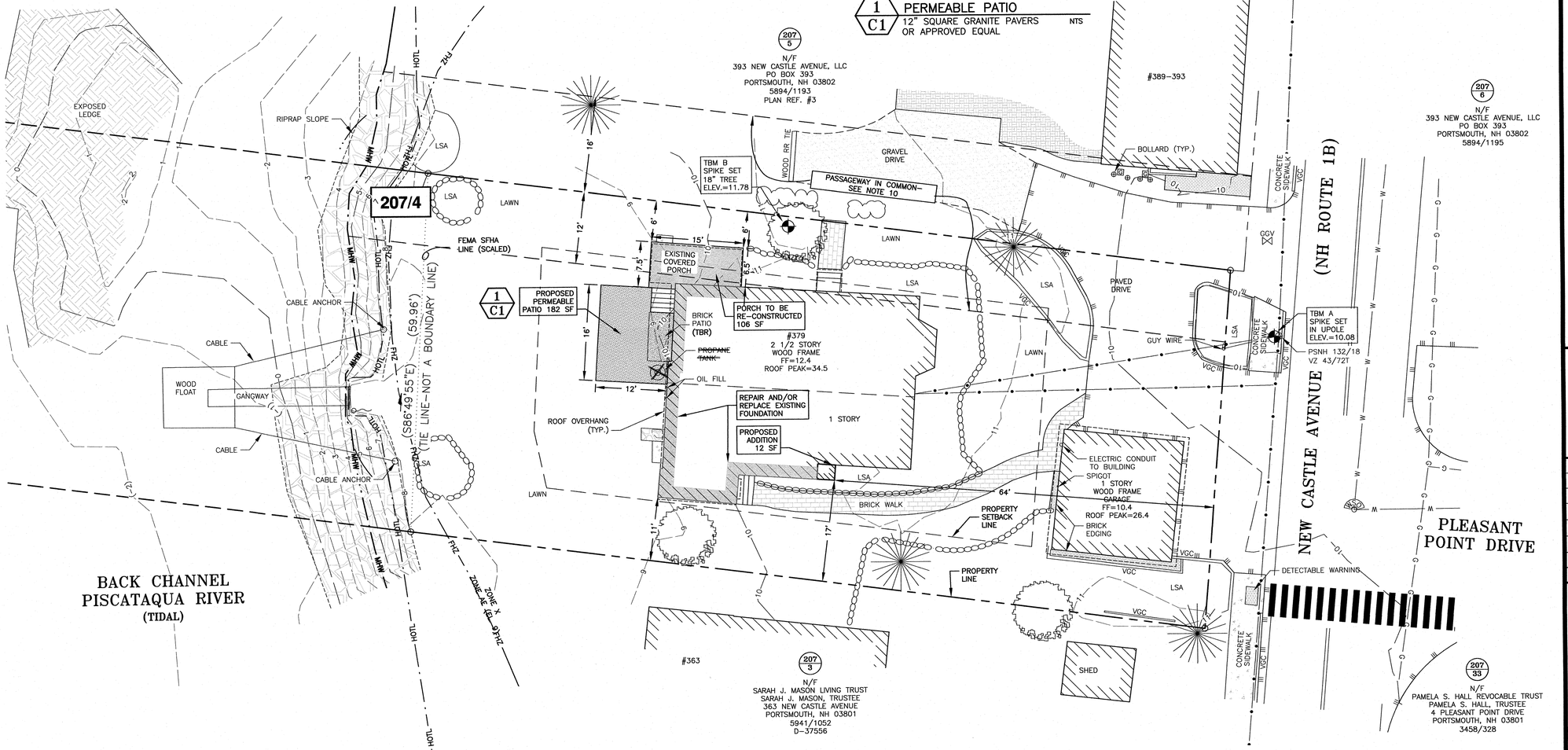


1/C1 PERMEABLE PATIO
12" SQUARE GRANITE PAVERS OR APPROVED EQUAL NTS

LEGEND:

N/F	NOW OR FORMERLY
RP	RECORD OF PROBATE
RCRD	ROCKINGHAM COUNTY REGISTRY OF DEEDS
11/21	MAP 11 / LOT 21
	BOUNDARY
	SETBACK
MHW	MEAN HIGH WATER LINE
HOTL	HIGHEST OBSERVABLE TIDE LINE
FHZ	FEMA SPECIAL FLOOD HAZARD AREA LINE
	RAILROAD SPIKE FOUND
	IRON ROD/PIPE FOUND
	DRILL HOLE FOUND
	STONE/CONCRETE BOUND FOUND
	RAILROAD SPIKE SET
	IRON ROD SET
	DRILL HOLE SET
	GRANITE BOUND SET
	OVERHEAD ELECTRIC/WIRES
100	CONTOUR
97x3	SPOT ELEVATION
	EDGE OF PAVEMENT (EP)
	WOODS / TREE LINE
	UTILITY POLE (w/ GUY)

MAGNETIC 2000
PLAN REF. #1



GRAPHIC SCALE
10 5 0 10 20 30 40 FEET
3 0 5 10 METERS

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road – Unit 3
Portsmouth, N.H. 03801–7114
Tel (603) 430–9282
Fax (603) 436–2315

NOTES:

1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 207 AS LOT 4.

2) OWNERS OF RECORD:
TODD PETERS & JAN PETERS
379 NEW CASTLE AVENUE
PORTSMOUTH, NH 03801
6033/1457

3) PORTIONS OF THE PARCEL ARE IN A SPECIAL FLOOD HAZARD AREA AS SHOWN ON FIRM PANEL 33015C0278E. EFFECTIVE DATE MAY 17, 2005.

4) EXISTING LOT AREA:
8,744± S.F. (TO MEAN HIGH WATER)
0.2007± ACRES (TO MEAN HIGH WATER)

5) PARCEL IS LOCATED IN THE SINGLE RESIDENCE B (SRB) ZONING DISTRICT.

6) DIMENSIONAL REQUIREMENTS:

MIN. LOT AREA:		15,000 S.F.
FRONTAGE:		100 FEET
DEPTH:		100 FEET
SETBACKS:	FRONT	30 FEET
	SIDE	10 FEET
	REAR	30 FEET
MAXIMUM STRUCTURE HEIGHT:		35 FEET
MAXIMUM BUILDING COVERAGE:		20%
MINIMUM OPEN SPACE:		40%

7) THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED VARIANCES FOR CONSTRUCTION ON ASSESSOR'S MAP 207 LOT 4 IN THE CITY OF PORTSMOUTH.

8) VERTICAL DATUM MEAN SEA LEVEL NGVD1929. BASIS OF VERTICAL DATUM IS RM4 ON HISTORIC FIRM.

9) MEAN HIGH WATER LINE AS SHOWN IS AT ELEVATION 4.59 PER NOAA STATION 8419870 SEAVEY ISLAND, PORTSMOUTH HARBOR.

10) PARCEL IS SUBJECT TO AND BENEFITS FROM A PASSAGEWAY IN COMMON WITH THE OWNERS OF ASSESSOR'S MAP 207 LOT 5. SAID PASSAGEWAY IS 28 FEET WIDE IN TOTAL, 12 FEET WIDE ON SUBJECT PARCEL, 16 FEET WIDE ON MAP 207 LOT 5.

11) THE ENTIRE PARCEL IS WITHIN THE 250 FOOT NHDES PROTECTED SHORELAND.

PROPOSED RENOVATIONS
PETERS RESIDENCE
379 NEW CASTLE AVENUE
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
0	ISSUED FOR COMMENT	3/18/20

REVISIONS

STATE OF NEW HAMPSHIRE No. 738 JOHN R. CHAGNON LICENSED LAND SURVEYOR

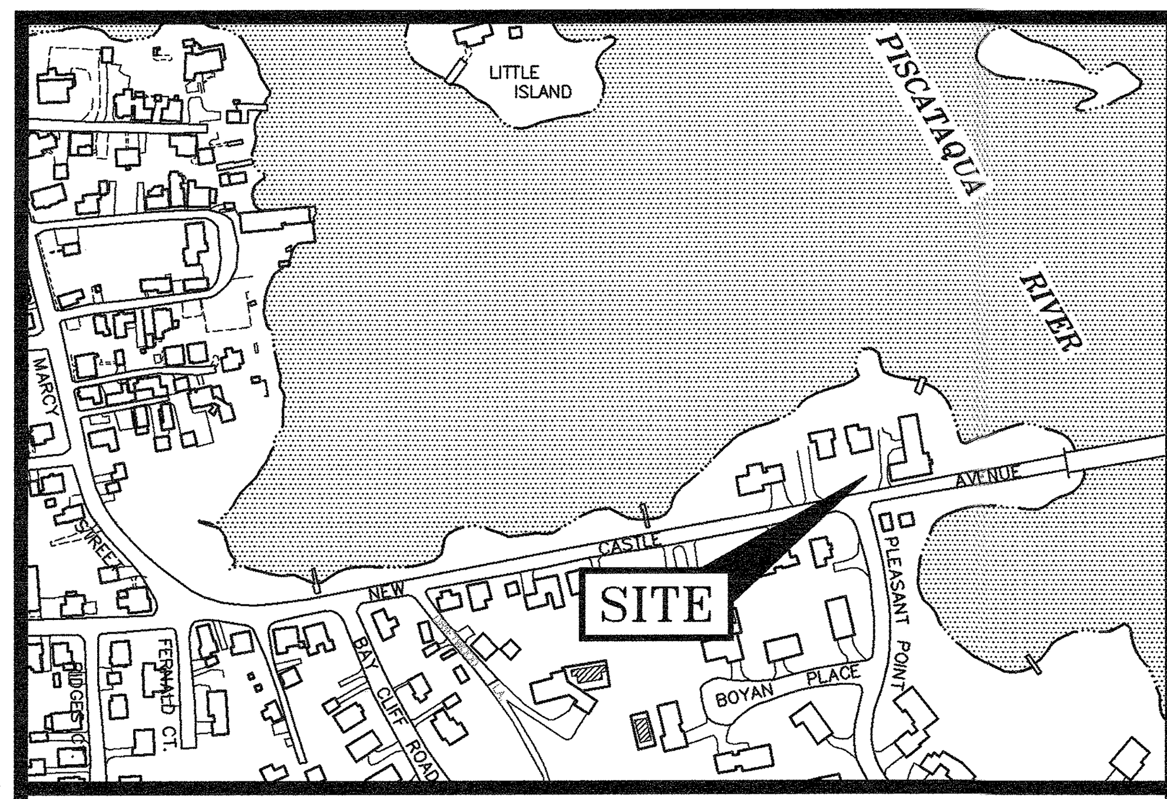
SCALE 1"=10' MARCH 2020

VARIANCE PLAN C1

FB 301 PG 14

895.03

J:\JOBS\JN800s\jn890s\jn895\2020 Site Improvement Permitting\Plans & Specs\Site\895_03 VARIANCE 2020.dwg, Variance



LOCATION MAP SCALE 1"=300'

PLAN REFERENCES:

1) STANDARD BOUNDARY SURVEY, MAP 207 – LOT 4 (FORMERLY MAP R7 – LOT 4) FOR JERRY KERNEA, 379 NEW CASTLE AVENUE, PORTSMOUTH, NH, COUNTY OF ROCKINGHAM. PREPARED BY AMBIT ENGINEERING, INC. DATED JUNE 2000. NOT RECORDED.

2) LOT LINE RELOCATION / BOUNDARY LINE AGREEMENT PLAN, TAX MAP 207 – LOTS 2 & 3, DONALD & PATRICIA LANE AND THE ESTATE OF JAMES & VALERIE WICKS, 333 & 363 NEW CASTLE AVENUE, CITY OF PORTSMOUTH, COUNTY OF ROCKINGHAM, STATE OF NEW HAMPSHIRE. PREPARED BY AMBIT ENGINEERING, INC. DATED NOVEMBER 2012, FINAL REVISION DATE DECEMBER 19, 2012. R.C.R.D. PLAN D-37556.

3) PROPERTY STAKEOUT SKETCH, OWNER: KENNETH J. & ALIDA E. ROTHWELL, PROPERTY LOCATION: 393 NEW CASTLE AVENUE, CITY OF PORTSMOUTH, COUNTY OF ROCKINGHAM, STATE OF NEW HAMPSHIRE. PREPARED BY AMBIT ENGINEERING, INC. DATED AUGUST 9, 2010. NOT RECORDED.

4) SEE ABOVE PLANS FOR ADDITIONAL PLAN REFERENCES.

WETLAND NOTES:

1) HIGHEST OBSERVABLE TIDE LINE DELINEATED BY STEVEN D. RIKER, CWS ON 9/27/2019 IN ACCORDANCE WITH THE FOLLOWING STANDARDS:

A) U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL. TECHNICAL REPORT Y-87-1 (JAN. 1987). AND REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012.

B) FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.1, USDA-NRCS, 2017 AND (FOR DISTURBED SITES) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4. NEIWPCC WETLANDS WORK GROUP (2017).

C) NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST (REGION 1). USFWS (MAY 1988).

D) CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. USFW MANUAL FWS/OBS-79/31 (1997).

E) "IDENTIFICATION AND DOCUMENTATION OF VERNAL POOLS IN NEW HAMPSHIRE" (1997). NEW HAMPSHIRE FISH AND GAME DEPARTMENT.

2) WETLAND FLAGS WERE FIELD BY AMBIT ENGINEERING, INC.

LEGEND:

N/F	NOW OR FORMERLY
RP	RECORD OF PROBATE
RCRD	ROCKINGHAM COUNTY REGISTRY OF DEEDS
11/21	MAP 11 / LOT 21
	BOUNDARY
	SETBACK
MHW	MEAN HIGH WATER LINE
HOTL	HIGHEST OBSERVABLE TIDE LINE
FHZ	FEMA SPECIAL FLOOD HAZARD AREA LINE
	RAILROAD SPIKE FOUND
	IRON ROD/PIPE FOUND
	DRILL HOLE FOUND
	STONE/CONCRETE BOUND FOUND
	RAILROAD SPIKE SET
	IRON ROD SET
	DRILL HOLE SET
	GRANITE BOUND SET
	OVERHEAD ELECTRIC/WIRES
100	CONTOUR
97x3	SPOT ELEVATION
	EDGE OF PAVEMENT (EP)
	WOODS / TREE LINE
	UTILITY POLE (w/ GUY)
GSO	GAS SHUT OFF
WSO	WATER SHUT OFF/CURB STOP
GV	GATE VALVE
G W E	METER (GAS, WATER, ELECTRIC)
EL.	ELEVATION
EP	EDGE OF PAVEMENT
F.F.	FINISHED FLOOR
INV.	INVERT
TBM	TEMPORARY BENCHMARK
TYP.	TYPICAL
VGC/SGC	VERTICAL/SLOPED GRANITE CURB
LSA	LANDSCAPED AREA

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road – Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:

1) PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 207 AS LOT 4.

2) OWNERS OF RECORD:
TODD PETERS & JAN PETERS
379 NEW CASTLE AVENUE
PORTSMOUTH, NH 03801
6033/1457
PLAN REFERENCE #1

3) PORTIONS OF THE PARCEL ARE IN A SPECIAL FLOOD HAZARD AREA AS SHOWN ON FIRM PANEL 33015C0278E. EFFECTIVE DATE MAY 17, 2005.

4) EXISTING LOT AREA:
8,744± S.F. (TO MEAN HIGH WATER)
0.2007± ACRES (TO MEAN HIGH WATER)

5) PARCEL IS LOCATED IN THE SINGLE RESIDENCE B (SRB) ZONING DISTRICT.

6) DIMENSIONAL REQUIREMENTS:

MIN. LOT AREA:		15,000 S.F.
FRONTAGE:		100 FEET
DEPTH:		100 FEET
SETBACKS:	FRONT	30 FEET
	SIDE	10 FEET
	REAR	30 FEET
MAXIMUM STRUCTURE HEIGHT:		35 FEET
MAXIMUM BUILDING COVERAGE:		20%
MINIMUM OPEN SPACE:		40%

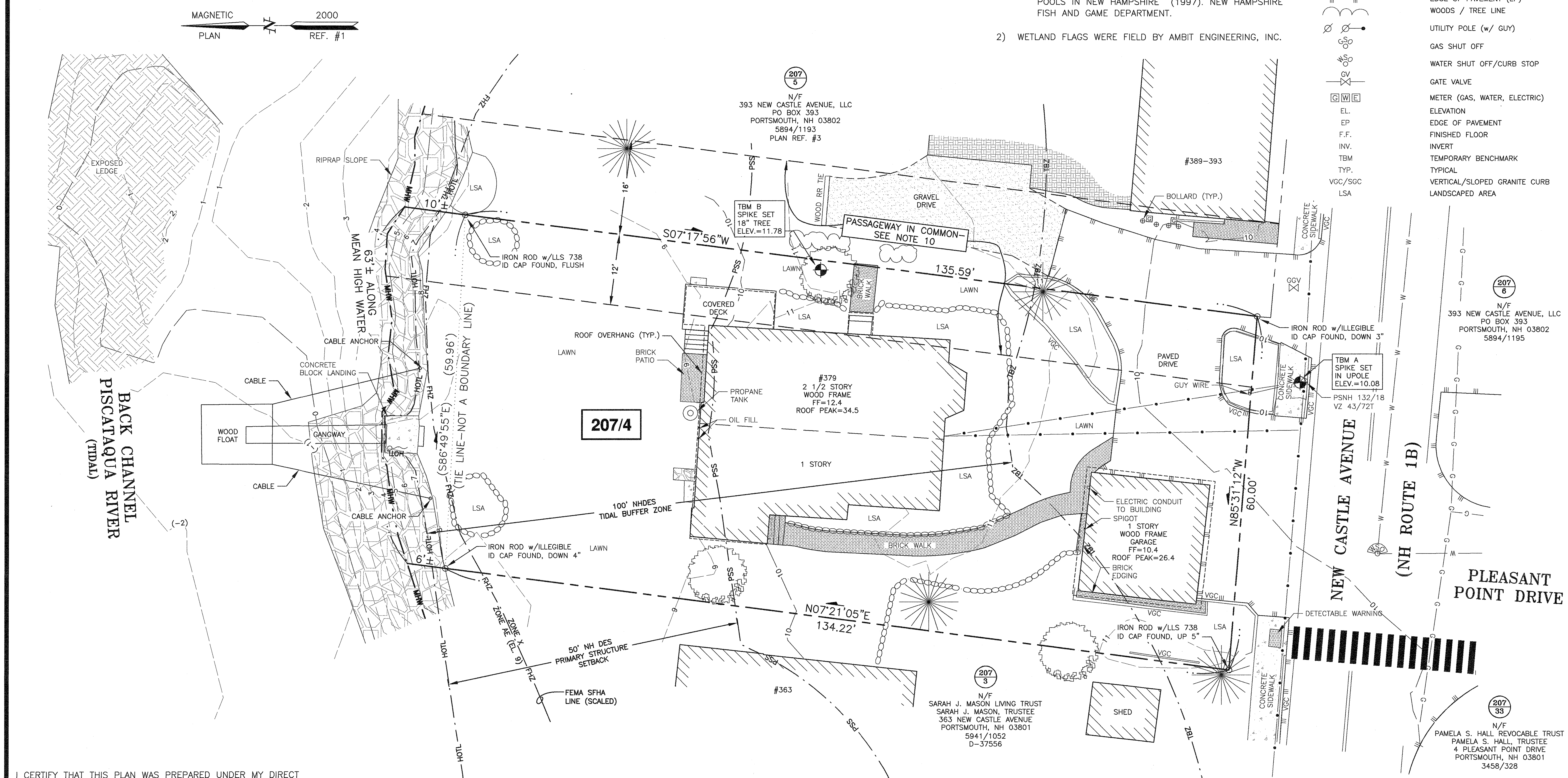
7) THE PURPOSE OF THIS PLAN IS TO SHOW THE RESULT OF A STANDARD BOUNDARY AND TOPOGRAPHIC SURVEY OF ASSESSOR'S MAP 207 LOT 4 IN THE CITY OF PORTSMOUTH.

8) VERTICAL DATUM MEAN SEA LEVEL NGVD1929. BASIS OF VERTICAL DATUM IS RM4 ON HISTORIC FIRM.

9) MEAN HIGH WATER LINE AS SHOWN IS AT ELEVATION 4.59 PER NOAA STATION 8419870 SEAVEY ISLAND, PORTSMOUTH HARBOR.

10) PARCEL IS SUBJECT TO AND BENEFITS FROM A PASSAGEWAY IN COMMON WITH THE OWNERS OF ASSESSOR'S MAP 207 LOT 5. SAID PASSAGEWAY IS 28 FEET WIDE IN TOTAL, 12 FEET WIDE ON SUBJECT PARCEL, 16 FEET WIDE ON MAP 207 LOT 5.

11) THE ENTIRE PARCEL IS WITHIN THE 250 FOOT NHDES PROTECTED SHORELAND.



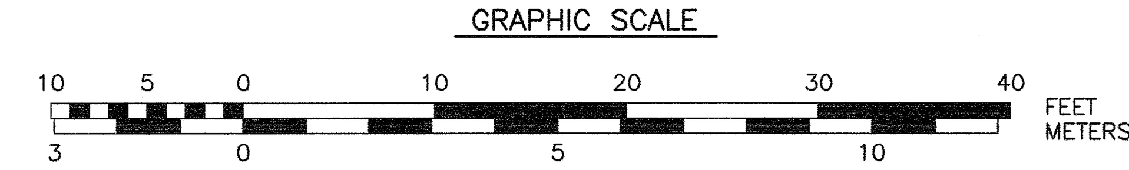
I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000.

I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN.

STATE OF NEW HAMPSHIRE – PAUL A. DOBBERSTEIN No. 1000 – LICENSED LAND SURVEYOR – SIGNATURE

PAUL A. DOBBERSTEIN, LLS #1000 — 10/24/2019 DATE

GRAPHIC SCALE



NO.	DESCRIPTION	DATE
0	ISSUED FOR COMMENT	10/23/19

REVISIONS

STANDARD BOUNDARY & TOPOGRAPHIC SURVEY TAX MAP 207 – LOT 4

OWNERS:

TODD PETERS & JAN PETERS

379 NEW CASTLE AVENUE
CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
STATE OF NEW HAMPSHIRE

SCALE 1"=10' OCTOBER 2019

FB 301 PG 14 895.02

144 Washington Street
P.O. Box 1222
Portsmouth, NH 03802
www.durbinlawoffices.com

DURBIN LAW

Durbin Law Offices, P.L.L.C.

Derek R. Durbin, Esq.
603.287.4764
derek@durbinlawoffices.com
*Also admitted in MA

VIA VIEWPOINT

March 31, 2020

City of Portsmouth
Zoning Board of Adjustment
Attn: David Rheaume, Chairman
1 Junkins Avenue
Portsmouth, NH 03801

RE: Variance Application of AER RE LLC
185 Cottage Street (Tax Map 174, Lot 14)

Dear Chairman Rheaume,

Our Office represents AER RE LLC, owner of property located at 185 Cottage Street. Attached herewith, please find the following materials for submission to the Zoning Board of Adjustment for consideration at its next regularly scheduled meeting:

1) Landowner Letter of Authorization;
2) Narrative to Variance Application;
3) Recorded Site Plan;
4) Floor Plan;
5) Tax Map Image with Zoning Overlay of Property and Surrounding Area;
5) Photographs of the Property.

Should you have any questions or concerns regarding the enclosed application materials, do not hesitate to contact me at your convenience.

Sincerely,

Derek R. Durbin, Esq.

LETTER OF AUTHORIZATION

AER RE LLC, owner of property located at 185 Cottage Street, Portsmouth, New Hampshire, identified on Tax Map 174, as Lot 14 (the "Property"), hereby authorizes Durbin Law Offices PLLC, of 144 Washington Street, Portsmouth, New Hampshire 03801, to act as its agent and representative in connection with the filing of any building, zoning, planning or other municipal permit applications with the City of Portsmouth for said Property. This Letter of Authorization shall be valid until expressly revoked in writing.

AER RE LLC

David Rosania
Printed Name: David Rosania

3/30/20
Date:

Amy Rosania
Printed Name: Amy Rosania

3/30/20
Date:

CITY OF PORTSMOUTH
ZONING BOARD OF ADJUSTMENT
APPLICATION NARRATIVE

AER RE LLC
185 Cottage Street
Portsmouth, NH 03801
Tax Map 174, Lot 14
(Owner/Applicant)

INTRODUCTORY STATEMENT

AER RE LLC (the "Applicant") is the owner of property located at 185 Cottage Street (the "Property"). AER RE LLC, which is owned by David and Amy Rosania, purchased the Property in 2018. The Property is located in the GRA Zoning District. It is a corner lot with frontage on Cottage Street and Lafayette Road/Route 1 Bypass.

Until 2018, the Property contained two residential buildings (a duplex and single-family residence). Prior to purchasing the Property, the Applicant applied for and received a variance pursuant to Section 10.440 (6.20) to eliminate the residential use of the Property and allow it to be used as "medical (dental) office". The variance request was approved on June 26, 2018.

Following the purchase of the Property, the residential buildings on the Property were demolished and a two-story commercial building with a parking lot was constructed in their place. The façade of the commercial building is on Lafayette Road. The parking is located to the rear (east) of the building and is accessed from Cottage Street.

Seacoast Periodontics and Dental Implants, which is owned and operated by David and Amy Rosania, occupies the second floor of the building. The bottom floor has been vacant since it was constructed. The Rosanias had envisioned leasing the first floor of the building for a similar or complementary medical use. However, since that time, the Rosanias have had difficulty in finding a tenant for that type of use due to a combination of factors. The first floor of the building is essentially a heated "shell" in its existing condition and will need to be built out by any potential lessee. The costs associated with building out the first-floor unit to suit a medical office are significant. Many potential tenants have deemed the costs to be prohibitive given the size of the space and current market lease rates.

Recently, a local real estate office expressed interest in leasing the first floor. Accordingly, the Applicant offered to apply for the zoning relief necessary for this business to lease the first-floor commercial space. Because the Property is located within the GRA Zoning District and the Applicant only previously received a variance to use the building as a "medical office", additional relief is necessary pursuant to Article 10.440 to use the first floor for any other type of non-permitted use. Under the Ordinance, a real estate office is classified as a "business office".

SUMMARY OF ZONING RELIEF

The Applicant is requesting a variance from Article 10.440 (5.20) of the Ordinance to allow for the first floor commercial unit on the Property to be used as a "business office", which is not a use that is permitted within the GRA Zoning District.

VARIANCE CRITERIA

Granting the variances will not be contrary to the public interest and will observe the spirit of the Ordinance.

"There are two methods of ascertaining whether granting a variance would violate an ordinance's basic zoning objectives: (1) examining whether granting the variance would alter the essential character of the neighborhood or, in the alternative; and (2) examining whether granting the variance would threaten the public health, safety, or welfare." *Harborside Assoc v. Parade Residence Hotel,* 162 N.H. 508, 514 (2011).

Granting the variance will certainly not alter the essential character of the surrounding area or threaten the public health, safety or welfare. The abutting properties to the west and north are zoned "General Business". The abutting property to the east is owned by the City of Portsmouth and zoned "Municipal". The abutting property to the south (across Cottage St) is zoned "Industrial" and contains a car dealership. Moreover, the Board has already determined a "medical office" is an appropriate use of the Property. A real estate office is a far less intense use than a medical office or the uses being made of surrounding properties, as it generates less vehicular traffic and demand for parking. Real estate offices are naturally utilized more on the weekends than during the week. This makes it a complementary use for the building, as dental offices, not unlike other medical offices, are primarily utilized on the weekdays.

Substantial justice will be done by granting the variance relief.

Any loss to the individual that is not outweighed by a gain to the general public is an injustice. *New Hampshire Office of State Planning, The Board of Adjustment in New Hampshire, A Handbook for Local Officials* (1997); *Malachy Glen Assocs., Inc. v. Town of Chichester,* 155 N.H. 102 (2007).

The Applicant has been trying to find a tenant for the 2,241 sf first floor space in the building since December 12, 2018 when it listed it on the MLS system and began advertising it. When the Applicant obtained the relief to construct the commercial building on the Property and use it as a medical office, it did so on the premise that it would be able to rent the first floor unit and receive the income from it to offset its acquisition and construction costs. It has taken longer than expected for that to come to fruition. The main reason why it has taken longer than expected is because the first-floor unit can only currently be used for medical office purposes. Potential tenants that have expressed interest in the space have determined that the fit-up costs to make it a medical office combined with current market lease rates are prohibitive for a space of its size. The space is more appropriately suited for a business or similar office type use which require far less

in build-out costs. Accordingly, the loss to the Applicant in denying the variance outweighs any potential gain to the public, thus constituting an injustice under the circumstances presented.

The values of surrounding properties will not be diminished by granting the variance relief.

The Board previously determined that a medical use of the Property would not diminish surrounding property values. The real estate office use of the first floor of the building is a less intense use of the Property that will generate less traffic and parking demand than a medical office use and less impact on surrounding properties. Its peak hours of use will be on the weekends during the morning and afternoon hours. There is no evidence to suggest that a use of this nature would have any negative impact upon surrounding properties or their values.

Literal enforcement of the provisions of the Ordinance would result in an unnecessary hardship.

The Property has special conditions that distinguish it from surrounding properties. It is a long, narrow property with significant frontage on Lafayette Road. In the context of zoning, it is essentially an "island property". There are no directly abutting properties that are in the GRA Zoning District. The abutting properties are all used for commercial purposes with exception of the abutting property to the east which is under construction and is zoned for municipal use.

A commercial use is the highest and best use of the Property that is most compatible with the uses being made of surrounding properties. Moreover, when the Board granted the variance in 2018 for use of the Property as a "medical office", it determined that it had special conditions that distinguished it from surrounding properties. The same special conditions exist today, except that the residential buildings on the Property have since been demolished and replaced with a commercial building and associated parking lot. Use of the first floor of the building as a business office represents less of an impact than its use as a medical office. As a result, there is no fair and substantial relationship between the Ordinance provisions and their application to the Property.

The proposed use is reasonable.

The proposed business office use of the first-floor commercial space on the Property will complement the existing second floor medical office use and have less of an impact on surrounding properties than use of the entire building as a medical office would have.

CONCLUSION

In conclusion, the Applicant has demonstrated that it has satisfied the five (5) criteria for granting the variance pursuant to Section 10.440 of the Ordinance and respectfully requests the Board's approval of its application.

Respectfully Submitted,

Dated: March 31, 2020

AER RE LLC
David and Amy Rosania, Members

By and Through Their Attorneys,

Durbin ~~Law Offices~~ PLLC

By: Derek R. Durbin, Esq.
144 Washington Street
Portsmouth, NH 03801
(603)-287-4764
derek@durbinlawoffices.com

D - 41387
03/22/2019 12:02:08 PM
Register of Deeds, Rockingham County
LCHIP 25.00
PLAN 26.00

LEGEND

Symbol	Description
	PROPERTY LINE
	PROPERTY LINE BUILDING SETBACK
	PROPOSED EDGE OF PAVEMENT
	PROPOSED CURB
	PROPOSED FENCE LINE
	PROPOSED TREE LINE
	APPROXIMATE LIMIT OF PROPOSED SAW CUT
	PROPOSED BUILDING
	PROPOSED NO PARKING STRIPING
	PROPOSED CONCRETE SIDEWALK
	PROPOSED BITUMINOUS CONCRETE
	PROPOSED 1.5" MILL & WEARING COURSE OVERLAY
•	PROPOSED BOLLARD
BLDG	BUILDING
TYP	TYPICAL
COORD	COORDINATE
CONST.	CONSTRUCT
30'R	PROPOSED CURB RADIUS
VGC	PROPOSED VERTICAL GRANITE CURB
SGC	PROPOSED SLOPED GRANITE CURB
	PROPOSED LIGHT POLE

SITE NOTES:

1. STRIPE PARKING AREAS AS SHOWN, INCLUDING PARKING SPACES, STOP BARS, ADA SYMBOLS, PAINTED ISLANDS, CROSS WALKS, ARROWS, LEGENDS AND CENTERLINES SHALL BE THERMOPLASTIC MATERIAL. THERMOPLASTIC MATERIAL SHALL MEET THE REQUIREMENTS OF AASHTO AASHTO M249. (ALL MARKINGS EXCEPT CENTERLINE AND MEDIAN ISLANDS TO BE CONSTRUCTED USING WHITE TRAFFIC PAINT. CENTERLINE AND MEDIAN ISLANDS TO BE CONSTRUCTED USING YELLOW TRAFFIC PAINT. ALL TRAFFIC PAINT SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE "F").
2. ALL PAVEMENT MARKINGS AND SIGNS TO CONFORM TO "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS", AND THE AMERICANS WITH DISABILITIES ACT REQUIREMENTS, LATEST EDITIONS.
3. SEE DETAILS FOR PARKING STALL MARKINGS, ADA SYMBOLS, SIGNS AND SIGN POSTS.
4. CENTERLINES SHALL BE FOUR (4) INCH WIDE YELLOW LINES. STOP BARS SHALL BE EIGHTEEN (18) INCHES WIDE.
5. PAINTED ISLANDS SHALL BE FOUR (4) INCH WIDE DIAGONAL LINES AT 3'-0" O.C. BORDERED BY FOUR (4) INCH WIDE LINES.
6. THE CONTRACTOR SHALL EMPLOY A NEW HAMPSHIRE LICENSED LAND SURVEYOR TO DETERMINE ALL LINES AND GRADES.
7. CLEAN AND COAT VERTICAL FACE OF EXISTING PAVEMENT AT SAW CUT LINE WITH RS-1 EMULSION IMMEDIATELY PRIOR TO PLACING NEW BITUMINOUS CONCRETE.
8. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE AND CITY CODES & SPECIFICATIONS.
9. COORDINATE ALL WORK WITHIN PUBLIC RIGHT OF WAYS WITH THE CITY OF PORTSMOUTH.
10. CONTRACTOR TO SUBMIT AS-BUILT PLANS IN DIGITAL FORMAT (.DWG AND .PDF FILES) ON DISK TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR.
11. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR ALL CONCRETE PADS & SIDEWALKS ADJACENT TO BUILDING.
12. ALL WORK SHALL CONFORM TO THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS.
13. CONTRACTOR TO PROVIDE BACKFILL AND COMPACTION AT CURB LINE AFTER CONCRETE FORMS FOR SIDEWALKS AND PADS HAVE BEEN STRIPPED. COORDINATE WITH BUILDING CONTRACTOR.
14. COORDINATE ALL WORK ADJACENT TO BUILDING WITH BUILDING CONTRACTOR.
15. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
16. THE APPLICANT SHALL HAVE A COMMUNICATIONS SITE SURVEY CONDUCTED BY A MOTOROLA COMMUNICATIONS CARRIER APPROVED BY THE CITY'S COMMUNICATIONS DIVISION. THE RADIO COMMUNICATIONS CARRIER MUST BE FAMILIAR AND CONVERSANT WITH THE PORTSMOUTH POLICE AND FIRE RADIO SYSTEMS CONFIGURATION. IF THE SITE SURVEY INDICATES THAT IT IS NECESSARY TO INSTALL A SIGNAL REPEATER EITHER ON OR NEAR THE PROPOSED PROJECT, THOSE COSTS SHALL BE RESPONSIBILITY OF THE PROPERTY OWNER. THE PROPERTY OWNER WILL BE REQUIRED TO MAINTAIN ANY INSTALLED EQUIPMENT. THE PROPERTY OWNER SHALL BE RESPONSIBLE TO PAY FOR THE SITE SURVEY WHETHER OR NOT THE SURVEY INDICATES THAT EQUIPMENT IS NECESSARY. THE OWNER SHALL COORDINATE WITH THE SUPERVISOR OF RADIO COMMUNICATIONS FOR THE CITY. THE SURVEY SHALL BE COMPLETED AND THE REPORT PROVIDED TO THE FIRE DEPARTMENT. ALL REQUIRED EQUIPMENT SHALL BE INSTALLED, TESTED, AND ACCEPTED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
17. APPLICANT SHALL BE RESPONSIBLE FOR IMPLEMENTING THE APPROVED OPERATION AND MAINTENANCE PLAN INCLUDING THE MAINTENANCE REQUIREMENTS FOR THE PROPOSED RAIN GARDEN AND FILTERRA BIORETENTION SYSTEM LISTED ON SHEET C-103.
18. REFUSE REMOVAL SHALL OCCUR OUTSIDE HOURS OF OPERATION TO ALLOW FOR VEHICULAR TURNING MOVEMENTS WITHOUT CONFLICTS TO PARKED CARS, AND SHALL COMPLY WITH THE CITY OF PORTSMOUTH NOISE ORDINANCE.
19. IF MECHANICAL UNITS ARE TO LOCATED AT GROUND LEVEL THE UTILITIES PLAN SHEET C-104 SHALL BE UPDATED TO SHOW THEM AND SUBMITTED TO THE CITY OF PORTSMOUTH PRIOR TO CONSTRUCTION.

SITE DATA:

LOCATION: TAX MAP 174, LOT 14, 185 COTTAGE STREET, PORTSMOUTH, NEW HAMPSHIRE

ZONING DISTRICT: GENERAL RESIDENCE A (GRA)

USE: MEDICAL OFFICE*

* USE VARIANCE GRANTED ON JUNE 26, 2018

DIMENSIONAL REQUIREMENTS:	REQUIRED	PROPOSED
LOT AREA:	7,500 SF	39,031± SF 0.89± ACRES
MINIMUM SETBACKS:		
• FRONT	15 FT	23.8± FT
• SIDE:	10 FT	44.0± FT
• REAR:	20 FT	291.4± FT
MAXIMUM BUILDING HEIGHT:	30 FT	<30 FT
MAXIMUM BUILDING COVERAGE:	25%	17.9±%
MINIMUM OPEN SPACE:	30%	48.5±%

OFF STREET PARKING REQUIREMENTS:	REQUIRED	PROPOSED
PARKING STALL LAYOUT: • STANDARD 90°	8.5' X 19'	9' X 19'
DRIVE AISLE WIDTH: • 90° (2-WAY TRAFFIC)	24 FT	24 FT
PARKING SPACES: MEDICAL OFFICE: 1 PER 250 GFA 6,300± / 250 = 26	26 SPACES	31 SPACES
ADA PARKING SPACES:	2 SPACES	3 SPACES
MAXIMUM NUMBER OF SPACES ALLOWED 120% OF MIN. = (1.2)(26) = 32	32 SPACES	31 SPACES

NOTES:

1. THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
2. ALL IMPROVEMENTS SHOWN ON THIS SITE PLAN SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE PLAN BY THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNERS. NO CHANGES SHALL BE MADE TO THIS SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR.
3. THIS IS NOT A BOUNDARY SURVEY AND SHALL NOT BE USED AS SUCH.

APPROVED BY THE CITY OF PORTSMOUTH, NH PLANNING BOARD

CHAIRMAN ______ DATE 3/20/2019

THE SOLE PURPOSE OF THIS PLAN IS TO DEPICT THE LOCATION OF EXISTING AND PROPOSED IMPROVEMENTS ON THE SITE. RECORDING OF THIS PLAN WAS A REQUIREMENT OF THE PORTSMOUTH PLANNING BOARD AS PART OF THEIR SITE PLAN APPROVAL DATED OCTOBER 23, 2018.

______ L.L.S. #989

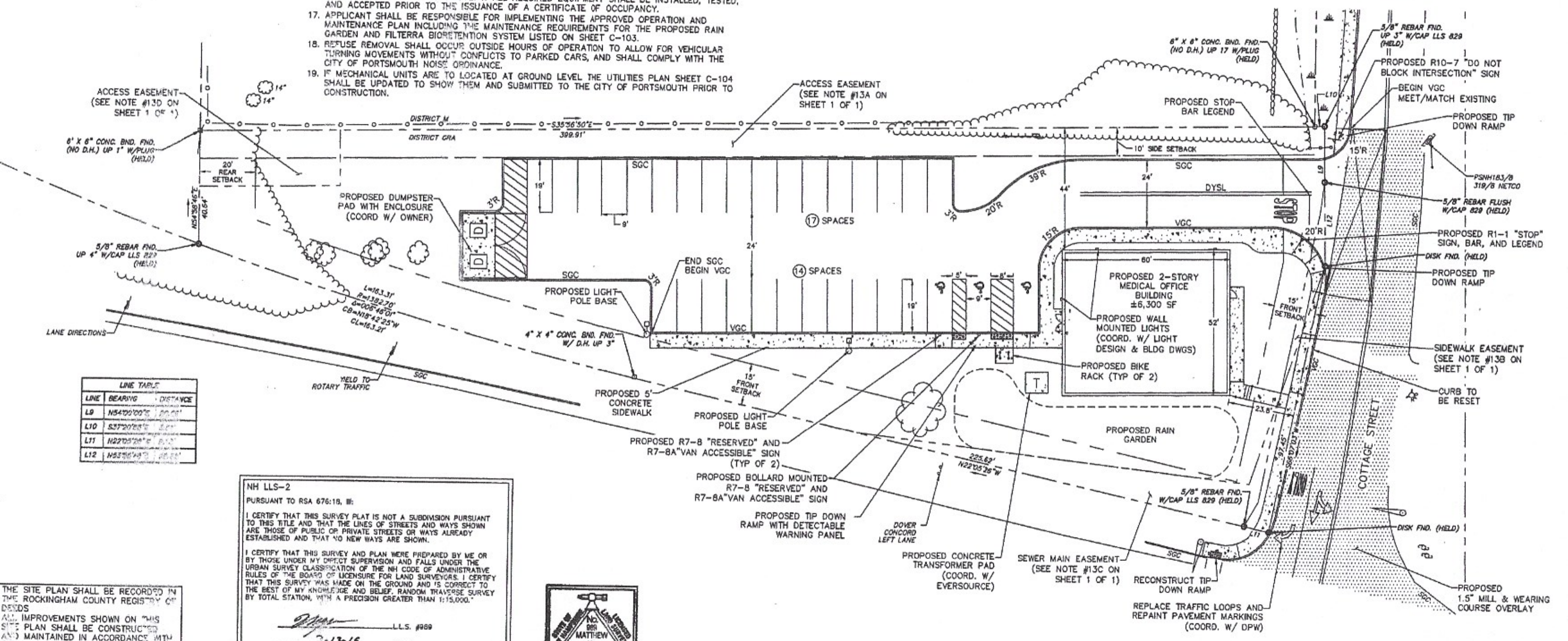
3-13-19 DATE

THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET REGISTRY OF DEED REQUIREMENTS AND ARE NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT TOWN ASSESSORS RECORDS.

FOR DOUCET SURVEY

3-13-19

DATE



LINE TABLE		
LINE	BEARING	DISTANCE
L9	N54°00'00"E	20.00'
L10	S37°20'55"E	[illegible]
L11	N22°05'26"E	[illegible]
L12	N53°[illegible]	[illegible]

NH LLS-2

PURSUANT TO RSA 676:18, III:

I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN.

I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000."

______ L.L.S. #989

3-13-19 DATE

THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET REGISTRY OF DEED REQUIREMENTS AND ARE NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT TOWN ASSESSORS RECORDS.

1. THE SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS
2. ALL IMPROVEMENTS SHOWN ON THIS SITE PLAN SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE PLAN BY THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNERS. NO CHANGES SHALL BE MADE TO THIS SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR

STATE OF NEW HAMPSHIRE LICENSED LAND SURVEYOR No. 989 MATTHEW W. FAGGINGER-AUER

D-41387

ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS

Tighe&Bond
Engineers | Environmental Specialists

SCALE IN FEET 0 20' 40'
GRAPHIC SCALE

FOR RECORDING PURPOSES ONLY
Applicant/Owner: AER, RE. LLC
185 Cottage Street
Portsmouth, New Hampshire 03801
Tax Map: 174, Lot: 14

Proposed Medical Office Building

AER, RE. LLC

185 Cottage Street
Portsmouth, New Hampshire

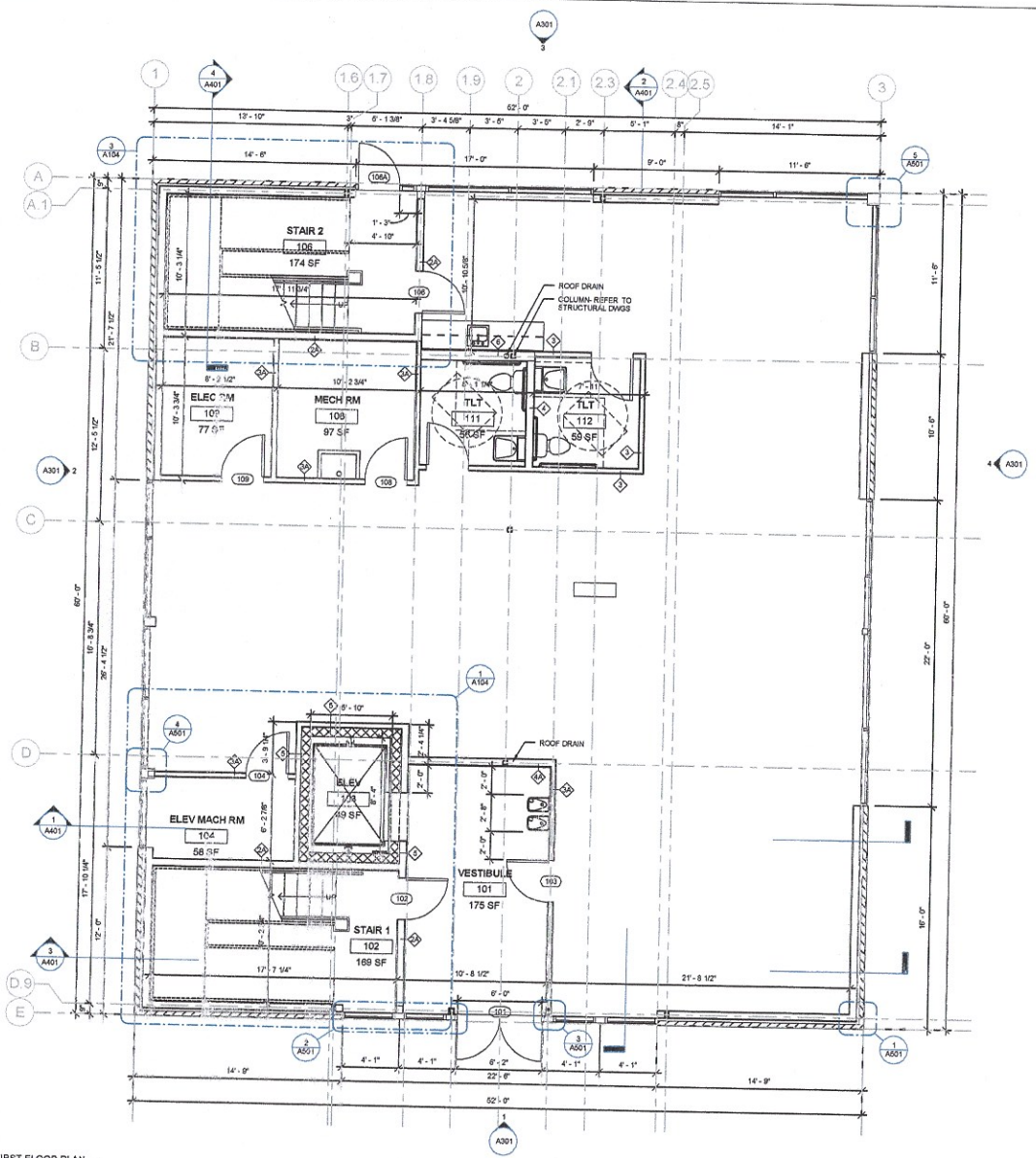
MARK	DATE	DESCRIPTION
E	3/12/2019	Revised RCRD Submission
D	12/11/2018	RCRD Submission
C	10/9/2018	PB Submission
B	9/18/2018	Revised TAC Submission
A	8/20/2018	TAC Submission

PROJECT NO: D5108-001
DATE: 8/20/2018
FILE: D5018-001_RCRD.DWG
DRAWN BY: JPC/CML
CHECKED: CML/PMC
APPROVED: BLM

SITE PLAN

SCALE: AS SHOWN

C-102



1 FIRST FLOOR PLAN
1/4" = 1'-0"

Seacoast Periodontics
185 Cottage Street
Portsmouth, NH

McHENRY
ARCHITECTURE
4 Market Street
Portsmouth, New Hampshire
603.430.0274

LICENSED ARCHITECT
McHENRY
No. 2085
STATE OF NEW HAMPSHIRE

NOT FOR CONSTRUCTION
PERMIT SET ONLY

No.	Description	Date

Project Name: Seacoast Periodontics

Drawing Name: FIRST FLOOR PLAN

Project number:	18071
Date:	02/25/2019
Drawn by:	MB
Checked by:	JJ

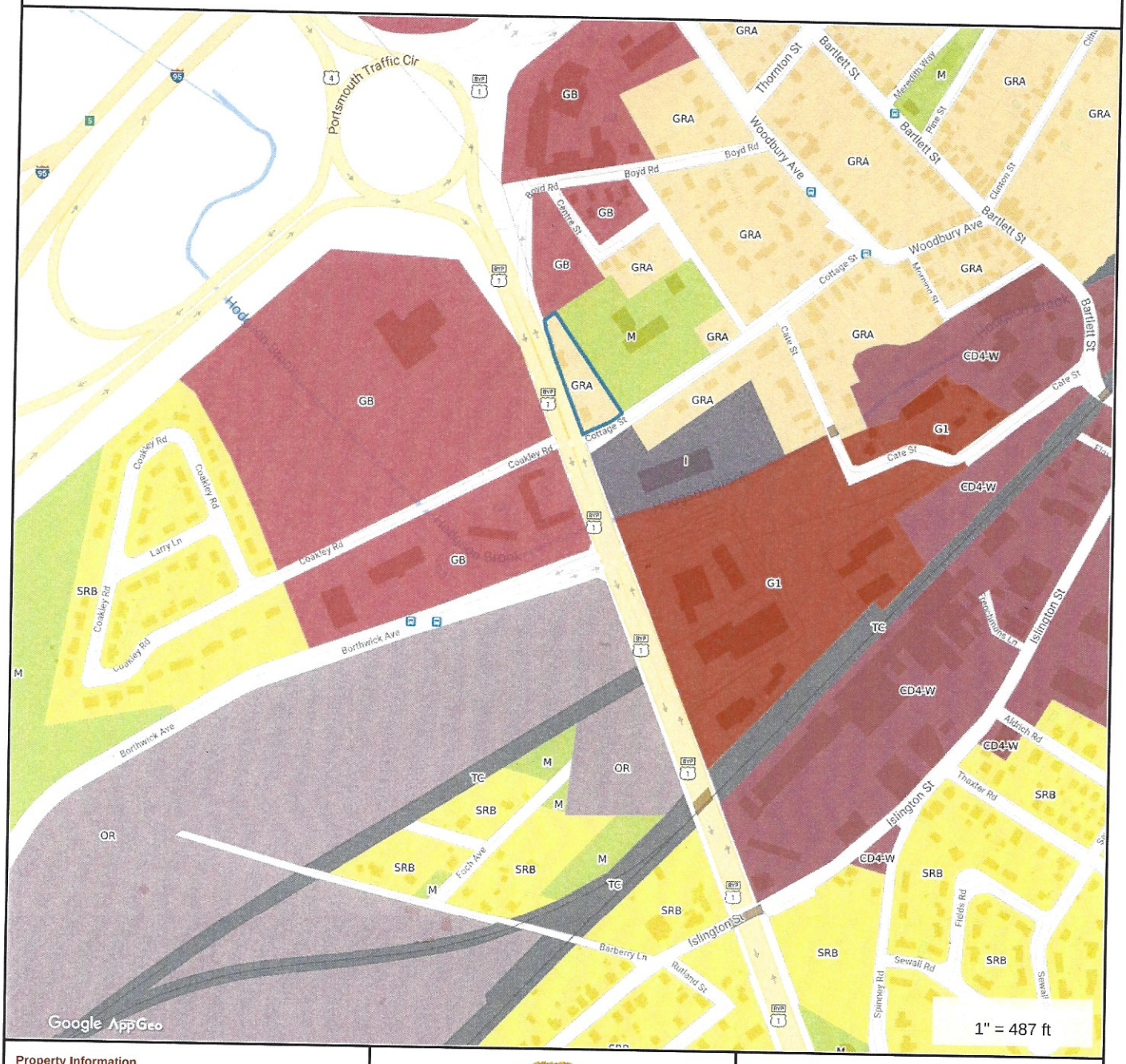
A101

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

4/9/2019 2:19:32 PM

City of Portsmouth, NH

March 30, 2020



Property Information

Property ID	0174-0014-0000
Location	185 COTTAGE ST
Owner	AER RE LLC

MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT

City of Portsmouth, NH makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 4/1/2019
Data updated 7/17/2019

Map Theme Legends

Zoning

Residential Districts

- R — Rural
- SRA — Single Residence A
- SRB — Single Residence B
- GRA — General Residence A
- GRB — General Residence B
- GRC — General Residence C
- GA/MH — Garden Apartment/Mobile Home Park

Mixed Residential Districts

- MRO — Mixed Residential Office
- MRB — Mixed Residential Business
- G1 — Gateway Corridor
- G2 — Gateway Center

Business Districts

- GB — General Business
- B — Business
- WB — Waterfront Business

Industrial Districts

- OR — Office Research
- I — Industrial
- WI — Waterfront Industrial

Airport Districts

- AIR — Airport
- AI — Airport Industrial
- PI — Pease Industrial
- ABC — Airport Business Commercial

Conservation Districts

- M — Municipal
- NRP — Natural Resource Protection

Character Districts

- CD5 — Character District 5
- CD4 — Character District 4
- CD4W — Character District 4-B
- CD4-L1 — Character District 4-L1
- CD4-L2 — Character District 4-L2

Civic District

- Civic District

Municipal District

- Municipal District

Overlay Districts

- OLOD — Osprey Landing Overlay District
- Downtown Overlay District
- Historic District

City of Portsmouth

View of Building from Parking Lot (North)

View of Building From Lafayette Road (West)

Alternate View of Building from Cottage Street (South)

View of Building from Rear / Cottage Street (East)

View from Cottage Street / Rear of Building (SouthEast)

CONSULTING • MANAGEMENT
FIELD SERVICES

49 Brattle Street | Arlington, MA 02474
Tel: 781-791-7724 | www.structureconsulting.com

Benjamin C. Skillin
Tel: 781-860-2446
Email: bskillin@structureconsulting.net

April 1st, 2020

City of Portsmouth
Zoning Board of Adjustment
1 Junkins Avenue, 3rd Floor,
Portsmouth, NH 03801

Re:	**Special Exception Application to Attach Antennas and Supporting Equipment as a, "Concealed Wireless Telecommunications Facility" to an Existing Hampton Inn.**
Applicant:	**Cellco Partnership d/b/a Verizon Wireless ("VzW")**
Address:	**Existing Hampton Inn, located at 99 Durgin Lane, Portsmouth, NH 03801 ("Portsmouth_4_NH")**

Dear Board of Adjustment,

VzW is submitting herewith the enclosed Special Exception Application Package so that it may install, operate and maintain wireless communication antennas and supporting equipment (together, the "Concealed Wireless Telecommunications Facility") on the above-referenced Hampton Inn as depicted on the plans submitted herewith. Consultant for the applicant spoke with Peter Stith, Principal Planner on March 16, 2020 and was advised that an application for a special exception needs to be filed with the Zoning Board of Adjustment due to City Zoning Ordinance. VzW is proposing wireless communications antennas in order to be able to provide coverage and capacity relief and improve wireless service throughout Portsmouth, particularly where, as here, VzW has identified areas of dense demand for its Long-Term Evolution ("LTE" or "4G") voice and data services.

VzW is one of the nation's leading Federal Communications Commission-licensed providers of wireless telecommunications services, extending coverage to almost all of the top 100 markets in the United States. It has developed one of the largest and most reliable national wireless networks to provide wireless voice and data services to an ever-growing customer base, last counted at over 135 million, and continuously works to enhance and improve its network.

"Available" Technology

One of VzW's key network design objectives is to provide seamless and reliable coverage without either significant gaps or dead spots, or any inability to handle and off-load voice and data traffic, particularly in areas of high data demand. To provide this level of coverage—as required by the federal Telecommunications Act of 1996—VzW utilizes a variety of available technologies. At present, these technologies fall into three categories: (1) macro-sites, (2) small cells and Cloud Radio Access Network ("CRAN") nodes, and (3) indoor and outdoor distributed antenna systems ("DAS"). The deployment of a particular technology in a specific location is largely dependent upon the specific network coverage/capacity needs of the area around the location, and the environment in which the technology will be used. In particular, it is critical that each technology deployed complements the other technologies already being deployed in its vicinity, in order to avoid interference and to establish a more robust overall network.

Macro-sites are the most common deployed wireless technology and represent a basic solution applicable to most environments, whether a busy urban center, rural area, or in between. These sites typically consist of an antenna support structure—such as a monopole or lattice tower, or a building rooftop—with three sectors of antennas intended to serve a broad geographic area around the site. Macro-sites were deployed as part of the first-generation analog networks in the 1980s. As wireless technologies have evolved through second, third and now fourth generation networks (with 5G on the horizon), the macro-site infrastructure has continued to be a vital component of FCC-licensed carriers' wireless networks because they provide the first critical layer of broad-area coverage needed to support wireless network connectivity.

Small cells and CRAN nodes are a relatively recent addition to the set of available technology solutions used to deploy wireless services. VzW's small cell and CRAN applications generally consist of a smaller, lower-power antenna (as compared to that on a macro-site) mounted on a utility pole, light pole or on- or two-story building rooftop, and are typically used to serve smaller isolated areas of heavy network usage, such as strip malls, schools, town commons and high traffic areas/intersections. These technologies operate at the same frequencies as macro-sites and their coverage areas are subject to the same impacts of surrounding obstructions, or "clutter," such as trees, buildings and topographical variations. However, because small cells and CRAN nodes are typically deployed on shorter structures below such "clutter," their coverage areas are limited to open line-of-sight stretches up and down the adjacent roadways, and across open areas surrounding the locations listed above.

Indoor and outdoor DAS are also used to provide coverage in discrete areas. They are typically owned and operated by third parties as a lower-powered, neutral host solution, where multiple wireless carriers

"plug in" at a central head-end location. Examples of indoor/outdoor DAS systems include large sporting venues such as Fenway Park, Gillette Stadium, casinos, and major underground traffic corridors such as the central Artery Tunnel in Boston.

Based on its objectives in Portsmouth, VzW has concluded that the proposed Macro-site is the most appropriate technology available to serve its network needs in this area at this time.

VzW's Proposal

With the aim of deploying Macro-site technology throughout New Hampshire, VzW has entered into agreements with property owners, including this Hampden Inn, among others, which allow for the installation of telecommunications antennas throughout the area.

The proposed Macro-site will primarily consist of collocating six panel antennas (two per sector, three sectors) and three remote radio heads (RRHs, one per sector, three sectors) at a centerline height of 49 feet, 4 inches above grade level on the roof of an existing building (Hampton Inn), which was constructed in 1997. Construction will be limited to the vicinity of the existing rooftop surface, interior and exterior parapet walls, and interior of the existing building. The antennas will be mounted on the existing interior parapet wall on the rooftop, as depicted in the submitted plans and photo simulations. Additionally, Verizon Wireless proposes to place support equipment on a proposed equipment frame on the rooftop. Utilities will be routed along existing ground conduits on sleepers on the roof and routed through existing conduits within the building's janitor closet from the roof to the first floor, and then routed along the first floor ceiling to the existing water main in the basement. There is no ground disturbance proposed for this installation. With respect to visual impacts, the equipment will be entirely concealed from view.

The strategic integration of wireless telecommunications technology is a surgical approach to the continued deployment of Verizon's existing LTE and AWS networks in Portsmouth and throughout New Hampshire, particularly in those areas of high data traffic. When Macro-site antennas are strategically placed throughout a targeted geographic area, the end result is an overall increase in performance and efficiency, both within the target area and the network as a whole.

The proposed location is intended to address a gap in service by providing adequate capacity and coverage improvement to the roadways, businesses, and residential areas immediately surrounding the Hampden Inn. The Macro-site will address the high wireless usage in those locations, while also freeing up network capacity elsewhere in the area, as macro-sites that currently need to provide service to those locations can use the relief to provide better wireless service to other high usage areas. Improved wireless access provides enormous economic benefits to communities. Because of wireless technology, it is easier to start a business today than it ever has been, as entrepreneurs can market, buy inventory, accept payments, and keep in touch with customers from their phones, wherever they go. Similarly, wireless access lets consumers research potential purchases in real time while shopping. Most importantly, a robust wireless network is vital to ensuring that residents, visitors, and businesses in Portsmouth have entirely reliable access to public safety and that public safety is always connected to the services they need to save lives while working in the field.

Following installation, VzW technicians will monitor and occasionally visit the macro-site for maintenance purposes. Except for standard electrical service, the installations will not impact utilities,

schools, traffic or other municipal resources. Because there is no generator or HVAC unit, the Macro-site will not create any noise or vibrations.

Special Exception Criteria

This application for special exception meets all necessary criteria per Section 10.232.20 of the City Zoning Ordinance. This installation falls under Section 10.923.30 "Facilities Allowed by Special Exception," as it involves a wireless telecommunications facility, the use of which is not permitted under Section 923.10 or 923.20 and which is not prohibited under Section 923.40. The project presents no hazard to the public or adjacent property through potential fire, explosion or release of toxic materials. The project presents no detriment to property values in the vicinity or change in the essential characteristics of any area including residential neighborhoods or business and industrial districts on account of the location or scale of buildings and other structures, parking areas, accessways, odor, smoke, gas, dust, or other pollutant, noise, glare, heat, vibration, or unsightly outdoor storage of equipment, vehicles or other materials. Further, the installation poses no traffic safety hazard or a substantial increase in the level of traffic congestion in the vicinity, no excessive demand on municipal services, and no significant increase of stormwater runoff onto adjacent property or streets.

Environmental Statement

EnviroBusiness, Inc. (EBI) Consulting conducted a review of the installation to determine if any necessary statements are required under the National Environmental Protection Act or the National Historic Preservation Act. Based on EBIs review of files held by the New Hampshire Division of Historical Resources (NH SHPO), no historic properties were identified in the Area of Potential Effect (APE) and the age of the building was confirmed (built in 1997). Therefore, an Environmental Assessment (EA), Draft Environmental Impact Statement (DEIS) or Environmental Impact Statement (EIS) is not required.

The following table summarizes each proposed installation.

Site Name	Approximate Location	Mount Type	Antenna Height	Existing Structure Height
Portsmouth_4_NH	99 Durgin Lane	Concealed (Parapet)	52'6"	56'5"

Materials Included

Due to COVID-19 concerns, all materials will be submitted electronically. Please find below the list of materials being submitted for your review.

1.) Special Exception Petition, dated 4/1/2020;
2.) Radio Frequency Affidavit, dated 4/1/2020;
3.) FCC licenses;
4.) Signed Agreement from Property Owner, dated 3/19/2020;
5.) Design Plans for Portsmouth_4_NH, prepared by Dewberry Engineers Inc., dated 3/6/2020;
6.) Structural Assessment, prepared by Dewberry Engineers Inc., dated 2/18/2020;
7.) Photo simulations, prepared by Dewberry Engineers Inc., dated 3/9/2020;

Portsmouth Board of Adjustment
March 24, 2020

FCC Shot Clock

The Telecommunications Act of 1996 provides that a local government "shall act on any request for authorization to place, construct, or modify personal wireless service facilities *within a reasonable period of time* after the request is duly filed" (emphasis added). In 2009, the FCC issued Ruling No. 09-99, which provides specific time periods defining what constitutes "a reasonable period of time." For collocations on existing structures, a municipality has 90 dates from the date an application is received by the municipality to process and reach a final decision on that application. However, since then the Federal Communications Commission has published 2018 FCC Order, which clarifies the proper standard of review for courts and municipalities to use when considering whether denial of a colocation application would prohibit or have the effect of prohibiting the provision of personal wireless service. The Nationwide Programmatic Agreement (NPA) defines a collocation as, "mounting or installation of an antenna on an existing tower, building, or structure for the purpose of transmitting and/or receiving radio frequency signals for communications purposes, whether or not there is an existing antenna on the structure."

The 2018 FCC Order maintains that municipalities have 90 days from the date an application is received to review a proposed collocation on a pre-existing structure that is not a small wireless facility ("Small Cell").

The Board of Adjustment is receiving this complete petition on April 1, 2020. Ninety (90) days from that date is June 30, 2020 and, therefore, the board has until Wednesday, July 1, 2020, to reach a final decision on this petition.

Conclusion

The proposed Macro-site is the least intrusive means available to address an identified coverage gap in the above-described area of dense demand for VzW's LTE voice and data services in Portsmouth. The Macro-site will provide enhanced service to this area while avoiding the aesthetic impacts of a traditional wireless facility such as a tower.

Please place this special exception application on the agenda for the next available Board of Adjustment meeting. Thank you for your timely attention to this matter. If you should have any questions regarding the enclosed materials, please do not hesitate to contact me directly.

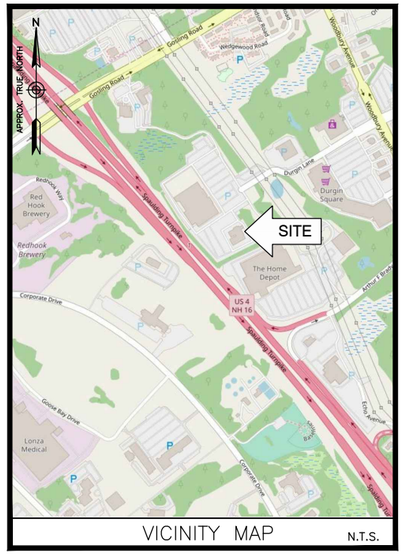
Very truly yours,

Benjamin Skillin

BCS

PORTSMOUTH 4 NH

99 DURGIN LANE
PORTSMOUTH, NH 03801



VICINITY MAP N.T.S.

DIRECTIONS FROM WESTBOROUGH:

TAKE I-495 N. TAKE EXIT 60 (SIGNS FOR MA-286/BEACHES/SALISBURRY) AND MERGE ONTO I-95 N, ENTERING NEW HAMPSHIRE. TAKE EXIT 4 TO MERGE ONTO NH-16 N/US-4 W TOWARD WHITE MTS. TAKE EXIT 1 FOR GOSLING RD TOWARD PEASE INTERNATIONAL TRADEPORT. DRIVE TO DURGIN LN. TURN RIGHT ONTO GOSLING RD. TURN RIGHT ONTO DURGIN LN. TURN LEFT TO STAY ON DURGIN LN. THE SITE WILL BE ON THE RIGHT.

ENGINEER

DEWBERRY ENGINEERS INC.
99 SUMMER STREET
SUITE 700
BOSTON, MA 02110

PHONE # (617) 531-0807
FAX # (617) 695-3310

CONTACT: BENJAMIN B. REVETTE, P.E

CONSTRUCTION

VERIZON WIRELESS
118 FLANDERS ROAD
WESTBOROUGH, MA 01581

CONTACT: TODD WHITE

PHONE # (603) 505-0700

CONSULTANT TEAM

SITE NAME:

PORTSMOUTH 4 NH

PROPERTY OWNER:

GIRI DOVER LLC
225 W SQUANTUM ST
SUITE 200
QUINCY, MA 02171

PETITIONER:

CELLCO PARTNERSHIP
d/b/a VERIZON WIRELESS
118 FLANDERS ROAD
WESTBOROUGH, MA 01581-3956

ELECTRIC UTILITY:

EVERSOURCE
(800) 362-7764

TELEPHONE UTILITY:

FAIRPOINT
(844) 968-7224

MAP-LOT ID:

0239-0015-0000

EXISTING ROOF:*

LATITUDE: 43° 05' 46.73" N (NAD83)
LONGITUDE: 70° 47' 46.73" W (NAD83)
* BASED ON GOOGLE EARTH

PROJECT SUMMARY

SITE ADDRESS:
99 DURGIN LANE
PORTSMOUTH, NH 03801

ZONING DISTRICT:
G-1: GATEWAY CORRIDOR

PROJECT DIRECTORY

THE SITE WILL CONSIST OF MOUNTING (3) SECTOR OF ANTENNAS AND ASSOCIATED ANTENNA EQUIPMENT BEHIND A PARAPET WALL. A STEEL EQUIPMENT FRAME WILL BE INSTALLED ON THE ROOF OF AN EXISTING BUILDING.

PROJECT DESCRIPTION

THIS DOCUMENT WAS DEVELOPED TO REFLECT A SPECIFIC SITE AND ITS SITE CONDITIONS AND IS NOT TO BE USED FOR ANOTHER SITE OR WHEN OTHER CONDITIONS PERTAIN. REUSE OF THIS DOCUMENT IS AT THE SOLE RISK OF THE USER.

A.D.A. COMPLIANCE:
FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.

SHT. NO.	DESCRIPTION
T-1	TITLE SHEET
G-1	GENERAL NOTES
Z-1	ABUTTERS PLAN
C-1	PROPOSED ROOF PLAN
C-2	EAST ELEVATION & CONDUIT ROUTING
C-3	CONSTRUCTION DETAILS-I
C-4	CONSTRUCTION DETAILS-II
C-5	CONSTRUCTION DETAILS-III
S-1	EQUIPMENT FRAMING PLAN & DETAILS
S-2	STRUCTURAL CONNECTION DETAILS
S-3	PARAPET FRAMING & ANTENNA MOUNTING
E-1	ONE-LINE RISER DIAGRAMS
E-2	GROUNDING DIAGRAMS & DETAILS

SHEET INDEX

VERIZON WIRELESS
118 FLANDERS ROAD
WESTBOROUGH, MA 01581-3956

PORTSMOUTH 4 NH

CONSTRUCTION DRAWINGS		
A	03/06/20	FOR COMMENT

Dewberry®
Dewberry Engineers Inc.
99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310

DRAWN BY: JCM/JSD
REVIEWED BY: MFT
CHECKED BY: BBR
PROJECT NUMBER: 50121487
JOB NUMBER: 50121524

SITE NUMBER

540336

SITE ADDRESS

99 DURGIN LANE
PORTSMOUTH, NH 03801

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1

GENERAL CONSTRUCTION NOTES :

1. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, AND COMPLY WITH VERIZON WIRELESS SPECIFICATIONS.
2. CONTRACTOR SHALL CONTACT "DIG SAFE" (888-344-7233) FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
4. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
5. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
6. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
7. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
9. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
10. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO PROCEEDING.
11. EACH CONTRACTOR SHALL COOPERATE WITH THE OWNER'S REPRESENTATIVE, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
12. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE VERIZON WIRELESS CONSTRUCTION MANAGER.
13. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
14. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR WILL NOTIFY ENGINEER, VERIZON WIRELESS PROJECT CONSTRUCTION MANAGER, AND LANDLORD IMMEDIATELY.
15. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
16. ALL ROOF WORK SHALL BE DONE BY A QUALIFIED AND EXPERIENCED ROOFING CONTRACTOR IN COORDINATION WITH ANY CONTRACTOR WARRANTING THE ROOF TO ENSURE THAT THE WARRANTY IS MAINTAINED.
17. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
18. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH LANDLORD AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
19. CONTRACTOR SHALL FURNISH VERIZON WIRELESS WITH THREE AS-BUILT SETS OF DRAWINGS UPON COMPLETION OF WORK.
20. ANTENNAS AND CABLES ARE TYPICALLY PROVIDED BY VERIZON WIRELESS. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH PROJECT MANAGER TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED BY VERIZON WIRELESS. ALL ITEMS NOT PROVIDED BY VERIZON WIRELESS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED BY VERIZON WIRELESS.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR WILL COORDINATE WITH VERIZON WIRELESS PROJECT MANAGER TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY VERIZON WIRELESS. ALL REQUIRED PERMITS NOT OBTAINED BY VERIZON WIRELESS MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
22. GENERAL CONTRACTOR SHALL HAVE A LICENSED HVAC CONTRACTOR START THE HVAC UNITS, SYNCHRONIZE THE THERMOSTATS, ADJUST ALL SETTINGS ON EACH UNIT ACCORDING TO VERIZON WIRELESS CONSTRUCTION MANAGER'S SPECIFICATIONS, AND THOROUGHLY TEST AND BALANCE EACH UNIT TO ENSURE PROPER OPERATION PRIOR TO TURNING THE SITE OVER TO OWNER.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH VERIZON WIRELESS SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. UNLESS OTHERWISE NOTED VERIZON WIRELESS SHALL PROVIDE ALL REQUIRED RF MATERIAL FOR CONTRACTOR TO INSTALL, INCLUDING ANTENNAS, TMA'S, BIAS-T'S, COMBINERS, PDU, DC BLOCKS, SURGE ARRESTORS, GPS ANTENNA, GPS SURGE ARRESTOR, COAXIAL CABLE.
26. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL VERIFY ALL EQUIPMENT TO BE PROVIDED BY VERIZON WIRELESS FOR INSTALLATION BY CONTRACTOR.
27. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO VERIZON WIRELESS SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
28. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
29. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
30. CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 48 HOURS IN ADVANCE PRIOR TO CONSTRUCTION START, MORE SPECIFICALLY BEFORE; SEALING ANY FLOOR, WALL OR ROOF PENETRATION, FINAL UTILITY CONNECTIONS, POURING CONCRETE, BACKFILLING UTILITY TRENCHES AND STRUCTURAL POST OR MOUNTING CONNECTIONS, FOR ENGINEERING REVIEW AND INSPECTION.
31. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED D FIRE CODE APPROVED MATERIALS.
32. REPAIR ANY DAMAGE DURING CONSTRUCTION TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE CONSTRUCTION MANAGER AND LANDLORD.
33. ALL DISRUPTIVE WORK AND WORK WITHIN TENANT SPACES TO BE COORDINATED WITH BUILDING REPRESENTATIVE.

CODE SPECIFICATIONS:

1. ALL WORK SHALL COMPLY WITH THE FOLLOWING APPLICABLE CODES:

   NEW HAMPSHIRE STATE BUILDING CODE, CONSISTENT WITH THE FOLLOWING CODES:
   2009 INTERNATIONAL RESIDENTIAL CODE (IRC)
   2009 INTERNATIONAL BUILDING CODE (IBC)
   2009 INTERNATIONAL EXISTING BUILDING CODE (IBC)
   2017 NATIONAL ELECTRICAL CODE (NEC)

   IN THE EVENT OF CONFLICT, THE MOST RESTRICTIVE CODE SHALL PREVAIL.
2. ALL STRUCTURAL WORK TO BE DONE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL, 13TH EDITION (AISC 13TH ED.)
3. ALL CONCRETE WORK TO BE DONE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE (ACI 301) SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 318) AND BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
4. ALL REINFORCING STEEL WORK TO BE DONE IN ACCORDANCE WITH THE (ACI 315) MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES.

GROUNDING NOTES:

1. GROUNDING SHALL COMPLY WITH NEC ART. 250.
2. GROUNDING CONDUCTORS SHALL BE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR INDOOR USE.
3. ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
4. ROUTE GROUNDING CONNECTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NOT BE BENT AT RIGHT ANGLE. ALWAYS MAKE 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY.
5. CONNECTIONS TO GROUNDING BAR SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
6. TEST COMPLETED GROUNDING SYSTEM AND RECORD RESISTANCE VALUES FOR PROJECT CLOSE-OUT DOCUMENTATION. GROUND RESISTANCE SHALL NOT EXCEED 5 OHMS.
7. GROUNDING CONDUCTORS BETWEEN MGB AND WATERMAIN SHALL BE #2/0. BONDING JUMPERS FROM METALLIC SURFACES SHALL BE #2 MINIMUM. ALL GROUND CONDUCTORS AND BONDING JUMPERS SHALL BE SOFT DRAWN ANNEALED, TINNED, BARE STRANDED COPPER WIRE. COAXIAL CABLES SHALL BE GROUNDED AT A MINIMUM OF TWO LOCATIONS USING VERIZON PROVIDED GROUNDING KITS. EXACT LOCATIONS SHALL BE FINALIZED IN THE FIELD BY THE CONSTRUCTION MANAGER.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
2. STRUCTURAL STEEL ROLLED SHAPES, PLATES, AND BARS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS:

ASTM A-992, GRADE 50	ALL W SHAPES, UNLESS NOTED OR A992 OTHERWISE.
ASTM A-36	ALL OTHER ROLLED SHAPES, PLATES AND BARS UNLESS NOTED OTHERWISE.
ASTM A-500, GRADE B	HSS SECTION (SQUARE, RECTANGULAR, ROUND)
ASTM A-325, TYPE SC OR N	ALL BOLTS FOR CONNECTING STRUCTURAL MEMBERS.
F1554, GRADE 36	ALL ANCHORS BOLTS, UNLESS NOTED OTHERWISE.
ASTM A-53, GRADE B	STEEL PIPE

3. ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1 WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 14TH EDITION. WHERE WELD LENGTH IS NOT INDICATED, USE FULL LENGTH WELD. AT THE COMPLETION OF ALL WELDING, ALL DAMAGE TO GALVANIZED COATING SHALL BE REPAIRED.
4. BOLTED CONNECTIONS SHALL USE BEARING TYPE GALVANIZED ASTM A325 BOLTS (3/4" DIA.) SUPPLIED WITH A NUT AND WASHER UNDER TURNED END AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
5. DO NOT DRILL HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
6. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIA. GALVANIZED ASTM A 307 BOLTS UNLESS NOTED OTHERWISE.
7. USE PRECAUTIONS & PROCEDURES PER AWS D1.1 WHEN WELDING GALVANIZED METALS.
8. ALL EXISTING BEAM AND COLUMN DIMENSIONS SHALL BE FIELD VERIFY BY CONTRACTOR PRIOR TO FABRICATION. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THOSE SHOWN SHALL BE REPORTED TO DEWBERRY ENGINEER IMMEDIATELY.
9. CONNECTION DESIGN BY FABRICATOR WILL BE SUBJECT TO REVIEW AND APPROVAL BY ENGINEER.
10. ALL EXTERIOR STEEL WORK SHALL BE GALVANIZED IN ACCORDANCE WITH SPECIFICATION ASTM A123/A123M-00 HOT-DIP GALVANIZED FINISH UNLESS OTHERWISE NOTED. GALVANIZING SHALL BE PERFORMED AFTER SHOP FABRICATION TO THE GREATEST EXTENT POSSIBLE. ALL DINGS, SCRAPES, MARS, AND WELDS IN THE GALVANIZED AREAS SHALL BE REPAIRED. REPAIR DAMAGED GALVANIZED COATINGS ON GALVANIZED ITEMS WITH GALVANIZED REPAIR PAINT ACCORDING TO ASTM A780 AND MANUFACTURER'S WRITTEN INSTRUCTIONS, PRIOR TO COMPLETION OF WORK. TOUCHUP ALL DAMAGED GALVANIZED STEEL WITH APPROVED COLD ZINC, "GALVANOX", "DRY GALV", "ZINC-IT", OR APPROVED EQUIVALENT, IN ACCORDANCE WITH MANUFACTURERS GUIDELINES. TOUCHUP DAMAGED NON GALVANIZED STEEL WITH SAME PAINT APPLIED IN SHOP OR FIELD.
11. ALL WELDED COMPONENTS TO BE SHOP WELDED PRIOR TO INSTALLATION. NO WELDING ACTIVITIES IS PERMITTED DURING INSTALLATION OF PROPOSED EQUIPMENT5 AND/OR HARDWARE ON SITE.

GENERAL ELECTRICAL NOTES:

1. SUBMITTAL OF BID INDICATES CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
2. CONTRACTOR SHALL PERFORM ALL VERIFICATION OBSERVATION TESTS, AND EXAMINATION WORK PRIOR TO THE ORDERING OF THE ELECTRICAL EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE ARCHITECT LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
3. HEIGHTS SHALL BE VERIFIED WITH OWNER PRIOR TO INSTALLATION.
4. THESE PLANS ARE DIAGRAMMATIC ONLY, FOLLOW AS CLOSELY AS POSSIBLE.
5. EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANEL BOARD, PULLBOX, J-BOX, SWITCH BOX, ETC., IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ACT (O.S.H.A.)
6. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, ETC., FOR A COMPLETE AND PROPERLY OPERATIVE SYSTEM ENERGIZED THROUGHOUT AND AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
7. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORY AND SHALL BEAR THE INSPECTION LABEL "J" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY AND ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA AND NBFU.
8. ALL CONDUIT INSTALLED MAY BE SURFACE MOUNTED UNLESS OTHERWISE NOTED.
9. CONTRACTOR SHALL CARRY OUT HIS WORK IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY AND LOCAL CODES & O.S.H.A.
10. CONTRACTOR SHALL SECURE ALL NECESSARY BUILDING PERMITS AND PAY ALL REQUIRED FEES
11. COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE BY OWNER. ANY WORK, MATERIAL OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.
12. ALL CONDUIT ONLY (C.O.) SHALL HAVE A PULL WIRE OR ROPE.
13. PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS, AND CIRCUITS.
14. ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC. SHALL BE TURNED OVER TO OWNER AT JOB COMPLETION.
15. USE T-TAP CONNECTIONS ON ALL MULTI-CIRCUITS WITH COMMON NEUTRAL CONDUCTOR FOR LIGHTING FIXTURE.
16. ALL BUILDING WIRE #12 TO # 6 SHALL BE STRANDED COPPER TYPE THWN-THHN. CONDUCTORS #4 AND LARGER SHALL BE COPPER TYPE XHHW.
17. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED AND A MINIMUM OF 25,000 A.I.C. UNLESS OTHERWISE INDICATED.
18. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE CODES
19. PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
20. IN DRILLING HOLES INTO CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, M PIPE RUNS, ETC., IT MUST BE CLEARLY UNDERSTOOD THAT TENDONS AND/OR REINFORCING STEEL WILL NOT BE DRILLED INTO CUT OR DAMAGED UNDER ANY CIRCUMSTANCES.
21. LOCATION OF TENDONS AND/OR REINFORCING STEEL ARE NOT DEFINITELY KNOWN AND, THEREFORE, MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT VIA X-RAY OR OTHER DEVICES THAT CAN ACCURATELY LOCATE THE REINFORCING AND/OR STEEL TENDONS.
22. PENETRATIONS IN FIRE RATED WALLS SHALL BE FIRE STOPPED IN ACCORDANCE WITH FIRESTOP DETAILS.
23. WIRE AND CABLE CONDUCTORS SHALL BE STRANDED COPPER #12 AWG MINIMUM UNLESS SPECIFICALLY STATED OTHERWISE ON DRAWINGS.
24. VERIFY ALL CONDUIT ROUTING W/OWNER REP. & VERIZON WIRELESS C.M. NO OTHER SURFACE MOUNTED CONDUITS WILL BE ALLOWED OTHER THAN IN CHASES AND ABOVE CEILINGS.
25. ALL MATERIALS SHALL BE U.L. LISTED.
26. CONDUIT:

a. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.

b. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTINGS SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.

c. FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE, SEAL TIGHT FLEXIBLE CONDUIT. ALL CONDUIT IN EXCESS OF SIX FEET IN LENGTH SHALL HAVE FULL SIZE GROUND WIRE.

d. CONDUIT RUNS MAY BE SURFACE MOUNTED IN CEILINGS OR WALLS UNLESS INDICATED OTHERWISE. CONDUIT INDICATED SHALL RUN PARALLEL OR AT RIGHT ANGLES TO CEILING, FLOOR OR BEAMS. VERIFY EXACT ROUTING OF ALL EXPOSED CONDUIT WITH ARCHITECT PRIOR TO INSTALLING.

27. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS.
28. COORDINATE THE ELECTRICAL SERVICE WITH BUILDING OWNER.
29. GROUNDING SYSTEM RESISTANCE SHALL NOT EXCEED 5 OHMS. IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE OWNER FOR FURTHER INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE VALUE. SUBMIT TEST REPORTS AND FURNISH TO DISPATCH COMMUNICATIONS ONE COMPLETE SET OF PRINTS SHOWING "INSTALLED WORK".
30. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, AND FALL POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
31. ALL WALL AND FLOOR PENETRATIONS SHALL BE FIRE STOPPED WITH FS-ONE HIGH PERFORMANCE INTUMESCENT FIRE STOP BY HILTI OR APPROVED EQUAL. INSTALL PER MANUFACTURERS RECOMMENDATIONS.

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PORTSMOUTH 4 NH

CONSTRUCTION DRAWINGS		
A	03/06/20	FOR COMMENT

Dewberry®
Dewberry Engineers Inc.
99 SUMMER STREET
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PHONE: 617.695.3400
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DRAWN BY:	JCM/JSD
REVIEWED BY:	MFT
CHECKED BY:	BBR
PROJECT NUMBER:	50121487
JOB NUMBER:	50121524

SITE NUMBER

540336

SITE ADDRESS

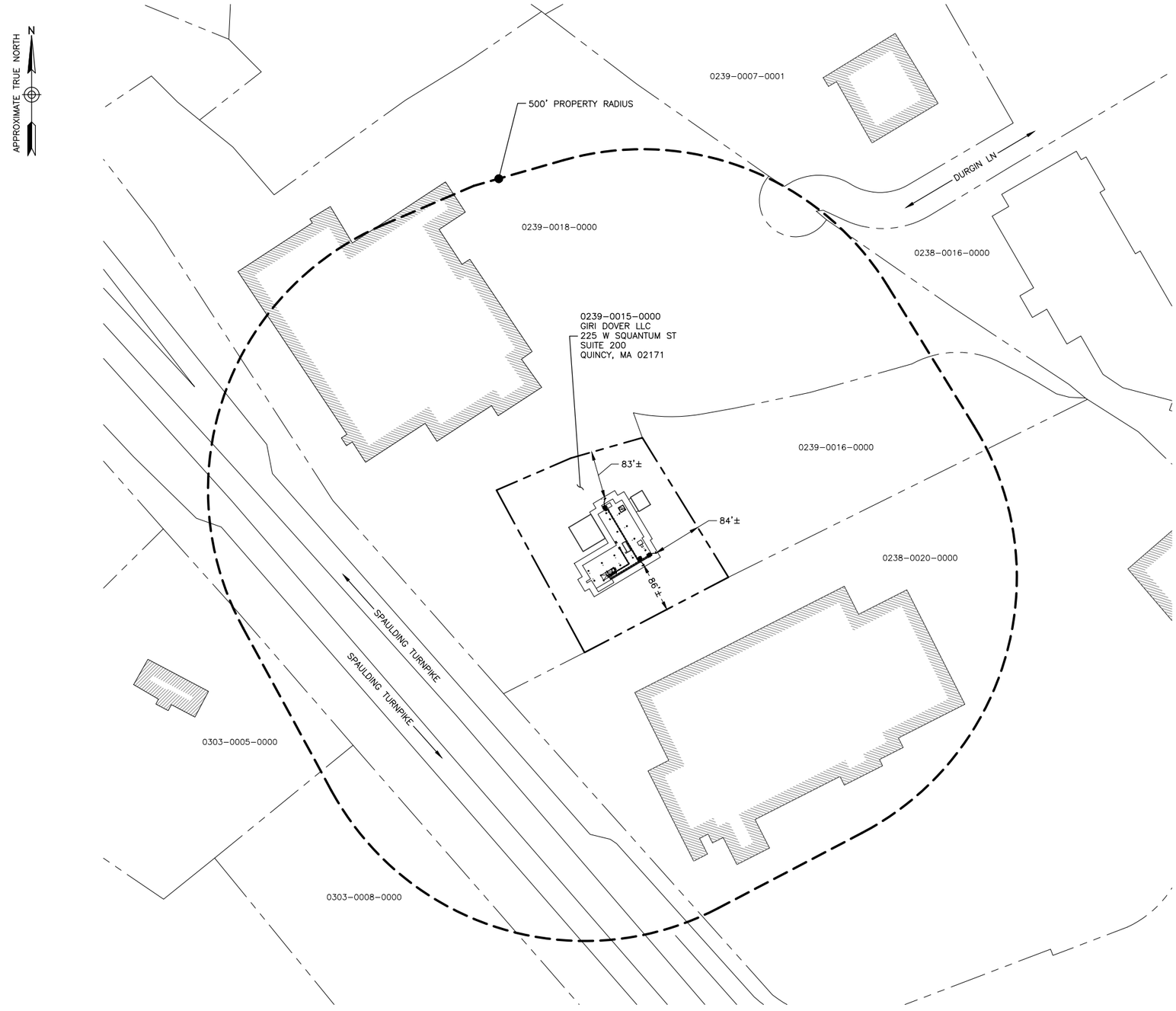
99 DURGIN LANE
PORTSMOUTH, NH 03801

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

G-1



500' RADIUS ABUTTERS PLAN (1)

SCALE: 1"=200' FOR 11"x17"
1"=100' FOR 22"x34"

0' 100' 200'

ZONING DISTRICT
ZONING DISTRICT: G1 – GATEWAY NEIGHBORHOOD MIXED USE CORRIDOR

LEGEND

—·—·—	LOCUS PROPERTY LINE
— - - —	Existing Property Line
———	Edge Of Roadway
— — —	500' ABUTTERS
XX–XX	PARCEL ID
	Existing Building

NOTES:

1. NORTH ARROW SHOWN AS APPROXIMATE.
2. SOME EXISTING AND PROPOSED INFORMATION NOT SHOWN FOR CLARITY.
3. PROPERTY LINES BASED ON CITY OF PORTSMOUTH, NH GIS MAP AND HAVE NOT BEEN VERIFIED WITH A FIELD SURVEY.

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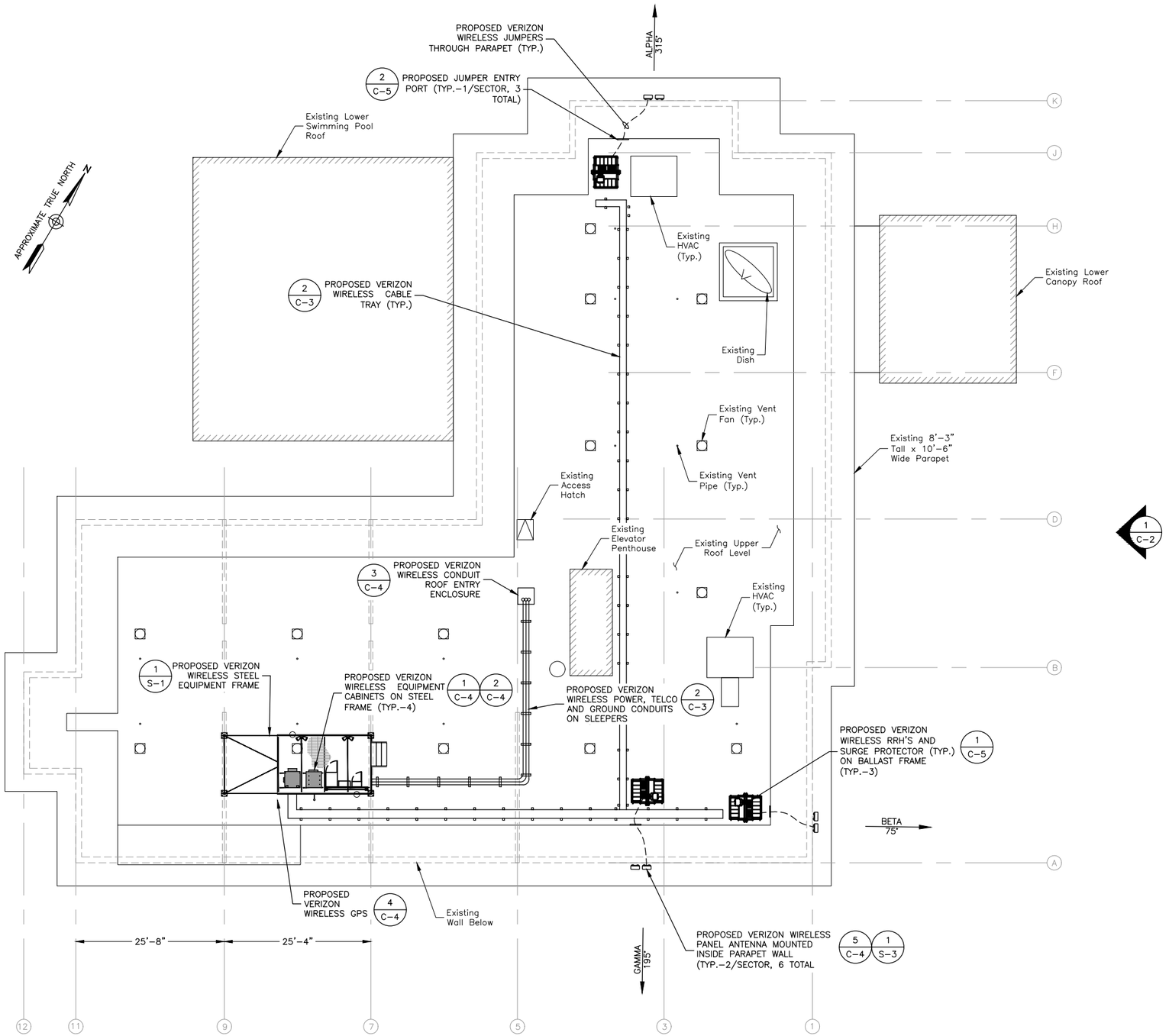
PORTSMOUTH, NH 03801

SHEET TITLE

ABUTTERS PLAN

SHEET NUMBER

Z–1



PROPOSED ROOF PLAN 1

SCALE: 1"=20' FOR 11"x17"
1"=10' FOR 22"x34"

0' 10' 20'

NOTES:

1. NOT ALL EXISTING AND PROPOSED INFORMATION SHOWN FOR CLARITY
2. NORTH SHOWN AS APPROXIMATE.
3. GROUND TO STREET SIDE OF EXISTING WATER MAIN.
4. ROOF PLAN BASED ON SITE VISIT BY DEWBERRY ENGINEERS INC. ON 07/01/19. STRUCTURAL FRAMING PLANS BASED ON 'ASI HOSPITALITY DESIGN FOR HAMPTON INN HOTEL, PORTSMOUTH NH' DATED 07/22/1996.

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JOB NUMBER:	50121524

SITE NUMBER

540336

SITE ADDRESS

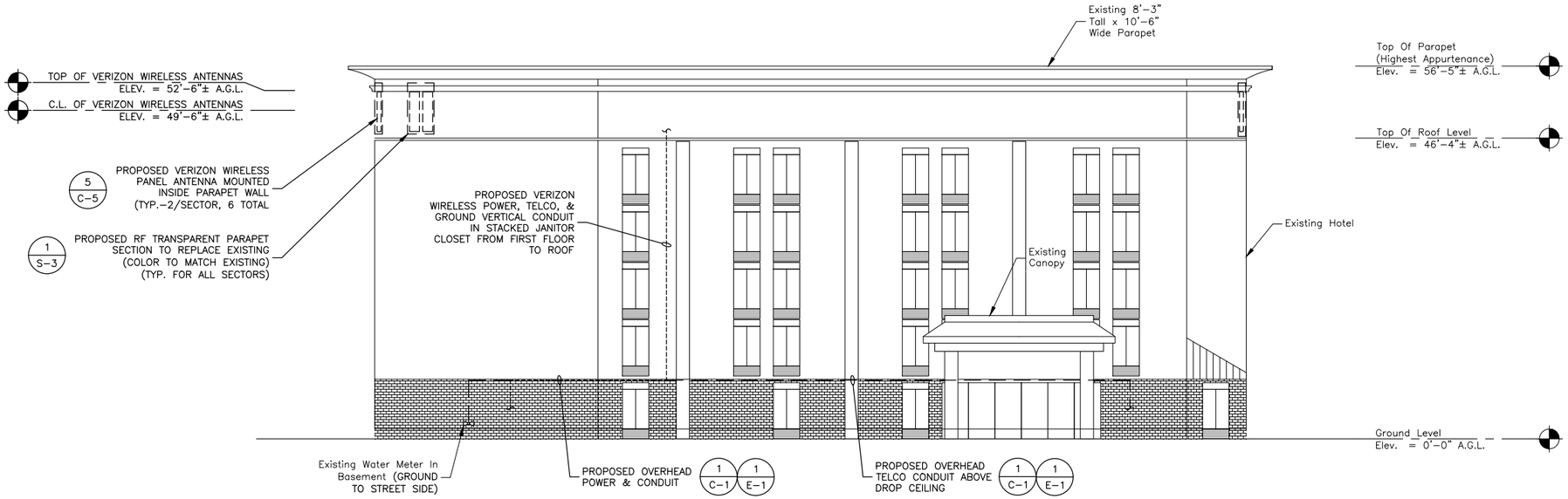
99 DURGIN LANE
PORTSMOUTH, NH 03801

SHEET TITLE

PROPOSED ROOF PLAN

SHEET NUMBER

C-1



EAST ELEVATION 1

SCALE: 1"=20' FOR 11"x17"
1"=10' FOR 22"x34"

0' 10' 20'

CONDUIT/ CABLE	CONDUIT SIZE	CONDUIT TYPE	START	TERMINATE	APPROX. DISTANCE	ROUTING NOTES
POWER	2"ø	EMT (INSIDE) RGS (OUTSIDE)	ELECTRICAL ROOM ON FIRST FLOOR	PPC ON VZW ROOFTOP STEEL FRAME	200'±	RUN CONDUIT OVERHEAD FROM ELECTRIC ROOM TO STACKED JANITOR CLOSET. RUN VERTICAL IN STACKED JANITOR CLOSET TO ROOF.
TELCO	2"ø WITH PULL STRING	EMT (INSIDE) RGS (OUTSIDE)	TELCO ROOM ON FIRST FLOOR	TELCO CABINET ON VZW ROOFTOP STEEL FRAME	250'±	RUN CONDUIT OVERHEAD FROM TELCO ROOM TO STACKED JANITOR CLOSET. RUN VERTICAL IN STACKED JANITOR CLOSET TO ROOF.
GROUND	1"ø	EMT (INSIDE) RGS (OUTSIDE)	TELCO ROOM ON FIRST FLOOR	MGB ON VZW ROOFTOP STEEL FRAME	200'±	RUN CONDUIT OVERHEAD FROM MECHANICAL ROOM TO STACKED JANITOR CLOSET. RUN VERTICAL IN STACKED JANITOR CLOSET TO ROOF.
COAX/ HYBRID CABLE	(1) 12x24 HYBRIDFLEX		VERIZON WIRELESS EQUIPMENT CABINET	ALPHA SECTOR	205'±	
	(1) 12x24 HYBRIDFLEX			BETA SECTOR	110'±	
	(1) 12x24 HYBRIDFLEX			GAMMA SECTOR	100'±	

CONDUIT CHART 2

SCALE: N.T.S.

CONDUIT NOTES:

1. SEE GENERAL ELECTRICAL NOTE #26 ON SHEET G-1 FOR CONDUIT SPECIFICATIONS.
2. CONDUIT LENGTHS SHOWN ARE APPROXIMATE. CONTRACTOR TO VERIFY CONDUIT LENGTH & ROUTE PRIOR TO CONSTRUCTION. OWNER & VERIZON WIRELESS C.M. TO APPROVE FINAL ROUTINGS.
3. CONTRACTOR TO IDENTIFY ALL CONDUIT PENETRATIONS, TURNS, PULL BOXES, EXPANSION JOINTS & VERIFY ROUTE WITH VERIZON WIRELESS CM & BUILDING OWNER PRIOR TO CONSTRUCTION.
4. PAINT CONDUIT TO MATCH EXISTING SURROUNDINGS AS REQUIRED BY BUILDING OWNER & PROVIDE LABELS PER VERIZON WIRELESS REQUIREMENTS.
5. FIRE STOP ALL INTERIOR WALL PENETRATIONS. WEATHER SEAL ALL EXTERIOR WALL PENETRATIONS.

NOTES:

1. NOT ALL EXISTING AND PROPOSED INFORMATION SHOWN FOR CLARITY
2. PROPOSED EQUIPMENT PLATFORM & RRH BALLAST LOCATIONS AND ORIENTATION PENDING STRUCTURAL ANALYSIS.
3. FINAL POWER, TELCO, AND GROUND ROUTING PENDING APPROVAL.
4. A.G.L. - ABOPVE GROUND LEVEL
   C.L. = CENTERLINE
5. GROUND TO STREET SIDE OF EXISTING WATER MAIN.

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CONSTRUCTION DRAWINGS		
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PROJECT NUMBER: 50121487
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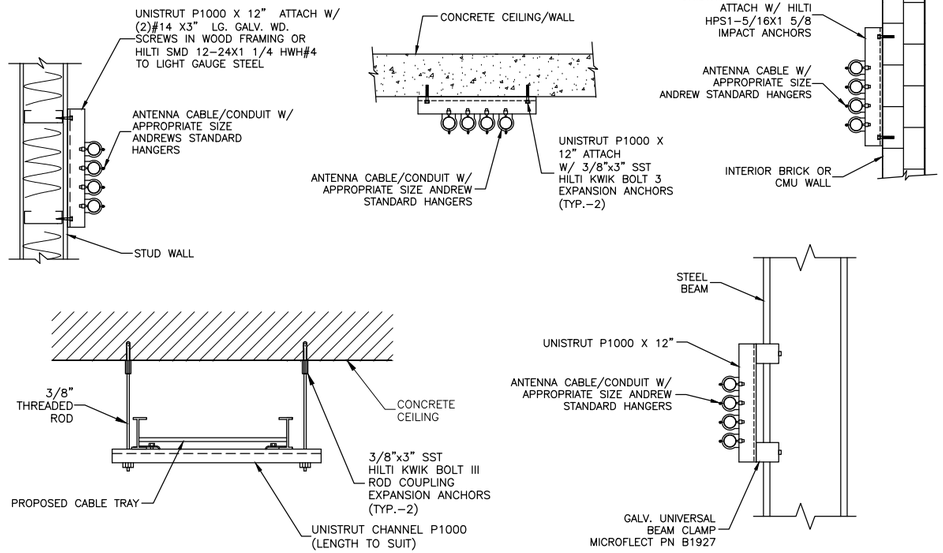
SITE NUMBER
540336
SITE ADDRESS
99 DURGIN LANE
PORTSMOUTH, NH 03801
SHEET TITLE
EAST ELEVATION & CONDUIT ROUTING
SHEET NUMBER
C-2

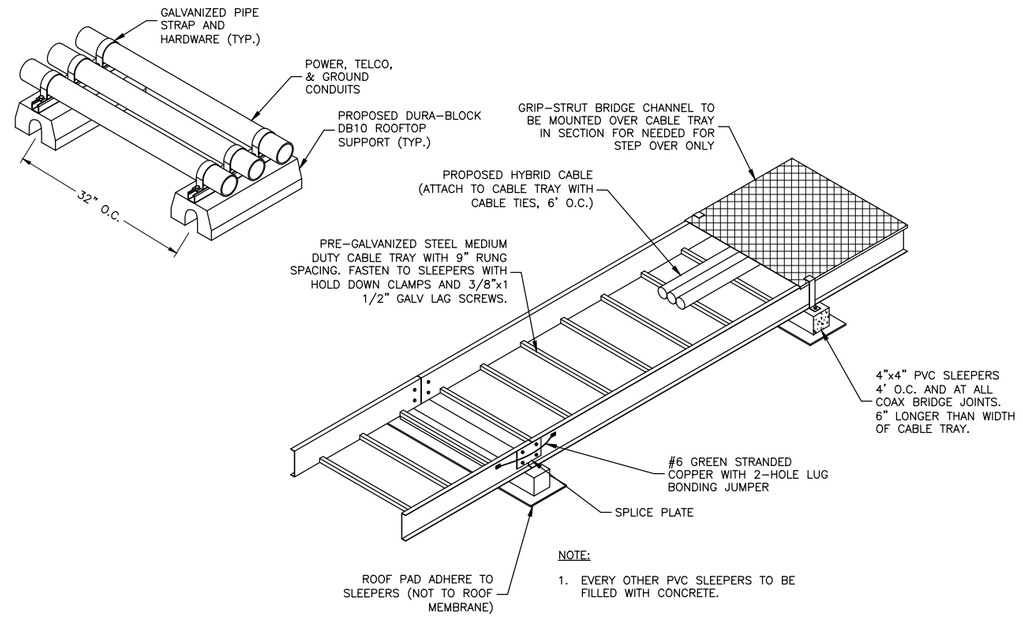


NOTES:

1. ALL COAX SUPPORT SPACING: 4'-0" MAX.
2. ALL CONDUIT SUPPORT SPACING: 10'-0" MAX.

CABLE/CONDUIT SUPPORT 1

SCALE: N.T.S.

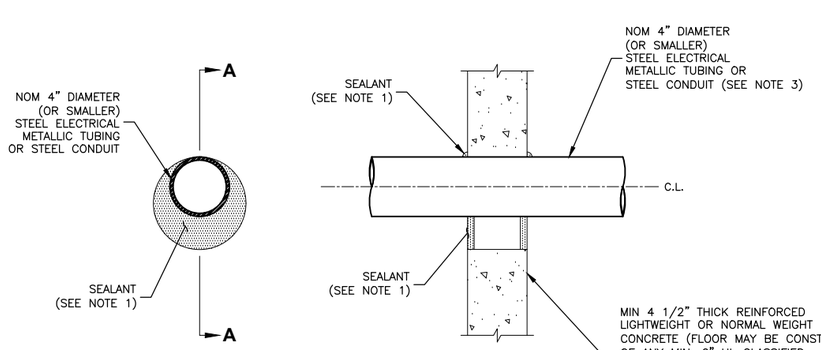


NOTE:

1. EVERY OTHER PVC SLEEPERS TO BE FILLED WITH CONCRETE.

CABLE TRAY DETAIL 2

SCALE: N.T.S.



UL SYSTEM NO. C-AJ-1259
F RATING - 3 HR.
T RATING - 0 HR.

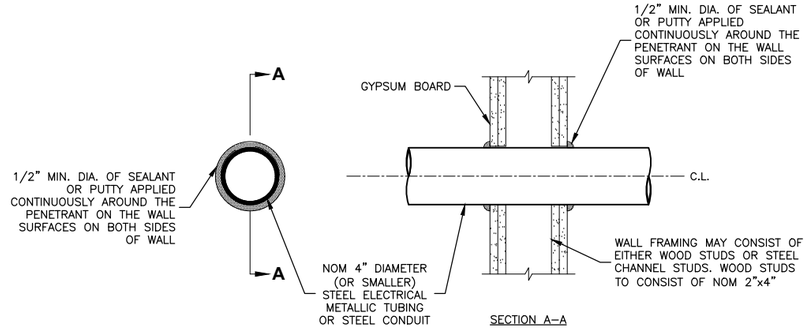
NOTES:

1. FILL, VOID OR CAVITY MATERIAL* - SEALANT - MIN. 1/2" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF FLOOR OR WALL. AT THE POINT CONTACT LOCATION BETWEEN PENETRATING ITEM AND CONCRETE, A MIN. 1/4" THICK BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE CONCRETE/ PENETRATING ITEM INTERFACE ON BOTH SIDES OF FLOOR OR WALL.
2. FORMING MATERIAL - (OPTIONAL, NOT SHOWN) - MINERAL WOOL BATT PACKING MATERIAL OR POLYURETHANE BACKER ROD FRICTION FITTED INTO OPENING AND RECESSED FROM FLOOR OR WALL SURFACES AS REQUIRED TO ACCOMMODATE THICKNESS OF FILL MATERIAL.
3. ONE CONDUIT TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN THE CONDUIT AND THE PERIPHERY OF THE OPENING SHALL BE A MIN. OF 0" (POINT OF CONTACT) TO A MAX. OF 3". CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY.

* BEARING THE UL CLASSIFICATION MARK.

CORING DETAIL 3

SCALE: N.T.S.



SYSTEM NO. W-L-1344
F RATINGS - 1 AND 2 HR
T RATING - 1/4 HR
L RATING AT AMBIENT - LESS THAN 1 CFM/SQ FT
L RATING AT 400 F - LESS THAN 1 CFM/SQ FT

NOTES:

1. THE 1 AND 2 HOUR FIRE RATED GYPSUM WALL BOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS & MANNER SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES WALL & PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY.
2. 5" DIAMETER OPENING MAX.

SECTION - THROUGH PENETRATION FIRESTOP SYSTEM 4

SCALE: N.T.S.

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CONSTRUCTION DRAWINGS		
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REVIEWED BY:	MFT
CHECKED BY:	BBR
PROJECT NUMBER:	50121487
JOB NUMBER:	50121524

SITE NUMBER

540336

SITE ADDRESS

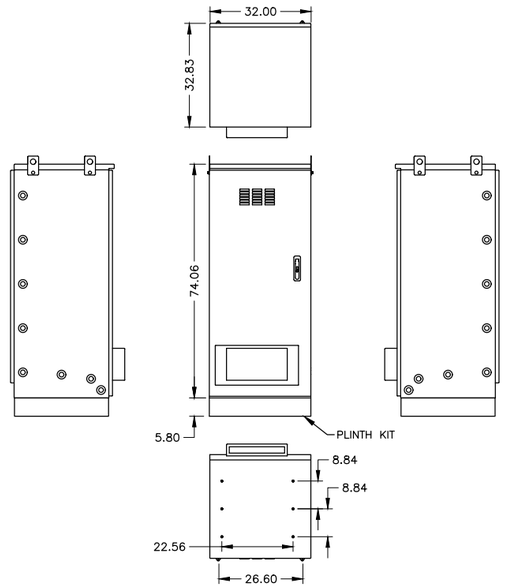
99 DURGIN LANE
PORTSMOUTH, NH 03801

SHEET TITLE

CONSTRUCTION DETAILS-I

SHEET NUMBER

C-3



CHARLES CABINET CUBE-BB48E1HN1

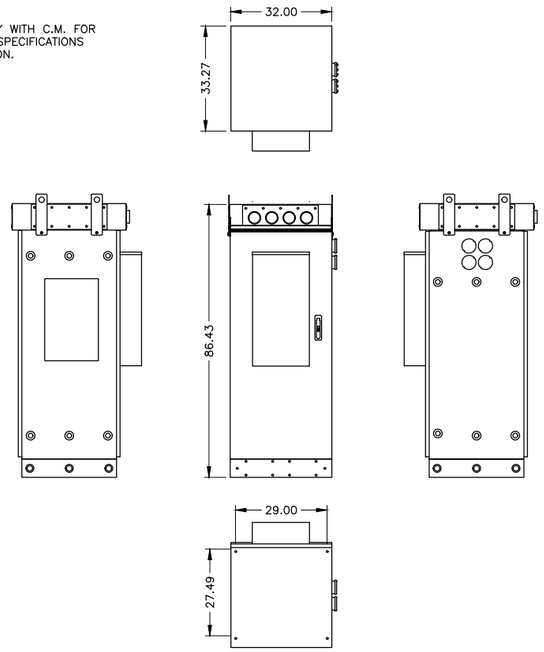
SCALE: 1/4"=1' FOR 11"x17"
1/2"=1' FOR 22"x34"

1

0' 1' 2' 4'

NOTE:

1. CONTRACTOR TO VERIFY WITH C.M. FOR FINAL MANUFACTURER SPECIFICATIONS PRIOR TO CONSTRUCTION.

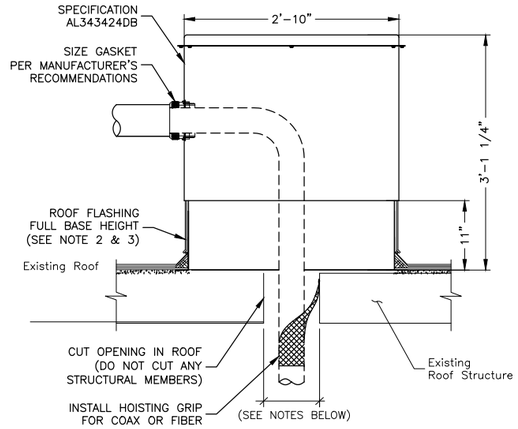


CHARLES CABINET CUBE-PM63912MC1

SCALE: 1/4"=1' FOR 11"x17"
1/2"=1' FOR 22"x34"

2

0' 1' 2' 4'



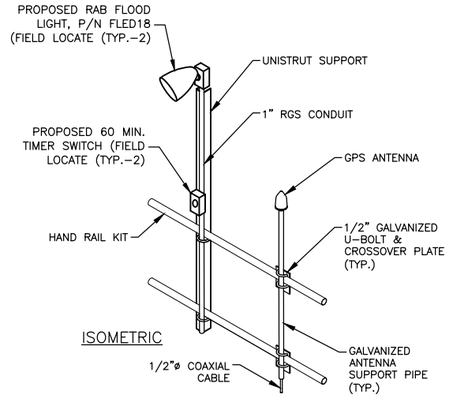
NOTES:

1. INSTALL RPH–ROOF PENETRATION HOUSINGS LLC ASSEMBLY PER MANUFACTURER'S SPECIFICATIONS BY FISKIO INC. (800) 288–6816 (IN NEW ENGLAND) (800) 994–0945(OUTSIDE NEW ENGLAND).
2. FLASHING & SEALANTS TO MATCH EXISTING ROOFING SYSTEM. WEATHERPROOF ALL EDGES WITH EXTERIOR GRADE SILICON.
3. CONTRACTOR TO USE BUILDING'S APPROVED ROOFER AND SHALL NOT VOID ANY EXISTING WARRANTY. CONTRACTOR TO SEAL ALL UNUSED PORTS WITH PROPER SEALANT CAPS.
4. NO STRUCTURAL JOISTS ARE TO BE CUT DURING INSTALLATION.
5. INSULATE ROOF PENETRATION AFTER CONDUIT/FEEDER INSTALLATION.

RPH- ROOF PENETRATION HOUSING

SCALE: N.T.S.

3



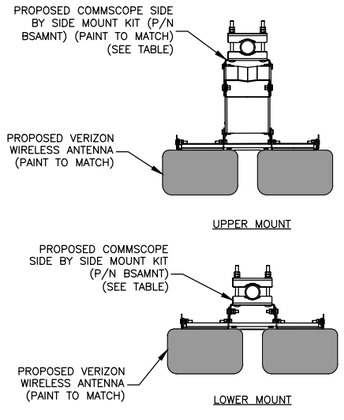
NOTES:

1. GROUND ANTENNAS AND MOUNTS PER MANUFACTURERS RECOMMENDATIONS AND VERIZON WIRELESS STANDARDS.
2. FIELD LOCATE GPS ANTENNAS & WORK LIGHT WITH VERIZON WIRELESS CM APPROVAL.
3. MOUNT GPS ANTENNAS PER MANUFACTURERS RECOMMENDATIONS.

GPS /WORK LIGHT MOUNTING DETAILS

SCALE: N.T.S.

4



COMMSCOPE P/N: BSAMNT MOUNT TABLE

COMMSCOPE P/N	SUPPORTED ANTENNAS	QUANTITY REQUIRED PER (2) ANTENNAS	NUMBER OF MOUNTING POINTS	GAP BETWEEN ANTENNAS
BSAMNT–SBS–1–2	SBNHH–1D65A/B/C NHH–65A/B/C–R2B	1	2	3–3/8"
BSAMNT–SBS–2–2	JAHH–65A/B/C–R3B JAHH–45A–R3B NHH–45A–R2B SBNHH–1D45A/B	1	2	2"
BSAMNT–SBS–2–3	JAHH–45B/C–R3B SBNHH–1D45C	1	3	2"

TABLE BASED ON POWER POINT PRESENTATION BY COMMSCOPE TITLED SIDE BY SIDE MOUNTS. CONTRACTOR TO VERIFY PART NUMBERS WITH MANUFACTURER PRIOR TO ORDERING. INSTALL PER MANUFACTURER RECOMMENDATIONS & SPECIFICATIONS.

NOTES:

1. SPACING OF PROPOSED EQUIPMENT SHALL BE CONFIRMED AND PROPOSED MOUNTS SHALL NOT IMPEDE EQUIPMENT CLEARANCES. ACCESS TO EQUIPMENT SHALL BE MAINTAINED.
2. PROPOSED ANTENNA MOUNT SHALL BE INSTALLED ACCORDING TO MANUFACTURER SPECIFICATIONS.
3. DETAIL FOR BETA, GAMMA & DELTA SECTORS.

SIDE BY SIDE ANTENNA MOUNT

SCALE: N.T.S.

5

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CHECKED BY:	BBR
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JOB NUMBER:	50121524

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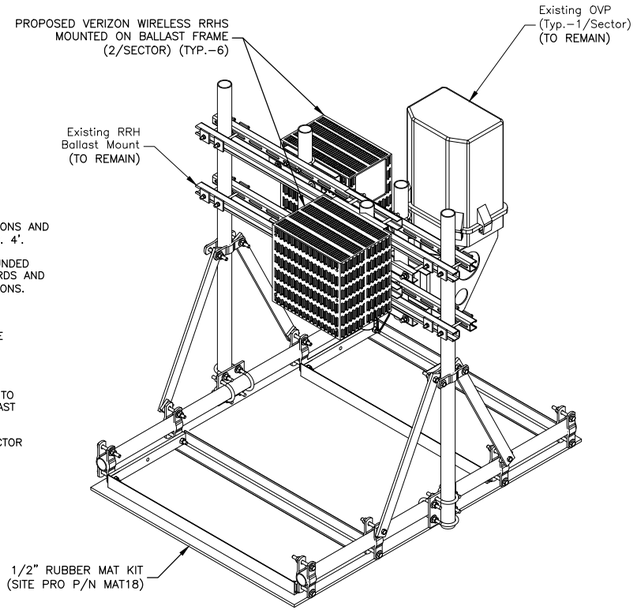
SHEET TITLE

CONSTRUCTION DETAILS–II

SHEET NUMBER

C–4



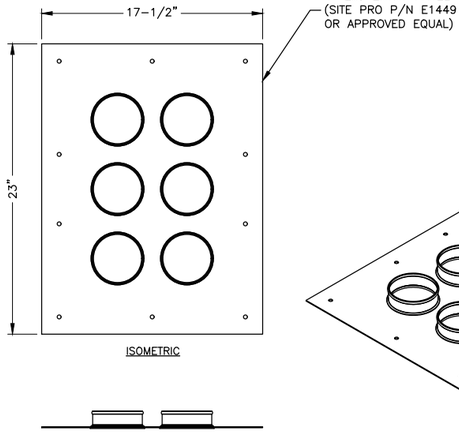
NOTES:

1. INSTALL ALL EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS AND MINIMIZED OVERALL HEIGHT, MAX. 4'.
2. ALL EQUIPMENT SHALL BE GROUNDED PER VERIZON WIRELESS STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
3. DETAIL IS SCHEMATIC.
4. ALL MOUNTING HARDWARE TO BE GALVANIZED.
5. NO BALLAST REQUIRED.
6. CLEAN & INSPECT ROOF PRIOR TO PLACEMENT OF PROPOSED BALLAST FRAME.
7. BOND FRAME & REMOTE TO SECTOR GROUND BAR.

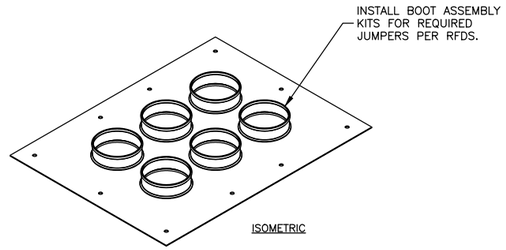
RRH BALLAST MOUNT DETAIL

SCALE: N.T.S.

1



PORT LAYOUT: 2x3
PORT SIZE: 4"
WALL OPENING: 9.5"x15"
OVERALL SIZE: 17.5"x23"
WEIGHT: 4.8 LBS



NOTES:

1. CONTRACTOR TO THOROUGHLY DRY AREA BEFORE CORING, INSTALLING AND SEALING CABLEPORT & BOOTS.
2. CONTRACTOR TO INSTALL BOOT ASSEMBLY KITS FOR REQUIRED JUMPERS PER RFDS.
3. CONTRACTOR TO FILL THE BOOT CAVITY W/ BOOT SEALER TO FORM A CONICAL SHAPE TO ALLOW WATER RUN OFF.
4. WATERPROOF ALL EDGES AND HOLES.

COAX/JUMPER ENTRY PANEL DETAIL

SCALE: N.T.S.

2

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VERIZON WIRELESS
118 FLANDERS ROAD
WESTBOROUGH, MA 01581-3956

PORTSMOUTH 4 NH

CONSTRUCTION DRAWINGS		
A	03/06/20	FOR COMMENT

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REVIEWED BY:	MFT
CHECKED BY:	BBR
PROJECT NUMBER:	50121487
JOB NUMBER:	50121524

SITE NUMBER

540336

SITE ADDRESS

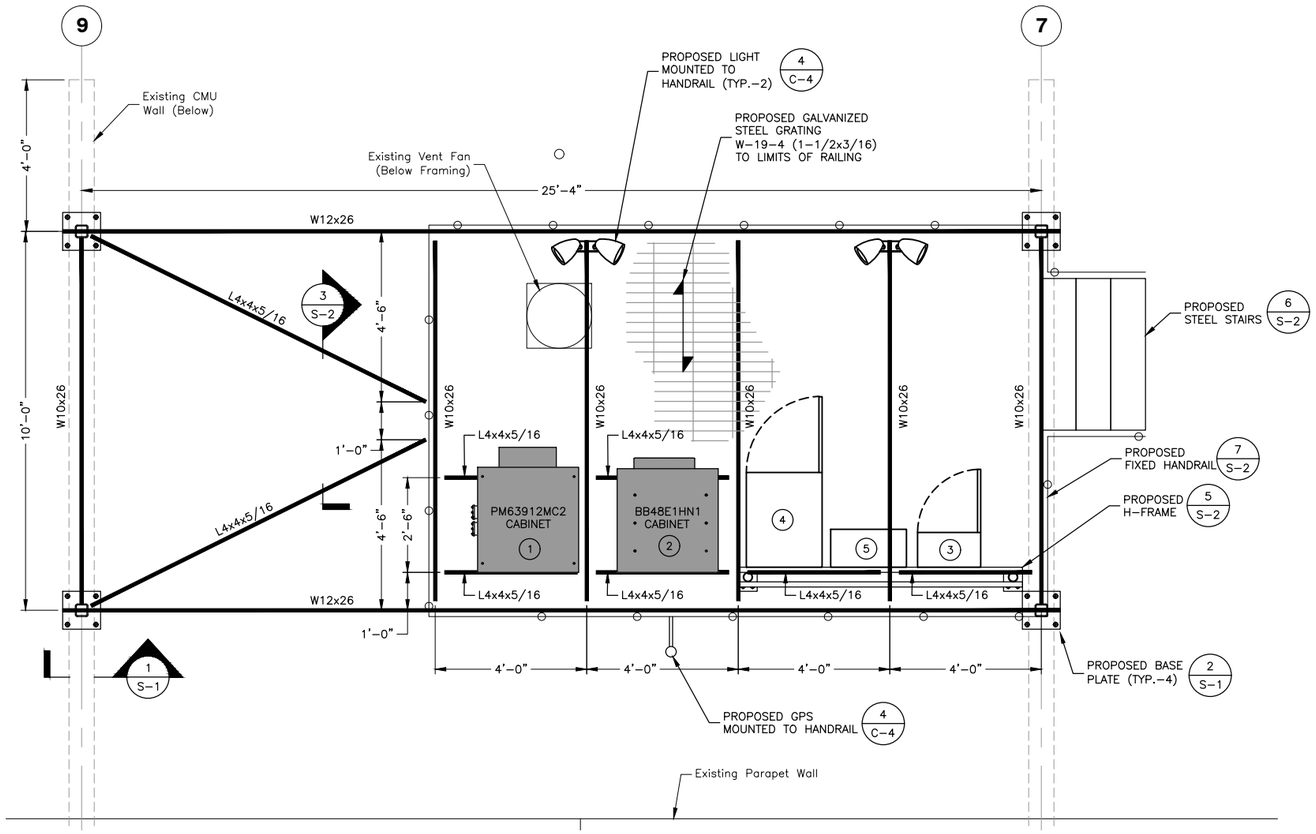
99 DURGIN LANE
PORTSMOUTH, NH 03801

SHEET TITLE

CONSTRUCTION DETAILS-III

SHEET NUMBER

C-5



FRAMING PLAN

1

SCALE: 1/4"=1' FOR 11"x17"
1/2"=1' FOR 22"x34"

0' 1' 2' 4'

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
2. STRUCTURAL STEEL ROLLED SHAPES, PLATES, AND BARS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS:

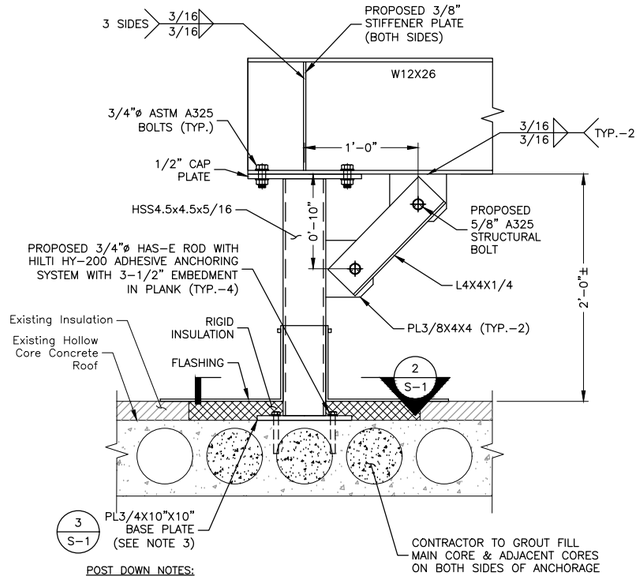
ASTM A–992, GRADE 50	ALL W SHAPES, UNLESS NOTED OR A992 OTHERWISE.
ASTM A–36	ALL OTHER ROLLED SHAPES, PLATES AND BARS UNLESS NOTED OTHERWISE.
ASTM A–500, GRADE B	HSS SECTION (SQUARE, RECTANGULAR, ROUND)
ASTM A–325, TYPE N	ALL BOLTS FOR CONNECTING STRUCTURAL MEMBERS.
F1554, GRADE 36	ALL ANCHORS BOLTS, UNLESS NOTED OTHERWISE.
ASTM A–53, GRADE B	STEEL PIPE

3. ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1 WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 14TH EDITION. WHERE WELD LENGTH IS NOT INDICATED, USE FULL LENGTH WELD. AT THE COMPLETION OF ALL WELDING, ALL DAMAGE TO GALVANIZED COATING SHALL BE REPAIRED.
4. BOLTED CONNECTIONS SHALL USE BEARING TYPE GALVANIZED ASTM A325 BOLTS (3/4" DIA.) SUPPLIED WITH A NUT AND WASHER UNDER TURNED END AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
5. DO NOT DRILL HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
6. NON–STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIA. GALVANIZED ASTM A 307 BOLTS UNLESS NOTED OTHERWISE.
7. USE PRECAUTIONS & PROCEDURES PER AWS D1.1 WHEN WELDING GALVANIZED METALS.
8. ALL EXISTING BEAM AND COLUMN DIMENSIONS SHALL BE FIELD VERIFY BY CONTRACTOR PRIOR TO FABRICATION. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THOSE SHOWN SHALL BE REPORTED TO DEWBERRY ENGINEER IMMEDIATELY.
9. CONNECTION DESIGN BY FABRICATOR WILL BE SUBJECT TO REVIEW AND APPROVAL BY ENGINEER.
10. ALL EXTERIOR STEEL WORK SHALL BE GALVANIZED IN ACCORDANCE WITH SPECIFICATION ASTM A123/A123M–00 HOT–DIP GALVANIZED FINISH UNLESS OTHERWISE NOTED. GALVANIZING SHALL BE PERFORMED AFTER SHOP FABRICATION TO THE GREATEST EXTENT POSSIBLE. ALL DINGS, SCRAPES, MARS, AND WELDS IN THE GALVANIZED AREAS SHALL BE REPAIRED. REPAIR DAMAGED GALVANIZED COATINGS ON GALVANIZED ITEMS WITH GALVANIZED REPAIR PAINT ACCORDING TO ASTM A780 AND MANUFACTURER'S WRITTEN INSTRUCTIONS, PRIOR TO COMPLETION OF WORK. TOUCHUP ALL DAMAGED GALVANIZED STEEL WITH APPROVED COLD ZINC, "GALVANOX", "DRY GALV", "ZINC–IT", OR APPROVED EQUIVALENT, IN ACCORDANCE WITH MANUFACTURERS GUIDELINES. TOUCHUP DAMAGED NON GALVANIZED STEEL WITH SAME PAINT APPLIED IN SHOP OR FIELD.
11. ALL WELDED COMPONENTS TO BE SHOP WELDED PRIOR TO INSTALLATION. NO WELDING ACTIVITIES IS PERMITTED DURING INSTALLATION OF PROPOSED EQUIPMENTS AND/OR HARDWARE ON SITE.

EQUIPMENT LOADING:

			WEIGHT (LBS.)	
EQUIPMENT:	1	BB48E1HN1 CABINET	4,000 (EA.)	4,000
	2	PM63912MC2 CABINET	1,000 (EA.)	1,000
	3	POWER PANEL (ILC)	420 (EA.)	420
	4	TELCO CABINET	300 (EA.)	300
	5	HOFFMAN BOX	125 (EA.)	125
TOTAL EQUIPMENT LOAD =				5,845

STRUCTURAL ANALYSIS BASED ON LOADING SHOWN. NO ADDITIONAL EQUIPMENT SHALL BE ADDED WITHOUT ANALYSIS.



POST DOWN NOTES:

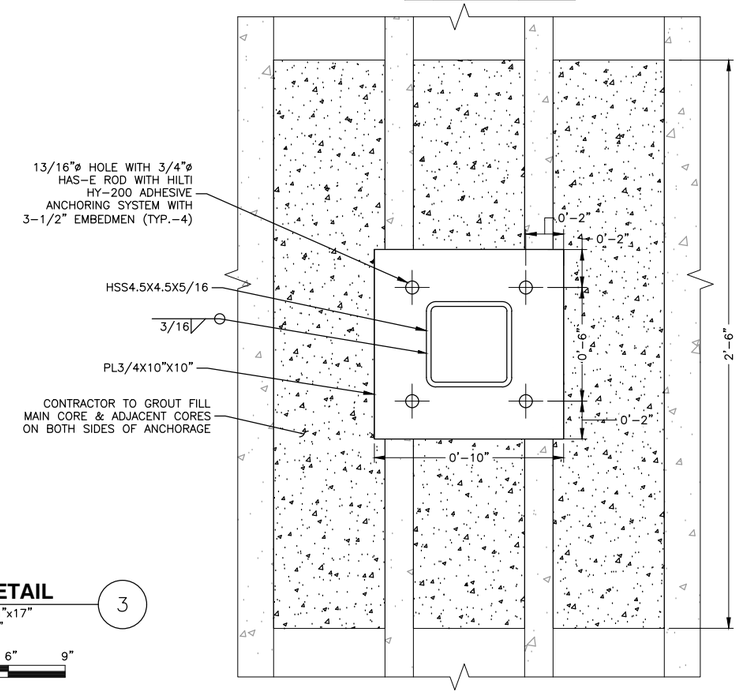
1. ALL ROOF PENETRATIONS SHALL BE SEALED AND WEATHERPROOFED. INSTALL TO SLOPE AWAY FROM THE PENETRATION, FREE DRAINING, SO AS NOT TO IMPEDE ON ANY EXISTING DRAINAGE PATTERNS AND BE COMPLETED BY THE BUILDING ROOFING CONTRACTOR TO MAINTAIN ALL ROOF WARRANTIES.
2. CONTRACTOR TO FIELD VERIFY POST DOWN CONNECTIONS PRIOR TO STEEL FABRICATION INSTALLATION.
3. CONTRACTOR TO PLACE BASE PLATE LEVEL ON CONCRETE SLAB. IF NOT LEVEL AND/OR SLAB IN POOR CONDITION, PROVIDE LEVELING GROUT AS REQUIRED.

POST DOWN DETAIL

2

SCALE: 3/4"=1' FOR 11"x17"
1 1/2"=1' FOR 22"x34"

0' 1/2' 1' 1 1/2'



BASE PLATE DETAIL

3

SCALE: 1 1/2"=1' FOR 11"x17"
3"=1' FOR 22"x34"

0' 3" 6" 9"

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118 FLANDERS ROAD
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CONSTRUCTION DRAWINGS		
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REVIEWED BY:	MFT
CHECKED BY:	BBR
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JOB NUMBER:	50121524

SITE NUMBER

540336

SITE ADDRESS

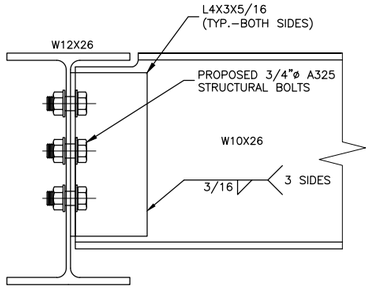
99 DURGIN LANE
PORTSMOUTH, NH 03801

SHEET TITLE

EQUIPMENT FRAMING PLAN & DETAILS

SHEET NUMBER

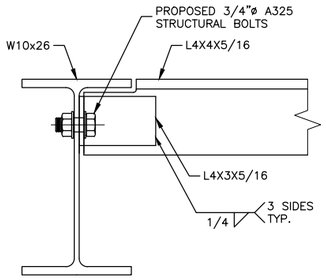
S–1



W12 TO W10 CONNECTION 1

SCALE: 1 1/2"=1' FOR 11"x17"
3"=1' FOR 22"x34"

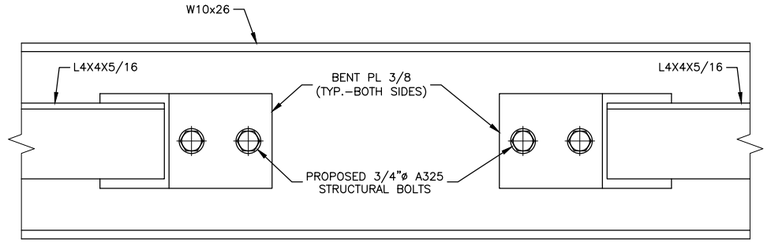
0' 3" 6" 9"



W10 TO L4X4X5/16 CONNECTION 2

SCALE: 1 1/2"=1' FOR 11"x17"
3"=1' FOR 22"x34"

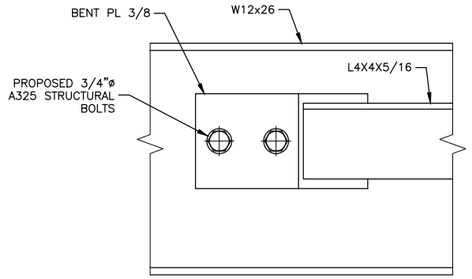
0' 3" 6" 9"



W10 TO 2- L4X4X5/16 CONNECTION 3

SCALE: 1 1/2"=1' FOR 11"x17"
3"=1' FOR 22"x34"

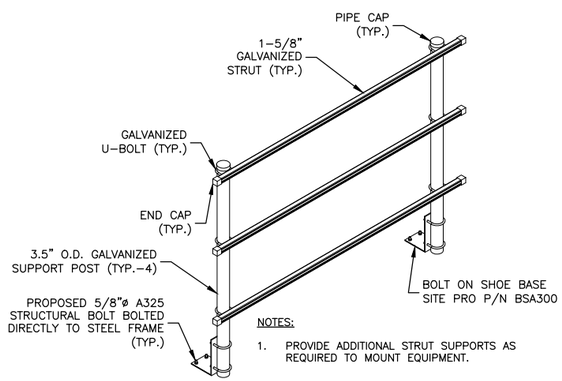
0' 3" 6" 9"



W12 to L4X4X5/16 CONNECTION 4

SCALE: 1 1/2"=1' FOR 11"x17"
3"=1' FOR 22"x34"

0' 3" 6" 9"

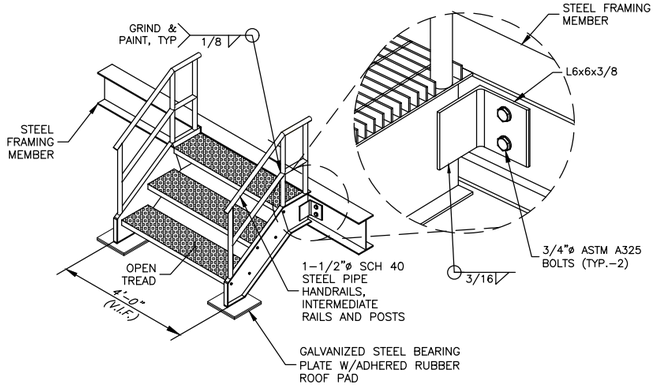


NOTES:

1. PROVIDE ADDITIONAL STRUT SUPPORTS AS REQUIRED TO MOUNT EQUIPMENT.

STRUT FRAME DETAIL 5

SCALE: N.T.S.

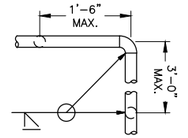


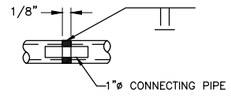
NOTES:

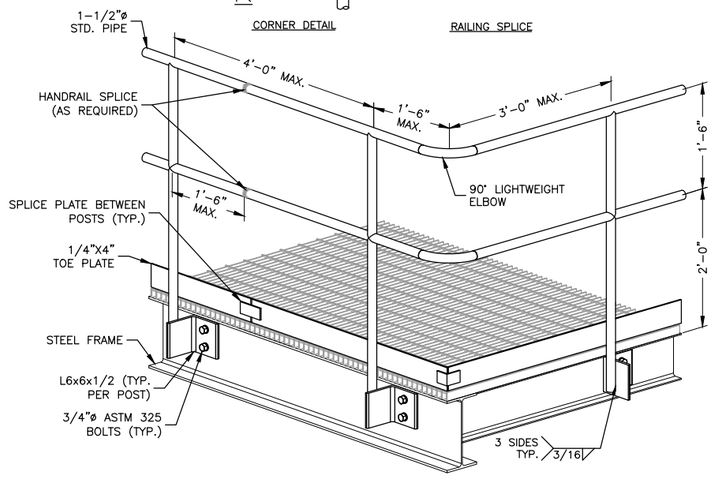
1. FABRICATE STAIR ASSEMBLY TO PROVIDE 7" RISERS AND 11" TREADS.
2. STAIR SHOWN IS A GENERAL DETAIL. REFER TO PLAN FOR SPECIFIC DIMENSIONS AND LAYOUT.
3. LANDING AND TREADS SHALL BE McNICHOLS GRIP STRUT 12 GAUGE STEEL STAIR TREADS (P/N: 26T4151230), OR APPROVED EQUAL.

STEEL STAIR DETAIL 6

SCALE: N.T.S.







NOTE:

1. ALL EXPOSED CORNERS MUST HAVE A 2" RADIUS ELBOW (UNO).

FIXED HANDRAIL 7

SCALE: N.T.S.

verizon WIRELESS

VERIZON WIRELESS
118 FLANDERS ROAD
WESTBOROUGH, MA 01581–3956

PORTSMOUTH 4 NH

CONSTRUCTION DRAWINGS		
A	03/06/20	FOR COMMENT

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CHECKED BY:	BBR
PROJECT NUMBER:	50121487
JOB NUMBER:	50121524

SITE NUMBER

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SITE ADDRESS

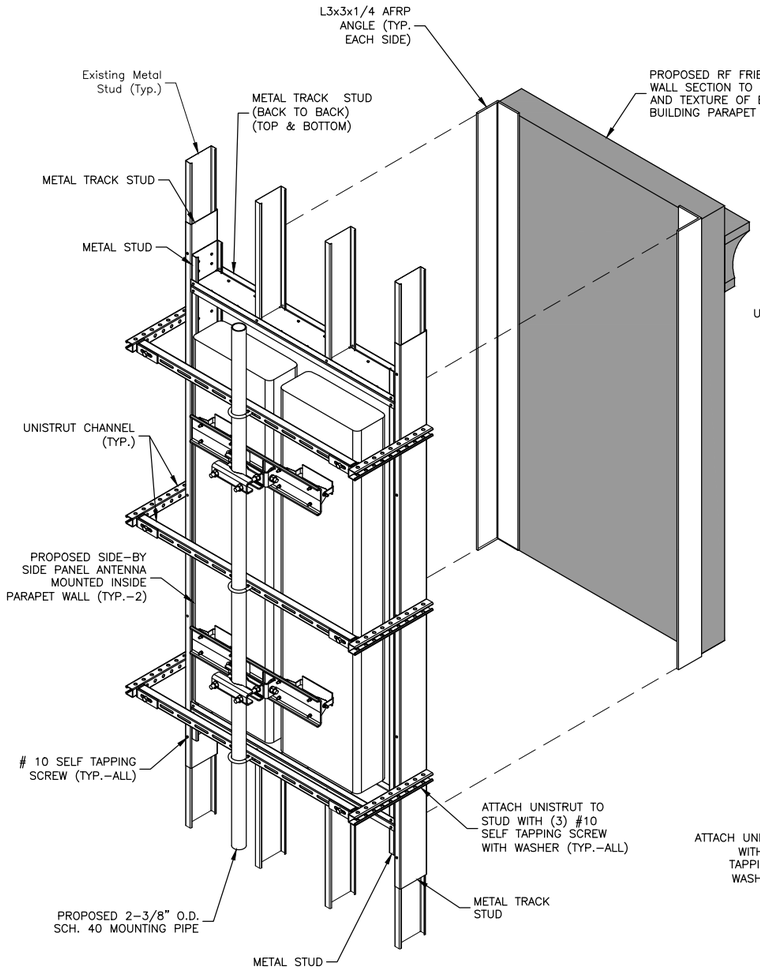
99 DURGIN LANE
PORTSMOUTH, NH 03801

SHEET TITLE

STRUCTURAL CONNECTION DETAILS

SHEET NUMBER

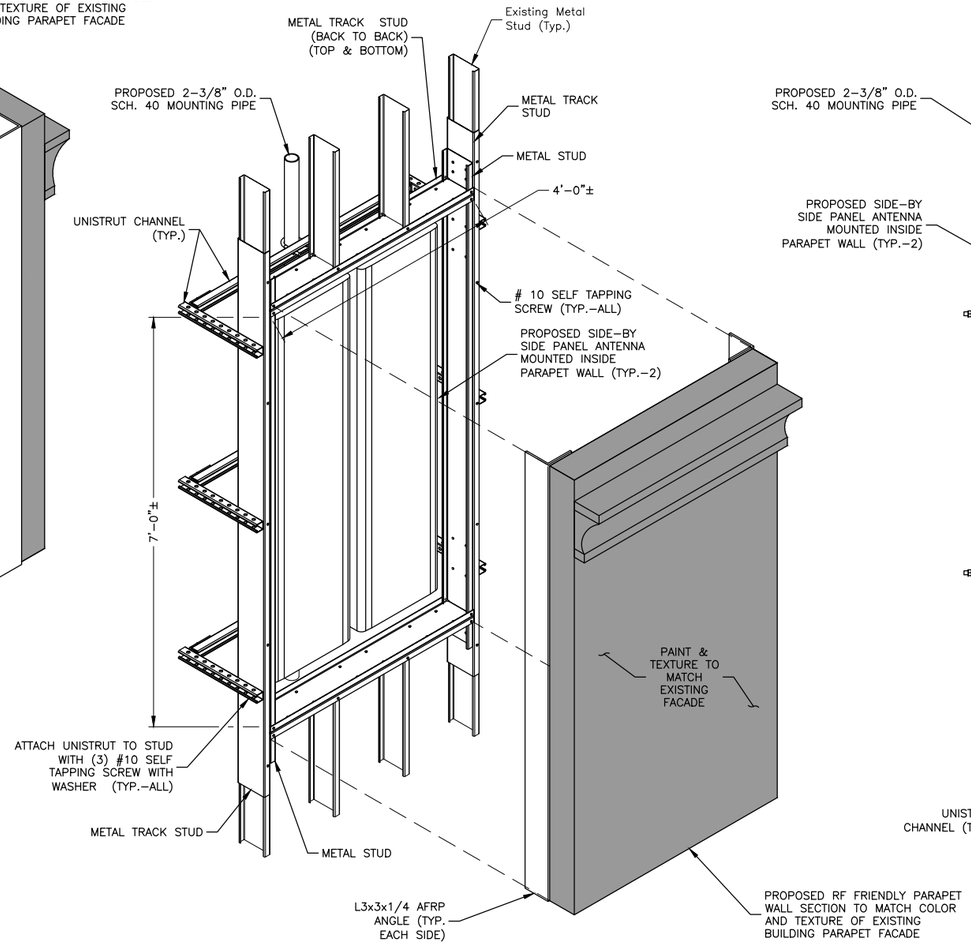
S–2



NOTES:

1. CONTRACTOR TO REMOVE (2) EXISTING METAL STUDS AND FRAME OUT SECTION TO INSTALL NEW SIDE BY SIDE ANTENNA.
2. COORDINATE FINAL PARAPET WALL FABRICATIONS AND CONNECTION WITH MANUFACTURER.

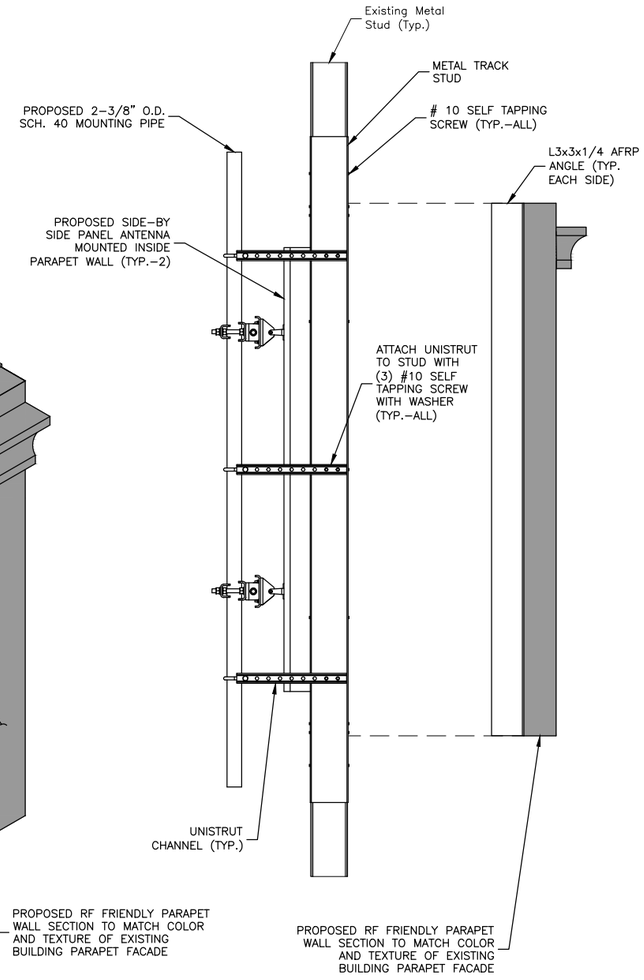
FRAMING ISOMETRIC - REAR (1)
SCALE: N.T.S.



NOTES:

1. CONTRACTOR TO REMOVE (2) EXISTING METAL STUDS AND FRAME OUT SECTION TO INSTALL NEW SIDE BY SIDE ANTENNA.
2. COORDINATE FINAL PARAPET WALL FABRICATIONS AND CONNECTION WITH MANUFACTURER.

FRAMING ISOMETRIC - FRONT (2)
SCALE: N.T.S.



NOTES:

1. CONTRACTOR TO REMOVE (2) EXISTING METAL STUDS AND FRAME OUT SECTION TO INSTALL NEW SIDE BY SIDE ANTENNA.
2. COORDINATE FINAL PARAPET WALL FABRICATIONS AND CONNECTION WITH MANUFACTURER.

FRAMING - SIDE (3)
SCALE: N.T.S.

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JOB NUMBER:	50121524

SITE NUMBER
540336

SITE ADDRESS
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PORTSMOUTH, NH 03801

SHEET TITLE
PARAPET FRAMING & ANTENNA MOUNTING

SHEET NUMBER
S-3

GENERAL ELECTRICAL NOTES:

1. ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
2. ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
3. THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
4. GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
5. ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
6. BURIED CONDUIT SHALL BE SCHEDULE 40 PVC. ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THIN INSULATION.
7. RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE POWER PANEL CABINET (PPC) AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
8. RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE TELCO CABINET AND CABINET AS INDICATED ON THIS DRAWING PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
9. ABOVE GROUND PORTION OF CONDUIT BETWEEN CABINET AND PROJECT OWNER'S CELL SITE PPC SHALL BE SCHEDULE 40 PVC CONDUIT.
10. ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
11. PROPOSED RAB DUAL FLOOD LIGHT, P/N HB2B & INTERMATIC FH SERIES 60 MIN. TIMER IN WP PLASTIC CASE, P/N E200. FIELD LOCATE LIGHT AND SWITCH AS NEEDED.
12. LIQUID–TIGHT FLEXIBLE CONDUIT SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATIONS OCCUR OR FLEXIBILITY IS NEEDED.

SITE ELECTRICAL NOTES:

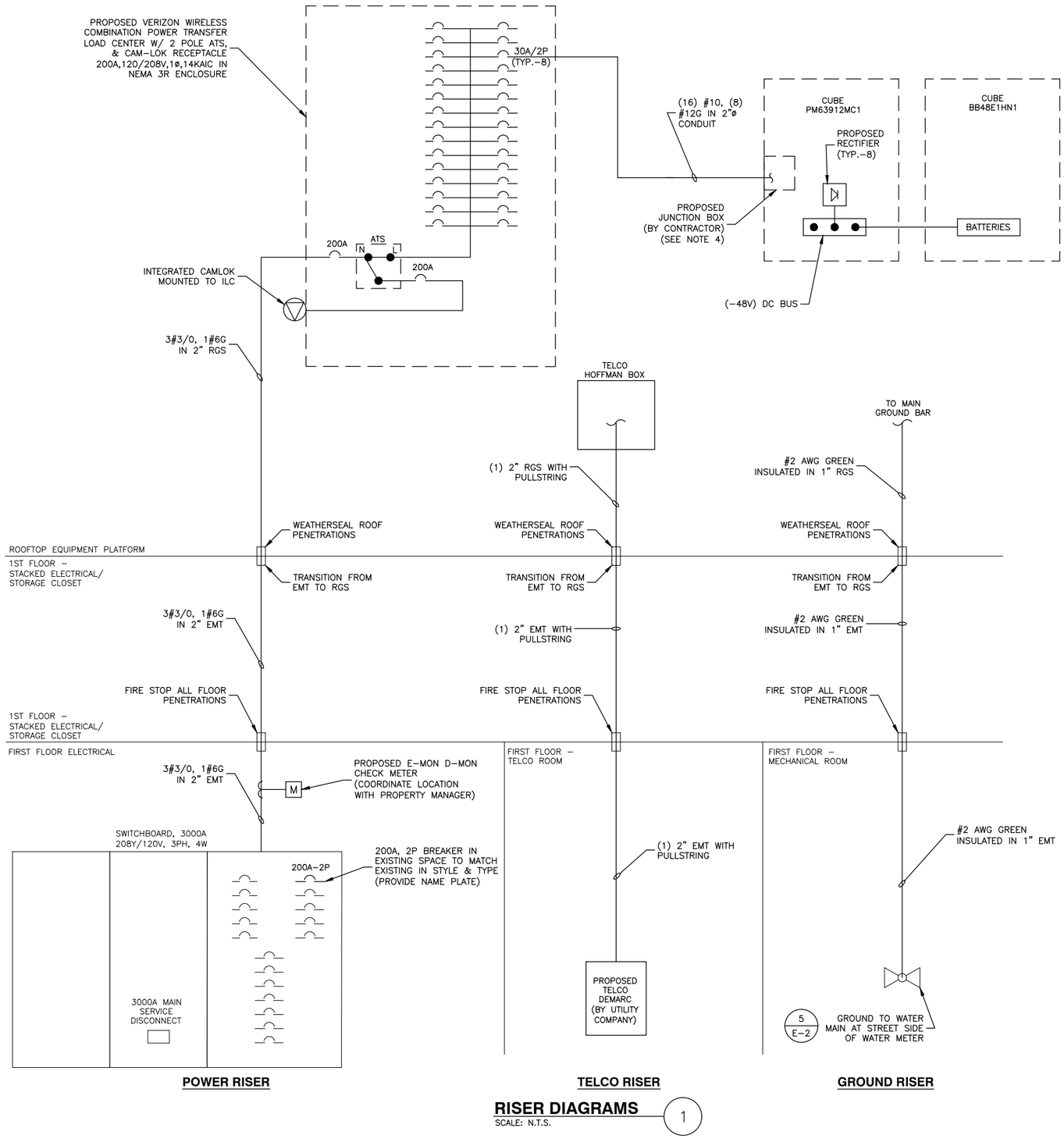
1. COORDINATE INSTALLATION AND NEW SERVICE LOCATION WITH UNIVERSITY REPRESENTATIVE.
2. PROPOSED RAB DUAL FLOOD LIGHT, P/N FFLED18 & INTERMATIC FH SERIES 60 MIN. TIMER IN WP PLASTIC CASE, P/N E200. FIELD LOCATE LIGHT AND SWITCH AS NEEDED. TYP.–2 UNITS.
3. INSTALL CIRCUIT BREAKERS, FEEDER, & CONDUIT TO EQUIPMENT CABINETS PER MANUFACTURER'S RECOMMENDATIONS.
4. CHECK METER SHALL BE FIELD LOCATED WITH BUILDING REPRESENTATIVE APPROVAL. PROVIDE MOUNTING STRUT FOR METER AS REQUIRED.
5. ALL COMPONENTS SHALL BE UL LISTED.

NEMA 3R

PANEL SCHEDULE - ILC

22,000 A.I.C.

W/200A MAIN C/B					
CKT #	DESCRIPTION	AMP	AMP	DESCRIPTION	CKT #
1	RECTIFIER #1	30	30	RECTIFIER #2	2
3					4
5	RECTIFIER #3	30	30	RECTIFIER #4	6
7					8
9	RECTIFIER #5	30	30	RECTIFIER #6	10
11					12
13	RECTIFIER #7	30	30	RECTIFIER #8	14
15					16
17	SPACE	–	–	SPACE	18
19					20
21	SPACE	–	20	CABINET RECEPTACLE	22
23	SPACE	–	20	PANEL RECEPTACLE	24
25	EXTERIOR LIGHT	15	20	PANEL RECEPTACLE	26
27	SPACE	–	–	SPACE	28
29	SPACE	–	–	SPACE	30



RISER DIAGRAMS

SCALE: N.T.S.

1

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VERIZON WIRELESS
118 FLANDERS ROAD
WESTBOROUGH, MA 01581–3956

PORTSMOUTH 4 NH

CONSTRUCTION DRAWINGS		
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PROJECT NUMBER: 50121487

JOB NUMBER: 50121524

SITE NUMBER

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SITE ADDRESS

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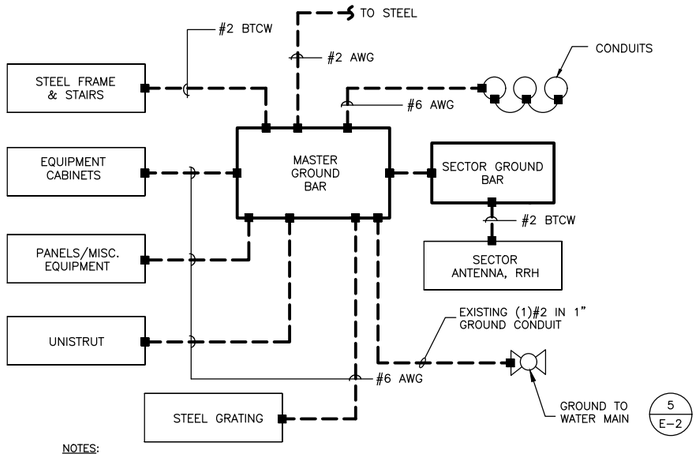
SHEET TITLE

ONE–LINE
RISER DIAGRAMS

SHEET NUMBER

E–1



NOTES:

1. BOND ANTENNA GROUNDING KIT CABLE TO GROUND BAR (GNP BAR).
2. ALL CELL EQUIPMENT (BCE, BATTERY FRAME, POWER CABINETS, MISC. EQUIPMENT FRAMES, ETC.) SHALL BE GROUNDED IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.
3. ALL EXPOSED METAL OBJECTS SHALL BE BONDED AND JUMPED TO MGB.

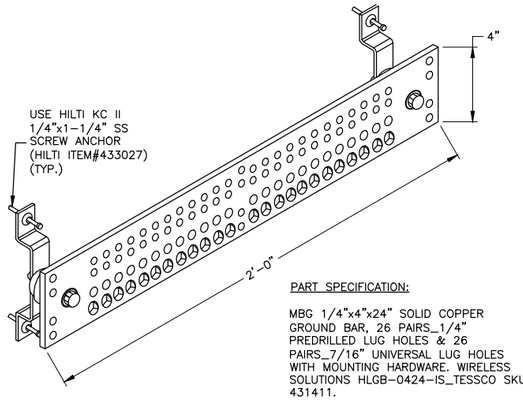
GROUNDING DIAGRAM 1

SCALE: N.T.S.

GROUNDING LEGEND

SYMBOL	DESCRIPTION
▶	EXOTHERMIC WELD
■	MECHANICAL CONNECTION
– – – – –	GROUND CONDUCTOR
G.I.	GREEN INSULATED

1. GROUNDING SHALL COMPLY WITH NEC ART. 250.
2. GROUNDING CONDUCTORS SHALL BE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR INDOOR USE.
3. ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
4. ROUTE GROUNDING CONNECTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NOT BE BENT AT RIGHT ANGLE. ALWAYS MAKE 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY.
5. CONNECTIONS TO GROUNDING BAR SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
6. TEST COMPLETED GROUNDING SYSTEM AND RECORD RESISTANCE VALUES FOR PROJECT CLOSE-OUT DOCUMENTATION. GROUND RESISTANCE SHALL NOT EXCEED 5 OHMS.
7. GROUNDING CONDUCTORS BETWEEN MGB AND WATERMAIN SHALL BE #2/0. BONDING JUMPERS FROM METALLIC SURFACES SHALL BE #2 MINIMUM. ALL GROUND CONDUCTORS AND BONDING JUMPERS SHALL BE SOFT DRAWN ANNEALED, TINNED, BARE STRANDED COPPER WIRE. COAXIAL CABLES SHALL BE GROUNDED AT A MINIMUM OF TWO LOCATIONS USING VERIZON PROVIDED GROUNDING KITS. EXACT LOCATIONS SHALL BE FINALIZED IN THE FIELD BY THE CONSTRUCTION MANAGER.

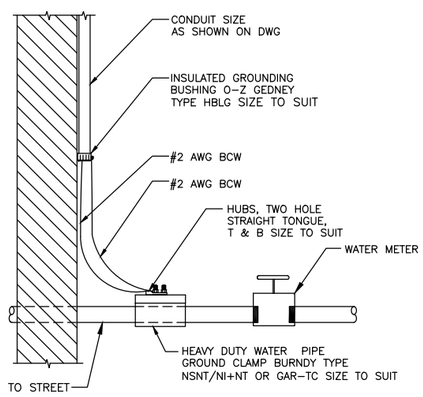


PART SPECIFICATION:

MBG 1/4"x4"x24" SOLID COPPER GROUND BAR, 26 PAIRS_1/4" PREDRILLED LUG HOLES & 26 PAIRS_7/16" UNIVERSAL LUG HOLES WITH MOUNTING HARDWARE. WIRELESS SOLUTIONS HLGB-0424-IS_TESSCO SKU 431411.

GROUND BAR DETAIL 2

SCALE: N.T.S.

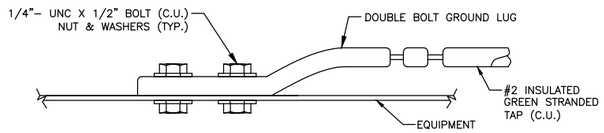


NOTE:

1. BURNDY TYPE GROUND CLAMP SHOULD BE ATTACHED ON STREET SIDE OF WATER CUT-OFF. VALVE IS INSULATED BETWEEN WATER METER & STREET GROUNDING CLAMP SHOULD BE ATTACHED TO STREET SIDE.

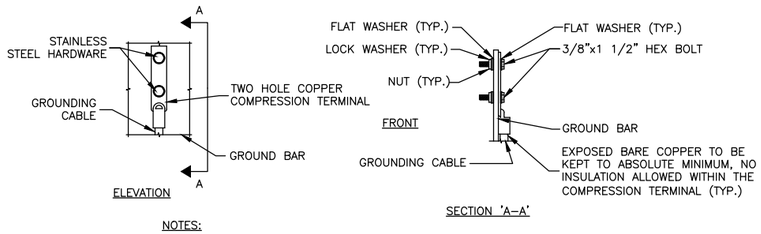
WATER METER GROUNDING 5

SCALE: N.T.S.



CONNECTION TO EQUIPMENT DETAIL 3

SCALE: N.T.S.

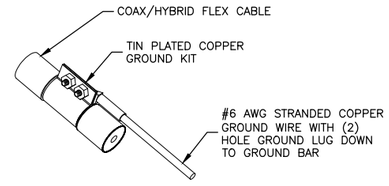


NOTES:

1. DOUBLING UP OR STACKING OF CONNECTIONS IS NOT PERMITTED
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.

TYPICAL GROUND BAR MECHANICAL CONNECTION DETAIL 6

SCALE: N.T.S.



NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND. ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TIN PLATED COPPER WITH TWO-HOLE LUG, SIZE PER COAX DIAMETER.
3. WEATHER SEAL GROUND KIT PER CARRIER REQUIREMENTS.
4. COAX CABLE GROUND KIT LOCATION & QUANTITY SHALL BE PER CARRIER SPECIFICATIONS & STANDARDS.

COAX/HYBRID FLEX GROUNDING DETAIL 7

SCALE: N.T.S.

verizon WIRELESS
VERIZON WIRELESS
118 FLANDERS ROAD
WESTBOROUGH, MA 01581-3956

PORTSMOUTH 4 NH

CONSTRUCTION DRAWINGS		
A	03/06/20	FOR COMMENT

Dewberry®
Dewberry Engineers Inc.
99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310

DRAWN BY:	JCM/JSD
REVIEWED BY:	MFT
CHECKED BY:	BBR
PROJECT NUMBER:	50121487
JOB NUMBER:	50121524

SITE NUMBER

540336

SITE ADDRESS

99 DURGIN LANE
PORTSMOUTH, NH 03801

SHEET TITLE

GROUNDING SCHEMATIC & DETAILS

SHEET NUMBER

E-2

For visual reference only. Actual visibility is dependent upon weather conditions, season, sunlight, and viewer location.

verizon WIRELESS
118 Flanders Road
Westborough, MA 01581

PORTSMOUTH 4 NH

DEWBERRY NO. 50114605
(Page 1 of 8)

Dewberry
Dewberry Engineers Inc.
99 Summer St.
Suite 700
Boston, MA 02110


N
PHOTO 3
PHOTO 2
SITE LOCATION
PHOTO 1
Durgin Ln
4
verizon
WIRELESS
PORTSMOUTH 4 NH
99 Durgin Lande
Portsmouth, NH 03801
(Page 2 of 8)
Dewberry


Actual View
Hampton Inn
Hampton Inn
verizon WIRELESS
PORTSMOUTH 4 NH
Photo 1A
View Facing North
From Durgin Lane
(Page 3 of 8)
Dewberry

Proposed View

verizon WIRELESS

PORTSMOUTH 4 NH

Photo 1B

View Facing North
From Durgin Lane
(Page 4 of 8)

Dewberry®

Actual View

verizon WIRELESS

PORTSMOUTH 4 NH

Photo 2A

View Facing west
From Durgin Lane
(Page 5 of 8)

Dewberry®

Proposed View

verizon WIRELESS

PORTSMOUTH 4 NH

Photo 2B

View Facing west
From Durgin Lane
(Page 6 of 8)

Dewberry®

Actual View

verizon WIRELESS

PORTSMOUTH 4 NH

Photo 3A

View Facing South
From Durgin Lane
(Page 7 of 8)

Dewberry

Proposed View

verizon WIRELESS

PORTSMOUTH 4 NH

Photo 3B

View Facing South
From Durgin Lane
(Page 8 of 8)

Dewberry

Dewberry Engineers Inc.
99 Summer Street, Suite 700
Boston, MA 02110-1200
617.695.3400
617.695.3310 fax
www.dewberry.com

February 18, 2020

Andrew Leone
Verizon Wireless
118 Flanders Road
Westborough, MA 01581

Re: Portsmouth 4 NH
540336
2560256
99 Durgin Lane
Portsmouth, NH 03801

Andrew Leone:

Verizon Wireless has proposed to install six (6) new dual-mounted antennas, six (6) new Remote Radio Heads (RRHs), and one (1) new OVP on the rooftop at the above referenced site. The proposed antennas will be inside the existing parapet wall and the proposed RRHs and OVP will be mounted on proposed ballast mounts on the roof. Verizon Wireless also has proposed to install new equipment cabinets on a new steel platform on the rooftop.

Dewberry Engineers Inc. (Dewberry) has reviewed the antenna design sheets (dated 07/23/19) provided by Verizon Wireless and has determined that the proposed platform, proposed antenna mounts and existing building have adequate capacity to support the proposed equipment configuration. Dewberry assumes that the proposed platform, proposed antenna mounts and associated equipment are installed per the latest Construction Drawings by Dewberry.

Our assessment is based on the assumption that the existing structure is in good condition and were constructed in conformance with all applicable state and local building codes. If, during construction, any damage, deterioration, and/or discrepancies are noticed, Dewberry is to be notified to assess any deviation from the assumed condition. Any alteration in equipment loading described above and on the associated plans will void any conclusions expressed herein and will require further analysis and design. No structural qualification is made or implied by this structural letter for existing structural members not supporting the proposed installation.

If you have any questions, please do not hesitate to call me at 617-531-0744.

Sincerely,
Dewberry Engineers Inc.

Brandon Kelsey, P.E.
Structural Project Engineer

Dewberry Engineers, Inc.
Structural Analysis Summary Sheet

Job No.:	50121487 / 50121524	**By:**	JSD	**Date:**	02/13/20
Job Name:	Portsmouth 4 NH	**Checked:**	SA	**Date:**	02/14/20

Location: 99 Durgin Lane, Portsmouth, NH 03801
Client: Verizon Wireless

Scope of Work:

- Proposed installation of six (6) dual mounted antennas.
- Proposed installation of six (6) RRHs, one (1) OVP, and three (3) ballast mounts
- Proposed installation of one (1) BB48E1HN1 cabinet (4,000 lb.), one (1) PM63912MC2 cabinet (1,000 lb.), one (1) power panel (420 lb.), one (1) telco cabinet (300 lb.), and one (1) Hoffman box (125 lb.) on a new steel platform.

Codes / Standards / References:

- IBC 2015
- New Hampshire State Building Code (BCR 300)
- TIA-222-G
- AISC 14th Ed.
- RFDS dated 07/23/19
- Existing construction drawings by ASI Hospitality Design Consultants dated 09/03/96
- Site visit by Dewberry Engineers on 07/01/19

Design & Analysis Assumptions:

- The proposed equipment and steel platform are installed per the latest Construction Drawings by Dewberry.
- Design and analysis are based on dead and wind loads. The analysis checks for normal bending and shear stresses.
- The analysis checks for overturning based on a minimum factor of safety of 1.5 and sliding based on a minimum factor of safety of 1.2.

Conclusion / Recommendations:

- The existing structure has sufficient capacity to support the proposed installation.
- Proposed ballast mounts do not require any additional ballast.
- The proposed platform post downs are to utilize Hilti Hit-Z rods with Hilti Hit-HY 200. Grout fill (minimum f'_c of 5,000 psi) the main core and adjacent cores on each side of the anchorage a minimum of 30".

Dewberry®

Job Number	50121524
Made by:	JSD
Date:	02/13/20
Checked by:	SA
Date:	02/14/20

(Portsmouth 4 NH) - Design Wind Load

\\capecod\Projects\50121487\50121524 - Portsmouth 4 NH (50114605)\Engineering\Structural\COLO\Structural Analysis\Rev.0\Calcs\50121524 - Ballast (

Wind Load Design Criteria

Site Name: Portsmouth 4 NH

General Information & Design Input

Item	Value	Description	Reference
V_{ult} =	121.00	Ultimate Design Wind Speed	*ASCE 7-10, ATC Windspeed*
V_{asd} =	93.80	$(\sqrt{0.6}) * V_{ult}$	*Adjustment for ASD Load Combo. 1.0D+0.6W*
K_d =	0.95	Wind Direction Probability Factor	*Table 26.6-1*
Class	II	Structure Classification	*Table 1.5-1*
I =	1.00	Importance Factor (Without Ice)	*Table 1.5-2*
z = h =	50.66	ft. (A.G.L.)	*Max. Center of Appurtenance*
Exp. Cat.	B	Exposure Category	*Sect. 26.7.3*
z_g =	1200.00	Terrain Exposure Constant	*Table 26.9-1*
α =	7.00	Terrain Exposure Constant	*Table 26.9-2*
K_z =	0.81	Velocity Pressure Coefficient	*Table 29.3-1*
Topo. Cat.	1.00	Topographic Category (1-5)	*Sect. 26.8.1*
e =	2.72	Natural Logarithmic base	
γ =	N/A	Height attenuation Factor	
L_h =	N/A	Distace upwind of crest	
H =	N/A	ft. Height of crest above surrounding terrain	
K_1 =	N/A	Topographic Multiplier	*Figure 26.8-1*
K_2 =	N/A	Topographic Multiplier	*Figure 26.8-1*
K_3 =	N/A	Topographic Multiplier	*Figure 26.8-1*
K_{zt} =	1.00	$= (1+K_1K_2K_3)^2$	*Sect. 26.8.2*
G_h =	0.85	Gust Effect Factor	*Sect. 26.9.1*
$q_{z\ design}$ =	17.5 psf	$= 0.00256(K_z)(K_{zt})(K_d)(V_{asd}^2)(I)$	*Sect.29.3.2*

Design Wind Forces:

Section 2.6.9.2

$F_a = q_{z\ design} G_h (EPA)_a$ *(where $(EPA)_a$ = effective projected area of the appurtenance = $C_a A_a$)*

(see calculation tables on following pages)

Dewberry

Job Number	50121524
Made by:	JSD
Date:	02/13/20
Checked by:	SA
Date:	02/14/20

(Portsmouth 4 NH) - Design Wind Load

\\capecod\Projects\50121487\50121524 - Portsmouth 4 NH (50114605)\Engineering\Structural\COLO\Structural Analysis\Rev.0\Calcs\50121524 - Ballast Calcs.xlsx

Element Definition

Description	Dimensions (in.)			Weight	Length /
	W	D	H	(lb)	# Supports
B2/B66A RRH	15.00	10.00	15.00	97.50	1.00
B5/B13 RRH	15.00	8.10	15.00	82.00	1.00
OVP	16.50	12.60	21.60	32.00	1.00

Design Wind Load

Members	Dimensions (ft.)			Area $(A_a)_n$	Area $(A_a)_t$	Aspect	Aspect	C_{an}	C_{at}
	Width	Depth	Height	*(normal)*	*(tangent)*	Ratio	Ratio	*(normal)*	*(tangent)*
	(Normal)	*(Tangent)*	*(or span)*	*(sf)*	*(sf)*	*(normal)*	*(tangent)*	*Table 2-8*	*Table 2-8*
B2/B66A RRH	1.25	0.83	1.25	1.56	1.04	1.00	1.51	1.20	1.20
B5/B13 RRH	1.25	0.68	1.25	1.56	0.85	1.00	1.84	1.20	1.20
OVP	1.38	1.05	1.80	2.48	1.89	1.30	1.71	1.20	1.20

Design Effective Projected Area & Wind Loads

Members	EPA_a @ 0.0°	EPA_a @ 30.0°	EPA_a @ 60.0°	EPA_a @ 90.0°	F_a @ 0.0°	F_a @ 30.0°	F_a @ 60.0°	F_a @ 90.0°	Gravity Load @ Support
	(sf)	*(sf)*	*(sf)*	*(sf)*	*(lb)*	*(lb)*	*(lb)*	*(lb)*	*(lb)*
B2/B66A RRH	1.87	1.72	1.40	1.25	27.8	25.5	20.9	18.6	97.5
B5/B13 RRH	1.87	1.66	1.23	1.02	27.8	24.7	18.3	15.2	82.0
OVP	2.98	2.80	2.45	2.27	44.3	41.6	36.4	33.7	32.0

Dewberry

Job Number	50121524
Made by:	JSD
Date:	02/13/20
Checked by:	SA
Date:	02/14/20

(Portsmouth 4 NH) - RT-RRU5HD Ballast Calc.

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Dead Load of Support Equip. Rack

Item	Quantity	Weight		Total Weight (lb)
B2/B66A RRH	1	97.50	lb. ea.	97.50
B5/B13 RRH	1	82.00	lb. ea.	82.00
OVP	1	32.00	lb. ea.	32.00
RT-RRU5HD	1	282.00	lb. ea.	282.00

Σ Total Weight (A_W) = 493.50 lb

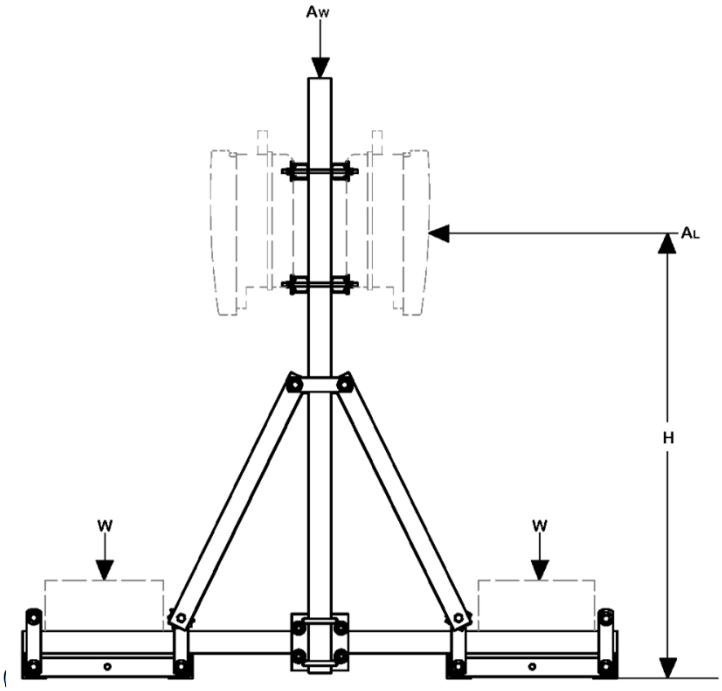
Wind Load on Support Equip. Rack

- Use wind load from two RRHs (worst case scenario):

$P_W = A_L =$ 72.1 lb

Calculate Required Ballast for Support Equip. Rack

- Ballast Equation provided by RT-RRU5HD spec. sheet based on 1.5 safety factor.



Ballast Equation Input:

W = ?
H = 4.33 ft.
A_L = 72.1 lb
A_W = 493.5 lb

Check sled for overturning:

$$W = \frac{(A_L * H * 1.5) - (A_W * 2.625)}{4.5}$$

W = 0.0 lb *(if W < 0, W = 0)*

(per tray, total of 2 trays)

2W = 0.0 lb

(Total Ballast Weight)

Total Dead Load = 493.5 lb

(If W < 0, Total DL = A_W otherwise Total DL = A_W +2W)

Total Dist. Load = 21.7 psf

(Total Load / 22.75 sf)

Job Information

	Engineer	Checked	Approved
Name:	JSD	SA	
Date:	13-Feb-20		

Project ID	
Project Name	

Structure Type	SPACE FRAME

Number of Nodes	39	Highest Node	39
Number of Elements	59	Highest Beam	59

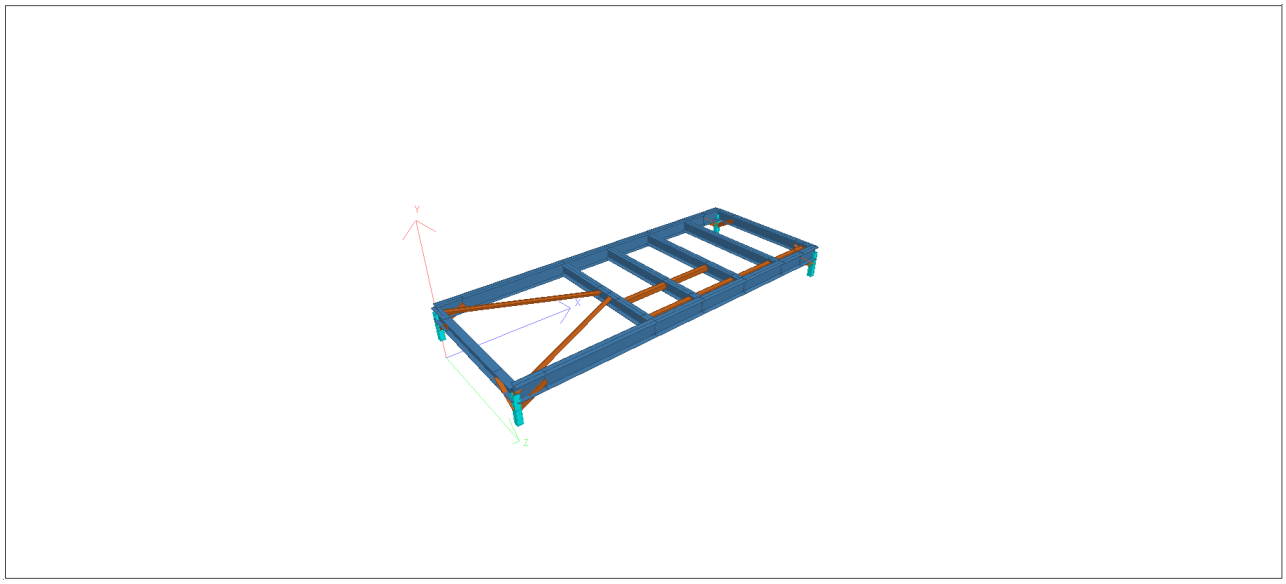
Number of Basic Load Cases	5
Number of Combination Load Cases	26

Included in this printout are data for:

All	The Whole Structure

Included in this printout are results for load cases:

Type	L/C	Name
Primary	1	DEAD
Primary	2	LIVE
Primary	3	SNOW
Primary	4	WIND (Z)
Primary	5	WIND (X)
Combination	6	1.4D
Combination	7	1.2D + 1.6L + 0.5S
Combination	8	1.2D + 1.0L + 1.6S
Combination	9	1.2D + 1.6S + 0.5W(+Z)
Combination	10	1.2D + 1.6S + 0.5W(-Z)
Combination	11	1.2D + 1.6S + 0.5W(+X)
Combination	12	1.2D + 1.6S + 0.5W(-X)
Combination	13	1.2D + 1.0L + 0.5S + 1.0W(+Z)
Combination	14	1.2D + 1.0L + 0.5S + 1.0W(-Z)
Combination	15	1.2D + 1.0L + 0.5S + 1.0W(+X)
Combination	16	1.2D + 1.0L + 0.5S + 1.0W(-X)
Combination	17	1.0D
Combination	18	1.0D + 1.0L
Combination	19	1.0D + 1.0S
Combination	20	1.0D + 0.6W(+Z)
Combination	21	1.0D + 0.6W(-Z)
Combination	22	1.0D + 0.6W(+X)
Combination	23	1.0D + 0.6W(-X)
Combination	24	1.0D + 0.75L + 0.75S + 0.75(0.6W(+Z))
Combination	25	1.0D + 0.75L + 0.75S + 0.75(0.6W(-Z))



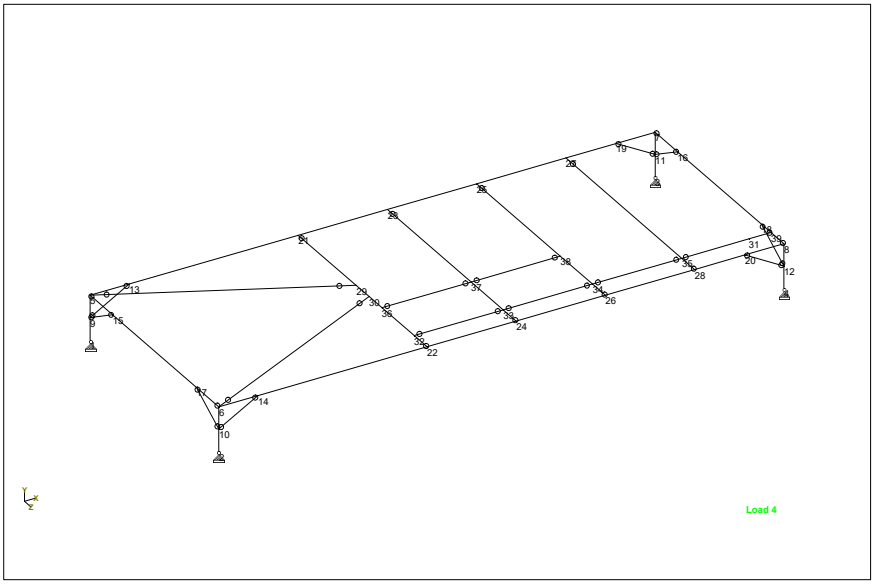
3D Rendered View

Nodes

Node	X (ft)	Y (ft)	Z (ft)
1	0.000	1.500	0.000
2	0.000	1.500	10.000
3	25.330	1.500	0.000
4	25.330	1.500	10.000
5	0.000	3.500	0.000
6	0.000	3.500	10.000
7	25.330	3.500	0.000
8	25.330	3.500	10.000
9	0.000	2.500	0.000
10	0.000	2.500	10.000
11	25.330	2.500	0.000
12	25.330	2.500	10.000
13	1.750	3.500	0.000
14	1.750	3.500	10.000
15	0.000	3.500	1.750
16	25.330	3.500	1.750
17	0.000	3.500	8.250
18	25.330	3.500	8.250
19	23.580	3.500	0.000
20	23.580	3.500	10.000
21	9.330	3.500	0.000
22	9.330	3.500	10.000
23	13.330	3.500	0.000
24	13.330	3.500	10.000
25	17.330	3.500	0.000

Nodes Cont...

Node	X (ft)	Y (ft)	Z (ft)
26	17.330	3.500	10.000
27	21.330	3.500	0.000
28	21.330	3.500	10.000
29	9.330	3.500	4.500
30	9.330	3.500	5.500
31	24.330	3.500	9.000
32	9.330	3.500	9.000
33	13.330	3.500	9.000
34	17.330	3.500	9.000
35	21.330	3.500	9.000
36	9.330	3.500	6.500
37	13.330	3.500	6.500
38	17.330	3.500	6.500
39	25.330	3.500	9.000



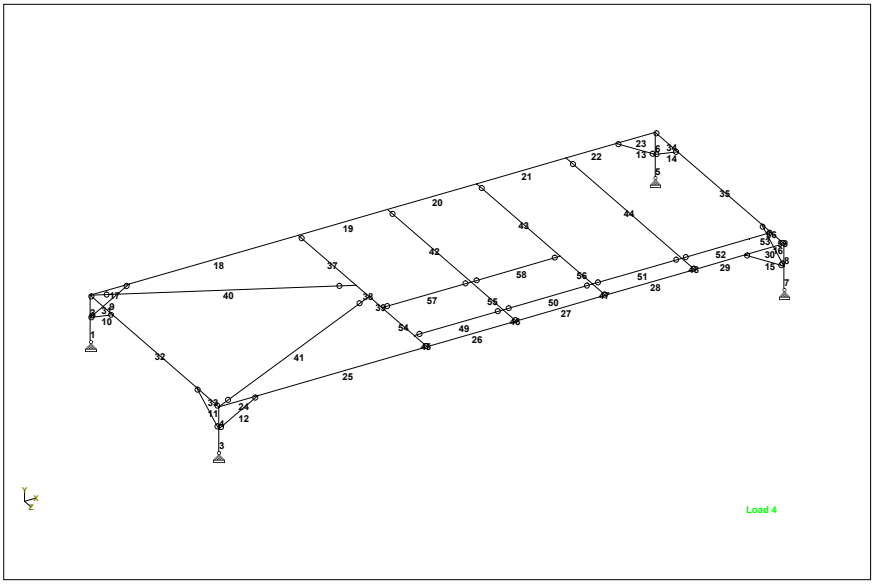
Node Labels

Beams

Beam	Node A	Node B	Length (ft)	Property	β (degrees)
1	1	9	1.000	3	0
2	9	5	1.000	3	0
3	2	10	1.000	3	0
4	10	6	1.000	3	0
5	3	11	1.000	3	0
6	11	7	1.000	3	0
7	4	12	1.000	3	0
8	12	8	1.000	3	0
9	9	13	2.016	4	45
10	9	15	2.016	4	45
11	10	17	2.016	4	45
12	10	14	2.016	4	45
13	11	19	2.016	4	45
14	11	16	2.016	4	45
15	12	20	2.016	4	45
16	12	18	2.016	4	45
17	5	13	1.750	1	0
18	13	21	7.580	1	0
19	21	23	4.000	1	0
20	23	25	4.000	1	0
21	25	27	4.000	1	0
22	27	19	2.250	1	0
23	19	7	1.750	1	0
24	6	14	1.750	1	0
25	14	22	7.580	1	0
26	22	24	4.000	1	0
27	24	26	4.000	1	0
28	26	28	4.000	1	0
29	28	20	2.250	1	0
30	20	8	1.750	1	0
31	5	15	1.750	2	0
32	15	17	6.500	2	0
33	17	6	1.750	2	0
34	7	16	1.750	2	0
35	16	18	6.500	2	0
36	18	39	0.750	2	0
37	21	29	4.500	2	0
38	29	30	1.000	2	0
39	30	36	1.000	2	0
40	29	5	10.359	5	45
41	30	6	10.359	5	45
42	23	37	6.500	2	0
43	25	38	6.500	2	0
44	27	35	9.000	2	0
45	32	22	1.000	2	0

Beams Cont...

Beam	Node A	Node B	Length (ft)	Property	β (degrees)
46	33	24	1.000	2	0
47	34	26	1.000	2	0
48	35	28	1.000	2	0
49	32	33	4.000	5	45
50	33	34	4.000	5	45
51	34	35	4.000	5	45
52	35	31	3.000	5	45
53	31	39	1.000	5	45
54	36	32	2.500	2	0
55	37	33	2.500	2	0
56	38	34	2.500	2	0
57	36	37	4.000	5	45
58	37	38	4.000	5	45
59	39	8	1.000	2	0



Beam Labels

Section Properties

Prop	Section	Area (in^2)	I_{yy} (in^4)	I_{zz} (in^4)	J (in^4)	Material
1	W12X26	7.650	17.300	204.000	0.285	STEEL
2	W10X26	7.610	14.100	144.000	0.385	STEEL
3	HSST4.5X4.5X0.313	4.680	13.500	13.500	21.699	STEEL
4	L40404	1.930	4.863	1.216	0.041	STEEL
5	L40405	2.400	5.941	1.498	0.080	STEEL

Materials

Mat	Name	E (kip/in^2)	ν	Density (kip/in^3)	α (/°F)
1	STEEL	29E+3	0.300	0.000	6E -6
2	STAINLESSSTEEL	28E+3	0.300	0.000	10E -6
3	ALUMINUM	10E+3	0.330	0.000	13E -6
4	CONCRETE	3.15E+3	0.170	0.000	5E -6

Supports

Node	X (kip/in)	Y (kip/in)	Z (kip/in)	rX (kip-ft/deg)	rY (kip-ft/deg)	rZ (kip-ft/deg)
1	Fixed	Fixed	Fixed	-	-	-
2	Fixed	Fixed	Fixed	-	-	-
3	Fixed	Fixed	Fixed	-	-	-
4	Fixed	Fixed	Fixed	-	-	-

Releases

Beam ends not shown in this table are fixed in all directions.

Beam	Node	x	y	z	rx	ry	rz
9	9	Fixed	Fixed	Fixed	Fixed	Pin	Pin
9	13	Fixed	Fixed	Fixed	Fixed	Pin	Pin
10	9	Fixed	Fixed	Fixed	Fixed	Pin	Pin
10	15	Fixed	Fixed	Fixed	Fixed	Pin	Pin
11	10	Fixed	Fixed	Fixed	Fixed	Pin	Pin
11	17	Fixed	Fixed	Fixed	Fixed	Pin	Pin
12	10	Fixed	Fixed	Fixed	Fixed	Pin	Pin
12	14	Fixed	Fixed	Fixed	Fixed	Pin	Pin
13	11	Fixed	Fixed	Fixed	Fixed	Pin	Pin
13	19	Fixed	Fixed	Fixed	Fixed	Pin	Pin
14	11	Fixed	Fixed	Fixed	Fixed	Pin	Pin
14	16	Fixed	Fixed	Fixed	Fixed	Pin	Pin
15	12	Fixed	Fixed	Fixed	Fixed	Pin	Pin
15	20	Fixed	Fixed	Fixed	Fixed	Pin	Pin
16	12	Fixed	Fixed	Fixed	Fixed	Pin	Pin
16	18	Fixed	Fixed	Fixed	Fixed	Pin	Pin
31	5	Fixed	Fixed	Fixed	Fixed	Pin	Pin
33	6	Fixed	Fixed	Fixed	Fixed	Pin	Pin
34	7	Fixed	Fixed	Fixed	Fixed	Pin	Pin
37	21	Fixed	Fixed	Fixed	Fixed	Pin	Pin
40	29	Fixed	Fixed	Fixed	Fixed	Pin	Pin
40	5	Fixed	Fixed	Fixed	Fixed	Pin	Pin
41	30	Fixed	Fixed	Fixed	Fixed	Pin	Pin
41	6	Fixed	Fixed	Fixed	Fixed	Pin	Pin
42	23	Fixed	Fixed	Fixed	Fixed	Pin	Pin

Releases Cont...

Beam	Node	x	y	z	rx	ry	rz
43	25	Fixed	Fixed	Fixed	Fixed	Pin	Pin
44	27	Fixed	Fixed	Fixed	Fixed	Pin	Pin
45	22	Fixed	Fixed	Fixed	Fixed	Pin	Pin
46	24	Fixed	Fixed	Fixed	Fixed	Pin	Pin
47	26	Fixed	Fixed	Fixed	Fixed	Pin	Pin
48	28	Fixed	Fixed	Fixed	Fixed	Pin	Pin
49	32	Fixed	Fixed	Fixed	Fixed	Pin	Pin
49	33	Fixed	Fixed	Fixed	Fixed	Pin	Pin
50	33	Fixed	Fixed	Fixed	Fixed	Pin	Pin
50	34	Fixed	Fixed	Fixed	Fixed	Pin	Pin
51	34	Fixed	Fixed	Fixed	Fixed	Pin	Pin
51	35	Fixed	Fixed	Fixed	Fixed	Pin	Pin
52	35	Fixed	Fixed	Fixed	Fixed	Pin	Pin
53	39	Fixed	Fixed	Fixed	Fixed	Pin	Pin
57	36	Fixed	Fixed	Fixed	Fixed	Pin	Pin
57	37	Fixed	Fixed	Fixed	Fixed	Pin	Pin
58	37	Fixed	Fixed	Fixed	Fixed	Pin	Pin
58	38	Fixed	Fixed	Fixed	Fixed	Pin	Pin
59	8	Fixed	Fixed	Fixed	Fixed	Pin	Pin

Primary Load Cases

Number	Name	Type
1	DEAD	Dead
2	LIVE	Live
3	SNOW	Snow
4	WIND (Z)	Wind
5	WIND (X)	Wind

Combination Load Cases

Comb.	Combination L/C Name	Primary	Primary L/C Name	Factor
6	1.4D	1	DEAD	1.40
7	1.2D + 1.6L + 0.5S	1	DEAD	1.20
		2	LIVE	1.60
		3	SNOW	0.50
8	1.2D + 1.0L + 1.6S	1	DEAD	1.20
		2	LIVE	1.00
		3	SNOW	1.60
9	1.2D + 1.6S + 0.5W(+Z)	1	DEAD	1.20
		3	SNOW	1.60
		4	WIND (Z)	0.50
10	1.2D + 1.6S + 0.5W(-Z)	1	DEAD	1.20
		3	SNOW	1.60
		4	WIND (Z)	-0.50
11	1.2D + 1.6S + 0.5W(+X)	1	DEAD	1.20
		3	SNOW	1.60
		5	WIND (X)	0.50
12	1.2D + 1.6S + 0.5W(-X)	1	DEAD	1.20
		3	SNOW	1.60
		5	WIND (X)	-0.50
13	1.2D + 1.0L + 0.5S + 1.0W(+Z)	1	DEAD	1.20
		2	LIVE	1.00
		3	SNOW	0.50
		4	WIND (Z)	1.00
14	1.2D + 1.0L + 0.5S + 1.0W(-Z)	1	DEAD	1.20
		2	LIVE	1.00
		3	SNOW	0.50
		4	WIND (Z)	-1.00
15	1.2D + 1.0L + 0.5S + 1.0W(+X)	1	DEAD	1.20
		2	LIVE	1.00
		3	SNOW	0.50
		5	WIND (X)	1.00
16	1.2D + 1.0L + 0.5S + 1.0W(-X)	1	DEAD	1.20
		2	LIVE	1.00
		3	SNOW	0.50
		5	WIND (X)	-1.00
17	1.0D	1	DEAD	1.00
18	1.0D + 1.0L	1	DEAD	1.00
		2	LIVE	1.00
19	1.0D + 1.0S	1	DEAD	1.00
		3	SNOW	1.00
20	1.0D + 0.6W(+Z)	1	DEAD	1.00
		4	WIND (Z)	0.60
21	1.0D + 0.6W(-Z)	1	DEAD	1.00
		4	WIND (Z)	-0.60
22	1.0D + 0.6W(+X)	1	DEAD	1.00

Combination Load Cases Cont...

Comb.	Combination L/C Name	Primary	Primary L/C Name	Factor
		5	WIND (X)	0.60
23	1.0D + 0.6W(-X)	1	DEAD	1.00
		5	WIND (X)	-0.60
24	1.0D + 0.75L + 0.75S + 0.75(0.6W(+Z))	1	DEAD	1.00
		2	LIVE	0.75
		3	SNOW	0.75
		4	WIND (Z)	0.45
25	1.0D + 0.75L + 0.75S + 0.75(0.6W(-Z))	1	DEAD	1.00
		2	LIVE	0.75
		3	SNOW	0.75
		4	WIND (Z)	-0.45
26	1.0D + 0.75L + 0.75S + 0.75(0.6W(+X))	1	DEAD	1.00
		2	LIVE	0.75
		3	SNOW	0.75
		5	WIND (X)	0.45
27	1.0D + 0.75L + 0.75S + 0.75(0.6W(-X))	1	DEAD	1.00
		2	LIVE	0.75
		3	SNOW	0.75
		5	WIND (X)	-0.45
28	1.0D + 1.0L + 1.0S + 1.0W(+Z)	1	DEAD	1.00
		2	LIVE	1.00
		3	SNOW	1.00
		4	WIND (Z)	1.00
29	1.0D + 1.0L + 1.0S + 1.0W(-Z)	1	DEAD	1.00
		2	LIVE	1.00
		3	SNOW	1.00
		4	WIND (Z)	-1.00
30	1.0D + 1.0L + 1.0S + 1.0W(+X)	1	DEAD	1.00
		2	LIVE	1.00
		3	SNOW	1.00
		5	WIND (X)	1.00
31	1.0D + 1.0L + 1.0S + 1.0W(-X)	1	DEAD	1.00
		2	LIVE	1.00
		3	SNOW	1.00
		5	WIND (X)	-1.00

1 DEAD : Node Loads

Node	FX (kip)	FY (kip)	FZ (kip)	MX (kip-in)	MY (kip-in)	MZ (kip-in)
31	-	-0.423	-	-	-	-
34	-	-0.423	-	-	-	-

1 DEAD : Beam Loads

Beam	Type	Direction	Fa	Da (ft)	Fb	Db	Ecc. (ft)
49	UNI lbf/ft	GY	-750.000	0.670	-	3.330	-
50	UNI lbf/ft	GY	-187.500	0.670	-	3.330	-
57	UNI lbf/ft	GY	-750.000	0.670	-	3.330	-
58	UNI lbf/ft	GY	-187.500	0.670	-	3.330	-

1 DEAD : Selfweight

Direction	Factor	Assigned Geometry
Y	-1.000	ALL

4 WIND (Z) : Node Loads

Node	FX (kip)	FY (kip)	FZ (kip)	MX (kip-in)	MY (kip-in)	MZ (kip-in)
31	-	0.134	-	-	-	-
	-0.113	-	-	-	-	-
34	-	0.134	-	-	-	-
	-0.113	-	-	-	-	-

4 WIND (Z) : Beam Loads

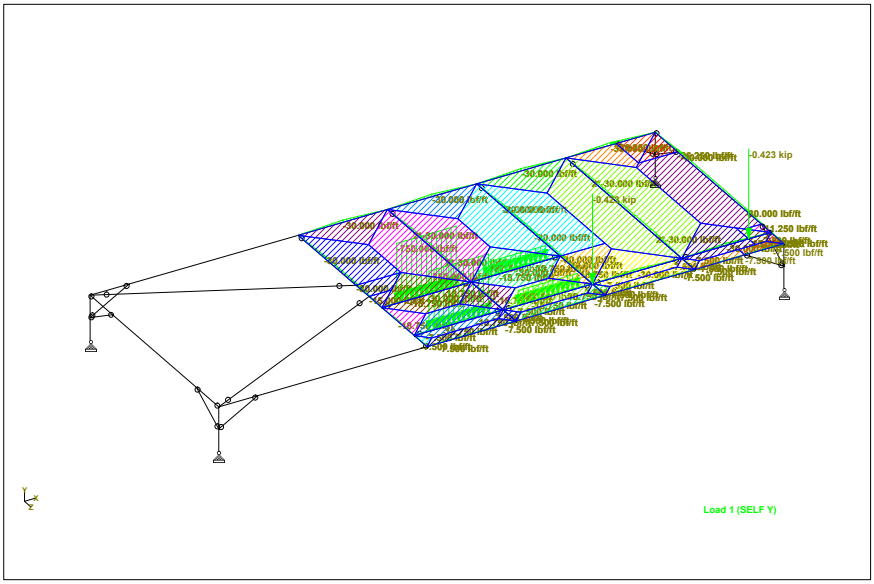
Beam	Type	Direction	Fa	Da (ft)	Fb	Db	Ecc. (ft)
49	UNI lbf/ft	GY	123.000	0.670	-	3.330	-
	UNI lbf/ft	GZ	-203.000	0.670	-	3.330	-
50	UNI lbf/ft	GY	123.000	0.670	-	3.330	-
	UNI lbf/ft	GZ	-176.000	0.670	-	3.330	-
57	UNI lbf/ft	GY	-123.000	0.670	-	3.330	-
	UNI lbf/ft	GZ	-203.000	0.670	-	3.330	-
58	UNI lbf/ft	GY	-123.000	0.670	-	3.330	-
	UNI lbf/ft	GZ	-176.000	0.670	-	3.330	-

5 WIND (X) : Node Loads

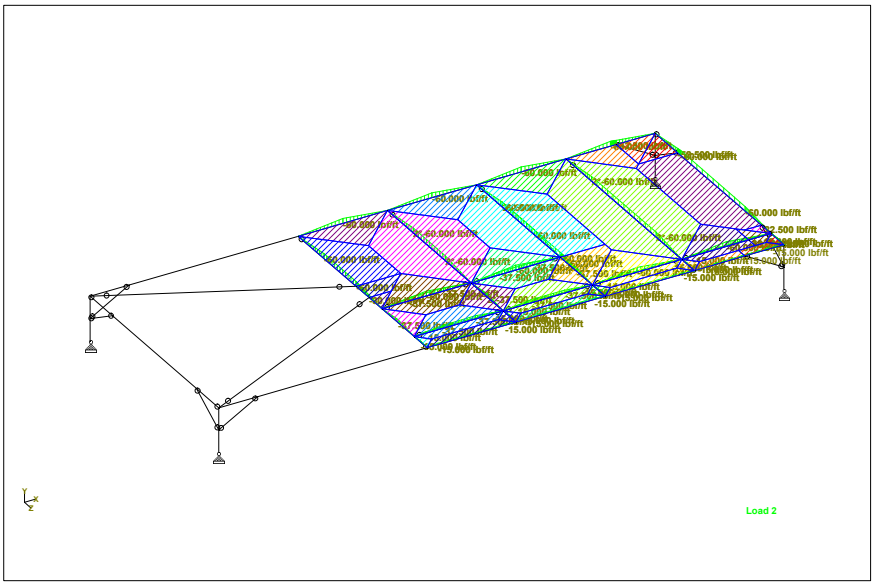
Node	FX (kip)	FY (kip)	FZ (kip)	MX (kip-in)	MY (kip-in)	MZ (kip-in)
31	-	-0.326	-	-	-	-
	0.265	-	-	-	-	-
34	-	0.326	-	-	-	-
	0.265	-	-	-	-	-

5 WIND (X) : Beam Loads

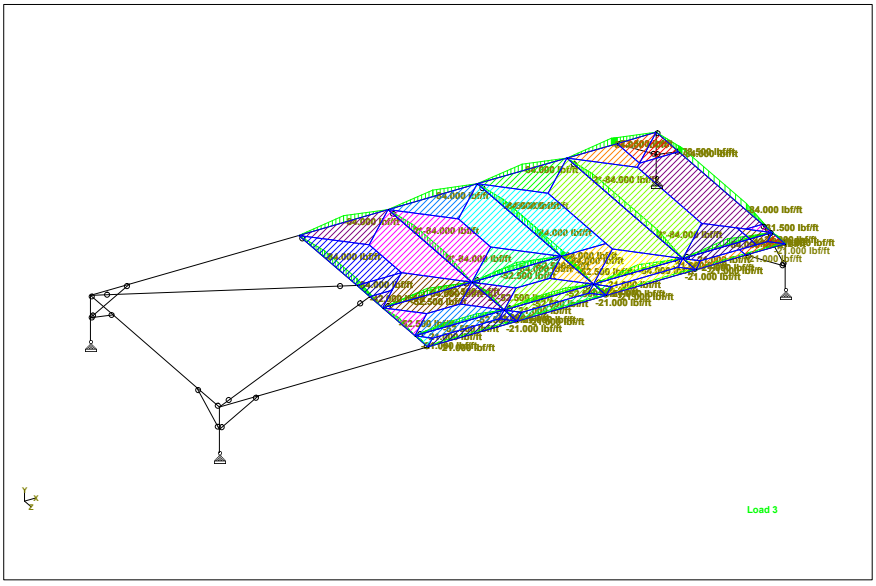
Beam	Type	Direction	Fa	Da (ft)	Fb	Db	Ecc. (ft)
49	UNI lbf/ft	GY	123.000	0.670	-	2.000	-
	UNI lbf/ft	GY	-123.000	2.000	-	3.330	-
	UNI lbf/ft	GX	203.000	0.670	-	3.330	-
50	UNI lbf/ft	GY	123.000	0.670	-	2.000	-
	UNI lbf/ft	GY	-123.000	2.000	-	3.330	-
	UNI lbf/ft	GX	176.000	0.670	-	3.330	-
57	UNI lbf/ft	GY	123.000	0.670	-	2.000	-
	UNI lbf/ft	GY	-123.000	2.000	-	3.330	-
	UNI lbf/ft	GX	203.000	0.670	-	3.330	-
58	UNI lbf/ft	GY	123.000	0.670	-	2.000	-
	UNI lbf/ft	GY	-123.000	2.000	-	3.330	-
	UNI lbf/ft	GX	176.000	0.670	-	3.330	-



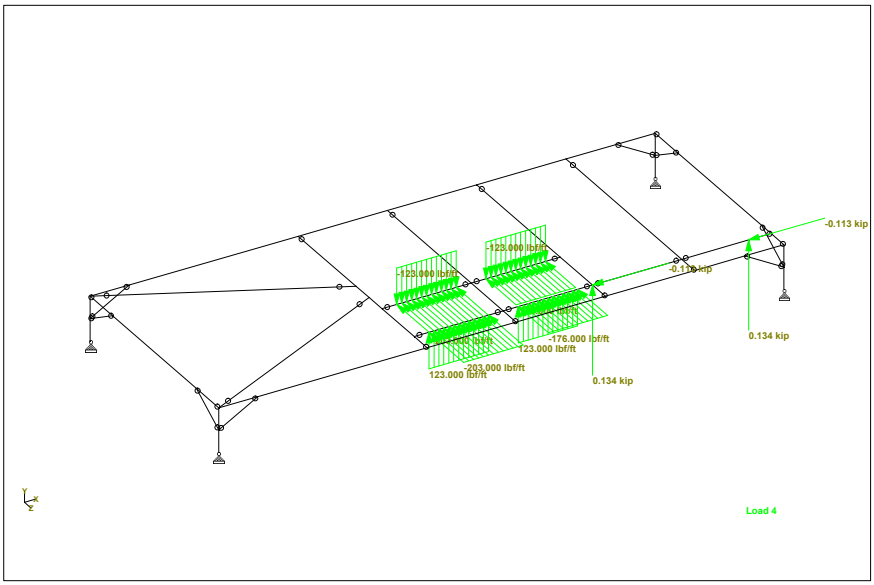
Applied Dead Loads



Applied Live Loads



Applied Snow Loads



Typical Applied Wind Loads

Utilization Ratio

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (in^2)	Iz (in^4)	Iy (in^4)	Ix (in^4)
1	HSST4.5X4.	HSST4.5X4.	0.547	1.000	0.547	Eq. H1-1b	8	4.680	13.500	13.500	22.300
2	HSST4.5X4.	HSST4.5X4.	0.551	1.000	0.551	Eq. H1-1b	8	4.680	13.500	13.500	22.300
3	HSST4.5X4.	HSST4.5X4.	0.767	1.000	0.767	Eq. H1-1b	8	4.680	13.500	13.500	22.300
4	HSST4.5X4.	HSST4.5X4.	0.771	1.000	0.771	Eq. H1-1b	8	4.680	13.500	13.500	22.300
5	HSST4.5X4.	HSST4.5X4.	0.567	1.000	0.567	Eq. H1-1b	8	4.680	13.500	13.500	22.300
6	HSST4.5X4.	HSST4.5X4.	0.576	1.000	0.576	Eq. H1-1b	8	4.680	13.500	13.500	22.300
7	HSST4.5X4.	HSST4.5X4.	0.780	1.000	0.780	Eq. H1-1b	8	4.680	13.500	13.500	22.300
8	HSST4.5X4.	HSST4.5X4.	0.793	1.000	0.793	Eq. H1-1b	8	4.680	13.500	13.500	22.300
9	L40404	L40404	0.450	1.000	0.450	Eq. H1-1a	8	1.930	1.183	4.895	0.040
10	L40404	L40404	0.047	1.000	0.047	Sec. E1	13	1.930	1.183	4.895	0.040
11	L40404	L40404	0.047	1.000	0.047	Sec. E1	14	1.930	1.183	4.895	0.040
12	L40404	L40404	0.631	1.000	0.631	Eq. H1-1a	8	1.930	1.183	4.895	0.040
13	L40404	L40404	0.457	1.000	0.457	Eq. H1-1a	8	1.930	1.183	4.895	0.040
14	L40404	L40404	0.037	1.000	0.037	Sec. E1	28	1.930	1.183	4.895	0.040
15	L40404	L40404	0.637	1.000	0.637	Eq. H1-1a	8	1.930	1.183	4.895	0.040
16	L40404	L40404	0.038	1.000	0.038	Sec. E1	29	1.930	1.183	4.895	0.040
17	W12X26	W12X26	0.147	1.000	0.147	Eq. H1-1b	8	7.650	204.000	17.300	0.300
18	W12X26	W12X26	0.209	1.000	0.209	Eq. H1-1b	8	7.650	204.000	17.300	0.300
19	W12X26	W12X26	0.284	1.000	0.284	Eq. H1-1b	8	7.650	204.000	17.300	0.300
20	W12X26	W12X26	0.284	1.000	0.284	Eq. H1-1b	8	7.650	204.000	17.300	0.300
21	W12X26	W12X26	0.254	1.000	0.254	Eq. H1-1b	28	7.650	204.000	17.300	0.300
22	W12X26	W12X26	0.111	1.000	0.111	Eq. H1-1b	8	7.650	204.000	17.300	0.300
23	W12X26	W12X26	0.108	1.000	0.108	Eq. H1-1b	29	7.650	204.000	17.300	0.300
24	W12X26	W12X26	0.202	1.000	0.202	Eq. H1-1b	8	7.650	204.000	17.300	0.300
25	W12X26	W12X26	0.316	1.000	0.316	Eq. H1-1b	8	7.650	204.000	17.300	0.300

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (in^2)	Iz (in^4)	Iy (in^4)	Ix (in^4)
26	W12X26	W12X26	0.408	1.000	0.408	Eq. H1-1b	8	7.650	204.000	17.300	0.300
27	W12X26	W12X26	0.408	1.000	0.408	Eq. H1-1b	8	7.650	204.000	17.300	0.300
28	W12X26	W12X26	0.324	1.000	0.324	Eq. H1-1b	29	7.650	204.000	17.300	0.300
29	W12X26	W12X26	0.169	1.000	0.169	Eq. H1-1b	8	7.650	204.000	17.300	0.300
30	W12X26	W12X26	0.159	1.000	0.159	Eq. H1-1b	8	7.650	204.000	17.300	0.300
31	W10X26	W10X26	0.017	1.000	0.017	Eq. H1-1b	14	7.610	144.000	14.100	0.402
32	W10X26	W10X26	0.015	1.000	0.015	Eq. H1-1b	14	7.610	144.000	14.100	0.402
33	W10X26	W10X26	0.018	1.000	0.018	Eq. H1-1b	13	7.610	144.000	14.100	0.402
34	W10X26	W10X26	0.011	1.000	0.011	Eq. H1-1b	29	7.610	144.000	14.100	0.402
35	W10X26	W10X26	0.038	1.000	0.038	Eq. H1-1b	30	7.610	144.000	14.100	0.402
36	W10X26	W10X26	0.039	1.000	0.039	Eq. H1-1b	30	7.610	144.000	14.100	0.402
37	W10X26	W10X26	0.112	1.000	0.112	Eq. H1-1b	13	7.610	144.000	14.100	0.402
38	W10X26	W10X26	0.113	1.000	0.113	Eq. H1-1b	14	7.610	144.000	14.100	0.402
39	W10X26	W10X26	0.115	1.000	0.115	Eq. H1-1b	16	7.610	144.000	14.100	0.402
40	L40405	L40405	0.088	1.000	0.088	Sec. E1	28	2.400	1.464	5.975	0.078
41	L40405	L40405	0.094	1.000	0.094	Sec. E1	29	2.400	1.464	5.975	0.078
42	W10X26	W10X26	0.129	1.000	0.129	Eq. H1-1b	8	7.610	144.000	14.100	0.402
43	W10X26	W10X26	0.090	1.000	0.090	Eq. H1-1b	8	7.610	144.000	14.100	0.402
44	W10X26	W10X26	0.088	1.000	0.088	Eq. H1-1b	8	7.610	144.000	14.100	0.402
45	W10X26	W10X26	0.068	1.000	0.068	Eq. H1-1b	16	7.610	144.000	14.100	0.402
46	W10X26	W10X26	0.080	1.000	0.080	Sec. G2.1(a)	8	7.610	144.000	14.100	0.402
47	W10X26	W10X26	0.056	1.000	0.056	Sec. G2.1(a)	8	7.610	144.000	14.100	0.402
48	W10X26	W10X26	0.050	1.000	0.050	Eq. H1-1b	30	7.610	144.000	14.100	0.402
49	L40405	L40405	0.614	1.000	0.614	Eq. H1-1b	14	2.400	1.464	5.975	0.078
50	L40405	L40405	0.301	1.000	0.301	Eq. H1-1b	14	2.400	1.464	5.975	0.078
51	L40405	L40405	0.128	1.000	0.128	Eq. H1-1b	8	2.400	1.464	5.975	0.078
52	L40405	L40405	0.222	1.000	0.222	Eq. H1-1b	15	2.400	1.464	5.975	0.078
53	L40405	L40405	0.224	1.000	0.224	Eq. H1-1b	15	2.400	1.464	5.975	0.078
54	W10X26	W10X26	0.115	1.000	0.115	Eq. H1-1b	16	7.610	144.000	14.100	0.402
55	W10X26	W10X26	0.127	1.000	0.127	Eq. H1-1b	8	7.610	144.000	14.100	0.402
56	W10X26	W10X26	0.087	1.000	0.087	Eq. H1-1b	8	7.610	144.000	14.100	0.402
57	L40405	L40405	0.642	1.000	0.642	Eq. H1-1b	13	2.400	1.464	5.975	0.078
58	L40405	L40405	0.330	1.000	0.330	Eq. H1-1b	28	2.400	1.464	5.975	0.078
59	W10X26	W10X26	0.039	1.000	0.039	Eq. H1-1b	30	7.610	144.000	14.100	0.402

Failed Members

There is no data of this type.

Node Displacement Summary

	Node	L/C	X (in)	Y (in)	Z (in)	Resultant (in)	rX (rad)	rY (rad)	rZ (rad)
Max X	12	15:1.2D + 1.0L	**0.023**	-0.001	0.001	0.023	-0.000	-0.000	0.000
Min X	10	16:1.2D + 1.0L	**-0.031**	-0.000	0.000	0.031	0.000	0.000	0.001
Max Y	26	5:WIND (X)	0.011	**0.014**	-0.003	0.018	-0.000	-0.000	-0.000
Min Y	24	8:1.2D + 1.0L +	-0.013	**-0.550**	-0.004	0.550	-0.000	-0.000	0.000
Max Z	34	14:1.2D + 1.0L	-0.013	-0.366	**0.130**	0.389	0.001	-0.000	0.003
Min Z	34	13:1.2D + 1.0L	-0.004	-0.344	**-0.135**	0.370	0.000	0.000	0.003
Max rX	29	6:1.4D	0.001	-0.250	-0.003	0.250	**0.002**	-0.000	-0.001
Min rX	1	13:1.2D + 1.0L	0.000	0.000	0.000	0.000	**-0.000**	-0.000	0.002
Max rY	8	14:1.2D + 1.0L	-0.022	-0.000	0.001	0.022	-0.000	**0.002**	0.004
Min rY	31	13:1.2D + 1.0L	-0.004	-0.061	-0.032	0.069	-0.000	**-0.002**	0.005
Max rZ	31	8:1.2D + 1.0L +	-0.014	-0.086	-0.014	0.088	-0.000	-0.001	**0.006**
Min rZ	14	8:1.2D + 1.0L +	-0.004	-0.071	-0.001	0.071	-0.000	0.000	**-0.004**
Max Rst	24	8:1.2D + 1.0L +	-0.013	-0.550	-0.004	**0.550**	-0.000	-0.000	0.000

Maximum Allowable Deflection = L / 240
25.33' / 240 x 12" / 1' = 1.267"
0.550" < 1.267" OK!

Reaction Summary

	Node	L/C	Horizontal FX (kip)	Vertical FY (kip)	Horizontal FZ (kip)	Moment MX (kip-in)	MY (kip-in)	MZ (kip-in)
Max FX	2	31:1.0D + 1.0L	**12.870**	5.463	-0.033	0.000	0.000	0.000
Min FX	4	30:1.0D + 1.0L	**-12.363**	8.453	-0.557	0.000	0.000	0.000
Max FY	4	30:1.0D + 1.0L	-12.363	**8.453**	-0.557	0.000	0.000	0.000
Min FY	1	29:1.0D + 1.0L	7.029	**3.055**	-0.797	0.000	0.000	0.000
Max FZ	1	28:1.0D + 1.0L	9.188	4.149	**0.867**	0.000	0.000	0.000
Min FZ	2	29:1.0D + 1.0L	12.728	5.771	**-0.869**	0.000	0.000	0.000
Max MX	1	28:1.0D + 1.0L	9.188	4.149	0.867	**0.000**	0.000	0.000
Min MX	1	28:1.0D + 1.0L	9.188	4.149	0.867	**0.000**	0.000	0.000
Max MY	1	28:1.0D + 1.0L	9.188	4.149	0.867	0.000	**0.000**	0.000
Min MY	1	28:1.0D + 1.0L	9.188	4.149	0.867	0.000	**0.000**	0.000
Max MZ	1	28:1.0D + 1.0L	9.188	4.149	0.867	0.000	0.000	**0.000**
Min MZ	1	28:1.0D + 1.0L	9.188	4.149	0.867	0.000	0.000	**0.000**

Dewberry

Job Number	50121524
Made by:	JSD
Date:	2/13/2020
Checked by:	SA
Date:	2/14/2020

(Portsmouth 4 NH) - Solid Brick Wall Anchorage Design

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Design Mount Anchorage to Exist. Concrete Slab

- Loading is taken from STAAD model
- Mounted to existing precast hollow core deck planks utilzing a minimum 10"x10" Plate

Max. Loading

Shear Loads on Bolts

Direct Shear

F_x = 12.870 k

F_z = 0.869 k

F_r = 12899 lb $(F_x^2+F_z^2)^{0.5}$

Shear due to Torsion

M_y = 0.0 k-in = 0 lb-in

Moment arm (d_y) = 8.5 in $\sqrt{(S_v^2+S_h^2)}$

Tension Loads on Bolts

Direct Tension

F_y = 0.000 k = 0 lb

Tension due to Prying

M_x = 0.0 k-in = 0 lb-in

Moment arm (d_x) = 8.0 in $S_v + S_e$

M_z = 0.0 k-in = 0 lb-in

Moment arm (d_z) = 8.0 in $S_h + S_e$

Connection Information

Bolt Diameter =	5/8	
Effective Embedment =	3.75 in	
n =	4 bolts	*(# of bolts)*
n' =	2 bolts	*(# of bolts resisting moments)*
S_v =	6.00 in	*(Vertical Bolt Spacing)*
S_h =	6.00 in	*(Horizontal Bolt Spacing)*
S_e =	2.00 in	*(Edge Distance)*
D_E =	> 12 in	*(End Distance)*

Max. Loading per Bolt

Max. Shear per Bolt

- Divide shear equally among bolts

$V_{max.} = F_r / n + M_y / d_y n$

= 12899lb / 4 bolts + (0lb-in / 2in) / 4 bolts

= 3225 lb/bolt

Max. Tension per Bolt

- Assume tension (F_z) divided by all bolts and tension due to prying resisted by n' bolts

$T_{max} = F_z / n + M_z / d_z n' + M_x / d_x n'$

= 0lb / 4 bolts + (0lb-in / 8in) / 2 bolts + (0lb-in / 8in) / 2 bolts

= 0 lb/bolt

Connection Capacity

- Use HILTI HIT-HY 200 for Concrete Construction *(See attached HILTI charts)*
- 5/8 " diameter Hilti Hit-Z rods with an effective embedment of 3.75"
- Minimum f'_c = 5000 psi (per existing construction drawings)

Allowable Shear

$V_{allow\ steel}$ =	5625 lb	(Table 5)
$V_{design\ base}$ =	10930 lb	(Table 4)
Spacing Factor =	0.60	(Table 14)
End Distance Factor =	1.00	(Table 14)
Thickness Factor =	0.73	(Table 14)
$V_{allow\ base}$ =	4787 lb	

Allowable Tension

$T_{allow\ steel}$ =	13850 lb	(Table 5)
$T_{design\ base}$ =	5075 lb	(Table 4)
Spacing Factor =	0.77	(Table 14)
End Distance Factor =	1.00	(Table 14)
$T_{allow\ base}$ =	3908 lb	

Check anchors for Tension/Shear

Allowable Shear =	4787 lb			Max. Shear =	3225 lb
Allowable Tension =	3908 lb			Max. Tension =	0 lb

$$\frac{T_{max.}}{T_{allow.}} + \frac{V_{max.}}{V_{allow.}} \leq 1$$

$$\frac{0\ lb}{3908\ lb} + \frac{3225\ lb}{4787\ lb} = \mathbf{0.67} \quad \mathbf{< 1.00, OK}$$

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Made by:	JSD
Date:	02/13/20
Checked by:	SA
Date:	02/14/20

(Portsmouth 4 NH) - Structure Loading

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Site Name: Portsmouth 4 NH

Existing Building Information

- Built 1996/1997
- Roof contructed with 8" x 4'-0" Precast Concrete Hollow Core Planks
- Equipment Platform posts down on the deck over 8" Grouted CMU Walls
- ASCE 7-10 Hazard Tool used for wind and snow loads

Existing Dead Load

- Estimated roof dead load:

8x48 Flexicore Weight =	62.00 psf	*(see attached table)*
Roofing Membrane =	1.50 psf	*(Bituminous, smooth surface)*
3" Rigid Insulation =	4.50 psf	*(0.75 psf per 1/2")*
Miscellaneous =	4.00 psf	
Total Exist. Dead Load =	63.5 psf	

Note: estimated values using Table C3-1 ASCE 7-10

Proposed Dead Load

- Proposed load on deck panels:

RRH Ballast Mount =	21.7 psf	*(see ballast calcs)*

- Proposed load on equipment platform:

BB48E1HN1 Cabinet =	500 plf	*(4000 / 2.67')*
PM63912MC2 Cabinet =	375 plf	*(1000 / 2.67')*
Power Panel =	420 lb	
Telco Cabinet =	300 lb	
Hoffman Box =	125 lb	

Live Load

Live Load =	30.0 psf	*(assumed maintenance live load)*
Roof Live Load =	40.0 psf	*(per existing construction drawings)*

Snow Load (ASCE 7-10)

General Design Criteria

Exposure Factor, C_e =	1.0	*(ASCE 7-10, Table 7-2)*
Thermal Factor, C_t =	1.0	*(ASCE 7-10, Table 7-3)*
Importance Factor, I_s =	1.0	*(ASCE 7-10, Table 1.5-2)*
Ground Snow Load, p_g =	50 psf	*(ASCE 7-10 Hazard Tool)*

Minimum Snow Load, p_m = $MIN(I_s p_g, I_s p_g)$ *(ASCE 7-10, Sect. 7.3.4)*
= 20.0 psf

Design Snow Load, p_f = $0.7 C_e C_t I_s p_g$ *(ASCE 7-10, Eqn. 7.3-1)*
= 35.0 psf ***(Use 35 psf)***

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Job Number	50121524
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(Portsmouth 4 NH) - Precast Concrete Panel Check

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Precast Concrete Panels, 25'-4" Clear Span, 48" Wide, 8" Deep

- Panel Capacity from Safe Load Table (see attached)
- Tabulated loads are based on U = 1.2D + 1.6L
- Conservatively use M_u from lowest reinforcement panel
- Conservatively assume ballast mount at mid-span of conc. plank

Panels Load

Resisting Moment: 47600 lb-ft *(Load Tables)* length = 25.33 ft spacing = 48 in

Resisting Shear: 7516 lb *(M * 4 / length)*

Loading

R_2 =	382 lb	w_1 =	528.80 plf *(full length)*	Area Load =	132.2 psf *1.2DL & 1.6S*
M_2 =	4313 lb-ft	w_2 =	138.88 plf	Area Load =	34.7 psf *1.6(Ballast Sled)*
Max Moment:	46734 lb-ft	a =	9.92 ft *(at midspan)*	c =	9.92 ft
Max Shear:	7080 lb	b =	5.50 ft		

Resisting Moment > Max Moment? **OK!**

Resisting Shear > Max Shear? **OK!**

Table 5 - Steel design strength for Hilti HIT-Z and HIT-Z-R rods [1,2]

Nominal anchor diameter in.	ACI 318-14 Chapter 17 Based Design					
	HIT-Z carbon steel rod			HIT-Z-R stainless steel rod		
	Tensile[3] ϕN_{sa} lb (kN)	Shear[4] ϕV_{sa} lb (kN)	Seismic Shear[5] $\phi V_{sa,eq}$ lb (kN)	Tensile[3] ϕN_{sa} lb (kN)	Shear[4] ϕV_{sa} lb (kN)	Seismic Shear[5] $\phi V_{sa,eq}$ lb (kN)
3/8	4,750 (21.1)	1,930 (8.6)	1,930 (8.6)	4,750 (21.1)	2,630 (11.7)	2,630 (11.7)
1/2	8,695 (38.7)	3,530 (15.7)	2,295 (10.2)	8,695 (38.7)	4,815 (21.4)	3,610 (16.1)
5/8	13,850 (61.6)	5,625 (25.0)	3,655 (16.3)	13,850 (61.6)	7,670 (34.1)	4,985 (22.2)
3/4	20,455 (91.0)	8,310 (37.0)	5,400 (24.0)	20,455 (91.0)	11,330 (50.4)	7,365 (32.8)

1 See section 3.1.8 to convert design strength value to ASD value.
2 HIT-Z and HIT-Z-R rods are to be considered brittle steel elements.
3 Tensile = $\phi A_{se,N} f_{uta}$ as noted in ACI 318-14 Chapter 17.
4 Shear values determined by static shear tests with $\phi V_{sa} \leq \phi\ 0.60\ A_{se,V} f_{uta}$ as noted in ACI 318-14 Chapter 17.
5 Seismic Shear = $\alpha_{V,seis}\ \phi_{Vsa}$: Reduction for seismic shear only. See section 3.1.8 for additional information on seismic applications.

Hilti HIT-Z(-R) rod permissible combinations of edge distance, anchor spacing, and concrete thickness

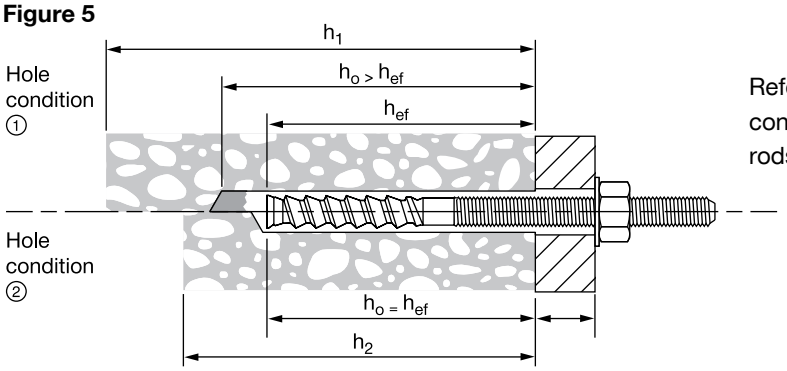
The Hilti HIT-Z and HIT-Z-R anchor rods produce higher expansion forces in the concrete slab when the installation torque is applied. This means that the anchor must be installed with larger edge distances and spacing when compared to standard threaded rod, to minimize the likelihood that the concrete slab will split during installation.

The permissible edge distance is based on the concrete condition (cracked or uncracked), the concrete thickness, and anchor spacing if designing for anchor groups. The permissible concrete thickness is dependent on whether or not the drill dust is removed during the anchor installation process.

Step 1: Check concrete thickness

When using Hilti HIT-Z and HIT-Z-R anchor rods, drilling dust does not need to be removed for optimum capacity when base material temperatures are greater than 41° F (5° C) and a hammer drill with a carbide tipped drill bit is used. However, concrete thickness can be reduced if the drilling dust is removed. The figure below shows both drilled hole conditions. Drilled hole condition 1 illustrates the hole depth and concrete thickness when drilling dust is left in the hole. Drilled hole condition 2 illustrates the corresponding reduction when drill dust is removed by using compressed air, Hilti TE-CD or TE-YD Hollow Drill Bits with a Hilti vacuum.

Figure 5



Refer to tables 6 to 9 in this section for the minimum concrete thicknesses associated with the Hilti HIT-Z(-R) rods based on diameter and drilled hole condition.

Step 2: Check edge distance and anchor spacing

Tables 6 to 9 in this section show the minimum edge distance and anchor spacing based on a specific concrete thickness and whether or not the design is for cracked or uncracked concrete. There are two cases of edge distance and anchor spacing combinations for each embedment and concrete condition (cracked or uncracked). **Case 1** is the minimum edge distance needed for one anchor or for two anchors with large anchor spacing. **Case 2** is the minimum anchor spacing that can be used, but the edge distance is increased to help prevent splitting. Linear interpolation can be used between **Case 1** and **Case 2** for any specific concrete thickness and concrete condition. See the following figure and calculation which can be used to determine specific edge distance and anchor spacing combinations.

Table 3 - Hilti HIT-HY 200 design strength with concrete/pullout failure for Hilti HIT-Z(-R) rods in uncracked concrete[1,2,3,4,5,6,7,8,9,10]

Nominal anchor diameter in.	Effective embed. in. (mm)	Tension — ΦN_n				Shear — ΦV_n			
		f'_c = 2,500 psi (17.2 MPa) lb (kN)	f'_c = 3,000 psi (20.7 MPa) lb (kN)	f'_c = 4,000 psi (27.6 MPa) lb (kN)	f'_c = 6,000 psi (41.4 MPa) lb (kN)	f'_c = 2,500 psi (17.2 MPa) lb (kN)	f'_c = 3,000 psi (20.7 MPa) lb (kN)	f'_c = 4,000 psi (27.6 MPa) lb (kN)	f'_c = 6,000 psi (41.4 MPa) lb (kN)
3/8	2-3/8 (60)	2,855 (12.7)	3,125 (13.9)	3,610 (16.1)	4,425 (19.7)	3,075 (13.7)	3,370 (15.0)	3,890 (17.3)	4,765 (21.2)
	3-3/8 (86)	4,835 (21.5)	5,170 (23.0)	5,170 (23.0)	5,170 (23.0)	10,415 (46.3)	11,410 (50.8)	13,175 (58.6)	16,135 (71.8)
	4-1/2 (114)	5,170 (23.0)	5,170 (23.0)	5,170 (23.0)	5,170 (23.0)	16,035 (71.3)	17,570 (78.2)	20,285 (90.2)	24,845 (110.5)
1/2	2-3/4 (70)	3,555 (15.8)	3,895 (17.3)	4,500 (20.0)	5,510 (24.5)	7,660 (34.1)	8,395 (37.3)	9,690 (43.1)	11,870 (52.8)
	4-1/2 (114)	7,445 (33.1)	7,615 (33.9)	7,615 (33.9)	7,615 (33.9)	16,035 (71.3)	17,570 (78.2)	20,285 (90.2)	24,845 (110.5)
	6 (152)	7,615 (33.9)	7,615 (33.9)	7,615 (33.9)	7,615 (33.9)	24,690 (109.8)	27,045 (120.3)	31,230 (138.9)	38,250 (170.1)
5/8	3-3/4 (95)	5,665 (25.2)	6,205 (27.6)	7,165 (31.9)	8,775 (39.0)	12,200 (54.3)	13,365 (59.5)	15,430 (68.6)	18,900 (84.1)
	5-5/8 (143)	10,405 (46.3)	11,400 (50.7)	13,165 (58.6)	13,905 (61.9)	22,415 (99.7)	24,550 (109.2)	28,350 (126.1)	34,720 (154.4)
	7-1/2 (191)	13,905 (61.9)	13,905 (61.9)	13,905 (61.9)	13,905 (61.9)	34,505 (153.5)	37,800 (168.1)	43,650 (194.2)	53,455 (237.8)
3/4	4 (102)	6,240 (27.8)	6,835 (30.4)	7,895 (35.1)	9,665 (43.0)	13,440 (59.8)	14,725 (65.5)	17,000 (75.6)	20,820 (92.6)
	6-3/4 (171)	13,680 (60.9)	14,985 (66.7)	17,305 (77.0)	18,500 (82.3)	29,460 (131.0)	32,275 (143.6)	37,265 (165.8)	45,645 (203.0)
	8-1/2 (216)	18,500 (82.3)	18,500 (82.3)	18,500 (82.3)	18,500 (82.3)	41,635 (185.2)	45,605 (202.9)	52,660 (234.2)	64,500 (286.9)

Table 4 - Hilti HIT-HY 200 design strength with concrete/pullout failure for Hilti HIT-Z(-R) rods in cracked concrete[1,2,3,4,5,6,7,8,9,10]

Nominal anchor diameter in.	Effective embed. in. (mm)	Tension — ΦN_n				Shear — ΦV_n			
		f'_c = 2,500 psi (17.2 MPa) lb (kN)	f'_c = 3,000 psi (20.7 MPa) lb (kN)	f'_c = 4,000 psi (27.6 MPa) lb (kN)	f'_c = 6,000 psi (41.4 MPa) lb (kN)	f'_c = 2,500 psi (17.2 MPa) lb (kN)	f'_c = 3,000 psi (20.7 MPa) lb (kN)	f'_c = 4,000 psi (27.6 MPa) lb (kN)	f'_c = 6,000 psi (41.4 MPa) lb (kN)
3/8	2-3/8 (60)	2,020 (9.0)	2,215 (9.9)	2,560 (11.4)	3,135 (13.9)	2,180 (9.7)	2,385 (10.6)	2,755 (12.3)	3,375 (15.0)
	3-3/8 (86)	3,425 (15.2)	3,755 (16.7)	4,335 (19.3)	5,170 (23.0)	7,380 (32.8)	8,085 (36.0)	9,335 (41.5)	11,430 (50.8)
	4-1/2 (114)	5,170 (23.0)	5,170 (23.0)	5,170 (23.0)	5,170 (23.0)	11,360 (50.5)	12,445 (55.4)	14,370 (63.9)	17,600 (78.3)
1/2	2-3/4 (70)	2,520 (11.2)	2,760 (12.3)	3,185 (14.2)	3,905 (17.4)	5,425 (24.1)	5,945 (26.4)	6,865 (30.5)	8,405 (37.4)
	4-1/2 (114)	5,275 (23.5)	5,780 (25.7)	6,670 (29.7)	7,110 (31.6)	11,360 (50.5)	12,445 (55.4)	14,370 (63.9)	17,600 (78.3)
	6 (152)	7,110 (31.6)	7,110 (31.6)	7,110 (31.6)	7,110 (31.6)	17,490 (77.8)	19,160 (85.2)	22,120 (98.4)	27,095 (120.5)
5/8	3-3/4 (95)	4,010 (17.8)	4,395 (19.5)	5,075 (22.6)	6,215 (27.6)	8,640 (38.4)	9,465 (42.1)	10,930 (48.6)	13,390 (59.6)
	5-5/8 (143)	7,370 (32.8)	8,075 (35.9)	9,325 (41.5)	11,420 (50.8)	15,875 (70.6)	17,390 (77.4)	20,080 (89.3)	24,595 (109.4)
	7-1/2 (191)	11,350 (50.5)	12,430 (55.3)	13,905 (61.9)	13,905 (61.9)	24,440 (108.7)	26,775 (119.1)	30,915 (137.5)	37,865 (168.4)
3/4	4 (102)	4,420 (19.7)	4,840 (21.5)	5,590 (24.9)	6,845 (30.4)	9,520 (42.3)	10,430 (46.4)	12,040 (53.6)	14,750 (65.6)
	6-3/4 (171)	9,690 (43.1)	10,615 (47.2)	12,255 (54.5)	15,010 (66.8)	20,870 (92.8)	22,860 (101.7)	26,395 (117.4)	32,330 (143.8)
	8-1/2 (216)	13,690 (60.9)	15,000 (66.7)	17,320 (77.0)	18,155 (80.8)	29,490 (131.2)	32,305 (143.7)	37,300 (165.9)	45,685 (203.2)

1 Section 3.1.8 for explanation on development of load values.
2 See Section 3.1.8 to convert design strength value to ASD value.
3 Linear interpolation between embedment depths and concrete compressive strengths is not permitted.
4 Apply spacing, edge distance, and concrete thickness factors in tables 10 - 17 as necessary to the above values. Compare to the steel values in table 5. The lesser of the values is to be used for the design.
5 Data is for temperature range A: Max. short term temperature = 130°F (55°C), max. long term temperature = 110°F (43°C).
For temperature range B: Max. short term temperature = 176°F (80°C), max. long term temperature = 110°F (43°C) multiply above values by 1.0.
For temperature range C: Max. short term temperature = 248°F (120°C), max. long term temperature = 162°F (72°C) multiply above values by 0.90.
Short term elevated concrete temperatures are those that occur over brief intervals, e.g., as a result of diurnal cycling. Long-term concrete temperatures are roughly constant over significant periods of time.
6 Tabular values are for dry and water saturated concrete conditions.
7 Tabular values are for short-term loads only. For sustained loads, see section 3.1.8.
8 Tabular values are for normal-weight concrete only. For lightweight concrete multiply design strength (factored resistance) by λ_a as follows:
For sand-lightweight, λ_a = 0.51. For all-lightweight, λ_a = 0.45.
9 Tabular values are for static loads only. Seismic design is not permitted for uncracked concrete. For seismic loads, multiply cracked concrete tabular values in tension only by the following reduction factors:
3/8-in diameter - $\alpha_{N,seis}$ = 0.705
1/2-in to 3/4-in diameter - $\alpha_{N,seis}$ = 0.75
See Section 3.1.8 for additional information on seismic applications.
10 Diamond core drilling with Hilti HIT-Z(-R) rods is permitted with no reduction in published data above.

Table 14 - Load adjustment factors for 5/8-in. diameter Hilti HIT-Z and HIT-Z-R rods in uncracked concrete [1,2]

5/8-in. HIT-Z(-R) uncracked concrete			Spacing factor in tension f_{AN}			Edge distance factor in tension f_{RN}			Spacing factor in shear[3] f_{AV}			Edge distance in shear: ⊥ Toward edge f_{RV}			Edge distance in shear: ∥ To and away from edge f_{RV}			Concrete thickness factor in shear[4] f_{HV}		
Embedment h_{ef}	in.	(mm)	3-3/4 (95)	5-5/8 (143)	7-1/2 (191)	3-3/4 (95)	5-5/8 (143)	7-1/2 (191)	3-3/4 (95)	5-5/8 (143)	7-1/2 (191)	3-3/4 (95)	5-5/8 (143)	7-1/2 (191)	3-3/4 (95)	5-5/8 (143)	7-1/2 (191)	3-3/4 (95)	5-5/8 (143)	7-1/2 (191)
Spacing (s) / Edge distance (c_a) / Concrete thickness (h), - in. (mm)	3-1/8	(79)	0.64	0.59	0.57	n/a	n/a	0.20	0.55	0.54	0.53	n/a	n/a	0.07	n/a	n/a	0.13	n/a	n/a	n/a
	3-1/4	(83)	0.64	0.60	0.57	n/a	0.24	0.20	0.55	0.54	0.53	n/a	0.11	0.07	n/a	0.21	0.14	n/a	n/a	n/a
	3-3/4	(95)	0.67	0.61	0.58	0.34	0.25	0.21	0.56	0.54	0.53	0.23	0.13	0.09	0.34	0.27	0.17	n/a	n/a	n/a
	4	(102)	0.68	0.62	0.59	0.36	0.26	0.22	0.57	0.55	0.53	0.25	0.15	0.10	0.36	0.29	0.19	n/a	n/a	n/a
	5	(127)	0.72	0.65	0.61	0.42	0.29	0.24	0.58	0.56	0.54	0.36	0.21	0.13	0.42	0.38	0.24	n/a	n/a	n/a
	5-1/2	(140)	0.74	0.66	0.62	0.45	0.31	0.25	0.59	0.56	0.55	0.41	0.24	0.15	0.45	0.40	0.25	0.61	n/a	n/a
	6	(152)	0.77	0.68	0.63	0.49	0.33	0.26	0.60	0.57	0.55	0.47	0.27	0.18	0.49	0.42	0.26	0.63	n/a	n/a
	7	(178)	0.81	0.71	0.66	0.57	0.36	0.29	0.62	0.58	0.56	0.59	0.34	0.22	0.59	0.47	0.29	0.68	n/a	n/a
	7-3/8	(187)	0.83	0.72	0.66	0.60	0.38	0.30	0.62	0.59	0.56	0.64	0.37	0.24	0.64	0.49	0.30	0.70	0.58	n/a
	8	(203)	0.86	0.74	0.68	0.65	0.40	0.31	0.63	0.59	0.57	0.72	0.41	0.27	0.72	0.52	0.31	0.73	0.61	n/a
	9	(229)	0.90	0.77	0.70	0.73	0.45	0.34	0.65	0.60	0.58	0.86	0.50	0.32	0.86	0.58	0.34	0.78	0.65	n/a
	9-1/4	(235)	0.91	0.77	0.71	0.76	0.46	0.35	0.65	0.61	0.58	0.89	0.52	0.34	0.89	0.59	0.35	0.79	0.65	0.57
	10	(254)	0.94	0.80	0.72	0.82	0.50	0.37	0.67	0.62	0.59	1.00	0.58	0.38	1.00	0.64	0.38	0.82	0.68	0.59
	11	(279)	0.99	0.83	0.74	0.90	0.55	0.39	0.68	0.63	0.60	1.00	0.67	0.43	1.00	0.70	0.43	0.86	0.71	0.62
	12	(305)	1.00	0.86	0.77	0.98	0.60	0.43	0.70	0.64	0.60	1.00	0.76	0.50	1.00	0.77	0.50	0.90	0.75	0.65
	14	(356)	1.00	0.91	0.81	1.00	0.70	0.50	0.73	0.66	0.62		0.96	0.62		0.96	0.62	0.97	0.81	0.70
	16	(406)	1.00	0.97	0.86		0.80	0.57	0.77	0.69	0.64		1.00	0.76		1.00	0.76	1.00	0.86	0.75
	18	(457)	1.00	1.00	0.90		0.89	0.64	0.80	0.71	0.66			0.91			0.91		0.91	0.79
	24	(610)	1.00		1.00		1.00	0.86	0.90	0.78	0.71			1.00			1.00		1.00	0.91
	30	(762)						1.00	1.00	0.85	0.76									1.00
	36	(914)								0.92	0.81									
	> 48	(1219)								1.00	0.92									

Table 15 - Load adjustment factors for 5/8-in. diameter Hilti HIT-Z and HIT-Z-R rods in cracked concrete [1,2]

5/8-in. HIT-Z(-R) cracked concrete			Spacing factor in tension f_{AN}			Edge distance factor in tension f_{RN}			Spacing factor in shear[3] f_{AV}			Edge distance in shear: ⊥ Toward edge f_{RV}			Edge distance in shear: ∥ To and away from edge f_{RV}			Concrete thickness factor in shear[4] f_{HV}		
Embedment h_{ef}	in.	(mm)	3-3/4 (95)	5-5/8 (143)	7-1/2 (191)	3-3/4 (95)	5-5/8 (143)	7-1/2 (191)	3-3/4 (95)	5-5/8 (143)	7-1/2 (191)	3-3/4 (95)	5-5/8 (143)	7-1/2 (191)	3-3/4 (95)	5-5/8 (143)	7-1/2 (191)	3-3/4 (95)	5-5/8 (143)	7-1/2 (191)
Spacing (s) / Edge Distance (c_a) / Concrete thickness (h), - in. (mm)	3-1/8	(79)	0.64	0.59	0.57	0.67	0.56	0.50	0.55	0.54	0.53	0.18	0.10	0.07	0.35	0.20	0.13	n/a	n/a	n/a
	3-1/4	(83)	0.64	0.60	0.57	0.69	0.56	0.51	0.55	0.54	0.53	0.19	0.11	0.07	0.38	0.22	0.14	n/a	n/a	n/a
	3-3/4	(95)	0.67	0.61	0.58	0.75	0.60	0.53	0.56	0.54	0.53	0.23	0.13	0.09	0.47	0.27	0.17	n/a	n/a	n/a
	4	(102)	0.68	0.62	0.59	0.78	0.62	0.55	0.57	0.55	0.53	0.26	0.15	0.10	0.51	0.30	0.19	n/a	n/a	n/a
	5	(127)	0.72	0.65	0.61	0.91	0.70	0.60	0.58	0.56	0.54	0.36	0.21	0.13	0.72	0.41	0.27	n/a	n/a	n/a
	5-1/2	(140)	0.74	0.66	0.62	0.98	0.74	0.63	0.59	0.56	0.55	0.41	0.24	0.15	0.83	0.48	0.31	0.61	n/a	n/a
	6	(152)	0.77	0.68	0.63	1.00	0.78	0.66	0.60	0.57	0.55	0.47	0.27	0.18	0.94	0.54	0.35	0.64	n/a	n/a
	7	(178)	0.81	0.71	0.66	1.00	0.87	0.72	0.62	0.58	0.56	0.59	0.34	0.22	1.00	0.68	0.44	0.69	n/a	n/a
	7-3/8	(187)	0.83	0.72	0.66	1.00	0.90	0.74	0.62	0.59	0.56	0.64	0.37	0.24	1.00	0.74	0.48	0.70	0.59	n/a
	8	(203)	0.86	0.74	0.68	1.00	0.96	0.78	0.63	0.59	0.57	0.73	0.42	0.27	1.00	0.84	0.54	0.73	0.61	n/a
	9	(229)	0.90	0.77	0.70	1.00	1.00	0.85	0.65	0.60	0.58	0.87	0.50	0.32	1.00	1.00	0.65	0.78	0.65	n/a
	9-1/4	(235)	0.91	0.77	0.71			0.86	0.66	0.61	0.58	0.90	0.52	0.34			0.68	0.79	0.66	0.57
	10	(254)	0.94	0.80	0.72			0.91	0.67	0.62	0.59	1.00	0.58	0.38			0.76	0.82	0.68	0.59
	11	(279)	0.99	0.83	0.74			0.98	0.69	0.63	0.60		0.67	0.44			0.88	0.86	0.72	0.62
	12	(305)	1.00	0.86	0.77			1.00	0.70	0.64	0.60		0.77	0.50			1.00	0.90	0.75	0.65
	14	(356)	1.00	0.91	0.81				0.74	0.66	0.62		0.97	0.63			1.00	0.97	0.81	0.70
	16	(406)		0.97	0.86				0.77	0.69	0.64		1.00	0.77				1.00	0.86	0.75
	18	(457)		1.00	0.90				0.80	0.71	0.66			0.92					0.92	0.79
	24	(610)			1.00				0.90	0.78	0.71			1.00					1.00	0.92
	30	(762)							1.00	0.85	0.76									1.00
	36	(914)								0.92	0.81									
	> 48	(1219)								1.00	0.92									

1 Linear interpolation not permitted.

2 When combining multiple load adjustment factors (e.g. for a four-anchor pattern in a corner with thin concrete member) the design can become very conservative. To optimize the design, use Hilti PROFIS Anchor Design software or perform anchor calculation using design equations from ACI 318 Chapter 17 or CSA A23.3 Annex D.

3 Spacing factor reduction in shear applicable when $c < 3*h_{ef}$. f_{AV}, is applicable when edge distance, $c < 3*h_{ef}$. If $c \geq 3*h_{ef}$, then $f_{AV} = f_{AN}$.

4 Concrete thickness reduction factor in shear, f_{HV}, is applicable when edge distance, $c < 3*h_{ef}$. If $c \geq 3*h_{ef}$, then $f_{HV} = 1.0$.

If a reduction factor value is in a shaded area, this indicates that this specific edge distance may not be permitted with a certain spacing (or vice versa). Check with figure 6 and table 8 of this section to calculate permissible edge distance, spacing and concrete thickness combinations.

Extruded

Hollow Core

PRESTRESSED CONCRETE SLAB

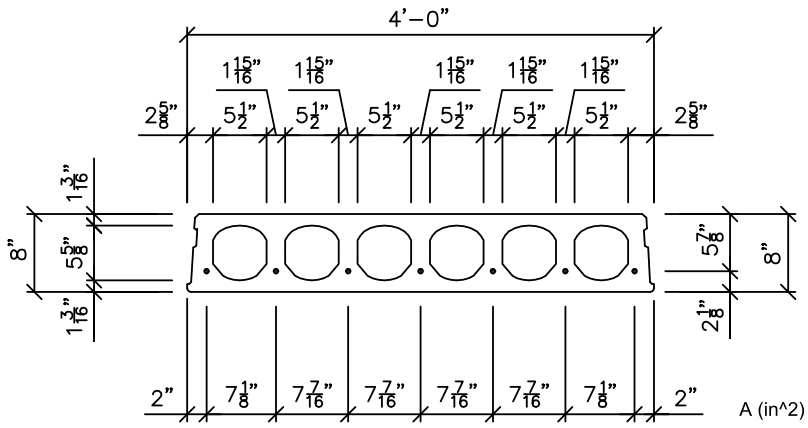
8" X 48" Section

Safe Load Table

UNIFORMLY DISTRIBUTED SUPERIMPOSED SERVICE LOAD IN PSF

Standard Designation	Strands No. & Size	Strand Area Sq. In.	M Ft.-Kips per Unit	ϕM_n Ft.-Kips Per Unit	Span Length (l) in Ft.																				
					15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
848-152	7 - 6/10	1.519	99.6	153.3	582	543	508	477	450	425	389	350	316	285	258	234	212	193	176	160	146	134	122	111	**102**
848-139	5 - 6/10 & 2 - 1/2	1.391	93.3	142.3	582	543	508	477	447	399	358	322	291	263	238	215	195	177	161	146	133	121	110	100	**91**
848-126	3 - 6/10 & 4 - 1/2	1.263	87.0	131.0	582	543	508	460	408	364	326	293	264	239	216	197	178	161	146	132	120	109	99	90	**81**
848-107	7 - 1/2	1.071	77.6	113.4	582	508	445	392	347	309	276	247	222	200	181	164	149	135	123	111	101	91	82	**73**	**66**
848-77	5 - 1/2	0.765	62.6	83.8	420	363	317	277	244	216	192	171	152	136	122	109	98	88	79	71	**63**	**57**	**50**		
848-61	4 - 1/2	0.612	55.1	68.1	333	287	249	217	190	167	147	130	115	102	91	80	71	63	56						
848-46	3 - 1/2	0.459	47.6	52.0	243	208	179	155	134	117	102	88	77	67	58	50									

controlled by: ultimate shear service



A (in^2) =	222.6 in^2	f'_c =	9000 psi
b_w (in) =	13.266 in	f'_{ci} =	3500 psi
I_g (in^4) =	1701.04 in^4	f_{pu} =	270 ksi
y_b (in) =	4.034 in		

NOTES:

1) Grouted weight of structural unit is 62 psf or 248 plf based on concrete unit weight of 154 pcf.
2) Design is based on ACI Standard, "Building Code Requirements for Reinforced Concrete (ACI318)."
3) No shear reinforcement is required for the tabulated loads to the right of the heavy stepped line.
4) Tabulated loads are based on U=1.2D+1.6L and with all load superimposed on the structural section considered as live load.
5) Tabulated loads in the blue area may be achieved by adding partial concrete corefill.
6) Tabulated loads in yellow are controlled by permissible flexural tension at service loads.
7) Tabulated loads in bold font have deflections in excess of L/360.
8) All strand stressed to 70% of ultimate.
9) For longer spans and conditions not covered in the load table, consult Molin.

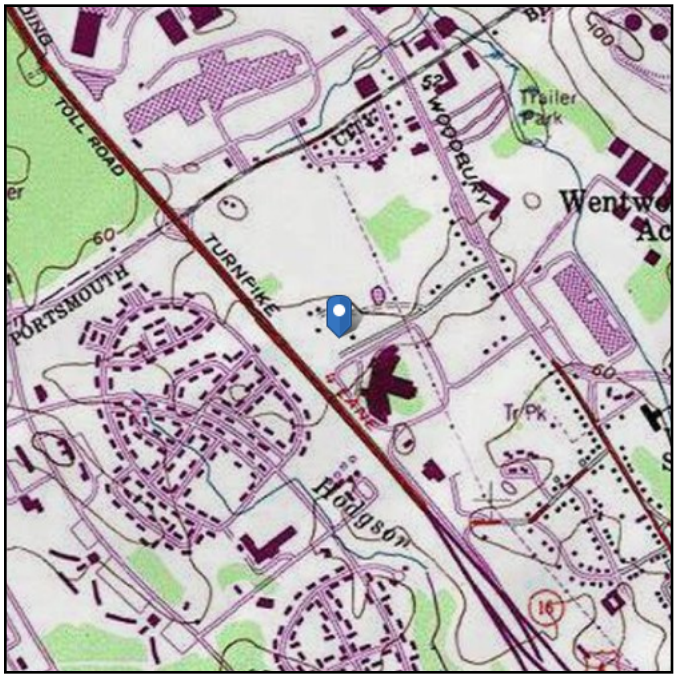
Molin Concrete Products Company • 415 Lilac Street • Lino Lakes, MN 55014
Office: 651.786.7722 • 800.336.6546 • Fax: 651.786.0229
www.molin.com • e-mail: info@molin.com

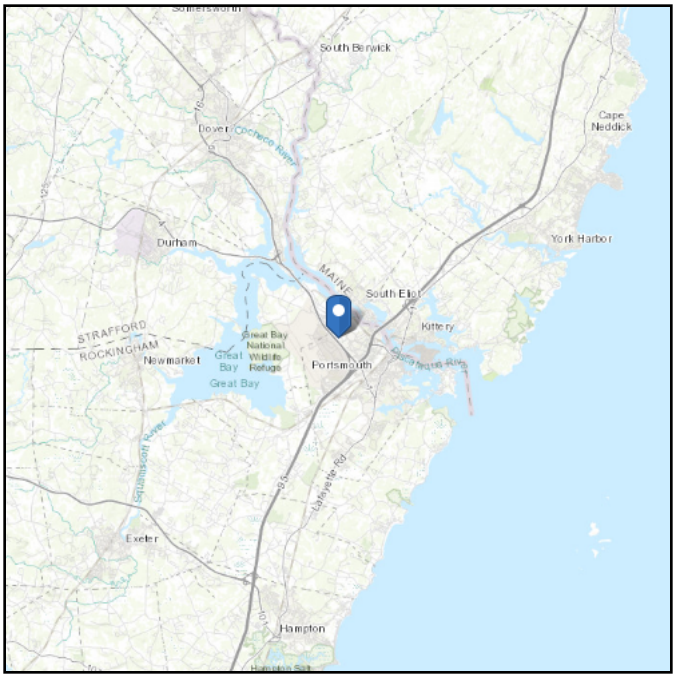
ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-10
Risk Category: II
Soil Class:

Elevation: 69.8 ft (NAVD 88)
Latitude: 43.087503
Longitude: -70.796457





Wind

Results:

Wind Speed:	121 Vmph
10-year MRI	77 Vmph
25-year MRI	87 Vmph
50-year MRI	93 Vmph
100-year MRI	99 Vmph
Data Source:	ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1–CC-4, incorporating errata of March 12, 2014
Date Accessed:	Thu Feb 13 2020

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-10 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-10 Section 26.2. Glazed openings need not be protected against wind-borne debris.

Mountainous terrain, gorges, ocean promontories, and special wind regions should be examined for unusual wind conditions.

Snow

Results:

Ground Snow Load, p_g:	50 lb/ft^2
Elevation:	69.8 ft
Data Source:	ASCE/SEI 7-10, Fig. 7-1.
Date Accessed:	Thu Feb 13 2020

Values provided are ground snow loads. In areas designated "case study required," extreme local variations in ground snow loads preclude mapping at this scale. Site-specific case studies are required to establish ground snow loads at elevations not covered.

EAST > North East > New England > New England East > PORTSMOUTH_4_NH - A

- Feliciano-Rivera, Rafael - rafael.feliciano-rivera@verizonwireless.com - 07/23/2019 08:05:28

Project Detail		Location Information	
Site Type		**Siterra Site ID#**	
Carrier Aggregation	false	**Site Name**	PORTSMOUTH_4_NH - A
MPT Id	581113	**Siterra SR#**	
eCIP-0	false	**E-NodeB ID#**	061533
Project Name	MANUAL Initial Build ENTRY - 2560256	**PSLC#**	540336
RFDS Project ID	1525855	**Switch Name**	
Project ID	2560256	**Tower Owner**	
Site Traker Project ID		**Tower Type**	Rooftop
RFDS Project Scope	07/17/2019 - REV0: Initial Install (6) Hexport (NHH-65B-R2B) antennas on side-by-side mounting brackets. Install (1) 12 OVP Junction Box Install (1) 12x24 Hybridflex cable Install (3) Samsund 700/850 Dualband RRH Install (3) Samsund AWS/PCS Dualband RRH	**Street Address**	Hampton Inn
		City	Portsmouth
		State	NH
		Zip Code	03801
		County	Rockingham
		Latitude	43.087503 / 43° ° 5' ' 15.0108" " N
		Longitude	-70.796457 / 70° ° 47' ' 47.2452" " W

PORTSMOUTH_4_NH - A - Feliciano-Rivera, Rafael - rafael.feliciano-rivera@verizonwireless.com - 07/23/2019 08:05:28

Antenna Summary

Added Antennas

700 LTE	850 CDMA	850 LTE	1900 CDMA	1900 LTE	2100 LTE	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	QTY
YES		YES		YES	YES	CommScope	NHH-45B-R2B	46	49	315,75,195	false	false	PHYSICAL	6

Removed Antennas

700 LTE	850 CDMA	850 LTE	1900 CDMA	1900 LTE	2100 LTE	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	QTY

Retained Antennas

700 LTE	850 CDMA	850 LTE	1900 CDMA	1900 LTE	2100 LTE	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	QTY

Added: 6	Removed: 0	Retained: 0

PORTSMOUTH_4_NH - A - Feliciano-Rivera, Rafael - rafael.feliciano-rivera@verizonwireless.com - 07/23/2019 08:05:28

Equipment Summary

Added Non Antennas													
Equipment Type	**700 LTE**	**850 CDMA**	**850 LTE**	**1900 CDMA**	**1900 LTE**	**2100 LTE**	**Location**	**Make**	**Model**	**Cable Length**	**Cable Size**	**Inst. Type**	**Quantity**
RRU					YES	YES	Tower	Samsung	B2/B66A RRH-BR049 (RFV01U-D1A)			PHYSICAL	3
RRU	YES		YES				Tower	Samsung	B5/B13 RRH-BR04C (RFV01U-D2A)			PHYSICAL	3
OVP Box	YES		YES		YES	YES	Tower	Raycap	12 OVP Junction Box			PHYSICAL	1
Hybrid Cable	YES		YES		YES	YES	Tower		Hybrid Cable		12x24	PHYSICAL	1
Mount	YES		YES		YES	YES	Tower	Commscope	BSAMNT-SBS-1-2			PHYSICAL	3
Coaxial Cables	YES		YES		YES	YES	Tower		Foam		1/2"	PHYSICAL	36
Hybrid Cable	YES		YES		YES	YES	Tower		Tower		1x1	PHYSICAL	6
Removed Non Antennas													
Equipment Type	**700 LTE**	**850 CDMA**	**850 LTE**	**1900 CDMA**	**1900 LTE**	**2100 LTE**	**Location**	**Make**	**Model**	**Cable Length**	**Cable Size**	**Inst. Type**	**Quantity**
Retained Non Antennas													
Equipment Type	**700 LTE**	**850 CDMA**	**850 LTE**	**1900 CDMA**	**1900 LTE**	**2100 LTE**	**Location**	**Make**	**Model**	**Cable Length**	**Cable Size**	**Inst. Type**	**Quantity**

Services

700 MHZ LTE				
	Current Version:	Proposed Version:		
		0002		
Sector		01	02	03
Azimuth		315	75	195
Cell/ENode B ID		061533	061533	061533
Antenna Model		NHH-45B-R2B_Port 1 45_0750_02	NHH-45B-R2B_Port 1 45_0750_02	NHH-45B-R2B_Port 1 45_0750_09
Antenna Make		CommScope	CommScope	CommScope
Centerline(Ft)		46	46	46
Mechanical DT(Deg.)		0	0	0
Electrical DT		2	2	9
Tip Height		49	49	49
TMA make				
TMA model				
RRU make		Samsung	Samsung	Samsung
RRU model		B5/B13 RRH-BR04C (RFV01U-D2A)	B5/B13 RRH-BR04C (RFV01U-D2A)	B5/B13 RRH-BR04C (RFV01U-D2A)
# of Tx, Rx Lines		4,4	4,4	4,4
Position				

2100 MHZ LTE

	Current Version:	Proposed Version:		
		0002		
Sector		01	02	03
Azimuth		315	75	195
Cell/ENode B ID		061533	061533	061533
Antenna Model		NHH-45B-R2B_Port 3 45_2120_02	NHH-45B-R2B_Port 3 45_2120_02	NHH-45B-R2B_Port 3 45_2120_05
Antenna Make		CommScope	CommScope	CommScope
Centerline(Ft)		46	46	46
Mechanical DT(Deg.)		0	0	0
Electrical DT		2	2	5
Tip Height		49	49	49
TMA make				
TMA model				
RRU make		Samsung	Samsung	Samsung
RRU model		B2/B66A RRH-BR049 (RFV01U-D1A)	B2/B66A RRH-BR049 (RFV01U-D1A)	B2/B66A RRH-BR049 (RFV01U-D1A)
# of Tx, Rx Lines		4,4	4,4	4,4
Position				

1900 MHZ LTE				
	Current Version:	Proposed Version:		
		0002		
Sector		01	02	03
Azimuth		315	75	195
Cell/ENode B ID		061533	061533	061533
Antenna Model		NHH-45B-R2B_Port 3 45_1970_02	NHH-45B-R2B_Port 3 45_1970_02	NHH-45B-R2B_Port 3 45_1970_05
Antenna Make		CommScope	CommScope	CommScope
Centerline(Ft)		46	46	46
Mechanical DT(Deg.)		0	0	0
Electrical DT		2	2	5
Tip Height		49	49	49
TMA make				
TMA model				
RRU make		Samsung	Samsung	Samsung
RRU model		B2/B66A RRH-BR049 (RFV01U-D1A)	B2/B66A RRH-BR049 (RFV01U-D1A)	B2/B66A RRH-BR049 (RFV01U-D1A)
# of Tx, Rx Lines		4,4	4,4	4,4
Position				

850 MHZ LTE				
	Current Version:	Proposed Version:		
		0002		
Sector		01	02	03
Azimuth		315	75	195
Cell/ENode B ID		061533	061533	061533
Antenna Model		NHH-45B-R2B_Port 1 45_0880_02	NHH-45B-R2B_Port 1 45_0880_02	NHH-45B-R2B_Port 1 45_0880_09
Antenna Make		CommScope	CommScope	CommScope
Centerline(Ft)		46	46	46
Mechanical DT(Deg.)		0	0	0
Electrical DT		2	2	9
Tip Height		49	49	49
TMA make				
TMA model				
RRU make		Samsung	Samsung	Samsung
RRU model		B5/B13 RRH-BR04C (RFV01U-D2A)	B5/B13 RRH-BR04C (RFV01U-D2A)	B5/B13 RRH-BR04C (RFV01U-D2A)
# of Tx, Rx Lines		4,4	4,4	4,4
Position				

Service Comments

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Callsigns Per Antenna - Proposed

Sector	Make	Model	Centerline	Tip Height	Azimuth(TN)	Elec. Tilt	Mech. Tilt	Gain	Horiz BW	Regulatory Power	700 Callsigns	850 Callsigns	1900 Callsigns	2100 Callsigns	28 GHz Callsigns	31 GHz Callsigns	39 GHz Callsigns
01	CommScope	NHH-45B-R2B_Port 1 45_0880_02	46ft/14.02m	49ft/14.94m	315	2	0	15.408	43	490.68		KNKA201					
02	CommScope	NHH-45B-R2B_Port 1 45_0880_02	46ft/14.02m	49ft/14.94m	75	2	0	15.408	43	490.68		KNKA201					
02	CommScope	NHH-45B-R2B_Port 1 45_0750_02	46ft/14.02m	49ft/14.94m	75	2	0	14.418	48	122.34	WQJQ689						
01	CommScope	NHH-45B-R2B_Port 1 45_0750_02	46ft/14.02m	49ft/14.94m	315	2	0	14.418	48	122.34	WQJQ689						
03	CommScope	NHH-45B-R2B_Port 1 45_0880_09	46ft/14.02m	49ft/14.94m	195	9	0	15.298	43	489.55		KNKA201					
01	CommScope	NHH-45B-R2B_Port 3 45_1970_02	46ft/14.02m	49ft/14.94m	315	2	0	17.898	43	298.17			KNLF646,KNLH242,KNLH310				
02	CommScope	NHH-45B-R2B_Port 3 45_1970_02	46ft/14.02m	49ft/14.94m	75	2	0	17.898	43	298.17			KNLF646,KNLH242,KNLH310				
03	CommScope	NHH-45B-R2B_Port 3 45_1970_05	46ft/14.02m	49ft/14.94m	195	5	0	17.888	43	297.49			KNLF646,KNLH242,KNLH310				
03	CommScope	NHH-45B-R2B_Port 3 45_2120_05	46ft/14.02m	49ft/14.94m	195	5	0	18.118	41	235.25				WQGA900,WQGB266			
01	CommScope	NHH-45B-R2B_Port 3 45_2120_02	46ft/14.02m	49ft/14.94m	315	2	0	18.038	41	230.96				WQGA900,WQGB266			

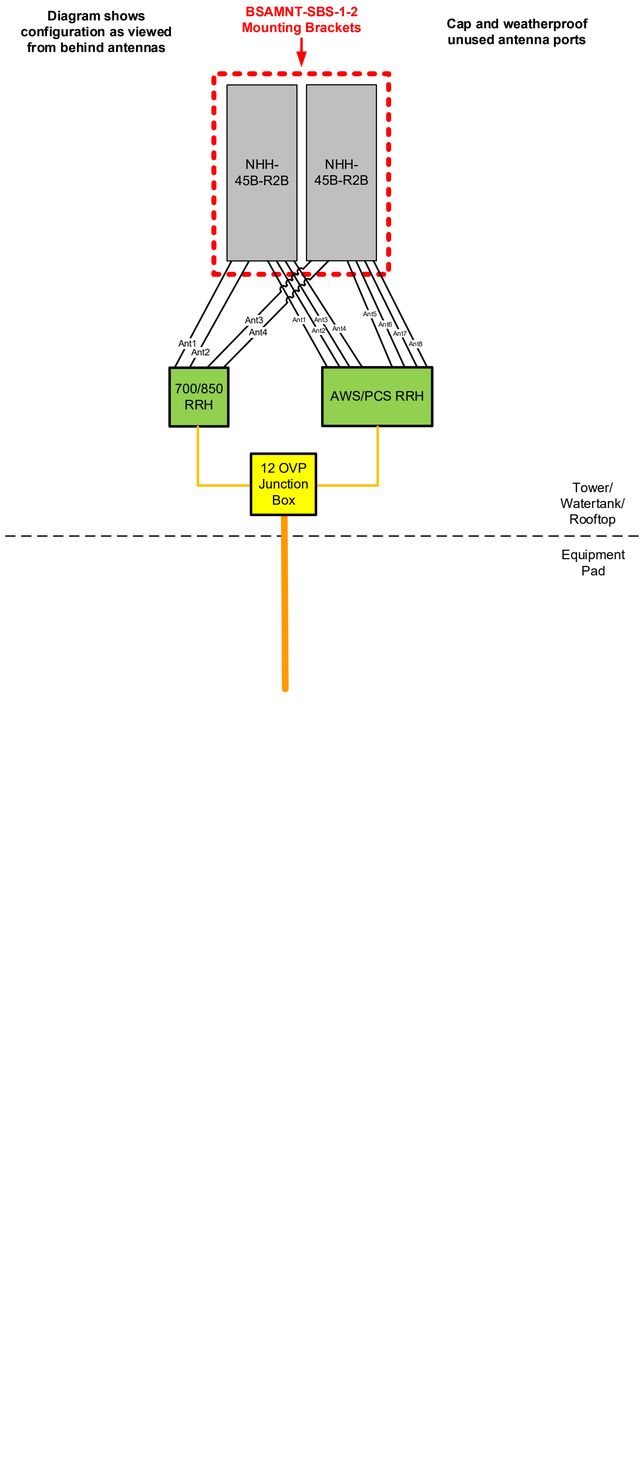
02	CommScope	NHH-45B-R2B_Port 345_2120_02	46ft/14.02m	49ft/14.94m	75	2	0	18.038	41	230.96				WQGA900,WQGB266			
03	CommScope	NHH-45B-R2B_Port 145_0750_09	46ft/14.02m	49ft/14.94m	195	9	0	14.548	48	126.05	WQJQ689						

Callsigns

Callsigns	Market	Radio Code	Market Number	Block	State	County	Licensee Name	Wholly Owned	Total MHZ	Freq Range 1	Freq Range 2	Freq Range 3	Freq Range 4	Regulatory Power	Threshold (W)	POPs/ Sq Mi	Status	Project Action
KNKA201	*Boston-Lowell-Brockton-Lawrence-Haverhill, MA-NH*	*CL*	*CMA006*	*B*	*NH*	*Rockingham*	*Cellco Partnership*	*Yes*	*25.000*	*835.000-845.000*	*880.000-890.000*	*846.500-849.000*	*891.500-894.000*	*489.55*	*500*	*425.0*	*Active*	*Added*
KNLF646	*Boston, MA*	*CW*	*BTA051*	*C*	*NH*	*Rockingham*	*AirTouch Cellular*	*Yes*	*10.000*	*1895.000-1900.000*	*1975.000-1980.000*	*.000-.000*	*.000-.000*	*298.17*	*1640*	*425.0*	*Active*	*Added*
KNLH242	*Boston, MA*	*CW*	*BTA051*	*F*	*NH*	*Rockingham*	*Cellco Partnership*	*Yes*	*10.000*	*1890.000-1895.000*	*1970.000-1975.000*	*.000-.000*	*.000-.000*	*298.17*	*1640*	*425.0*	*Active*	*Added*
KNLH310	*Boston, MA*	*CW*	*BTA051*	*E*	*NH*	*Rockingham*	*AirTouch Cellular*	*Yes*	*10.000*	*1885.000-1890.000*	*1965.000-1970.000*	*.000-.000*	*.000-.000*	*298.17*	*1640*	*425.0*	*Active*	*Added*
WPLM413	Boston, MA	LD	BTA051	B	NH	Rockingham	Cellco Partnership	Yes	150.000	31000.000-31075.000	31225.000-31300.000	.000-.000	.000-.000			425.0	Active	
WPOH955	Boston, MA	LD	BTA051	A	NH	Rockingham	Cellco Partnership	Yes	300.000	29100.000-29250.000	31075.000-31225.000	.000-.000	.000-.000			425.0	Active	
WQGA900	*Boston-Worcester-Lawrence-Lowell-Brockton, MA-NH-R*	*AW*	*BEA003*	*B*	*NH*	*Rockingham*	*Cellco Partnership*	*Yes*	*20.000*	*1720.000-1730.000*	*2120.000-2130.000*	*.000-.000*	*.000-.000*	*235.25*	*1640*	*425.0*	*Active*	*Added*
WQGB266	*Boston-Lowell-Brockton-Lawrence-Haverhill, MA-NH*	*AW*	*CMA006*	*A*	*NH*	*Rockingham*	*Cellco Partnership*	*Yes*	*20.000*	*1710.000-1720.000*	*2110.000-2120.000*	*.000-.000*	*.000-.000*	*235.25*	*1640*	*425.0*	*Active*	*Added*

WQJQ689	*Northeast*	*WU*	*REA001*	*C*	*NH*	*Rockingham*	*Cellco Partnership*	*Yes*	*22.000*	*746.000-757.000*	*776.000-787.000*	*.000-.000*	*.000-.000*	*126.05*	*1000*	*425.0*	*Active*	*Added*
WRBA934	Boston, MA	UU	BTA051	L1	NH	Rockingham	Cellco Partnership	Yes	325.000	27600.000-27925.000	.000-.000	.000-.000	.000-.000			425.0	Active	
WRBA935	Boston, MA	UU	BTA051	L2	NH	Rockingham	Cellco Partnership	Yes	325.000	27925.000-27950.000	28050.000-28350.000	.000-.000	.000-.000			425.0	Active	
WRBE692	Manchester, NH	UU	PEA060	6-A	NH	Rockingham	Straight Path Spectrum, LLC	Yes	50.000	38850.000-38900.000	.000-.000	.000-.000	.000-.000			.0	Active	
WRBE693	Manchester, NH	UU	PEA060	6-B	NH	Rockingham	Straight Path Spectrum, LLC	Yes	50.000	39550.000-39600.000	.000-.000	.000-.000	.000-.000			.0	Active	
WRBE844	Manchester, NH	UU	PEA060	7-A	NH	Rockingham	Straight Path Spectrum, LLC	Yes	50.000	38900.000-38950.000	.000-.000	.000-.000	.000-.000			.0	Active	
WRBE845	Manchester, NH	UU	PEA060	7-B	NH	Rockingham	Straight Path Spectrum, LLC	Yes	50.000	39600.000-39650.000	.000-.000	.000-.000	.000-.000			.0	Active	
WRBF484	Manchester, NH	UU	PEA060	9-A	NH	Rockingham	Straight Path Spectrum, LLC	Yes	50.000	39000.000-39050.000	.000-.000	.000-.000	.000-.000			.0	Active	
WRBF485	Manchester, NH	UU	PEA060	9-B	NH	Rockingham	Straight Path Spectrum, LLC	Yes	50.000	39700.000-39750.000	.000-.000	.000-.000	.000-.000			.0	Active	
WRBF774	Manchester, NH	UU	PEA060	10-A	NH	Rockingham	Straight Path Spectrum, LLC	Yes	.000	.000-.000	.000-.000	.000-.000	.000-.000			.0	Active	
WRBF775	Manchester, NH	UU	PEA060	10-B	NH	Rockingham	Straight Path Spectrum, LLC	Yes	.000	.000-.000	.000-.000	.000-.000	.000-.000			.0	Active	
WRBF950	Manchester, NH	UU	PEA060	11-A	NH	Rockingham	Straight Path Spectrum, LLC	Yes	50.000	39100.000-39150.000	.000-.000	.000-.000	.000-.000			.0	Active	

WRBF951	Manchester, NH	UU	PEA060	11-B	NH	Rockingham	Straight Path Spectrum, LLC	Yes	50.000	39800.000-39850.000	.000-.000	.000-.000	.000-.000			.0	Active	
WRBG410	Manchester, NH	UU	PEA060	12-A	NH	Rockingham	Straight Path Spectrum, LLC	Yes	50.000	39150.000-39200.000	.000-.000	.000-.000	.000-.000			.0	Active	
WRBG411	Manchester, NH	UU	PEA060	12-B	NH	Rockingham	Straight Path Spectrum, LLC	Yes	50.000	39850.000-39900.000	.000-.000	.000-.000	.000-.000			.0	Active	

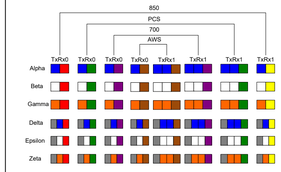


Legend

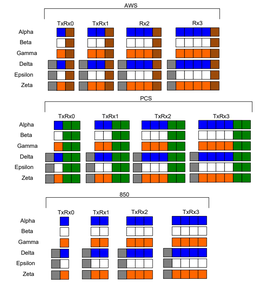
- RF coax (jumpers, mainlines, etc.)
- RET and TMA control cables
- Hybriflex cables
- Antennas
- RRHs and BTSs
- Junction Boxes
- Diplexers, Triplexers, Quadriplexers, and TMA's

VIEW IS FROM BEHIND THE ANTENNAS

Coax Colors



Specific Color Codes for LTE Tx/Rx



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RF Report

Proposed Wireless Facility
99 Durgin Lane
Portsmouth, NH 03801

April 1, 2020

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ATTACHMENTS

1. Overview

This RF Report has been prepared on behalf of Verizon Wireless in support of its application to the City of Portsmouth for the installation and operation of a wireless facility located at 99 Durgin Lane. The proposed facility consists of equipment cabinets, antennas, and other telecommunications equipment mounted on the rooftop of the building.

This report concludes that the proposed site will provide adequate service capacity and coverage improvement to areas of northern Portsmouth in order to improve deficient service areas to Route 16, Woodbury Avenue, and the surrounding roads, neighborhoods, and business/retail/community areas.

Included in this report is: a brief summary of the site's objectives, maps showing Verizon Wireless' current network plan, and modeled Radio Frequency coverage of the subject site and the surrounding sites in Verizon Wireless' network.

2. Introduction

Verizon Wireless provides digital voice and data communications services using 3rd Generation (3G) CDMA/EVDO technology in the Cellular (800 MHz) and PCS (1900 MHz) frequency bands, and is in the midst of deploying advanced 4th Generation (4G) voice and data services over LTE technology in the 700 MHz, PCS, and AWS (2100 MHz) frequency bands as allocated by the FCC. These networks are used by mobile devices for fast web browsing, media streaming, and other applications that require broadband connections. The mobile devices that benefit from these advanced networks are not limited to basic handheld phones, but also include devices such as smartphones, PDA's, tablets, and laptop air-cards. With the evolving rollout of 4G LTE services and devices, Verizon Wireless customers will have even faster connections to people, information, and entertainment.

As explained within this report, Verizon Wireless has identified the need to add a new facility to its existing network of sites in the seacoast area to improve coverage and capacity to a gap in service that now exists in northern Portsmouth, in order to support reliable communications and meet the growing demand in the area.

To maintain a reliable and robust communications system for the individuals, businesses, public safety workers and others who use its network, Verizon Wireless deploys a network of cell sites (also called wireless communications facilities) throughout the areas in which it is licensed to provide service. These cell sites consist of antennas mounted on structures, such as buildings and towers, supported by radio and power equipment. The receivers and transmitters at each of these sites process signals within a limited geographic area known as a "cell."

Mobile subscriber handsets and wireless devices operate by transmitting and receiving low power radio frequency signals to and from these cell sites. Handset signals that reach the cell site are transferred through land lines (or other means of backhaul transport) and routed to their destinations by sophisticated electronic equipment. In order for Verizon Wireless' network to function effectively, there must be adequate overlapping coverage between the "serving cell" and adjoining cells. This not only allows a user to access the network initially, but also allows for the transfer or "hand-off" of calls and data transmissions from one cell to another, and prevents unintended disconnections or "dropped calls."

Verizon Wireless' antennas also must be located high enough above ground level to allow transmission (a.k.a. propagation) of the radio frequency signals above trees, buildings and other natural or man-made structures that may obstruct or diminish the signals. Areas without adequate radio frequency coverage have substandard service, characterized by dropped and blocked calls, slow data connections, or no wireless service at all, and are commonly referred to as coverage gaps.

The size of the area potentially served by each cell site depends on several factors including the number of antennas used, the height at which the antennas are deployed, the topography of the surrounding land, vegetative cover, and natural or man-made obstructions in the area. The actual service area at any given time also depends on the number of customers who are on the network in range of that cell site. As customers move throughout the service area, the transmission from the phone or other device is automatically transferred to the Verizon Wireless facility with the best reception, without interruption in service, provided that there is overlapping coverage between the cells.

Each cell site must be primarily designed to strike a balance between the overall geographic coverage area it will serve, and the site's capacity to support the usage within the coverage footprint. In rural areas, cell sites are generally designed to have broader coverage footprints because the potential traffic is sparser and distributed over a larger area. In more densely populated suburban and urban environments, the capacity to handle calls and data transmissions is of increasing concern, and cell sites must limit their coverage footprint to an area where the offered network traffic can be supported by the radio equipment and resources. Due to the aggressive historical and projected growth of mobile usage, particularly for mobile data (82% in 2017-2018 in the U.S.[1]), instances arise where the usage demand can no longer be supported by the site(s) serving an area, and new facilities must be integrated to provide capacity relief to the overloaded sites.

We have concluded that by installing the proposed wireless communication facility at 99 Durgin Lane at an antenna centerline height of 49.3' AGL (above ground level), Verizon Wireless will be able to provide additional capacity and coverage improvement to a gap in service effecting the residents, businesses, and traffic corridors within northern Portsmouth.

[1] "2019 Annual Survey Highlights", June 20, 2019, CTIA.
https://www.ctia.org/news/2019-annual-survey-highlights

3. The Proposed Facility

Verizon Wireless' proposal consists principally of the following elements:

1) A steel equipment frame on the roof of the subject building to support telecommunication equipment cabinets;
2) Six (6) panel antennas (two per sector) mounted inside the parapet wall and behind RF transparent screening, at a centerline elevation of 49.3';
3) Three (3) ballast mounts (one per sector) with Remote Radio Heads (RRH) with accessory junction boxes and surge suppressors mounted on the roof nearby the antennas;
4) Hybrid DC power/fiber cables, routed from the equipment cabinets to the ballast mounts along cable tray on the southern side of the building, and along horizontal cable.
5) Telco/power/fiber utility connections routed from the first floor to the rooftop in a stacked janitor closet;

4. Coverage and Capacity Objectives

As mentioned above, Verizon Wireless is in the process of rolling out its 4G LTE high-speed wireless broadband system in the 700 MHz, PCS, and AWS frequency bands, in accordance with its licenses from the FCC. In order to expand and enhance their wireless services throughout New England, Verizon Wireless must fill in existing coverage gaps and address capacity, interference, and high-speed broadband issues. As part of this effort, Verizon Wireless has determined that additional network capacity is needed in and around sections of the City of Portsmouth, NH, as described further below.

Verizon Wireless currently operates wireless facilities similar to the proposed facility within Portsmouth and the surrounding cities/towns. Due in large part to the distances between the existing sites, the intervening topography, and volume of user traffic in the area, these existing facilities do not provide sufficient capacity to portions of the seacoast. Specifically, Verizon Wireless determined that much of northern Portsmouth is without reliable service in the following areas and town roads[2], including but not limited to:

- Route 16;
    - Serves ~ 69,000 vehicles per day, as measured between Arthur Brady Drive and Exist 1 (2019);
- Woodbury Avenue;
    - Serves ~ 16,500 vehicles per day, as measured south of Durgin Lane (2019);
- The surrounding roads, neighborhoods, and business/retail/community areas such as the Home Depot, the Crossings shopping plaza, and Durgin Square.

The proposed site located at 99 Durgin Lane ("Portsmouth 4") is needed to fill in these targeted gaps in service, in order to improve network quality and reliability for Verizon Wireless subscribers traveling along these roads, as well as to the numerous business patrons and visitors in this area.

[2] Traffic counts are sourced from the New Hampshire Department of Transportation, Transportation Data Management System.

5. Site Search and Selection Process

To find a site that provides acceptable service, adequate capacity, and fills the gaps in coverage, computer modeling software is used to define a search area. The search ring identifies the area within which a site could be located (assuming that sufficient height is used) that would have a high probability of addressing the significant coverage gap and/or meeting the capacity objectives established by the Verizon Wireless RF (Radio Frequency) engineers.

Once a search ring is determined, Verizon Wireless' real estate specialists search within the proximity of the defined area for existing buildings, towers, and other structures of sufficient height that would meet the defined objectives. If none are found, then the focus shifts to "raw land" sites. A suitable site must satisfy the technical requirements identified by the RF engineers, must be available for lease, and must have access to a road and be otherwise suitable for constructing a cell site of the required size and height. Every effort is made to use existing structures before pursuing a "raw land" build to minimize the number of new towers throughout the towns being served.

After the search of the area had been completed, Verizon Wireless determined that collocating on the building rooftop at 99 Durgin Lane is the most appropriate solution to address the targeted coverage and capacity objectives.

6. Pertinent Site Data

Table 1 below details the site-specific information for the existing, planned, and proposed Verizon Wireless sites used to perform the coverage analysis and generate the coverage plots provided herein. This list includes all existing Verizon Wireless macro-sites within two miles of the City of Portsmouth.

Site Name	Address	City/State	Location		Antenna Height (ft AGL)	Structure Type	Status
			Latitude	Longitude			
Dover Point	Finch Lane	Dover, NH	43.1668	-70.8585	140	Monopole	On-Air
Durham UNH	8 Foss Farm Road	Durham, NH	43.1264	-70.9382	114	Water Tank	On-Air
Durham UNH 2	15 Strafford Avenue	Durham, NH	43.1390	-70.9304	123	Rooftop	On-Air
Eliot	66 Dow Highway	Eliot, ME	43.1367	-70.7769	138	Monopole	On-Air
Greenland	Breakfast Hill Road	Greenland, NH	43.0272	-70.8233	135	Guyed	On-Air
Kittery	147 Rogers Road	Kittery, ME	43.0990	-70.7399	98	Water Tank	On-Air
Kittery 2	33Government Street	Kittery, ME	43.0855	-70.7452	75	Steeple	On-Air
Madbury E	3 Jenkins Road	Madbury, NH	43.1433	-70.8778	125	Monopole	On-Air
Newfields	24 Baker Street	Newfields, NH	43.0389	-70.9387	127	Stealth Monopole	On-Air
Newington	165 Gosling Road	Newington, NH	43.0995	-70.7913	193	Rooftop	On-Air
Newmarket	426 Wadleigh Falls Road	Newmarket, NH	43.0669	-70.9396	67	Lattice	On-Air
Pease AP	International Drive	Portsmouth, NH	43.0786	-70.7992	137	Monopole	On-Air
Portsmouth Dt	56 Islington Street	Portsmouth, NH	43.0748	-70.7620	114.5	Lattice	On-Air
Portsmouth Relo	680 Peverly Hill Road	Portsmouth, NH	43.0456	-70.7772	157	Lattice	Planned
Rye	94 Grove Road	Rye, NH	42.9946	-70.7829	157	Monopole	On-Air
Rye 2	Port Way	Rye, NH	43.034811	-70.7268	157	Monopole	Planned
Stratham	313 Portsmouth Ave	Stratham, NH	43.040186	-70.8812	170	Monopole	On-Air
Newington 2	372 Shattuck Way	Newington, NH	43.115872	-70.8122	185	Silo	Planned
Portsmouth 4	99 Durgin Lane	Portsmouth, NH	43.087528	-70.7964	49.3	Rooftop	Proposed

Table 1: Verizon Wireless Site Information Used in Coverage Analysis[3]

[3] Some sites listed in this table are outside the plot view but are included for completeness of information.

7. Coverage Analysis and Propagation Plots

The signal propagation plots provided in this report show coverage for the 700 MHz frequency range and were produced using deciBel Planner™, a Windows-based RF propagation computer modeling program and network planning tool. The software considers the topographical features of an area, land cover, antenna models, antenna heights, RF transmitting power and receiver thresholds to predict coverage and other related RF parameters used in site design and network expansion.

The plots included as attachments depict best server coverage based on RSRP (Reference Signal Received Power) for Verizon Wireless' 4G LTE network.

Attachments A - C are discussed below:

Attachment A titled "Portsmouth 4 – Existing/Planned 700 MHz LTE Sector Footprints" depicts the areas primarily served by the sectors (a.k.a. signal "footprints") of the "On-Air" and "Planned" Verizon Wireless sites in the area, which are shown by the unique color for each particular sector of interest. For clarity, all other sectors of less interest with respect to the proposed site are shown in grey. "On-Air" sites are existing Verizon Wireless facilities and "Planned" sites are those that have begun the permitting process. As demand for wireless voice and data services continues to grow, Verizon Wireless manages the footprint of each sector so that it can support the demand within the area it is primarily serving. In addition to improving coverage to the area, the proposed site will also serve existing and anticipated demand in the vicinity and thereby offload some of the burden experienced by the surrounding sites. In that way, those sites will be able to more adequately serve the demand for service in the areas nearer to those surrounding sites. Please note that the outer parts of each sector footprint may include areas that have signal strength below the targeted value required for reliable service to Verizon Wireless' customers. The fact that low-level signal may reach these areas does not mean that these areas experience adequate coverage. These unreliable areas of low signal level may impose a significant capacity burden on the sites primarily serving the area.

Attachment B titled "Portsmouth 4 - 700 MHz LTE Sector Footprints with Proposed Site" shows the composite coverage with the overall footprint of the proposed facility in dark green. As shown in this map, the proposed "Portsmouth 4" facility is an effective solution to provide capacity relief to the area, particularly to the "Newington" beta (red) and the "Pease AP" gamma sector (yellow). The proposed facility is centrally located in the area of deficient coverage making it particularly suited to provide a dominant server to this busy area, thereby offloading the sectors of the surrounding sites currently serving the area. Table 2 below details the capacity relief based on the sector footprints shown in Attachments A and B.

Sector	Current			With "Portsmouth 4"			Offload Summary		
	Employee Pops	Residental Pops	Area (mi^2)	Employee Pops	Residental Pops	Area (mi^2)	Total Employee Pops Offloaded	Total Residential Pops Offloaded	Area Offloaded (mi^2/%)
Newington Beta	4157	1743	1.36	2176	883	0.81	**1981 (47.7%)**	**860 (49.3%)**	**0.55 (40.4%)**
Pease AP Gamma	4546	66	2.31	4391	50	2.15	**155 (3.4%)**	**16 (24.2%)**	**0.16 (6.9%)**

Table 2: Capacity Offload Summary[4]

Attachment C titled "Portsmouth 4 – Area Terrain Map" details the topographical features around the proposed "Portsmouth 4" site. These terrain features play a key role in dictating both the unique coverage areas served from a given location, and the coverage gaps within the network. This map is included to provide a visual representation of the terrain variations that must be considered when determining the appropriate location and design of a proposed wireless facility. The darker blue shades correspond to lower elevations, whereas the red and grey shades indicate higher elevations.

8. Certification of Non-Interference

Verizon Wireless certifies that the proposed facility will not cause interference to any lawfully operating emergency communication system, television, telephone or radio, in the surrounding area. The FCC has licensed Verizon Wireless to transmit and receive in the Upper C-Block of the 700 MHz band,BA Block of the Cellular (850 MHz) band, the C3, E, and F Blocks of the PCS (1900 MHz) band, and the A and B Blocks of the AWS (2100 MHz) band of the RF spectrum. As a condition of the FCC licenses, Verizon Wireless is prohibited from interfering with other licensed devices that are being operated in a lawful manner. Furthermore, no emergency communication system, television, telephone, or radio is licensed to operate on these frequencies, and therefore interference is highly unlikely.

[4] Residential population counts are based upon the 2010 U.S. Census data. Employee population counts are based upon the 2015 U.S. Census Bureau LEHD database. Please note that neither includes visitor or vehicular counts in the area.

9. Summary

In undertaking its build-out of 4G LTE service in Rockingham County, Verizon Wireless has determined that an additional facility is needed to provide reliable service and additional capacity throughout areas of northern Portsmouth, NH. Verizon Wireless determined that installing the proposed wireless communications facility at 99 Durgin Lane in Portsmouth at an antenna centerline of 49.3 feet (AGL) will provide additional coverage and capacity needed in the targeted coverage areas and along Route 16, Woodbury Avenue, and the surrounding roads, neighborhoods, and business/retail/community areas. Without the installation of the proposed site, Verizon Wireless will be unable to improve and expand their existing 4G LTE wireless communication services in this area of Portsmouth; therefore, Verizon Wireless respectfully requests that the City of Portsmouth act favorably upon the proposed facility.

10. Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate.

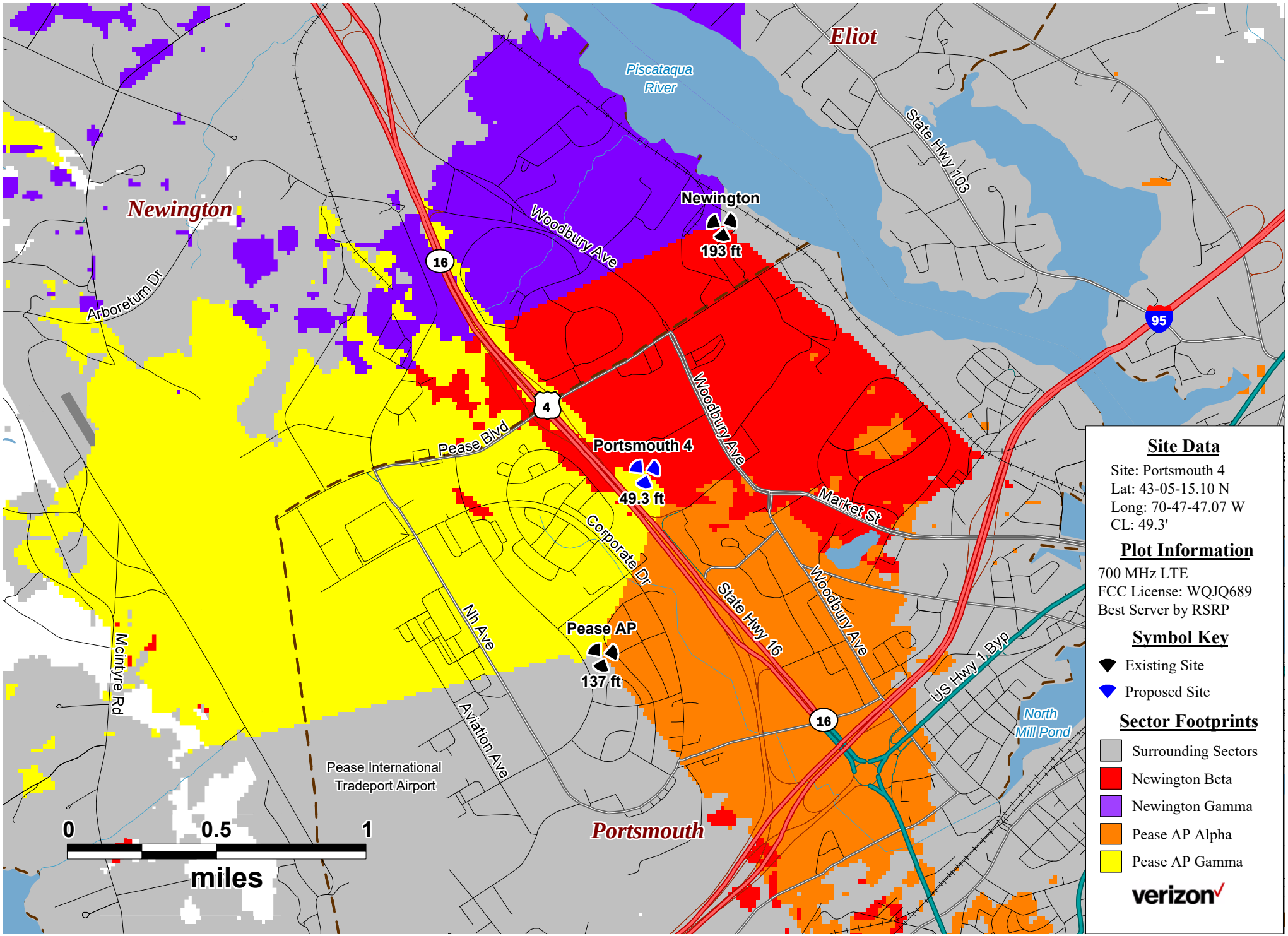
Keith Vellante

Keith Vellante
RF Engineer
C Squared Systems, LLC

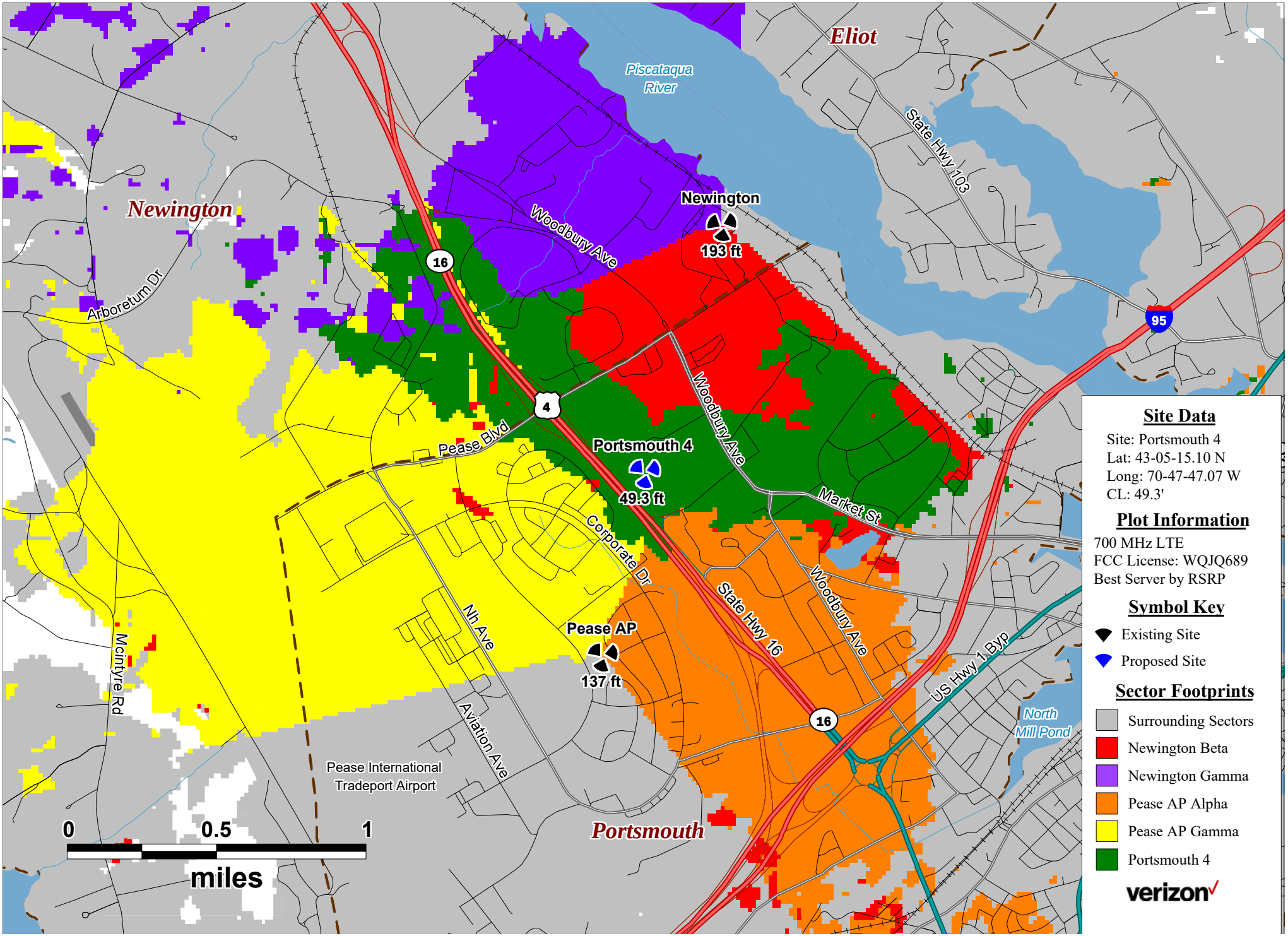
April 1, 2020
Date

11. Attachments

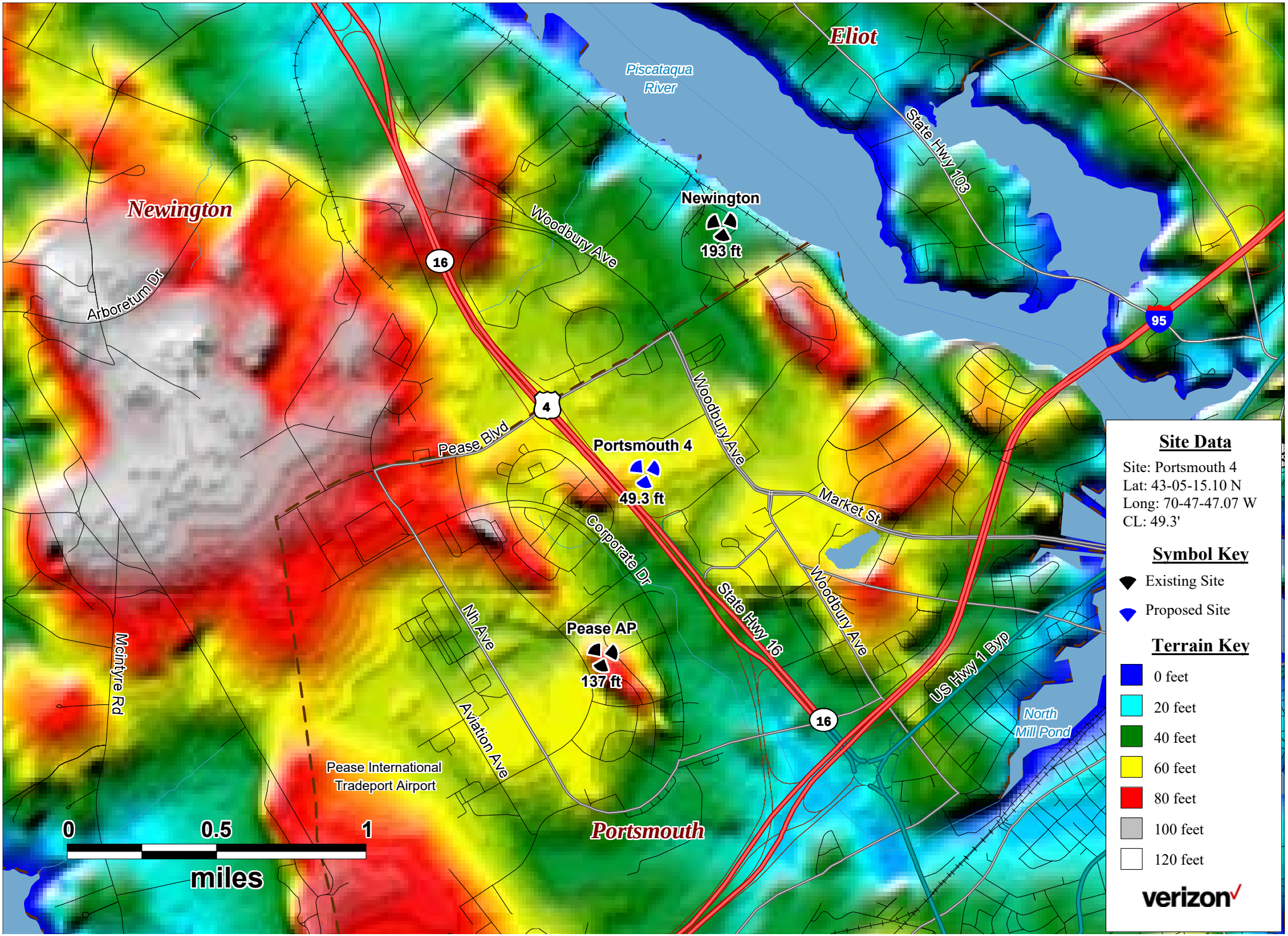
Attachment A:
Portsmouth 4 - Existing/Planned 700 MHz LTE Sector Footprints



Attachment B:
Portsmouth 4 - 700 MHz LTE Sector Footprints with Proposed Site



Attachment C:
Portsmouth 4 - Area Terrain Map



SITE NAME: Portsmouth 4, NH
ATTY/DATE: Lozier, 11-5-19
Location Code: 540336

BUILDING AND ROOFTOP LEASE AGREEMENT

This Building and Rooftop Lease Agreement (the "Agreement") made as of the latter date of signature below, between **Giri Dover, LLC**, a New Hampshire limited liability company with its principal place of business located at Giri Hotels, 225 West Squantum Street, Suite 200, Quincy, Massachusetts 02171, hereinafter designated LESSOR and **Cellco Partnership,** d/b/a Verizon Wireless with its principal offices at One Verizon Way, Mail Stop 4AW100, Basking Ridge, New Jersey 07920 (telephone number 866-862-4404), hereinafter designated LESSEE. LESSOR and LESSEE are at times collectively referred to hereinafter as the "Parties" or individually as the "Party."

IN WITNESS WHEREOF, the Parties hereto have set their hands and affixed their respective seals the day and year first above written.

WITNESS

LESSOR:

Giri Dover, LLC

By: _____

Name: Ashish Sangani
Its: President and CEO

Date: 3/19/2020

verizon

118 Flanders Road
3rd Floor
Westborough, MA 01581

January 4, 2017

Dear Sir/Madam:

Re: Structure Consulting Group

Please accept this letter as notification that Structure Consulting Group has been engaged to perform research on certain properties and real estate including submitting for zoning approval, building permits and negotiating real estate agreements as well as engage in certain engineering analysis and construction for Verizon Wireless' ongoing network enhancement.

Structure Consulting Group is authorized to act on Verizon Wireless' behalf for the purpose of filing and consummating any zoning and/or building permit applications necessary to obtain approval of the applicable jurisdiction for the installation and/or modification of Verizon Wireless' communications facilities.

Should you have any questions regarding any of Structure Consulting Group's activities on behalf of Verizon Wireless, feel free to contact me at 508-439-3278 or via email at andrew.candiello@verizonwireless.com.

Respectfully,

Andrew Candiello
Verizon Wireless
Project Manager – Real Estate

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
CELLCO PARTNERSHIP
1120 SANCTUARY PKWY, #150 GASA5REG
ALPHARETTA, GA 30009-7630

Call Sign	File Number
WQGB266	0006150458
Radio Service	
AW - AWS (1710-1755 MHz and 2110-2155 MHz)	

FCC Registration Number (FRN): 0003290673

Grant Date	Effective Date	Expiration Date	Print Date
11-29-2006	01-04-2014	11-29-2021	02-14-2014

Market Number	Channel Block	Sub-Market Designator
CMA006	A	0

Market Name
Boston-Lowell-Brockton-Lawrenc

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

This authorization is conditioned upon the licensee, prior to initiating operations from any base or fixed station, making reasonable efforts to coordinate frequency usage with known co-channel and adjacent channel incumbent federal users operating in the 1710-1755 MHz band whose facilities could be affected by the proposed operations. See, e.g., FCC and NTIA Coordination Procedures in the 1710-1755 MHz Band, Public Notice, FCC 06-50, WTB Docket No. 02-353, rel. April 20, 2006.

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQGB266 **File Number:** 0006150458 **Print Date:** 02-14-2014

The license is subject to compliance with the provisions of the January 12, 2001 Agreement between Deutsche Telekom AG, VoiceStream Wireless Corporation, VoiceStream Wireless Holding Corporation and the Department of Justice (DOJ) and the Federal Bureau of Investigation (FBI), which addresses national security, law enforcement, and public safety issues of the FBI and the DOJ regarding the authority granted by this license. Nothing in the Agreement is intended to limit any obligation imposed by Federal lawor regulation including, but not limited to, 47 U.S.C. Section 222(a) and (c)(1) and the FCC's implementing regulations. The Agreement is published at VoiceStream-DT Order, IB Docket No. 00-187, FCC 01-142, 16 FCC Rcd 9779, 9853 (2001).

Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
CELLCO PARTNERSHIP
1120 SANCTUARY PKWY, #150 GASA5REG
ALPHARETTA, GA 30009-7630

Call Sign	File Number
KNKA201	0006356224
Radio Service CL - Cellular	
Market Numer CMA006	**Channel Block** B
Sub-Market Designator 0	

FCC Registration Number (FRN): 0003290673

Market Name
Boston-Lowell-Brockton-Lawrenc

Grant Date	Effective Date	Expiration Date	Five Yr Build-Out Date	Print Date
08-26-2014	08-26-2014	10-01-2024		08-26-2014

Site Information:

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
1	42-38-26.3 N	070-36-25.2 W	36.3	35.7	

Address: (Rockport) Thatcher Road
City: Rockport **County:** ESSEX **State:** MA **Construction Deadline:**

Antenna: 5 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	70.400	34.100	34.100	34.100	70.400	67.800	55.200	61.300
Transmitting ERP (watts)	246.920	325.500	33.310	0.940	0.820	0.820	1.210	20.070
Antenna: 6 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	70.400	34.100	34.100	34.100	70.400	67.800	55.200	61.300
Transmitting ERP (watts)	0.820	3.330	54.020	373.730	191.670	10.780	0.820	0.820
Antenna: 7 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	70.400	34.100	34.100	34.100	70.400	67.800	55.200	61.300
Transmitting ERP (watts)	3.330	0.820	0.820	0.820	7.810	126.630	409.780	89.650

Conditions:
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNKA201 **File Number:** 0006356224 **Print Date:** 08-26-2014

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
4	42-08-56.4 N	071-24-55.2 W	75.6	44.2	

Address: 113 Main Street
City: Medway **County:** NORFOLK **State:** MA **Construction Deadline:**

Antenna: 4 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	59.500	66.700	61.200	46.900	23.900	39.300	13.900	12.300
Transmitting ERP (watts)	81.280	89.130	24.550	1.120	0.200	0.200	0.420	16.600
Antenna: 5 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	59.500	66.700	61.200	46.900	23.900	39.300	13.900	12.300
Transmitting ERP (watts)	0.200	2.000	33.800	95.500	67.610	10.700	0.200	0.200
Antenna: 6 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	59.500	66.700	61.200	46.900	23.900	39.300	13.900	12.300
Transmitting ERP (watts)	3.890	0.200	0.200	0.200	6.760	57.540	100.000	44.670

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
9	42-11-42.4 N	070-49-10.2 W	57.9	56.1	

Address: (Scituate) OFF CLAPP RD
City: SCITUATE **County:** PLYMOUTH **State:** MA **Construction Deadline:**

Antenna: 7 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	105.300	106.100	93.800	85.900	95.600	76.500	81.800	104.300
Transmitting ERP (watts)	172.400	167.230	26.990	1.190	0.960	0.960	1.720	28.870
Antenna: 8 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	105.300	106.100	93.800	85.900	95.600	76.500	81.800	104.300
Transmitting ERP (watts)	0.980	3.910	54.020	409.780	200.700	15.220	0.980	0.980
Antenna: 9 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	105.300	106.100	93.800	85.900	95.600	76.500	81.800	104.300
Transmitting ERP (watts)	4.490	0.980	0.980	1.300	10.060	123.750	449.320	96.060

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNKA201 **File Number:** 0006356224 **Print Date:** 08-26-2014

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
10	42-52-57.3 N	071-16-28.2 W	163.0	58.2	

Address: (Derry) 46 FLOYD ROAD
City: DERRY **County:** ROCKINGHAM **State:** NH **Construction Deadline:**

Antenna: 4 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	82.200	129.400	144.500	155.100	136.800	127.900	126.200	118.100
Transmitting ERP (watts)	31.810	146.820	102.310	15.410	1.000	1.000	1.000	1.130
Antenna: 5 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	82.200	129.400	144.500	155.100	136.800	127.900	126.200	118.100
Transmitting ERP (watts)	1.000	1.000	4.660	82.110	250.350	80.300	3.790	1.000
Antenna: 6 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	80.200	129.400	144.500	155.100	136.800	127.900	126.200	118.100
Transmitting ERP (watts)	32.480	1.680	1.000	1.000	1.000	13.740	107.220	143.470

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
12	41-52-08.3 N	070-52-56.1 W	29.6	58.2	

Address: (Middleboro) E. GROVE ST.
City: MIDDLESBORO **County:** PLYMOUTH **State:** MA **Construction Deadline:**

Antenna: 7 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	57.600	32.400	40.200	47.600	44.900	41.300	50.300	52.600
Transmitting ERP (watts)	277.330	364.730	40.890	2.250	0.960	0.960	2.410	20.640
Antenna: 8 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	57.600	32.400	40.200	47.600	44.900	41.300	50.300	52.600
Transmitting ERP (watts)	0.960	3.730	61.620	418.280	215.780	13.090	1.700	0.960
Antenna: 9 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	57.600	32.400	40.200	47.600	44.900	41.300	50.300	52.600
Transmitting ERP (watts)	5.070	1.130	0.610	1.600	5.050	89.040	278.490	66.210

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNKA201 **File Number:** 0006356224 **Print Date:** 08-26-2014

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
14	42-28-06.3 N	071-27-16.2 W	102.1	54.0	

Address: Main Street
City: South Acton **County:** MIDDLESEX **State:** MA **Construction Deadline:**

Antenna: 4 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	69.000	79.000	105.500	96.200	72.600	76.300	47.400	58.700
Transmitting ERP (watts)	65.200	77.960	20.970	2.400	0.200	0.200	2.000	13.720
Antenna: 5 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	69.000	79.900	105.500	96.200	72.600	76.300	47.400	58.700
Transmitting ERP (watts)	0.200	3.880	23.800	59.780	43.360	10.290	0.830	0.200
Antenna: 6 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	76.400	65.500	105.500	96.200	72.600	76.300	47.400	58.700
Transmitting ERP (watts)	5.010	0.420	0.200	0.740	6.570	43.660	91.210	34.920

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
15	42-30-08.4 N	070-55-02.2 W	39.6	46.3	

Address: 12 First Street
City: Salem **County:** ESSEX **State:** MA **Construction Deadline:**

Antenna: 7 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	63.400	62.100	62.800	77.900	77.500	70.500	40.900	50.900
Transmitting ERP (watts)	49.150	56.730	19.190	2.360	0.200	0.200	1.930	12.920
Antenna: 8 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	63.400	62.100	62.800	77.900	77.500	70.500	40.900	50.900
Transmitting ERP (watts)	0.100	1.550	9.520	23.920	17.350	4.120	0.330	0.100
Antenna: 9 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	63.400	62.100	62.800	77.900	77.500	70.500	40.900	50.900
Transmitting ERP (watts)	5.010	0.380	0.200	0.680	6.510	35.500	64.630	29.380

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNKA201 **File Number:** 0006356224 **Print Date:** 08-26-2014

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
16	42-16-51.4 N	071-02-04.2 W	5.2	53.0	

Address: 100 HANCOCK STREET
City: QUINCY **County:** NORFOLK **State:** MA **Construction Deadline:**

Antenna: 5 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	43.000	44.100	42.200	29.000	8.300	14.800	12.100	31.500
Transmitting ERP (watts)	7.170	6.480	6.790	0.320	0.100	0.100	0.160	5.630
Antenna: 6 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	40.900	41.900	40.000	26.800	6.200	12.600	9.900	29.300
Transmitting ERP (watts)	0.100	0.340	3.140	2.480	2.970	1.500	0.100	0.100
Antenna: 7 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	43.000	44.100	42.200	29.000	8.300	14.800	12.100	31.500
Transmitting ERP (watts)	0.100	0.100	0.100	0.120	2.640	2.770	2.720	2.360

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
21	42-30-36.4 N	070-51-21.2 W	23.2	47.2	

Address: Tioga Way
City: Marblehead **County:** ESSEX **State:** MA **Construction Deadline:**

Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	44.200	46.700	37.200	60.400	60.400	54.600	28.000	43.700
Transmitting ERP (watts)	0.100	0.130	3.130	7.860	6.600	1.220	0.100	0.100
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	44.200	46.700	37.200	60.400	60.400	54.600	28.000	43.700
Transmitting ERP (watts)	0.410	0.100	0.100	0.100	0.530	5.070	8.210	4.870
Antenna: 4 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	44.200	46.700	37.200	60.400	60.400	54.600	28.000	43.700
Transmitting ERP (watts)	6.780	7.760	2.800	0.100	0.100	0.100	0.100	1.540

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNKA201 **File Number:** 0006356224 **Print Date:** 08-26-2014

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
22	42-51-55.4 N	070-56-13.2 W	94.5	50.9	

Address: (Amesbury) 10 DENNET WAY
City: AMESBURY **County:** ESSEX **State:** MA **Construction Deadline:**

Antenna: 4 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	117.000	123.800	125.500	137.800	126.100	109.800	94.200	100.300
Transmitting ERP (watts)	178.880	225.190	34.880	0.860	0.860	0.860	0.860	10.780
Antenna: 5 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	117.000	123.800	125.500	137.800	126.100	109.800	94.200	100.300
Transmitting ERP (watts)	0.860	1.240	35.690	258.560	148.780	12.380	0.860	0.860
Antenna: 6 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	117.000	123.800	125.500	137.800	126.100	109.800	94.200	100.300
Transmitting ERP (watts)	3.110	0.830	0.860	0.860	3.110	89.650	270.740	81.760

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
24	42-03-31.4 N	071-17-29.2 W	105.5	59.1	

Address: (Wrentham) 415 Washington St. - Route 1
City: WRENTHAM **County:** NORFOLK **State:** MA **Construction Deadline:**

Antenna: 4 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	99.900	78.700	94.600	120.300	114.800	77.800	71.700	95.700
Transmitting ERP (watts)	2.580	85.500	401.990	363.280	54.920	1.060	0.850	0.850
Antenna: 5 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	99.900	78.700	94.600	120.300	114.800	77.800	71.700	95.700
Transmitting ERP (watts)	0.850	0.850	0.850	8.930	146.240	311.250	197.740	18.980
Antenna: 6 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	99.900	78.700	94.600	120.300	114.800	77.800	71.700	95.700
Transmitting ERP (watts)	352.500	136.390	5.560	0.980	0.980	0.980	39.210	263.760

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNKA201 **File Number:** 0006356224 **Print Date:** 08-26-2014

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
25	43-10-34.3 N	071-12-24.2 W	335.3	31.4	

Address: (Northwood) SADDLEBACK MOUNTAIN
City: NORTHWOOD **County:** ROCKINGHAM **State:** NH **Construction Deadline:**

Antenna: 4 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	152.900	213.700	260.100	268.500	234.000	215.400	150.700	173.600
Transmitting ERP (watts)	45.240	219.790	199.540	31.860	1.550	1.000	1.000	2.360
Antenna: 5 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	152.900	213.700	260.100	268.500	234.000	215.400	150.700	173.600
Transmitting ERP (watts)	1.000	1.000	6.160	105.350	236.610	142.220	7.190	1.780
Antenna: 6 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	152.900	213.700	260.100	268.500	234.000	215.400	150.700	173.600
Transmitting ERP (watts)	55.630	1.980	1.000	1.000	2.260	8.170	110.540	141.320

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
27	41-41-13.4 N	070-48-25.1 W	22.9	59.4	

Address: (Mattapoisett) Industrial Drive
City: Mattapoisett **County:** PLYMOUTH **State:** MA **Construction Deadline:**

Antenna: 4 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	61.700	76.400	79.200	79.900	80.600	75.400	56.100	60.600
Transmitting ERP (watts)	217.540	281.390	29.930	2.050	0.980	0.980	2.340	21.270
Antenna: 5 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	61.700	76.400	79.300	79.900	80.600	75.400	56.100	60.600
Transmitting ERP (watts)	0.980	10.610	118.800	349.190	74.510	4.550	0.980	0.980
Antenna: 6 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	61.700	76.400	79.200	79.900	80.600	75.400	56.100	60.600
Transmitting ERP (watts)	2.220	0.980	0.980	2.540	27.640	252.570	253.110	22.510

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNKA201 **File Number:** 0006356224 **Print Date:** 08-26-2014

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
29	41-55-21.0 N	070-39-05.0 W	39.6	77.4	1021869

Address: (Plymouth) CALEB ST
City: Plymouth **County:** PLYMOUTH **State:** MA **Construction Deadline:**

Antenna: 4 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	94.600	84.200	79.500	67.900	61.400	63.600	52.500	63.200
Transmitting ERP (watts)	252.450	246.240	37.800	1.470	0.940	0.940	2.080	39.370
Antenna: 5 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	94.600	84.200	79.500	67.900	61.400	63.600	52.500	63.200
Transmitting ERP (watts)	1.000	3.000	53.330	346.500	184.150	15.870	1.000	1.000
Antenna: 6 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	94.600	84.200	79.500	67.900	61.400	63.600	52.500	63.200
Transmitting ERP (watts)	4.660	1.000	1.000	1.000	5.610	128.480	425.450	99.740

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
31	42-14-40.0 N	071-30-38.0 W	142.6	102.0	1009024

Address: 1.25 MI NNE
City: HOPKINTON **County:** MIDDLESEX **State:** MA **Construction Deadline:**

Antenna: 4 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	107.800	138.000	130.800	126.800	101.200	85.900	73.000	97.500
Transmitting ERP (watts)	23.200	21.890	16.370	2.550	0.130	0.100	1.640	13.250
Antenna: 5 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	107.800	138.000	130.800	126.800	101.200	85.900	73.000	97.500
Transmitting ERP (watts)	0.940	9.100	53.990	96.320	78.580	26.320	3.730	0.460
Antenna: 6 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	107.800	138.000	130.800	126.800	101.200	85.900	73.000	97.500
Transmitting ERP (watts)	13.400	1.700	0.620	2.340	18.300	72.460	95.170	63.740

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNKA201 **File Number:** 0006356224 **Print Date:** 08-26-2014

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
34	42-23-29.5 N	071-07-22.9 W	7.9	26.8	

Address: 2067 MASSACHUSETTS AVENUE
City: CAMBRIDGE **County:** SUFFOLK **State:** MA **Construction Deadline:**

Antenna: 4 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	-3.400	5.800	21.700	28.600	13.000	-2.600	-14.400	-21.300
Transmitting ERP (watts)	6.780	7.760	2.800	0.100	0.100	0.100	0.100	1.540
Antenna: 5 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	-3.400	5.800	21.700	28.600	13.000	-2.600	-14.400	-21.300
Transmitting ERP (watts)	0.100	0.130	3.130	7.860	6.600	1.220	0.100	0.100
Antenna: 6 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	-3.400	5.800	21.700	28.300	13.000	-2.600	-14.400	-21.300
Transmitting ERP (watts)	0.410	0.100	0.100	0.100	0.530	5.070	8.210	4.870

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
35	42-39-16.7 N	071-44-12.3 W	192.6	51.2	

Address: 84 Bayberry Hill Road
City: Townsend **County:** MIDDLESEX **State:** MA **Construction Deadline:**

Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	57.900	139.500	149.200	136.100	102.200	42.700	-79.000	-25.700
Transmitting ERP (watts)	0.580	7.080	42.660	95.500	77.620	22.390	2.820	0.460
Antenna: 4 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	51.300	146.600	148.900	136.600	101.300	25.000	-79.700	-22.300
Transmitting ERP (watts)	35.060	35.620	17.670	2.660	0.200	0.150	1.860	13.500
Antenna: 5 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	51.300	146.600	148.900	136.600	101.300	25.000	-79.700	-22.300
Transmitting ERP (watts)	5.360	0.690	0.250	0.930	7.320	28.980	38.070	25.500

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNKA201 **File Number:** 0006356224 **Print Date:** 08-26-2014

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
38	42-38-45.8 N	071-05-37.7 W	117.3	52.4	

Address: 5 Boston Hill Road
City: North Andover **County:** ESSEX **State:** MA **Construction Deadline:**

Antenna: 4 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	96.900	98.200	110.000	111.300	110.000	101.700	90.300	106.200
Transmitting ERP (watts)	83.180	87.100	23.990	2.290	0.200	0.200	1.820	20.420
Antenna: 5 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	96.900	98.100	110.000	111.300	110.000	101.700	90.200	106.200
Transmitting ERP (watts)	0.240	4.170	38.020	97.720	66.070	11.750	1.050	0.200
Antenna: 6 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	96.900	98.200	110.000	111.300	110.000	101.700	90.200	106.200
Transmitting ERP (watts)	5.250	0.340	0.200	0.830	9.770	60.262	100.000	42.660

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
39	42-18-13.0 N	071-13-05.0 W	44.8	96.0	1018331

Address: 140 CABOT ST
City: NEEDHAM **County:** NORFOLK **State:** MA **Construction Deadline:**

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	44.200	68.400	58.900	48.800	36.300	40.300	44.100	41.600
Transmitting ERP (watts)	30.340	35.650	9.380	0.920	0.100	0.100	0.610	6.050
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	44.200	68.400	58.900	48.800	36.300	40.300	44.100	41.600
Transmitting ERP (watts)	0.100	1.230	10.440	23.990	19.000	4.420	0.370	0.100
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	44.200	68.400	58.900	48.800	36.300	40.300	44.100	41.600
Transmitting ERP (watts)	2.200	0.190	0.100	0.300	2.700	19.270	35.660	16.260

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNKA201 **File Number:** 0006356224 **Print Date:** 08-26-2014

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
41	42-22-16.6 N	071-05-49.6 W	6.3	18.6	

Address: (Cambridge Donnelly Field site) 284 Norfolk Street

City: Cambridge **County:** MIDDLESEX **State:** MA **Construction Deadline:** 07-03-2014

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	-11.600	16.500	20.700	21.000	2.200	-20.400	2.300	-16.900
Transmitting ERP (watts)	48.150	197.980	63.920	1.080	0.680	0.680	0.680	0.850
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	-11.600	16.500	20.700	21.000	2.200	-20.400	2.300	-16.900
Transmitting ERP (watts)	0.670	0.670	18.990	128.120	74.750	3.300	0.670	0.670
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	-10.600	17.600	21.700	22.000	3.200	-19.400	3.400	-15.900
Transmitting ERP (watts)	28.690	0.650	0.650	0.650	0.650	5.700	114.450	208.740

Control Points:

Control Pt. No. 3

Address: 500 W. Dove Rd.

City: Southlake **County:** TARRANT **State:** TX **Telephone Number:** (800)264-6620

Waivers/Conditions:

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

THE FOLLOWING CELLULAR GEOGRAPHIC SERVICE AREAS HAVE BEEN COMBINED (LISTED BY CALL SIGN, MARKET NUMBER AND BLOCK, AND MARKET NAME): KNKA201 6B BOSTON, MASSACHUSETTS KNKA251 76B

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: AIRTOUCH CELLULAR

ATTN: REGULATORY
AIRTOUCH CELLULAR
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Call Sign	File Number
KNLF646	
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0006146468

Grant Date	Effective Date	Expiration Date	Print Date
12-02-2016	11-30-2017	01-03-2027	

Market Number	Channel Block	Sub-Market Designator
BTA051	C	3

Market Name
Boston, MA

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
12-07-2003	01-03-2007		

Waivers/Conditions:

This authorization is subject to the condition that, in the event that systems using the same frequencies as granted herein are authorized in an adjacent foreign territory (Canada/United States), future coordination of any base station transmitters within 72 km (45 miles) of the United States/Canada border shall be required to eliminate any harmful interference to operations in the adjacent foreign territory and to ensure continuance of equal access to the frequencies by both countries.

Grant of the request to update licensee name is conditioned on it not reflecting an assignment or transfer of control (see Rule 1.948); if an assignment or transfer occurred without proper notification or FCC approval, the grant is void and the station is licensed under the prior name.

Conditions:
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

Licensee Name: AIRTOUCH CELLULAR

Call Sign: KNLF646 **File Number:** **Print Date:**

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Call Sign	File Number
KNLH242	0007716969
Radio Service	
CW - PCS Broadband	

FCC Registration Number (FRN): 0003290673

Grant Date	Effective Date	Expiration Date	Print Date
06-02-2017	06-02-2017	06-27-2027	06-06-2017

Market Number	Channel Block	Sub-Market Designator
BTA051	F	0

Market Name
Boston, MA

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
06-27-2002			

Waivers/Conditions:

This authorization is subject to the condition that, in the event that systems using the same frequencies as granted herein are authorized in an adjacent foreign territory (Canada/United States), future coordination of any base station transmitters within 72 km (45 miles) of the United States/Canada border shall be required to eliminate any harmful interference to operations in the adjacent foreign territory and to ensure continuance of equal access to the frequencies by both countries.

This authorization is conditioned upon the full and timely payment of all monies due pursuant to Sections 1.2110 and 24.716 of the Commission's Rules and the terms of the Commission's installment plan as set forth in the Note and Security Agreement executed by the licensee. Failure to comply with this condition will result in the automatic cancellation of this authorization.

Conditions:
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: AIRTOUCH CELLULAR

ATTN: REGULATORY
AIRTOUCH CELLULAR
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Call Sign	File Number
KNLH310	
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0006146468

Grant Date	Effective Date	Expiration Date	Print Date
06-08-2017	11-30-2017	06-27-2027	

Market Number	Channel Block	Sub-Market Designator
BTA051	E	0

Market Name
Boston, MA

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
06-27-2002			

Waivers/Conditions:

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Call Sign	File Number
WQGA900	
Radio Service AW - AWS (1710-1755 MHz and 2110-2155 MHz)	

FCC Registration Number (FRN): 0003290673

Grant Date	Effective Date	Expiration Date	Print Date
11-29-2006	11-01-2016	11-29-2021	

Market Number	Channel Block	Sub-Market Designator
BEA003	B	1

Market Name
Boston-Worcester-Lawrence-Lowe

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

This authorization is conditioned upon the licensee, prior to initiating operations from any base or fixed station, making reasonable efforts to coordinate frequency usage with known co-channel and adjacent channel incumbent federal users operating in the 1710-1755 MHz band whose facilities could be affected by the proposed operations. See, e.g., FCC and NTIA Coordination Procedures in the 1710-1755 MHz Band, Public Notice, FCC 06-50, WTB Docket No. 02-353, rel. April 20, 2006.

AWS operations must not cause harmful interference across the Canadian or Mexican Border. The authority granted herein is subject to future international agreements with Canada or Mexico, as applicable.

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Call Sign	File Number
WQJQ689	0008587211
Radio Service	
WU - 700 MHz Upper Band (Block C)	

FCC Registration Number (FRN): 0003290673

Grant Date	Effective Date	Expiration Date	Print Date
09-11-2019	09-11-2019	06-13-2029	

Market Number	Channel Block	Sub-Market Designator
REA001	C	0

Market Name
Northeast

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
06-13-2013	06-13-2019		

Waivers/Conditions:

If the facilities authorized herein are used to provide broadcast operations, whether exclusively or in combination with other services, the licensee must seek renewal of the license either within eight years from the commencement of the broadcast service or within the term of the license had the broadcast service not been provided, whichever period is shorter in length. See 47 CFR §27.13(b).

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

This authorization is conditioned upon compliance with section 27.16 of the Commission's rules

Conditions:
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select “License Search”. Follow the instructions on how to search for license information.

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQJQ689 **File Number:** 0008587211 **Print Date:**

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status

Application for Variance: Dimensional Relief

1. Valuation of New Construction: **$4200.00**

2. Total Number of Dwelling Units: One existing unit, no new dwelling units

3. Lot area: 0.22 acres (9583 sq. ft.)

4. Proposed Project: Construction of accessory building (shed) for storage

5. Description of existing land use: Residential (SRB)

6. Project representatives: Andrew Bridges
   10 Fairview Drive
   Portsmouth, NH 03801
   (978) 270-3369

7. Description and Dimension
   a. Existing building: single family home with attached single bay garage
      - Footprint: House - 26'x30'
      - Garage: 14'x19'
      - Gross floor area:

Code	Description	Gross Area	Living Area
BAS	First Floor	780	780
TQS	Three Quarter Story	780	585
FEP	Porch, Enclosed	33	0
FGR	Garage, Attached	260	0
UBM	Basement, Unfinished	780	0
WDK	Deck, Wood	35	0
		2,668	1,365

      - Height: 1 ¾ stories

   b. Proposed building: Storage shed (accessory building)
      - Footprint: 10'x12'
      - Gross floor rear: 120 sq. ft.
      - Height: 9'8"

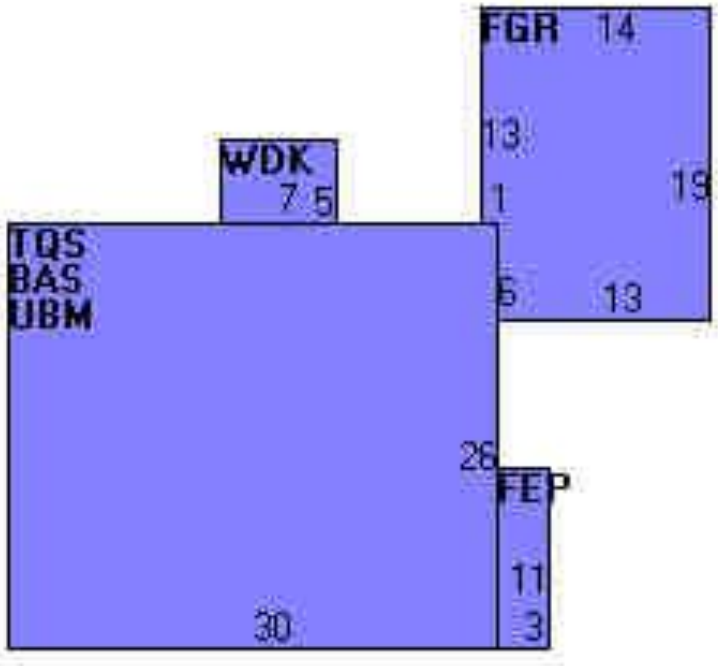
8. Proposed setbacks:
   - Side: 3 feet
   - Rear: 3 feet
   - Rear yard dimension: 3,300 sq feet

9. Site Plans:

Existing lot:

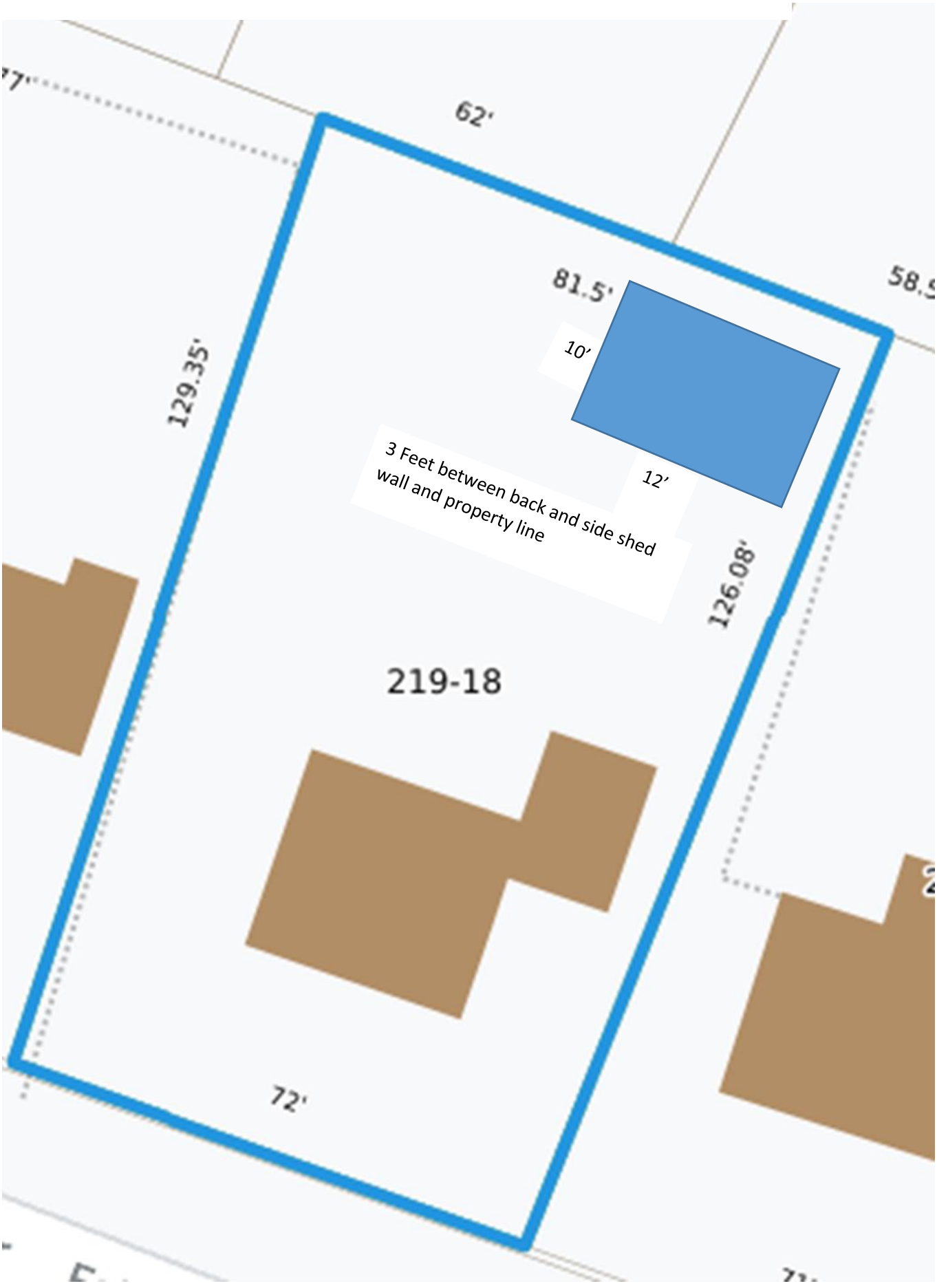
(Source, mapgeo)

Existing Structure:

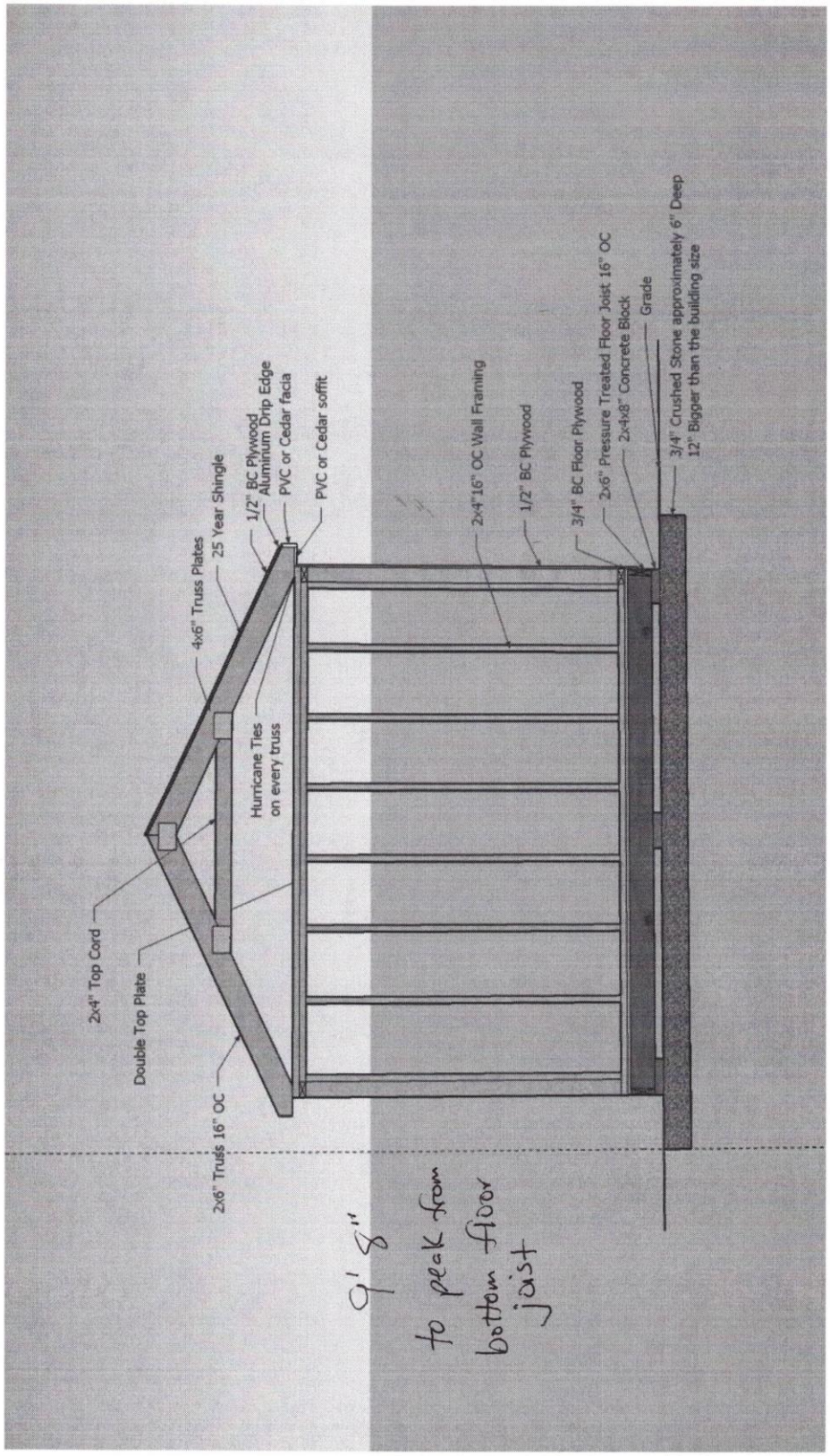


(Source, tax card)

Proposed Lot Plan (Scale- mapgeo)



Shed Plans:


2x4" Top Cord
Double Top Plate
2x6" Truss 16" OC
4x6" Truss Plates
25 Year Shingle
1/2" BC Plywood
Aluminum Drip Edge
PVC or Cedar facia
PVC or Cedar soffit
Hurricane Ties
on every truss
2x4"16" OC Wall Framing
1/2" BC Plywood
3/4" BC Floor Plywood
2x6" Pressure Treated Floor Joist 16" OC
2x4x8" Concrete Block
Grade
3/4" Crushed Stone approximately 6" Deep
12" Bigger than the building size
9' 8"
to peak from
bottom floor
joist

Shed Plans:

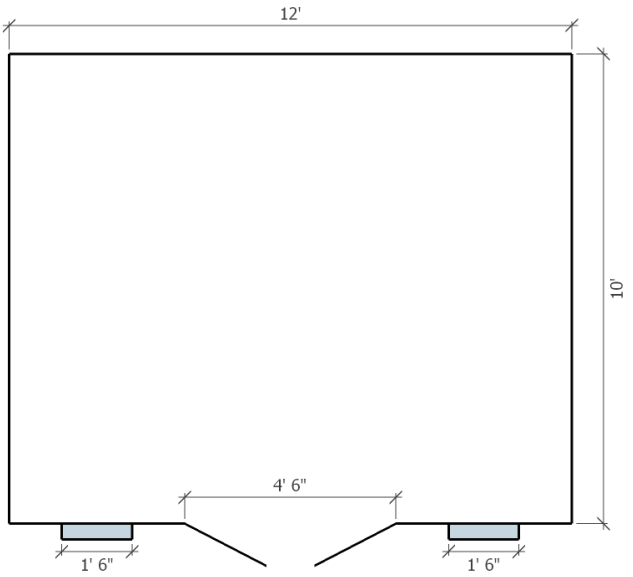
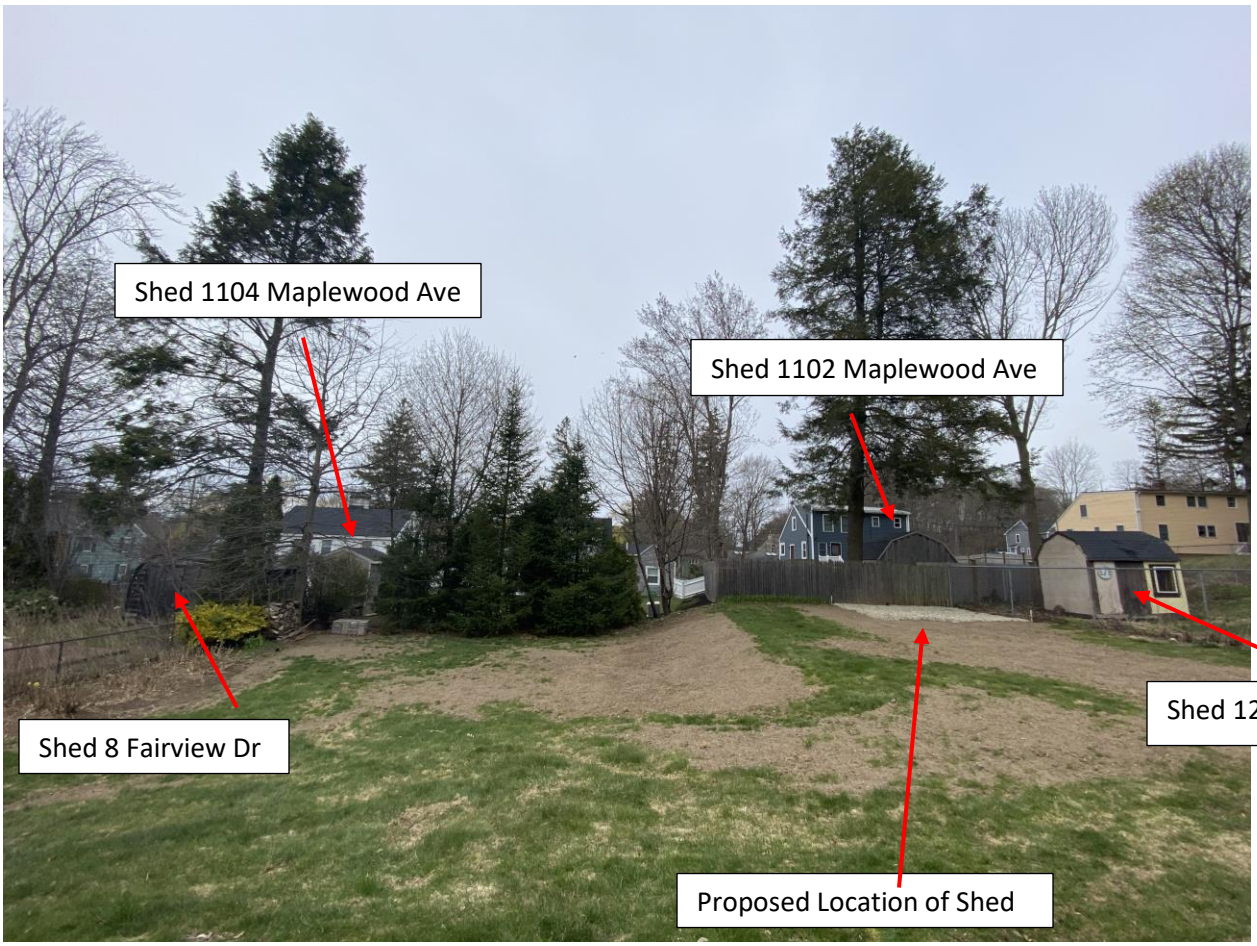


Photo 1: Back Yard

Photo 2:


Shed 1104 Maplewood Ave
Shed 1102 Maplewood Ave
Shed 8 Fairview Dr
Shed 12 Fairview Dr
Proposed Location of Shed

Written Statement:

This variance request falls within the spirt of the ordinance and is not contrary to public interest. The shed will be located in the rear yard as required by the ordinance. With the shed, the building coverage on the lot will be 12.4%. The shed will allow for storage of outdoor tools and equipment necessary to maintain the house and property.

The value of surrounding properties will not be affected. As seen in the above photos (photo 1, 2) all abutting properties have sheds, all of which are in close proximity to property lines. The proposed location of the shed is in the rear corner of the lot with three feet of space between the rear and right property line. The placement of the shed in this location is consistent with abutting properties and the neighborhood.

Fairview Drive is a downward sloping area. The rear yard at 10 Fairview Drive has been flattened in two areas with a steep hill in the middle, to make the yard more usable. If the shed were placed in accordance with the ordinance, 340 square feet of usable flat are of the yard would be taken by the shed. The proposed location will use 186 square feet in the rear yard. Due to the significant slope in the back yard, placing the shed closer to the property line will provide a substantial amount of usable yard space. The shed will be placed 3 feet from the property lines which will allow for proper maintenance and upkeep of the building over time.

138 Maplewood Ave.
Map 124 Lot 6
Zoning: CD4-L1

To permit the following:

1. Lot Area of 7850sf for 3 Dwelling Units, where 3000sf per Unit is required
2. Vertical Expansion of a non-conforming Structure, for 2nd Floor Addition. Existing Garage has +/- 1' right side Setback where 5' is required.
3. Right Side Setback of +/-1' for 2nd Floor Rear Addition (144sf) to Existing Garage.

The undersigned agrees that the following circumstances exist……

1. A 2nd Floor is proposed over the Existing Garage which will add a 3rd Dwelling Unit to the Property. The Lot Area of 7850sf, is 1150sf under the required 9000sf. The 4 Properties on this section of Maplewood Ave start at the City Cemetery and end at the North Mill Pond Bridge..On the left side; 118 Maplewood Ave is a 10 Unit Office Condo in 2 Buildings (Lot 19,384sf) and 114 Maplewood has 3 Dwelling Units and 1 Office Rental (Lot size 5057sf). On the Right Side, 154 Maplewood has a 2 Unit Office Condo in the Front Building & a Dwelling Unit in the Back Building (Lot Size 18,384sf)..Across the street a large Multiuse Commercial & Residential Building is under Construction.

2. The Existing Garage is within the Right Side Setback and adding a 2nd Floor will continue that non-conformity.

3. The 6' x 24' 2nd Floor Addition (144sf) to the Rear of the Garage will match the existing width and will have a +/- 1' Right Side Setback.

Criteria for the Variance:

1. The Variances are not contrary to the public interest in that the existing Garage is set back from public view and can only be seen from a couple of narrow openings on Maplewood Ave and from the North Mill Pond Bridge. The Existing 1-Story Garage Structure is surrounded by 2-Story Structures and the Garage 1st floor level is 3.5' lower then Primary Buildings on Maplewood Ave.

2. The Variances are consistent with the spirit of the ordinance in that it will allow this expansion without adversely impacting the immediate abutters. Existing Parking on the Lot (6 spaces) exceeds the required 4 Spaces.

3. Substantial justice will be done, as the benefit to the Owners out-weighs any negative affects to abutting properties.

4. These Variances will not diminish the value of surrounding properties. The design has a more residential presence then the current 4 garage doors.

5. The special condition of this property is the Lot Size and the location of the Existing Garage Structure.

4/27/20, Anne Whitney Architect For: Donna & George Pantelakos

9 Sheafe Street
Portsmouth
NH 03801
603-427-2832

ANNE WHITNEY ARCHITECT

138 MAPLEWOOD AVE.
EXISTING & PROPOSED LOT PLAN

SCALE: 1" = 10'-0" 4/22/2020

NOTE: EXISTING AND PROPOSED ARE OVERLAYED ON EXISTING SURVEY PLAN JULY 29, 1997 BY MILLETTE, SPRAGUE & COLWELL, INC., ANNE WHITNEY ARCHITECT, FIELD MEASURED AND DRAFTED CURRENT EXISTING CONDITIONS.

0' 5' 10' 20'

N/F
GIDEON WALKER HOUSE TRUST
JAMES SOMES JR., TRUSTEE
361 HANOVER STREET
PORTSMOUTH, NH. 03801
RCRD BK.#3120 PG.#1900

MAP U24 LOT 6
7,850 S.F.
0.18 ACRES

N55°58'48"E
85.79'

S42°40'54"E
45.76'

EXIST. +/- 0'

EXIST. & PROPOSED +/- 5'

EXIST. +/- 0'

18" PEAR

18" HARDWOOD

PAVED DRIVEWAY

FOUND IRON ROD WITH CAP

+/- 1' EXIST. & PROPOSED

WOOD DECK

EXISTING BUILDING
FINISH FLOOR ELEV.=15.94

PAVING

RAISED PLANTING BED WITH RET-WALL

WOOD STAIRS

EXIST. +/- 10'

BRICK STEP

EP

BITUMINOUS CURB

CONCRETE WALK

25' REMAINS AS GARAGE

23' PROPOSED LIVING SPACE

6' X 24' ADDED TO NEW 2ND FLOOR
24' X 52' PROPOSED 2ND FLOOR
4 POSTS AT GROUND LEVEL

EXISTING STRUCTURE
24' X 46'

2 PARKING SPACES IN GARAGE

68' EXISTING PAVED PARKING
TOTAL OF 6 SPACES PROVIDED INCLUDING GARAGE

+/- 19.5'
EXIST. & PROPOSED

EXIST. RON

10' WIDE ALL PURPOSE RIGHT OF WAY
FROM MAP U24/5 TO MAP U24/6 SEE
RCRD BK.#899 PG.#9 AND PROBATE #40689

112.80'
S56°20'44"W

10'

100' TIDAL BUFFER ZONE

MAP U24 LOT 5

N/F
CAPTAIN JOHN MOSES CONDOMINIUMS
118 MAPLEWOOD AVENUE
PORTSMOUTH, NH. 03801

EXISTING PARKING AREA

RAMP

SHRUB (TYPICAL)

EX. GARDEN

EXIST. PATIO

EX. RETAINING WALL

EX. CRUSHED STONE

LAWN

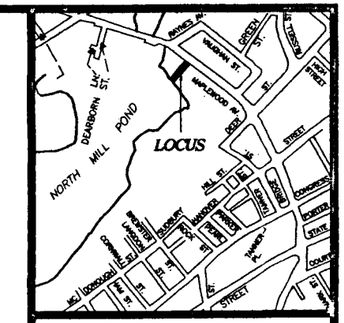
EXIST. +/- 6.9'
& PROPOSED +/- 6.2'

86.57'
N53°20'-

FLOOD HAZARD ZONE "C"
FLOOD HAZARD ZONE "A2"

LEGEND

Ac.	ACRES
BK.2582/PG.2783	BOOK NO./PAGE NO.
EP	EDGE OF PAVEMENT
ELEC.	ELECTRIC
FKA	FORMERLY KNOWN AS
LS	LANDSCAPED
N/F	NOW OR FORMERLY
RCRD	ROCKINGHAM COUNTY REGISTRY OF DEEDS
S.F.	SQUARE FEET
SL	SEWER LATERAL
TBM	TEMPORARY BENCHMARK
TBR	TO BE REMOVED
USGS	UNITED STATES GEODETIC SURVEY
G	EXISTING GAS
S	EXISTING SEWER
12	PROPOSED CONTOUR
SL	SEWER LATERAL
	DRILL HOLE
MAP/LOT	ASSESSORS MAP & PARCEL NUMBER
	PROPERTY LINE
	STONE WALL
11x60	EXISTING SPOT GRADE
	UTILITY POLE
	WATER SHUT OFF



LOCATION PLAN

NOTES:

1. THE PARCEL IS LOCATED IN THE CENTRAL BUSINESS A (CBA) ZONE AND THE HISTORIC OVERLAY DISTRICT A (HDA).
2. THE PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP U24 AS LOT 6.
3. THE PARCEL IS LOCATED IN A FLOOD HAZARD ZONE AS SHOWN.
4. OWNER OF RECORD:
   EDWARD ZOFFOLI REVOCABLE TRUST
   EDWARD ZOFFOLI, TRUSTEE
   138 MAPLEWOOD AVENUE
   PORTSMOUTH, NH. 03801
   RCRD. BK.3120 PG.1900

   JOSEPHINE ZOFFOLI REVOCABLE TRUST
   JOSEPHINE ZOFFOLI, TRUSTEE
   138 MAPLEWOOD AVENUE
   PORTSMOUTH, NH. 03801
   RCRD. BK.3120 PG.1900
5. ZONING REQUIREMENTS:

MINIMUM LOT SIZE:	1,000 S.F
MINIMUM FRONTAGE:	N/A
MINIMUM SETBACKS:	
FRONT YARD:	0'
SIDE YARD:	0'
REAR YARD:	0'
MINIMUM DEPTH:	N/A
MAXIMUM COVERAGE:	95%

6. TOTAL PARCEL AREA: 7,850S.F.
   0.18 ACRES
7. THE PARCEL IS SUBJECT TO RESTRICTIONS RELATED TO THE 250' COMPREHENSIVE SHORELAND PROTECTION ACT (RSA 483-B).

PLAN REFERENCES

1. "PLAN OF LAND PREPARED FOR STEVEN MASSICOTTE & D. JOHN FOLEY, MAPLEWOOD AVENUE, PORTSMOUTH, N.H." DATED 10/31/88 BY KIMBALL CHASE COMPANY, INC. NOT RECORDED.
2. "SITE PLAN FOR D. JOHN FOLEY & STEVEN M. MASSICOTTE 118 MAPLEWOOD AVENUE, COUNTY OF ROCKINGHAM PORTSMOUTH, N.H." DATED JANUARY 30, 1989 REVISED 3/2/89 BY RICHARD P. MILLETTE AND ASSOCIATES. NOT RECORDED.
3. "CAPTAIN JOHN MOSES CONDOMINIUM SITE PLAN DRAWN FOR DANIEL LOBOVITS, 118 MAPLEWOOD AVE., PORTSMOUTH, N.H., OWNER OF UNIT B-1" DATED MARCH, 1995 BY EDWARD N. HERBERT, ASSOC. INC. RCRD PLAN #C-23805.
4. "SITE PLAN GIDEON WALKER CARRIAGE HOUSE FOR GIDEON WALKER TRUST 154 MAPLEWOOD AVENUE, PORTSMOUTH, N.H. 03801" DATED JUNE 1995 REVISED 3-28-97 BY BARRY W. KIMBALL, P.E., L.L.S. RCRD PLAN #D-25362.
5. "VAUGHAN STREET URBAN RENEWAL PROJECT N.H. R-10 PORTSMOUTH, NEW HAMPSHIRE, DISPOSITION MAP" DATED 11/5/70 BY ANDERON-NICHOLS & CO., INC. RCRD PLAN #D-2408.

REV.#3	11/13/97 REMOVE 2ND STORY APARTMENT AND NOTE #8
REV.#2	09/23/97 REVISE BUILDING
REV.#1	09/08/97 ADD PROPOSED GRADES

MILLETTE, SPRAGUE & COLWELL, INC.
CIVIL ENGINEERS LAND SURVEYORS

SITE PLAN
FOR
EDWARD ZOFFOLI REVOCABLE TRUST &
JOSEPHINE ZOFFOLI REVOCABLE TRUST
138 MAPLEWOOD AVENUE
COUNTY OF ROCKINGHAM
PORTSMOUTH, NH.

STATE OF NEW HAMPSHIRE – RICHARD P. MILLETTE No. 3674 LICENSED PROFESSIONAL ENGINEER

10 0 5 10 20 40
(IN FEET)

SCALE: 1" = 10' DATE: JULY 29, 1997

501 ISLINGTON STREET, P.O. BOX 4006, PORTSMOUTH, N.H. 603-431-2222
http://www.mscenginc.com

<97103SP>

Partelakos 6/21-61-15 380-1297

#97103

VIEW FROM DRIVEWAY ENTRY

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

EXISTING GARAGE SOUTH VIEW

9 Sheafe Street
Portsmouth
NH 03801
603-427-2832

ANNE WHITNEY ARCHITECT

SCHEMATIC DESIGN

GARAGE 2ND FLOOR ADDITION & RENOVATIONS

PANTELAKOS 138 MAPLEWOOD AVE PORTSMOUTH, NH

Project: #2004

Revisions: 4/24/20

Date: 3/13/20

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

VIEWS FROM WEST YARD

9 Sheafe Street
Portsmouth
NH 03801
603-427-2832

ANNE WHITNEY ARCHITECT

SCHEMATIC DESIGN

GARAGE 2ND FLOOR ADDITION & RENOVATIONS

PANTELAKOS 138 MAPLEWOOD AVE PORTSMOUTH, NH

Project: 2004

Revisions: 4/24/20

Date: 3/13/20

VIEW FROM MAPLEWOOD AVE SIDEWALK

VIEW FROM NORTH MILL POND BRIDGE

NORTH ELEVATION

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

9 Sheafe Street
Portsmouth
NH 03801
603-427-2832

ANNE WHITNEY ARCHITECT

SCHEMATIC DESIGN

GARAGE 2ND FLOOR ADDITION & RENOVATIONS

PANTELAKOS 138 MAPLEWOOD AVE PORTSMOUTH, NH

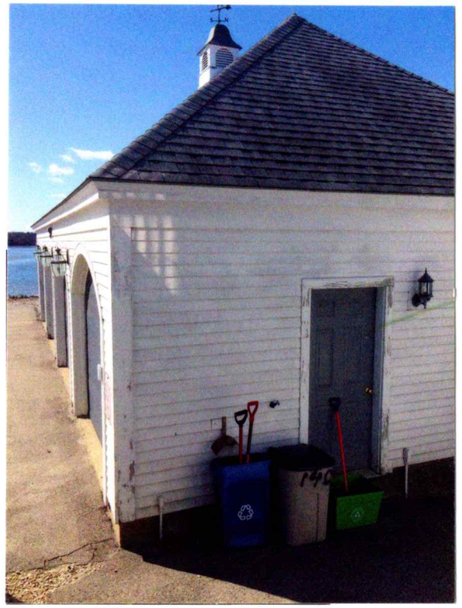
Project: #2002

Revisions: 4/24/20

Date: 3/13/20

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

EXISTING CUPOLA



EXISTING EAST ELEVATION

9 Sheefe Street
Portsmouth
NH 03801
603-427-2832

ANNE WHITNEY ARCHITECT

SCHEMATIC DESIGN

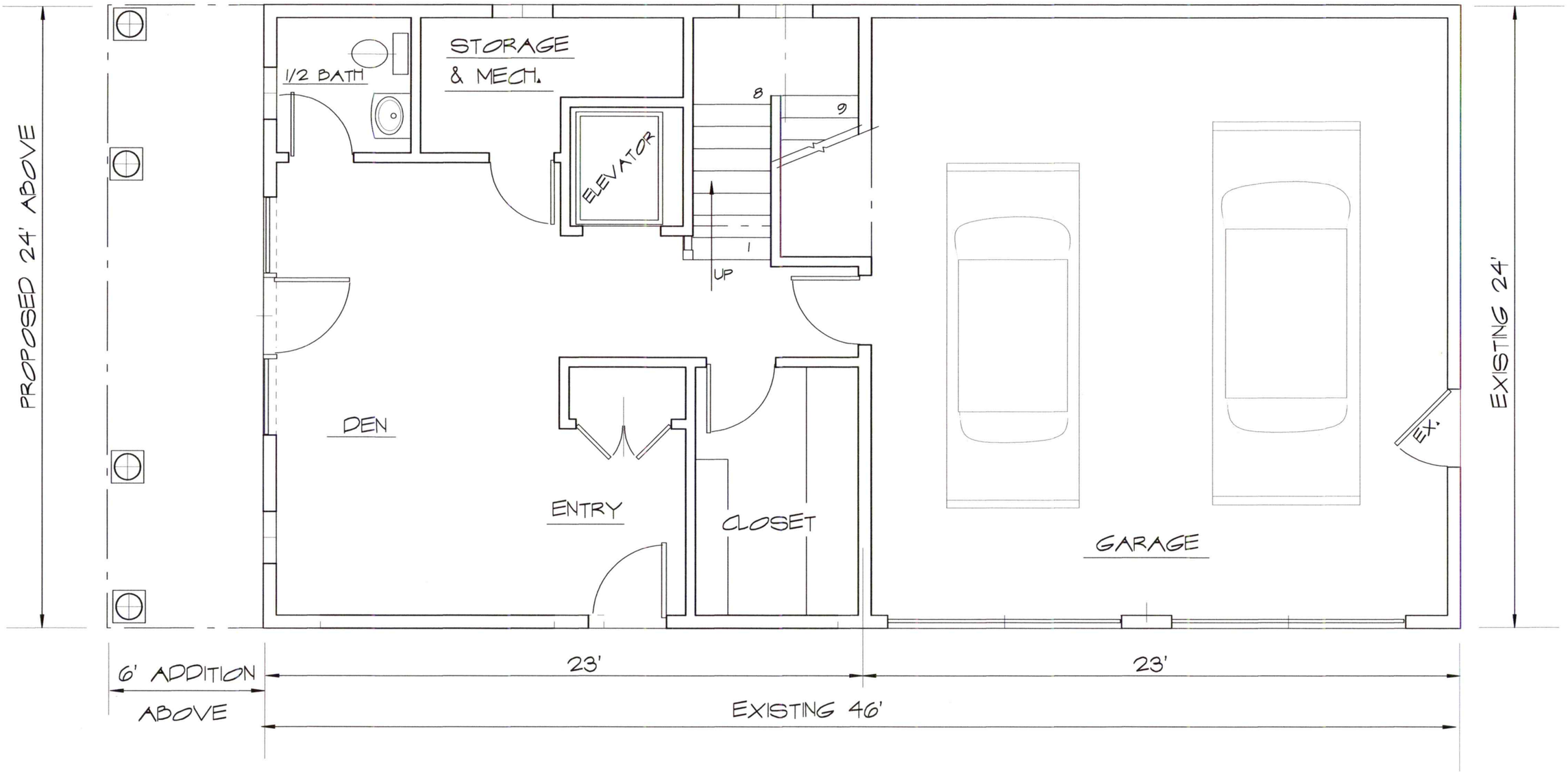
GARAGE 2ND FLOOR ADDITION & RENOVATIONS

PANTELAKOS 138 MAPLEWOOD AVE PORTSMOUTH, NH

Project: #2002

Revisions: 4/24/20

Date: 3/13/20



1ST FLOOR PLAN

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

SCHEMATIC DESIGN

9 Sheafe Street
Portsmouth
NH 03801
603-427-2832

ANNE WHITNEY ARCHITECT

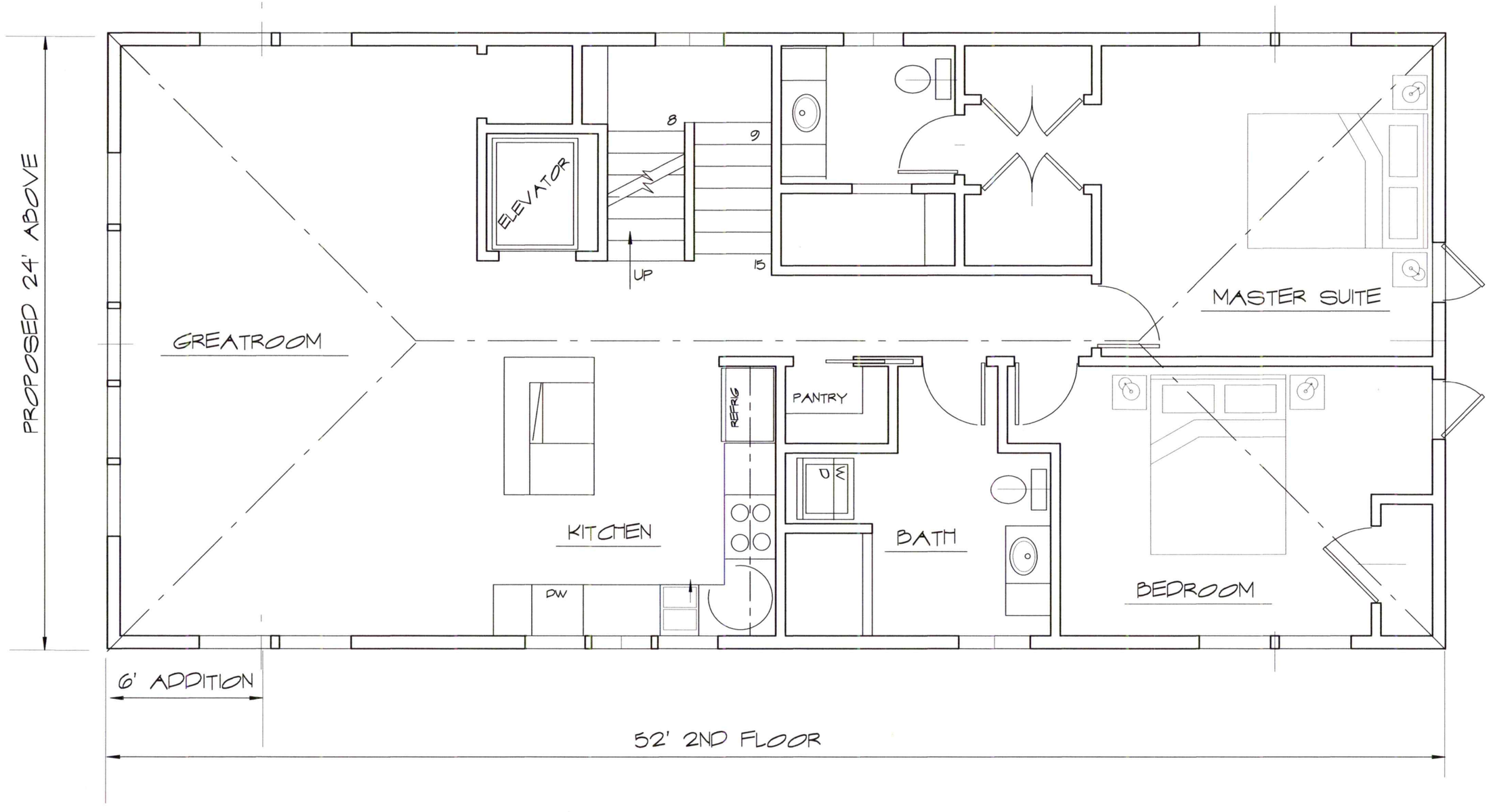
Project: 2002

Revisions:

Date: 4/23/20

GARAGE 2ND FLOOR ADDITION & RENOVATIONS

PANTELAKOS 138 MAPLEWOOD AVE PORTSMOUTH, NH



2ND FLOOR PLAN

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

SCHEMATIC DESIGN

9 Sheafe Street
Portsmouth
NH 03801
603-427-2832

ANNE WHITNEY ARCHITECT

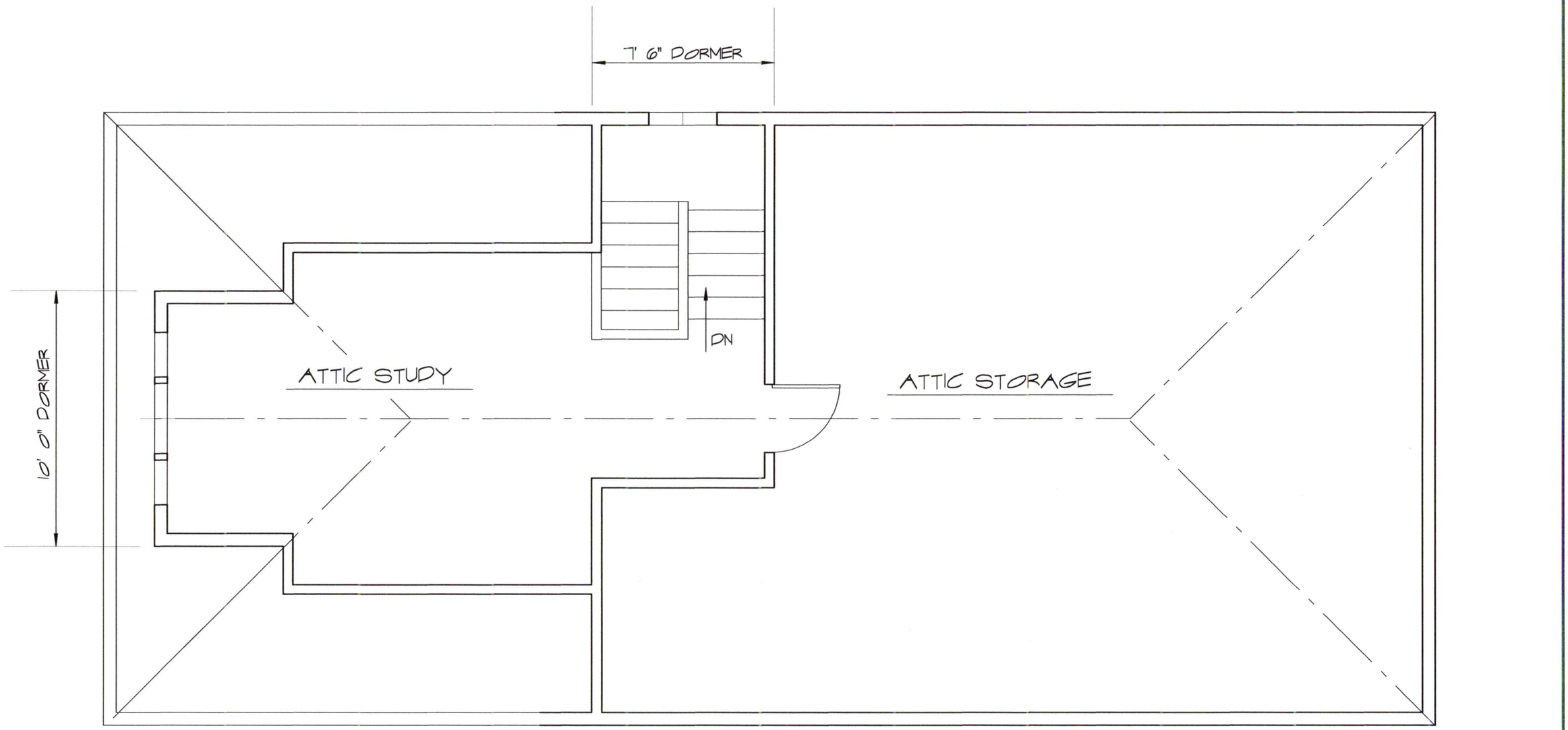
GARAGE 2ND FLOOR ADDITION & RENOVATIONS

PANTELAKOS 138 MAPLEWOOD AVE PORTSMOUTH, NH

Project: #2002

Revisions:

Date: 4/23/20



ATTIC PLAN

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

SCHEMATIC DESIGN

9 Sheafe Street
Portsmouth
NH 03801
603-427-2832

ANNE WHITNEY ARCHITECT

GARAGE 2ND FLOOR ADDITION & RENOVATIONS

PANTELAKOS 138 MAPLEWOOD AVE PORTSMOUTH, NH

Project: 2002

Revisions:

Date: 4/23/20