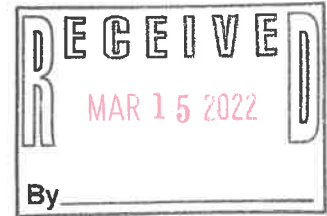


JONES & BEACH ENGINEERS INC.

85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com



March 15, 2022

Rochester Planning Board
Attn. Nel Sylvian
31 Wakefield Street
Rochester, NH 03867

RE: Response Letter 4
Wadleigh Road, Rochester, NH
Tax Map 137, Lot 35-1
JBE Project No. 21137

Dear Mr. Sylvian,

We are in receipt of comments from Renee Bourdeau, P.E. At Geosyntec dated March 7, 2022. Review comments are listed below with our responses in bold.

NARRATIVE STORMWATER MANAGEMENT AND EROSION CONTROL REPORT:

1. *The SWPPP should be provided to the Town prior to the preconstruction meeting. No further response from the Applicant required*
RESPONSE: Agreed.
4. *§ 218-8.B(1)(g)(i) requires a description of the procedures to limit and/or optimize use of deicing materials and minimize off-site increase in chloride levels in adjacent surface and groundwater. This information should be included in the Narrative Stormwater Management and Erosion Control Report.*
RESPONSE: The site will utilize Green Sno-Pro techniques to minimize use of deicing materials. A note has been added to the Site Plan Sheet C3 and to the Narrative of the Stormwater Management and Erosion Control Report.
6. *Copies of pertinent state permits should be provided to the Town prior to the preconstruction meeting.*
RESPONSE: Agreed.

TEMPORARY CONSTRUCTION STORMWATER MANAGEMENT DESIGN STANDARDS:

2. *Stabilization notes on the site plans and within the Drainage Analysis Report should be updated to reflect the requirements under § 218-9.A(8)(a), which state that temporary stabilization measures should be in place within 5 calendar days for exposed soil areas that are within 100-feet of a surface water body or a wetland.*

The Drainage Analysis Report does not include this stabilization note and Sheet E1 was not included in the Response Letter 3 document.

RESPONSE: The above note has been added as Note #7 to Sheet E1 and to the Drainage Report.

POST CONSTRUCTION STORMWATER MANAGEMENT DESIGN STANDARDS:

2. *the planting plan specifies use of a 3-inch layer of mulch. An alternative to hardwood bark mulch should be considered as this tends to float, not reduce erosion at the inlet, and clog overflow structures.*

RESPONSE: The type of mulch specified within the focal points is specified by the manufacturer, ACF Environmental

GEOSYTEC STORMWATER MANAGEMENT DESIGN STANDARDS FOR NEW DEVELOPMENT COMMENTS:

1. *Several subcatchments with 100% impervious area do not flow through stormwater management features mentioned above, but through the drip edge. The Applicant needs to provide a summary table to demonstrate that all impervious surface is treated and by what practice in the Drainage Report, this would make it easier for the City to review. We can add a treatment summary table to drainage report – wasn't in the regs.*

RESPONSE: A summary table of subcatchments that include impervious surfaces and the corresponding BMP's used for treatment is included within the Drainage Report.

2. *The Applicant has not provided a summary table indicating the total required Water Quality Volume for the site and how the proposed practices meet the proposed total volume. The Applicant should also distinguish between Analysis Points. The Applicant should provide a summary table in the Drainage Report to allow the City to easily access this information.*

RESPONSE: A Summary Table of runoff volumes for each Analysis Point has been added to the Drainage Report.

3. *The Applicant has provided a waiver request from this section and indicates "we are unable to reduce the volume of stormwater to meet the level in pre-existing conditions". The Applicant has not included calculations demonstrating what the required Groundwater Recharge Volume is for the soil type on site and how much recharge to groundwater the Applicant is providing. Further, in accordance with § 218-10.C(2)(b), if infiltration potential is limited or not practical, the Applicant must demonstrate that the stormwater volume from the site will not cause adverse impacts to downstream properties, infrastructure, aquatic habitat, or water quality degradation in downstream*

water bodies. The Applicant currently makes a statement that there would not be adverse impacts; however, there are no supporting calculations to demonstrate how this conclusion was made. The Applicant should provide the calculations and supporting information before the Planning Board approves the Waiver Request.

RESPONSE: We anticipate an increase in stormwater volume after development as we are unable to infiltrate much of the stormwater on the site. The soils on the site reveal high ledge in most locations that is not capable of infiltrating storm water. A revised waiver request is attached to this letter.

4. *The Applicant's waiver request is for § 218-10.C(2) and not § 218-10.C(3)(a). If the Applicant would like to request a waiver from this section, they need to revise the Waiver Request. Further, in accordance with § 218-10.C(2)(b), if infiltration potential is limited or not practical, the Applicant must demonstrate that the stormwater volume from the site will not cause adverse impacts to downstream properties, infrastructure, aquatic habitat, or water quality degradation in downstream water bodies. The Applicant currently makes a statement that there would not be adverse impacts; however, there are no supporting calculations to demonstrate how this conclusion was made. The Applicant should provide the calculations and supporting information before the Planning Board approves the Waiver Request.*

RESPONSE: We have been able to control the peak stormwater runoff for this site to be less in post development conditions than in pre-development as per the requirement. We cannot, however, also reduce total stormwater volume as the soils on the site do not allow much infiltration. We have revised the waiver request to include Section 218-10.C(3)(a).

GEOSYTEC STORMWATER DRAINAGE SYSTEM COMMENTS:

1. *The Applicant has not provided HydroCAD output for the proposed 25-year, 24-hour storm event (5.84 inches) to demonstrate that the closed drainage network was sized for this event. The invert elevations of the pipes out of the catch basins modeled in HydroCAD do not match the drawings. Further, the Applicant should make sure that all pipes are modeled as reaches so that the capacity of each of the drainpipes can be evaluated.*

RESPONSE: The 25-Year, 24-hour storm event has been included in the Drainage Report. All pipe inverts in the drawing have been checked and match the HydroCad report. All pipes have been modeled as reaches to enable evaluation of the drainage system.

2. *The Stream Crossing Standards apply to wetland crossings. The Applicant is already providing an open bottom culvert in this location; therefore, the Applicant just needs to provide calculations to demonstrate that the proposed culvert is sized in accordance with the New Hampshire Stream Crossing Guidelines in accordance with § 218-10.F(2)(b). Further, the Applicant indicates that the culverts have been modeled in HydroCAD however, it does not appear that they were modeled correctly. The Proposed Watershed Plan drawing, Sheet W2, shows that subcatchment 6S drains through Reach 1 and subcatchment 7S through Reach 4. However, subcatchment 6S does not drain to reach 1 and subcatchment 7S does not drain to reach 4 in HydroCAD. Within the time of concentration for subcatchment 6S there are two parabolic channels and one pipe channel. None of these features match the dimensions of the proposed culvert. The 18-inch culvert downstream of subcatchment 7S does not appear to be modeled within the*

HydroCAD and the Applicant has the flow from subcatchment 7S routed to Pond 3, which is not accurate.

RESPONSE: We have checked with our Environmental Consultant and the wetlands that are being impacted are not contiguous. The road is positioned to cross at the upland area along the existing gravel road and the wetland impact is caused by the side slopes of the proposed road. There is currently a pipe in place that crosses under the gravel access road that we propose to replace with an open bottom culvert at the request of the city.

The Proposed Watersheds within the HydroCad model have been revised where necessary.

3. *Velocities from the culverts cannot be verified based on comments 1 and 2 above. The velocities can be reviewed once the Applicant has responded.*

RESPONSE: A table of pipes along with velocities for the 25-year 24-hour storm event has been included in the Drainage Report.

4. *Rip-rap depths should be revised if warranted based on the comments above*

RESPONSE: The depths of the rip-rap is included within the Drainage Report.

5. *The Applicant has not provided HydroCAD output for the proposed 25-year, 24-hour storm event (5.84 inches). Sizing calculations for the swales have not been provide din the Drainage Report. The Applicant should summarize the sizing and velocities in a table in the Drainage Report so it is easy for the City to review.*

RESPONSE: A table of pipes along with velocities for the 25-year 24-hour storm event has been included in the Drainage Report. Sizing for the swale is also included within the Drainage Report.

6. *The Planning Board should not approve the Applicant until easements are established, if required by the DPW.*

RESPONSE: The DPW has never mentioned wanting an easement. Wadleigh Road will stay as a city road up to the Property Line.

7. *Subcatchment 4S is missing from the Existing Conditions HydroCAD model which is the location along Wadleigh Road adjacent to the Anchorage Inn. The Proposed Watershed Plan identifies subcatchment 12S as draining to Analysis Point #2 adjacent to the Anchorage Inn; however, the HydroCAD shows subcatchment 11S draining to this location. The Applicant should revise the existing condition model and the proposed condition mode. Further, the Applicant has subcatchment 3S routed to Analysis Point #2, which is inaccurate.*

RESPONSE: All subcatchments have been reviewed and revised if necessary.

GEOSYTEC POST CONSTRUCTION INSPECTION AND MAINTENANCE AGREEMENT COMMENTS:

1. *The inspection and Maintenance Plan should include the following:*
 - a. *The Inspection and Maintenance Plan is applicable to the stormwater management features at the property. Based on the response from the Applicant, can additional information be provided how the rental unit occupants are supposed to know how to maintain the stormwater management features and provide sufficient funding for these features. This does not seem like a long-term*

Inspection and Maintenance Plan that will be successful. The Owner of the property should hold this responsibility. The Applicant should provide clarification.

RESPONSE: This project will be a rental not a condominium. There will be one owner who will maintain the site

d. A copy of the BMP plan was not included in the I&M document

RESPONSE: A BMP Plan is now included within the I&M document.

f. The sample deicing log is not included in the I&M document.

RESPONSE: The above is now included in the I&M document.

GEOSYTEC OTHER COMMENTS:

4. The Applicant has not provided a detail schedule for the Pret-X filters

RESPONSE: The design inverts for the Pret-x filters are called out on the Grading Plans.

6. The Applicant should demonstrate that material specifications are consistent with recommendations from the New Hampshire Stream Crossing Standards, as noted in comment IV.2 above

RESPONSE: We have reviewed the design with our Environmental Consultant and it was determined that we don't have a stream crossing so there are no native stream bed materials present to replace. We are replacing an existing culvert under the gravel access road with box culvert.

11. The following comments are specific to the HydroCAD Report and Watershed Plans:

a. The Existing Watershed Plan shows subcatchment 3S draining to Analysis Point #1 and subcatchment 4S drainage to Analysis Point #2. This does not match the HydroCAD model. Subcatchment 4S is missing from the HydroCAD model and subcatchment 3S is incorrectly routed. The Applicant should revise the HydroCAD model to match the Existing Watershed Plan.

RESPONSE: All subcatchments have been reviewed and revised if necessary.

b. The Proposed Watershed Plan and the HydroCAD diagram still do not match. The Plan shows subcatchment 12S routed to Columbus Avenue and the model shows subcatchment 11S. The HydroCAD model needs to be update to reflect the Proposed Watershed Plan

RESPONSE: All subcatchments have been reviewed and revised if necessary.

e. The elevations on the drawings, details and in HydroCAD are inconsistent for Pond 3P. The Applicant needs to make all three consistent

RESPONSE: The details for the pond now match the plan and HydroCad report.

f. *The pipe inverts and sizes from Pond 3P on the drawings, details, and in HydroCAD are still inconsistent. The Applicant should make the three consistent*
RESPONSE: The details for the pond now match the plan and HydroCad report.

g. *The Focal Points modeled in HydroCAD do not match the elevation, inverts, and outlet diameters on the drawings. The Applicant should reconcile the drawings with the HydroCAD.*

RESPONSE: The details for the Focal Points now match the plan and HydroCad report.

h. *The following comments apply to inconsistencies between the Proposed Watershed Plan and HydroCAD:*

- a. *Subcatchment 12S and 11S are incorrectly routed in HydroCAD*
- b. *Subcatchment 6S is not routed through the open bottom culvert in HydroCAD*
- c. *Reach 4R is not modeled in HydroCAD*
- d. *Reach 2R is not modeled in HydroCAD*
- e. *Reach 5R is not modeled in HydroCAD*

RESPONSE: All subcatchments and Reaches have been checked and revised as necessary.

GEOSYNTEC SWPPP COMMENTS:

1. *The applicant has requested to provide the following information in the SWPPP prior to the preconstruction meeting as an alternative to providing the information in the application and response letter. The Planning Board should include this information as a condition if the application is approved.*

- a. *Anticipated project start and completion dates, and duration of grading and construction activities.*
- b. *Description of procedures to control waste such as discarded building materials, construction debris, sanitary waste, concrete washout, chemicals, and litter.*
- c. *Cut and fill plan.*
- d. *Location of equipment storage and staging areas.*
- e. *Location of vehicle fueling areas.*
- f. *Location of disposal facilities for solid waste, construction debris, sanitary waste, concrete washout, and plan for stump disposal.*
- g. *Location of sediment traps.*
- h. *Temporary erosion control inspection and maintenance schedule.*

RESPONSE: Agreed.

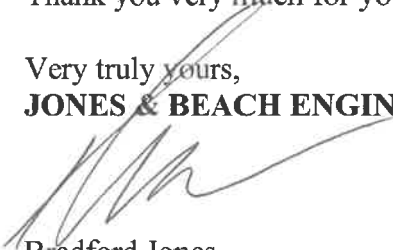
Included with this response letter are the following:

1. Three (3) Full Size Plan Sets.
2. Three (3) Half-Size Plan Sets.
3. Three (3) Revised Drainage Analysis.
4. Waiver Request Letter.

Thank you very much for your time.

Very truly yours,

JONES & BEACH ENGINEERS, INC.

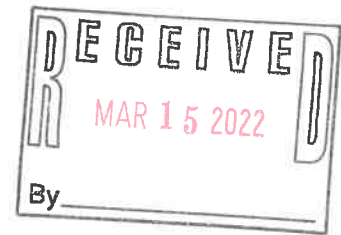


Bradford Jones
Vice President

cc: Fenton Groen, Groen Construction (via email)

JONES & BEACH ENGINEERS INC.

85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com



March 15, 2022

Rochester Planning Board
Attn. Nel Sylvian
31 Wakefield Street
Rochester, NH 03867

RE: Response Letter 5
Wadleigh Road, Rochester, NH
Tax Map 137, Lot 35-1
JBE Project No. 21137

Dear Mr. Sylvian,

We are in receipt of comments from your office dated March 7, 2022. Review comments are listed below with our responses in bold.

CITY CONDITIONAL USE PERMIT CONDITIONS:

Plan Modifications:

1. *Plans should adopt all recommendations from third-party engineering reviews*
RESPONSE: We have answered all the third-party engineering comments in this submittal. A separate response letter has been prepared for Geosyntec.
2. *Plans should reflect all recommendations made in the functions and values report, specifically noting:*
 - a. *Enhanced erosion controls to protect critical areas, especially considering the slopes of the property.*
RESPONSE: We have added all recommended erosion control to the project.
 - b. *The maintenance of erosion and temporary erosion controls during construction.*
RESPONSE: We have added all recommended construction erosion control notes to the project.
 - c. *Proper management of invasive species.*
RESPONSE: There are notes on the plans that address the above.

Plan Notes:

1. *On page E1, indicate that winter stabilization requirements shall be in effect from October 15th until May 15th of each year*
RESPONSE: This note has been added to Sheet E1.

2. Please indicate that wetland buffers will be marked by orange construction fencing.

RESPONSE: Orange construction fencing is both noted and shown on the plans.

All of the Conservation Commission conditions of approval have been made to the plan set and have been reviewed by the conservation commission staff

Waiver request:

1. Waiver requested from § 218-10.C(2)(a) Groundwater Recharge Requirements: Measures shall be taken to protect groundwater resources by reducing the post-development stormwater runoff volume by infiltrating the Groundwater Recharge Volume (GRV) according to the following ratios of Hydrologic Soil Group (HSG) type versus infiltration rate multiplier: HSG-A: 1.0; HSG-B: 0.75; HSG-C: 0.4; HSG-D: 0.15

The Applicant has provided a waiver request from this section and indicates "we are unable to reduce the volume of stormwater to meet the level in pre-existing conditions". The Applicant has not included calculations demonstrating what the required Groundwater Recharge Volume is for the soil type on site and how much recharge to groundwater the Applicant is providing. Further, in accordance with § 218-10.C(2)(b), if infiltration potential is limited or not practical, the Applicant must demonstrate that the stormwater volume from the site will not cause adverse impacts to downstream properties, infrastructure, aquatic habitat, or water quality degradation in downstream water bodies. The Applicant currently makes a statement that there would not be adverse impacts; however, there are no supporting calculations to demonstrate how this conclusion was made.

Further, in accordance with § 218-10.C(2)(b), if infiltration potential is limited or not practical, the Applicant must demonstrate that the Stormwater volume from the site will not cause adverse impacts to downstream properties, infrastructure, aquatic habitat, or water quality degradation in downstream water bodies. The Applicant currently makes a statement that there would not be adverse impacts; however, there are no supporting calculations to demonstrate how this conclusion was made. The Applicant should provide the calculations and supporting information before the Planning Board approves the Waiver Request.

RESPONSE: We anticipate an increase in stormwater volume after development as we are unable to infiltrate much of the stormwater on the site. The soils on the site reveal high ledge in most locations that is not capable of infiltrating storm water. A revised waiver request is attached to this letter.

2. Waiver MAY be requested from § 218-10.C(3)(a) Peak Stormwater Runoff and Volume Control Requirements: Measures shall be taken to control the post-development peak rate of stormwater runoff and volume so that it does not exceed the predevelopment peak rate of stormwater runoff and volume for the 2-year, 10- year, and 25-year, 24-hour design storm.

The Applicant's submitted waiver request is for § 218-10.C(2) and not § 218-10.C(3)(a). If the Applicant would like to request a waiver from this section, they need to revise the Waiver Request. The Applicant should provide the calculations and supporting information before the Planning Board approves the Waiver Request

RESPONSE: We have been able to control the peak stormwater runoff for this site to be less in post development conditions than in pre-development as per the requirement. We cannot, however, also reduce total stormwater volume as the soils on the site do not allow much infiltration. We have revised the waiver request to include Section 218-10.C(3)(a).

CITY PLAN MODIFICATION COMMENTS:

1. *Sheet U-1 add comments that watermain shall be polywrapped and hydrants shall be non- draining, non- rotating stem equal to Kennedy K-81-D. Valves shall open clockwise.*

RESPONSE: The above note has been added to Sheet U1.

2. *Sheet C-6, additional design is needed to modify grading at the Anchorage Inn entrance. Provide stabilized 2:1 slopes (max) or propose retaining wall to allow widening of Wadleigh in that area.*

RESPONSE: The grading at the Anchorage Inn entrance along Wadleigh Road has been revised to be a 2:1 slope stabilized with rock.

3. *Sheet D-1, detail for curb ramp should note cast iron truncated dome required in City ROW tip down locations. Ramps must be concrete.*

RESPONSE: A detail for concrete ramps and cast-iron truncated domes has been added to Sheet D4.

4. *Sheet D-1, detail for retaining wall should note that structural engineer shall provide a stamped retaining wall design prior to construction for review by Jones and Beach and the City.*

RESPONSE: The above note has been added to the retaining wall detail on Sheet D1.

5. *Sheet U2 - Add notes to the plans for temporary water to be provided to the Anchorage Inn during water main replacement. A single new tap and stub to Anchorage Inn should be installed. This single service stub should split to fire and domestic, each with its own curb stop. Reconnect to the existing domestic and fire services at the edge of ROW.*

RESPONSE: The above notes have been called out on Sheet U2.

6. *Sheet L3 - Lighting in the City ROW on Wadleigh Rd should be cobra head fixture mounted on utility pole, not freestanding lamp post. Reduce the number of street light locations from two to one in the City ROW.*

RESPONSE: Street lines within the City ROW have been eliminated. The proposed lighting begins on the site.

7. *Sheet P2 - Provide a turnaround for City plowing and maintenance vehicles near the end of the improved Wadleigh Rd in City ROW. If located between the two retaining walls, additional retaining wall may be needed.*

RESPONSE: A snow plow turn around has been added along Wadleigh Road within the City ROW adjacent to the site's bioretention pond.

3RD PARTY REVIEW OF STORMWATER COMMENTS:

1. *§ 218-8.B(1)(g)(i) requires a description of the procedures to limit and/or optimize use of deicing materials and minimize off-site increase in chloride levels in adjacent surface and groundwater. This information should be included in the Narrative Stormwater Management and Erosion Control Report.*

RESPONSE: The site will utilize Green Sno-Pro techniques to minimize use of deicing materials. A note has been added to the Site Plan Sheet C3 and to the Narrative of the Stormwater Management and Erosion Control Report.

2. *Stabilization notes on the site plans and within the Drainage Analysis Report should be updated to reflect the requirements under § 218-9.A(8)(a), which state that temporary stabilization measures should be in place within 5 calendar days for exposed soil areas that are within 100-feet of a surface water body or a wetland. The Drainage Analysis Report does not include this stabilization note and Sheet E1 was not included in the Response Letter 3 document.*

RESPONSE: The above note has been added as Note #7 of the Temporary Erosion Control Notes on Sheet E1.

3. *The planting plan specifies use of a 3-inch layer of mulch. An alternative to hardwood bark mulch should be considered as this tends to float, not reduce erosion at the inlet, and clog overflow structures.*

RESPONSE: The type of mulch specified within the focal points is specified by the manufacturer, ACF Environmental.

4. *Several subcatchments with 100% impervious area do not flow through stormwater management features mentioned above, but through the drip edge. The Applicant needs to provide a summary table to demonstrate that all impervious surface is treated and by what practice in the Drainage Report, this would make it easier for the City to review*

RESPONSE: A summary table of subcatchments that include impervious surfaces and the corresponding BMP's used for treatment is included within the Drainage Report.

5. *The Applicant has not provided a summary table indicating the total required Water Quality Volume for the site and how the proposed practices meet the proposed total volume. The Applicant should also distinguish between Analysis Points. The Applicant should provide a summary table in the Drainage Report to allow the City to easily access this information.*

RESPONSE: A Summary Table of runoff volumes for each Analysis Point has been added to the Drainage Report.

6. *The Applicant has not provided HydroCAD output for the proposed 25-year, 24-hour storm event (5.84 inches) to demonstrate that the closed drainage network was sized for this event. The invert elevations of the pipes out of the catch basins modeled in HydroCAD do not match the drawings.*

Further, the Applicant should make sure that all pipes are modeled as reaches so that the capacity of each of the drainpipes can be evaluated.

RESPONSE: The 25-Year, 24-hour storm event has been included in the Drainage Report. All pipe inverts in the drawing have been checked and match the HydroCad report. All pipes have been modeled as reaches to enable evaluation of the drainage system.

7. *The Stream Crossing Standards apply to wetland crossings. The Applicant is already providing an open bottom culvert in this location; therefore, the Applicant just needs to provide calculations to demonstrate that the proposed culvert is sized in accordance with the New Hampshire Stream Crossing Guidelines in accordance with § 218-10.F(2)(b). Further, the Applicant indicates that the culverts have been modeled in HydroCAD however, it does not appear that they were modeled correctly. The Proposed Watershed Plan drawing, Sheet W2, shows that subcatchment 6S drains through Reach 1 and*

subcatchment 7S through Reach 4. However, subcatchment 6S does not drain to reach 1 and subcatchment 7S does not drain to reach 4 in HydroCAD. Within the time of concentration for subcatchment 6S there are two parabolic channels and one pipe channel. None of these features match the dimensions of the proposed culvert. The 18-inch culvert downstream of subcatchment 7S does not appear to be modeled within the HydroCAD and the Applicant has the flow from subcatchment 7S routed to Pond 3, which is not accurate. The Applicant should provide the sizing calculations in accordance with the New Hampshire Stream Crossing Standards and revise the HydroCAD to reflect the proposed conditions.

RESPONSE: We have checked with our Environmental Consultant and the wetlands that are being impacted are not contiguous. The road is positioned to cross at the upland area along the existing gravel road and the wetland impact is caused by the side slopes of the proposed road. There is currently a pipe in place that crosses under the gravel access road that we propose to replace with an open bottom culvert at the request of the city.

The Proposed Watersheds within the HydroCad model have been revised where necessary.

8. *Calculations are not provided to demonstrate that the closed drainage network has a minimum velocity of 2 feet per second, as required under § 218-10.F(2)(d) Velocities from the culverts cannot be verified based on missing info as noted above. The velocities can be reviewed once the Applicant has responded.*

RESPONSE: A table of pipes along with velocities for the 25-year 24-hour storm event has been included in the Drainage Report.

9. *Rip-rap depths should be revised if warranted based on the comments above.*

RESPONSE: Riprap calculations are included within the Drainage Report.

10. *The Applicant has not provided HydroCAD output for the proposed 25-year, 24-hour storm event (5.84 inches). Sizing calculations for the swales have not been provided in the Drainage Report. The Applicant should summarize the sizing and velocities in a table in the Drainage Report so it is easy for the City to review.*

RESPONSE: A table of pipes along with velocities for the 25-year 24-hour storm event has been included in the Drainage Report. Sizing for the swale is also included within the Drainage Report.

11. *Subcatchment 4S is missing from the Existing Conditions HydroCAD model which is the location along Wadleigh Road adjacent to the Anchorage Inn. The Proposed Watershed Plan identifies subcatchment 12S as draining to Analysis Point #2 adjacent to the Anchorage Inn; however, the HydroCAD shows subcatchment 11S draining to this location. The Applicant should revise the existing condition model and the proposed condition model.*

Further, the Applicant has subcatchment 3S routed to Analysis Point #2, which is inaccurate.

RESPONSE: All subcatchments have been reviewed and revised if necessary.

12. *The Inspection and Maintenance Plan is applicable to the stormwater management features at the property. Based on the response from the Applicant, can additional information be provided how the rental unit occupants are supposed to know how to maintain the stormwater management features and provide sufficient funding for these features. This does not seem like a long-term Inspection and Maintenance Plan that will be successful. The Owner of the property should hold this responsibility. The Applicant should provide clarification.*

RESPONSE: The property owner is responsible for inspection and maintenance of the drainage facilities as noted in the Inspection and Maintenance Document.

13. *A copy of the BMP plan was not included in the I&M document.*

RESPONSE: A BMP Plan is now included within the I&M document.

14. *The sample deicing log is not included in the I&M document.*

RESPONSE: The above is now included in the I&M document.

15. *The Applicant has not provided a detail schedule for the Pret-X filters. Bedding material specified for the Precast Rigid Frame Box Culvert should be consistent with native stream bed materials. The Applicant should provide material specifications consistent with recommendations from the New Hampshire Stream Crossing Standards. The Applicant should demonstrate that material specifications are consistent with recommendations from the New Hampshire Stream Crossing Standards, as noted in comment IV.2 above.*

RESPONSE: The design inverts for the Pret-x filters are called out on the Grading Plans.

We have reviewed the design with our Environmental Consultant and it was determined that we don't have a stream crossing so there are no native stream bed materials present to replace. We are replacing an existing culvert under the gravel access road with box culvert.

16. *The Existing Watershed Plan shows subcatchment 3S draining to Analysis Point #1 and subcatchment 4S drainage to Analysis Point #2. This does not match the HydroCAD model. Subcatchment 4S is missing from the HydroCAD model and subcatchment 3S is incorrectly routed. The Applicant should revise the HydroCAD model to match the Existing Watershed Plan.*

RESPONSE: All subcatchments have been reviewed and revised if necessary

17. *The Proposed Watershed Plan and the HydroCAD diagram still do not match. The Plan shows subcatchment 12S routed to Columbus Avenue and the model shows subcatchment 11S. The HydroCAD model needs to be update to reflect the Proposed Watershed Plan.*

RESPONSE: All subcatchments have been reviewed and revised if necessary

18. *The elevations on the drawings, details and in HydroCAD are inconsistent for Pond 3P. The Applicant needs to make all three consistent.*

RESPONSE: The details for the pond now match the plan and HydroCad report.

19. *The pipe inverts and sizes from Pond 3P on the drawings, details, and in HydroCAD are still inconsistent. The Applicant should make the three consistent.*

RESPONSE: The details for the pond now match the plan and HydroCad report.

20. *The Focal Points modeled in HydroCAD do not match the elevation, inverts, and outlet diameters on the drawings. The Applicant should reconcile the drawings with the HydroCAD.*

RESPONSE: The details for the Focal Points now match the plan and HydroCad report.

The following comments apply to inconsistencies between the Proposed Watershed Plan and HydroCAD:

- a. Subcatchment 12S and 11S are incorrectly routed in HydroCAD*
- b. Subcatchment 6S is not routed through the open bottom culvert in HydroCAD*
- c. Reach 4R is not modeled in HydroCAD*
- d. Reach 2R is not modeled in HydroCAD*
- e. Reach 5R is not modeled in HydroCAD*

RESPONSE: All subcatchments and Reaches have been checked and revised as necessary.

21. *Stormwater Pollution Prevention Plan (SWPPP)*

The applicant has requested to provide the following information in the SWPPP prior to the preconstruction meeting as an alternative to providing the information in the application and response letter. The Planning Board should include this information as a condition if the application is approved.

- a. Anticipated project start and completion dates, and duration of grading and construction activities.*
- b. Description of procedures to control waste such as discarded building materials, construction debris, sanitary waste, concrete washout, chemicals, and litter.*
- c. Cut and fill plan.*
- d. Location of equipment storage and staging areas.*
- e. Location of vehicle fueling areas.*
- f. Location of disposal facilities for solid waste, construction debris, sanitary waste, concrete washout, and plan for stump disposal.*
- g. Location of sediment traps.*
- h. Temporary erosion control inspection and maintenance schedule*

RESPONSE: Agreed.

PLAN NOTES:

1. *On page E1, winter stabilization is said to begin on October 15th, indicate that those requirements will be in effect until May 15th*

RESPONSE: Note #7 on Sheet E1 has been revised.

2. *Please indicate that wetland buffers will be marked by orange construction fence*

RESPONSE: Orange Construction fence has been noted and called out on the plans.

3. *On Sheet C2 please add a note that should the city wish, the historical marker will be restored at the expense of the applicant prior to the first CO*

RESPONSE: The above note is already on Sheet C3.

OFF-SITE SEWER IMPROVEMENTS:

1. *Applicant shall bear costs to increase capacity of the Old Route 125 Pump Station to accommodate the proposed development in conjunction with additional developments, or solely, as determined by DPW.*

RESPONSE: We are currently working with the City DPW to review costs for the sewer system.

2. *Applicant shall submit sewer reserve capacity fees prior to connection to the City sewer system, calculated as required in Chapter 200 Sewer Ordinance*

RESPONSE: Agreed.

STATE PLANE COORDINATES:

1. *The plans are to be tied into the State Plane Coordinate System.*

RESPONSE: The plan is tied to State Plane Coordinates.

INSPECTIONS:

1. *The applicant must sign the Agreement for Payment of Inspection Fees and make a cash deposit to cover the expected costs of inspections, in an amount that is determined by the Public Works Department. (The inspections will be conducted by the City of Rochester Public Works Department or its designee. The applicant must pay for inspections – at an hourly rate as determined by the Public Works Department – of the site, including all new infrastructure serving the site).*

RESPONSE: Agreed.

3RD PARTY CONSTRUCTION INSPECTION:

1. *In accordance with RSA 676:4-b the Public Works Department may, at its discretion, dependent on project complexity, require 3rd Party Construction inspection of all subdivision plan improvements. Payment of construction inspection services by the applicant whether performed by a 3rd Party firm or DPW will be via a signed Construction Inspection Services agreement. All required subdivision plan improvements shall additionally be subject to inspection by the City Engineer or designee who shall act as the agent of the Board in enforcing the standards and specifications called for in these regulations.*

RESPONSE: Agreed.

OTHER PERMITS:

1. *All required Municipal, State and Federal permits must be obtained – including any Driveway/Curb Cut permit, Water Service Connection Permit, NHDES AOT Stormwater Permit, NHDES Wetlands Permits, Cross Connection Control Permit, etc., as appropriate – with copies of permits or confirmation of approvals delivered to the Planning Department. DPW Stormwater Permit required in accordance with Ch 218.*

RESPONSE: Agreed.

2. *For this site specifically, DPW permits include water and sewer connection, sewer assessment, ROW excavation, and driveway permit to modify access to Wadleigh Road from the proposed site.*

RESPONSE: Agreed and noted on Sheet C3.

DRAINAGE MAINTENANCE COMMENTS:

1. *If applicable, a drainage maintenance agreement approved by Public Works must be executed, and recorded with this Notice of Decision at the time certified plans are recorded. In order to comply with the Stormwater Management Ordinance, Chapter 218, DPW staff shall be allowed periodic access to the parking areas for inspections related to the annual stormwater infrastructure report compiled for the City Engineer*

RESPONSE: Agreed.

FINAL DRAWING COMMENTS:

1. *The applicant shall provide a set of plans suitable for recording to be certified by the Planning Department. Submittal includes*
 - (a) four full sets of 24 x 36 black-line final approved site plan drawings plus*
 - (b) one set of 11" x 17" final approved site plan drawings plus*
 - (c) one electronic version by pdf or flash drive must be submitted to the City. Each individual sheet in every set of drawings must be stamped and signed by the land surveyor, engineer, or architect responsible for the site plans.**The final plan shall reflect any and all changes required as part of the approval process. Please submit one copy of the revised plan for final staff review before submitting the additional copies.*

RESPONSE: Agreed.

GENERAL AND SUBSEQUENT CONDITIONS COMMENTS:

1. *Erosion control shall be properly installed on site PRIOR to any construction. Erosion control shall be properly maintained throughout construction; any breaks or breeches shall be repaired within 48 hours of the storm event.*

RESPONSE: These conditions are noted within the Plan set.

2. *Active and substantial development for this project is defined as, "Construction of the road, parking area and utilities. These improvements must be completed within 24 months of the Planning Board approval date".*

RESPONSE: Agreed.

3. *Substantial completion for this project is defined as follows: The completion of all on-site and off-site improvements specified in the subdivision approval, except for those improvements which are specifically deferred by recorded vote of the Planning Board prior to the expiration specified in RSA 674:39. To the extent that the Planning Board calls a bond or other security for such improvements and the funds are paid to the City, substantial completion of the improvements in the site plan shall be deemed to have occurred.*

RESPONSE: Agreed.

4. *Pre-Construction meeting. A preconstruction meeting is required prior to the start of work. Please contact the Department of Planning and Development to schedule this no more than 2 week prior to breaking ground; The pre-construction meeting agreement is to be signed by the property owner prior to signing of final plans.*

RESPONSE: Agreed.

5. *Prior to the Pre-Construction Meeting, your Storm Water Pollution Prevention Plan, (SWPPP) that is required by EPA's Construction General Permit must be submitted to the Planning Department.*

RESPONSE: Agreed.

6. *Wetland buffer areas shall not be impacted by any construction activities (other than those impacts permitted under the CUP and DES wetlands permit). Wetland buffers shall be marked with orange snow fence prior to any onsite activity, and such markers shall be maintained throughout construction. Wetland Buffers shall be marked with Conservation Overlay District tags prior to CO's for homes (available for a nominal fee at the Rochester Planning Office), and such markers shall be maintained in perpetuity.*

RESPONSE: Orange Construction Fencing is shown and noted on Sheet C5 along with Conservation Overlay Tags along the wetland buffers.

7. *Landscaping: All landscaping shown on plans shall be maintained and any dead or dying vegetation shall be replaced in a timely manner as long as this site plan remains valid;*

RESPONSE: The above is noted on the Landscape Plan.

8. *All outdoor lighting (including security lights) shall be down lit and shielded so no direct light is visible from adjacent properties and roadways;*

RESPONSE: Proposed Lighting shall be full cut-off dark sky compliant as noted on the Lighting Plan.

9. *Snow storage - Snow shall be removed and stored such that the drainage structures can function properly and the required parking spaces can be utilized. Snow storage may not impact the City's access to the sewer pump station.*

RESPONSE: Agreed.

10. *The new drainage infrastructure must be constructed prior to construction of the new building and associated parking. If the infrastructure is used as a temporary settling area during construction, the infrastructure shall be cleaned out and brought down to proposed bottom elevation prior to CO of new building.*

RESPONSE: Agreed.

11. *A Surveyor is to submit a signed letter to the Planning Department stating that the new lot corner monuments have been set (Subdivision Regulation 6.1) and that reference pins have been set on all easement bounds (Subdivision Regulation 5.7.4)*

RESPONSE: A signed letter will be submitted when this work is completed.

12. *Construction Cost estimate for this project shall be submitted for review and approval. Estimate shall be based on the Department of Public Works Construction Surety Schedule and shall include a 10% Contingency. Costs for items not specifically addressed in the Surety Schedule will be based on 1) City standards, 2) NHDOT weighted averages, 3) industry standards, or 4) contractor estimates.*

RESPONSE: Agreed.

13. *Performance Guarantee. If applicable, prior to issuance of a building permit or beginning site work, the applicant shall provide site improvement and restoration security. The performance guarantee shall be an amount equal to 10% of the approved Construction Cost Estimate (including a 10% contingency) to ensure the proper and timely completion of site work and site restoration within the development. Before the subdivision/site plan can be recorded, lots deeded to third parties, or structures occupied the applicant shall provide a cost estimate of remaining site work including labor, and provide the City with a security in the form of either letter of credit or cash equal to 110% of the estimated cost for remaining work. (Any existing surety being held at this time may be converted toward this amount). This amount shall include preparation of as-built plans. Construction Cost estimate for this project shall be submitted for review and approval. Estimate shall be based on the Department of Public Works Construction Surety Schedule and shall include a 10% Contingency. Costs for items not specifically addressed in the Surety Schedule will be based on 1) City standards; 2) NHDOT weighted averages; 3) industry standards; or 4) contractor estimates. This full surety must remain in place until the road is accepted or a Home Owner Association is created to define ownership and responsibility of the road and road drainage. If phased, the surety can be permitted per phase.*

RESPONSE: Agreed.

14. *As-Built. Three sets of full size (measuring at least 22" x 34") or black line paper plus 1 set of 11" x 17" plus one digital pdf copy of the as-built site plans (or "record drawings") stamped and signed by the Engineer or Surveyor are to be submitted to the Planning Department prior to issuance of the Certificate of Occupancy (or use/occupancy of the site where no CO is required). The as-built drawings must include the following language or equivalent: "This as-built drawing substantially conforms with the final plans approved by the City of Rochester Planning Board and certified by the Planning and Development Department except for the following significant modifications: ...". If no significant modifications were made simply state "none". Otherwise, itemize the modifications on the as-built or on an accompanying letter. The Department relies on the good judgement and good faith of the Engineer/Surveyor in determining which modifications should be considered significant (for example, minor adjustments in locations of plant materials would not be significant whereas relocation of a catch basin would be).*

RESPONSE: Agreed.

As-builts are to include State Plane Coordinates. A copy of the Asbuilt line work is also to be submitted as a CAD file that is georeferenced to that same coordinate system.

RESPONSE: Agreed.

15. *Execution. The project must be built and executed exactly as specified in the approved application unless changes are approved by the City.*

RESPONSE: Agreed.

16. *Approvals. All of the documentation submitted in the application package by the applicant and any requirements imposed by other agencies are part of this approval unless otherwise updated, revised, clarified in some manner, or superseded in full or in part. In the case of conflicting information between documents, the most recent documentation and this notice herein shall generally be determining.*

RESPONSE: Agreed.

17. *Violations. In the event of any violations of these conditions of approval or of any pertinent local, state, or federal laws – such as those regarding erosion and sedimentation control, wetlands, stormwater management, and general site development standards – the City of Rochester reserves the right to take any appropriate permissible action, including, but not limited to, withholding of building permits, withholding of certificates of occupancy, withholding of driveway permits, revocations of permits/approvals, referring violations to other agencies, and calling of bonds.*

RESPONSE: Agreed.

18. *Other permits. It is the responsibility of the applicant to obtain all other local, state, and federal permits, licenses, and approvals which may be required as part of this project. Contact the City of Rochester's Building, Zoning and Licensing Department at 332-3508 regarding building permits. Please also contact the City of Rochester Fire Department at 330-7182 to ensure that the proposed building meets all Fire Codes. Finally, please contact the Department of Public Works for any stormwater, sewer, or water permits or fees that are required.*

RESPONSE: Agreed.

19. *APPEAL PROCESS: Pursuant to RSA 677:15, an aggrieved party may appeal this decision to the Strafford County Superior Court within 30 days of the date the Board voted to approve or disapprove the application, or to the ZBA pursuant to RSA 676:5, III within 30 days of the date the Board made its decision.*

RESPONSE: Agreed.

Included with this response letter are the following:

1. Three (3) Full Size Plan Sets.
2. Three (3) Half-Size Plan Sets.
3. Three (3) Revised Drainage Analysis.
4. Waiver Request Letter.

Thank you very much for your time.

Very truly yours,

JONES & BEACH ENGINEERS, INC.

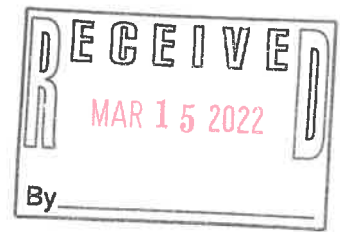
A handwritten signature in dark ink, appearing to read 'Bradford Jones', is written over the company name.

Bradford Jones
Vice President

cc: Fenton Groen, Groen Construction (via email)

JONES & BEACH ENGINEERS INC.

85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com



February 24, 2022

Rochester Planning Board
Attn. Nel Sylvian
31 Wakefield Street
Rochester, NH 03867

**RE: Waiver Request
Wadleigh Road, Rochester, NH
Tax Map 137, Lot 35-1
JBE Project No. 21137**

Dear Mr. Sylvian,

Jones & Beach Engineers, Inc. is the Engineer of Record for the Proposed Wadleigh Road Apartment Project currently under review by the City of Rochester Planning Board. We respectfully request a waiver from section 218-10.C(2)(b) and 218-10.C(3)(a) Groundwater Recharge Requirements.

Using multiple stormwater management technologies, we have been able to decrease the post development peak stormwater discharge to be less than the Existing Conditions flow. This is required by both the City and the State Alteration of Terrain bureau, however, we have not been able to also decrease the total volume of stormwater exiting the site. The only way to decrease stormwater volume is through infiltration into existing soil. This site has largely Group C and D soils with very low Ksat values (listed below), which do not infiltrate stormwater well, if at all. Test pits performed on the site have also revealed large areas of ledge and a high water table.

A Site Specific Soil Survey was performed and the soil types found the subject parcel include Hollis-Rock Outcrop-Chatfield Complex (Hydrologic Soil Group D) and Scituate very stony (HSG C) on the majority of the site with areas of Boxford Silt Loam (HSG C) occurring along the perimeter and Walpole very stony (HSG C) occurring in mapped wetland areas.

According to "Ksat Values for New Hampshire Soils" sponsored by the Society of Soil Scientists of Northern New England SSSNNE Special Publication No. 5, the saturated hydraulic conductivity (Ksat) values of these soils are as follows:

Hollis Rock Outcrop – 0.6 – 6.0 in/hour in the B horizon; 0.6-6.0 in/hour in the C horizon
Scituate very stony – 0.6 – 2.0 in/hour in the B horizon; 0.06–2.0 in/hour in the C horizon
Boxford Silt Loam – 0.1 – 0.2 in/hour in the B horizon; 0-0.2 in/hour in the C horizon.
Walpole very stony – 2.0 - 6.0 in/hour in the B horizon; 6.0-20.0 in/hour in the C horizon.

We are infiltrating as much stormwater as possible using underground tanks, which both store and partially infiltrate in order to try to reduce stormwater volume leaving the site, however, we are

unable to infiltrate enough of the stormwater to reduce the total volume leaving the site to the level that exists in existing conditions. This condition is typical of all sites that have poor soils that can't infiltrate. We will not have any increase in stormwater at peak times when the brook is running at its fullest, but rather we are storing the stormwater onsite and releasing it slowly over time.

The site has approximately 1,350 feet of frontage along Axe Handle Brook, which abuts the property. All stormwater from the project flows to this Brook. There is an existing dam along Axe Handle Brook located approximately midway along this site's brook frontage. The dam spillway controls flow in the brook which aids in protecting against adverse impacts to downstream properties, infrastructure, aquatic habitat, or water quality degradation in downstream water bodies.

We will also be requesting a waiver from the same Alternation of Terrain requirement for Groundwater Recharge when we apply for that permit. AoT has historically granted these waivers on sites with similar soil conditions.

Thank you very much for your time.

Very truly yours,

JONES & BEACH ENGINEERS, INC.



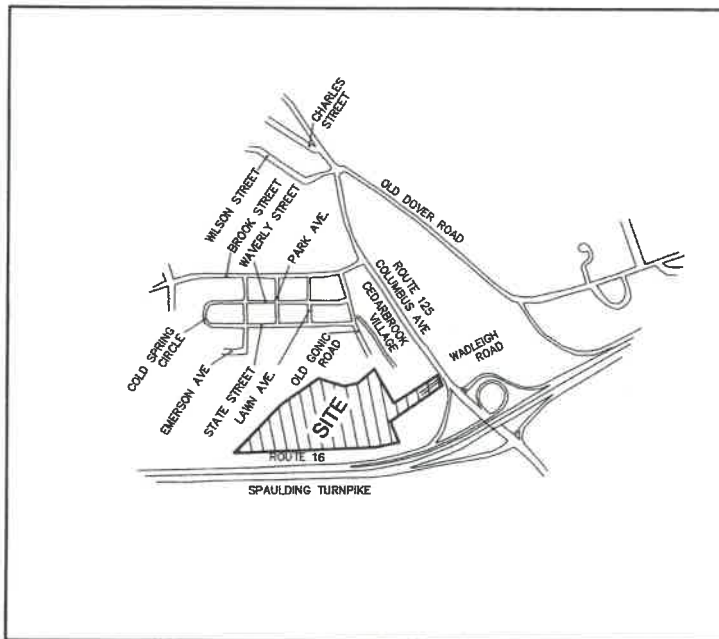
Brad Jones
Vice President

cc: Fenton Groen, Groen Construction (via email)

GENERAL LEGEND

EXISTING	PROPOSED	DESCRIPTION
		PROPERTY LINES
		SETBACK LINES
		CENTERLINE
		FRESHWATER WETLANDS LINE
		STREAM CHANNEL
		TREE LINE
		STONEWALL
		FENCE
		SOIL BOUNDARY
		FLOOD PLAIN LINE
		EASEMENT
		MAJOR CONTOUR
		MINOR CONTOUR
		EDGE OF PAVEMENT
		VERTICAL GRANITE CURB
		SILT FENCE
		DRAINAGE LINE
		SEWER LINE
		GAS LINE
		WATER LINE
		WATER SERVICE
		OVERHEAD ELECTRIC
		UNDERGROUND ELECTRIC
		GUARDRAIL
		UNDERDRAIN
		FIRE PROTECTION LINE
		THRUST BLOCK
		IRON PIPE/IRON ROD
		DRILL HOLE
		IRON ROD/DRILL HOLE
		STONE/GRANITE BOUND
		PAVEMENT SPOT GRADE
		BENCHMARK (BM)
		DOUBLE POST SIGN
		SINGLE POST SIGN
		TEST PIT
		FAILED TEST PIT
		MONITORING WELL
		TREES AND BUSHES
		UTILITY POLE
		LIGHT POLES
		DRAIN MANHOLE
		SEWER MANHOLE
		HYDRANT
		WATER GATE
		WATER SHUT OFF
		REDUCER
		SINGLE GRATE CATCH BASIN
		DOUBLE GRATE CATCH BASIN
		TRANSFORMER
		CULVERT W/WWG WALLS
		CULVERT W/FLARED END SECTION
		CULVERT W/STRAIGHT HEADWALL
		STONE CHECK DAM
		DRAINAGE FLOW DIRECTION
		WETLAND IMPACT
		RIPRAP
		OPEN WATER
		FRESHWATER WETLANDS
		STABILIZED CONSTRUCTION
		ENTRANCE
		CONCRETE
		GRAVEL
		SNOW STORAGE
		RETAINING WALL

RESIDENTIAL DEVELOPMENT "WADLEIGH ROAD APARTMENTS" TAX MAP 137, LOT 35-1 WADLEIGH ROAD, ROCHESTER, NH



LOCUS MAP
SCALE 1" = 1000'

SHEET INDEX

CS	COVER SHEET
OVR EX	OVERVIEW EXISTING CONDITIONS PLAN
C1-C2	EXISTING CONDITIONS PLAN
OVR S	OVERVIEW SITE PLAN
C3-C4	SITE PLAN
C5-C6	GRADING AND DRAINAGE PLAN
C7	EROSION CONTROL PLAN
P1-P2	ROAD PLAN AND PROFILE
P3-P4	SEWER PROFILE
U1-U2	UTILITY PLAN
L1	LANDSCAPE PLAN
L2-L3	LIGHTING PLAN
D1-D5	DETAIL SHEETS
D6	SELECT CROSS SECTIONS
E1	EROSION AND SEDIMENT CONTROL DETAILS
T1	TRUCK TURNING PLAN

CIVIL ENGINEER / SURVEYOR
JONES & BEACH ENGINEERS, INC.
85 PORTSMOUTH AVENUE
PO BOX 219
STRATHAM, NH 03885
(603) 772-4746
CONTACT: BRAD JONES
EMAIL: BJONES@JONESANDBEACH.COM

TRAFFIC ENGINEER
STEPHEN G. PERNAW & COMPANY, INC.
P.O. BOX 1821
CONCORD, NH 03302
(603) 731-8500
CONTACT: STEPHEN G. PERNAW
EMAIL: SGP@PERNAW.COM

WETLAND CONSULTANT
GOVE ENVIRONMENTAL SERVICES, INC.
8 CONTINENTAL DR., BUILDING 2, UNIT H
EXETER, NH 03833-7526
(603) 778-0644
CONTACT: JAMES GOVE
EMAIL: JGOVE@GESINC.BIZ

LANDSCAPE DESIGNER
LM LAND DESIGN, LLC
11 SOUTH ROAD
BRENTWOOD, NH 03833
(603) 770-7728
CONTACT: LISE McNAUGHTON
LMLANDDESIGN@GMAIL.COM

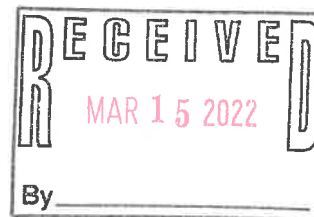
WATER AND SEWER
ROCHESTER DEPARTMENT OF PUBLIC WORKS
45 OLD DOVER ROAD
ROCHESTER, NH 03867
(603) 332-4096
CONTACT: MICHAEL BEZANSON, P.E.

ELECTRIC
EVERSOURCE ENERGY
74 OLD DOVER ROAD
ROCHESTER, NH 03867
(603) 332-7507
CONTACT: PIERRE BOUGIE

TELEPHONE
CONSOLIDATED COMMUNICATIONS
1575 GREENLAND ROAD
GREENLAND, NH 03840
(603) 427-5525
CONTACT: JOE CONSIDINE

CABLE TV
COMCAST COMMUNICATION CORPORATION
334-B CALEF HIGHWAY
EPPING, NH 03042-2325
(603) 679-5695

NATURAL GAS
UNITIL SERVICE CORP.
325 WEST ROAD
PORTSMOUTH, NH 03801
(603) 294-5261
MACLEAND@UNITIL.COM



PROJECT PARCEL
CITY OF ROCHESTER
TAX MAP 137, LOT 35-1

APPLICANT
GROEN CONSTRUCTION
120 WASHINGTON STREET
SUITE 302
ROCHESTER NH 03839

TOTAL LOT AREA
8.4 ACRES ±

APPROVED - ROCHESTER, NH
PLANNING BOARD

DATE:

Design: LAZ	Draft: LAZ	Date: 9/8/21
Checked: BAJ	Scale: AS NOTED	Project No: 21137
Drawing Name: 21137-PLAN.dwg		
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.		



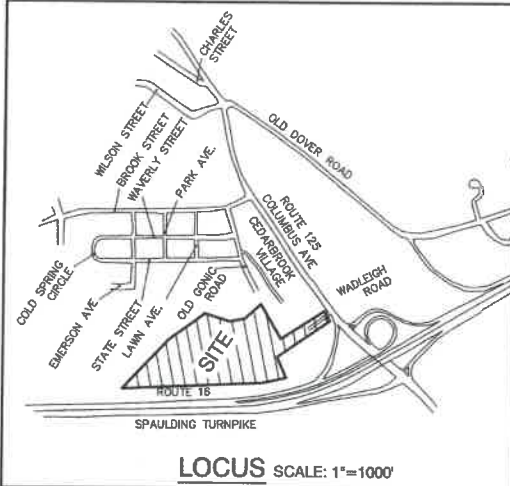
REV.	DATE	REVISION	BY
5	3/14/22	REVISED PER CITY COMMENTS	LAZ
4	1/14/22	REVISED PER CITY COMMENTS	LAZ
3	12/14/21	REVISED PER CITY COMMENTS	LAZ
2	12/8/21	REVISED PER CONSERVATION COMMISSION COMMENTS	LAZ
1	9/21/21	ISSUED FOR PLANNING BOARD	LAZ

J/B Jones & Beach Engineers, Inc.
85 Portsmouth Ave. PO Box 219 Stratham, NH 03885
Civil Engineering Services
603-772-4746 FAX: 603-772-0227 E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	COVER SHEET
Project:	WADLEIGH ROAD APARTMENTS ROCHESTER, NH
Owner of Record:	SSG, LLC ATTN: FENTON GROEN 120 WASHINGTON STREET, ROCHESTER, NH 03839

DRAWING No.	CS
SHEET 1 OF 27	JBE PROJECT NO. 21137

PROJECT NAME AND LOCATION
JBE # 21137
REVISION 12/14/21



EXISTING CONDITIONS NOTES:

1. THE INTENT OF THIS PLAN IS TO SHOW THE EXISTING CONDITIONS AND BOUNDARY ON TAX MAP 137, LOT 35-1. EXISTING CONDITIONS SURVEY WAS PERFORMED IN AUGUST THROUGH NOVEMBER, 2021.
2. UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM FIELD OBSERVATION AND THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. NEITHER JONES & BEACH ENGINEERS, INC., NOR ANY OF THEIR EMPLOYEES TAKE RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES OR UTILITIES NOT SHOWN THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXCAVATE WORK BY CALLING 1-888-DIG-SAFE (1-888-344-7233).
3. SUBJECT PROPERTY IS PARTIALLY LOCATED WITHIN FEDERALLY DESIGNATED 100 YEAR FLOOD HAZARD ZONE, REFERENCE FEMA COMMUNITY PANEL NO. 33017 C02110, DATED MAY 17, 2005.
4. THE LIMITS OF JURISDICTIONAL WETLANDS WERE DELINEATED BY GOVE ENVIRONMENTAL DURING SUMMER, 2021, USING (EQUIPMENT) AND IN ACCORDANCE WITH THE FOLLOWING GUIDANCE DOCUMENTS:
 - A. THE CORPS OF ENGINEERS FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS.
 - B. THE NORTH CENTRAL & NORTHEAST REGIONAL SUPPLEMENT TO THE FEDERAL MANUAL.
 - C. THE CURRENT VERSION OF THE FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, AS PUBLISHED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION AND/OR THE CURRENT VERSION OF THE FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, AS PUBLISHED BY THE USDA, NRCS, AS APPROPRIATE.
 - D. THE CURRENT NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS, AS PUBLISHED BY THE US FISH AND WILDLIFE SERVICE.
5. A TEMPORARY CULVERT AND ROADBED SHALL BE IN PLACE PRIOR TO ANY USE OF A WETLAND CROSSING.
6. WETLAND IMPACTS SHALL NOT OCCUR UNTIL ALL PERMITS HAVE BEEN ACQUIRED AND IMPACT MITIGATION REQUIREMENTS HAVE BEEN SATISFIED.
7. TEST PITS PERFORMED BY GOVE ENVIRONMENTAL SERVICES, INC., 10/1/21.
8. WETLAND BOUNDARIES AND CONSTRUCTION LIMITS ARE TO BE CLEARLY MARKED PRIOR TO THE START OF CONSTRUCTION.
9. BASIS OF BEARING: HORIZONTAL - SPCS NH. VERTICAL - NAVD 88.
10. CERTAIN DATA HEREON MAY VARY FROM RECORDED DATA DUE TO DIFFERENCES IN DECLINATION, ORIENTATION, AND METHODS OF MEASUREMENT.
11. ALL BOOK AND PAGE NUMBERS REFER TO THE STRAFFORD COUNTY REGISTRY OF DEEDS.
12. THE TAX MAP AND LOT NUMBERS ARE BASED ON THE TOWN OF ROCHESTER TAX RECORDS AND ARE SUBJECT TO CHANGE.
13. RESEARCH WAS PERFORMED AT THE TOWN OF ROCHESTER ASSESSOR'S OFFICE AND THE STRAFFORD COUNTY REGISTRY OF DEEDS.
14. THIS SURVEY IS NOT A CERTIFICATION TO OWNERSHIP OR TITLE OF LANDS SHOWN. OWNERSHIP AND ENCUMBRANCES ARE MATTERS OF TITLE EXAMINATION NOT OF A BOUNDARY SURVEY. THE INTENT OF THIS PLAN IS TO RETRACE THE BOUNDARY LINES OF DEEDS REFERENCED HEREON. OWNERSHIP OF ADJOINING PROPERTIES IS ACCORDING TO ASSESSOR'S RECORDS. THIS PLAN MAY OR MAY NOT INDICATE ALL ENCUMBRANCES EXPRESSED, IMPLIED OR PRESCRIPTIVE.
15. ANY USE OF THIS PLAN AND OR ACCOMPANYING DESCRIPTIONS SHOULD BE DONE WITH LEGAL COUNSEL, TO BE CERTAIN THAT TITLES ARE CLEAR, THAT INFORMATION IS CURRENT, AND THAT ANY NECESSARY CERTIFICATES ARE IN PLACE FOR A PARTICULAR CONVEYANCE, OR OTHER USES.
16. THIS PLAN IS THE RESULT OF A CLOSED TRAVERSE WITH A RAW, UNADJUSTED LINEAR ERROR OF CLOSURE GREATER THAN 1 IN 15,000.
17. SURVEY THE LINES SHOWN HEREON ARE NOT BOUNDARY LINES. THEY SHOULD ONLY BE USED TO LOCATE THE PARCEL SURVEYED FROM THE FOUND MONUMENTS SHOWN AND LOCATED BY THIS SURVEY.
18. THE EDGE OF BROOK AS SHOWN HEREON WAS HELD PER RECORD PLAN REFERENCE #1 AND DEED, HOWEVER RIPARIAN RIGHTS MAY EXTEND TO THE CENTER OF SAID BROOK.

PLAN REFERENCES:

1. "PLAN OF LAND PARCEL NO. 5 TAX ASSESSOR'S MAP NO. 59 AND PARCEL NO. 2 TAX ASSESSOR'S MAP NO. 8 NEW HAMPSHIRE ROUTE 125 PREPARED FOR JEN-SOOT REALTY, INC.", PREPARED BY CIVILWORKS ENGINEERS AND SURVEYORS; DATED NOVEMBER 8, 1989 RECORDED AT THE STRAFFORD COUNTY REGISTRY OF DEEDS AS PLAN P-37A-028.
2. "CEDARBROOK VILLAGE CONDOMINIUM DEVELOPMENT BOUNDARY SURVEY FOR ROUNDHOUSE REALTY TRUST ROCHESTER, NH; PREPARED BY BERRY CONST. CO., INC.; DATED APRIL 23, 1988; RECORDED AT THE STRAFFORD COUNTY REGISTRY OF DEEDS AS PLAN P-37A-028.
3. "THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION, RIGHT-OF-WAY PLANS, PROJECT NO. 10620-0, SPAULDING TURNPIKE, NH ROUTE 16" BY STANTEC, SCALE 1"=50', DATED JANUARY 11, 2011, PLAN 10620-0 ON FILE AT THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION.

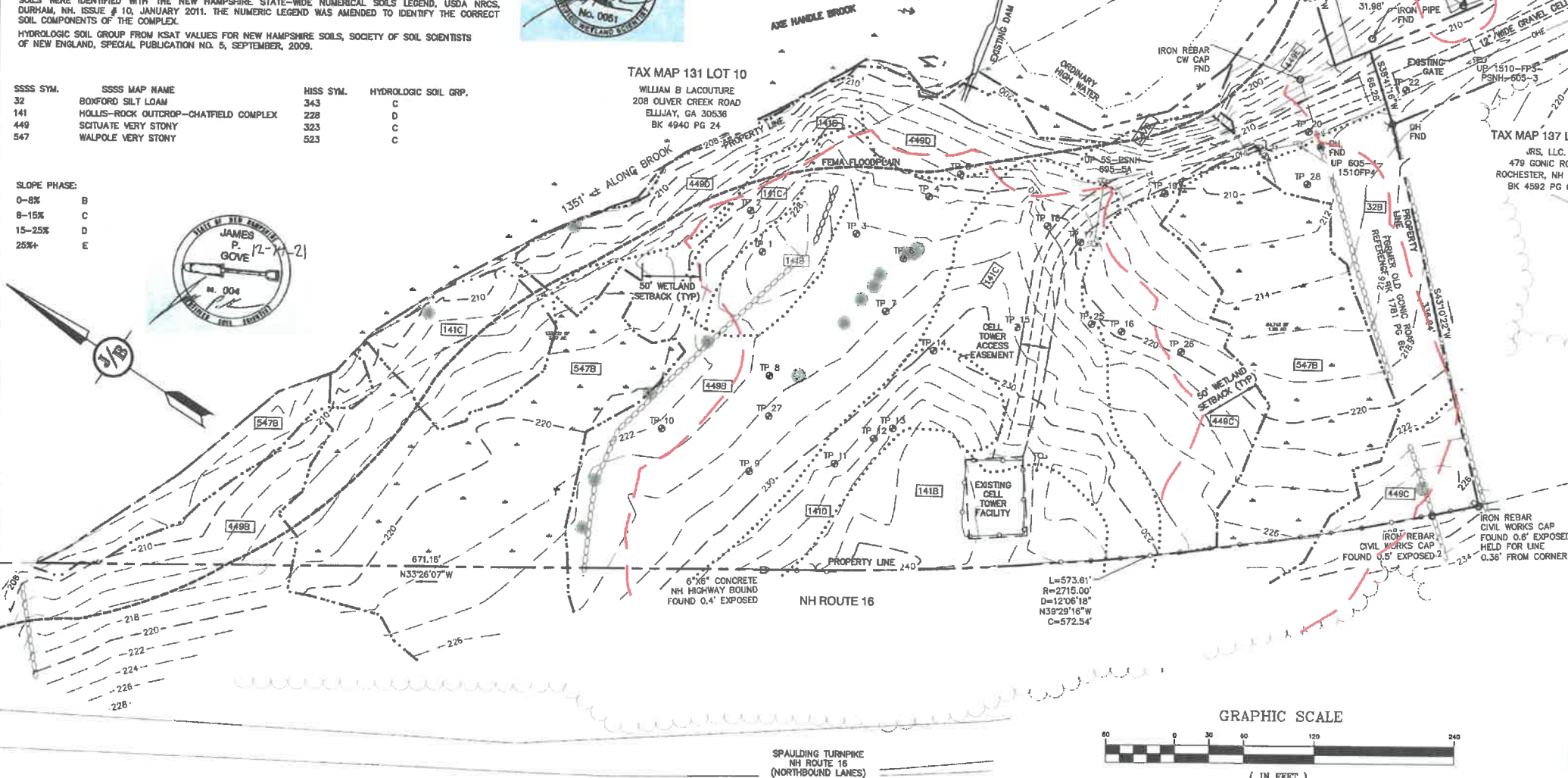
SOIL NOTES:

THIS MAP PRODUCT IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOIL SURVEY. IT IS A SPECIAL PURPOSE PRODUCT, INTENDED FOR INFILTRATION REQUIREMENTS BY THE NH DES ALTERATION OF TERRAIN BUREAU. IT WAS PRODUCED BY A PROFESSIONAL SOIL SCIENTIST, AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCES CONSERVATION SERVICE. THERE IS A REPORT THAT ACCOMPANIES THIS MAP. THE SITE SPECIFIC SOIL SURVEY (SSSS) WAS PRODUCED NOVEMBER 2, 2021, AND WAS PREPARED BY JAMES P. GOVE, CSS # 004, GOVE ENVIRONMENTAL SERVICES, INC. THE SURVEY AREA IS LOCATED AT 28 WADLEIGH ROAD, ROCHESTER, NH. SOILS WERE IDENTIFIED WITH THE NEW HAMPSHIRE STATE-WIDE NUMERICAL SOILS LEGEND, USDA NRCS, DURHAM, NH, ISSUE # 10, JANUARY 2011. THE NUMERIC LEGEND WAS AMENDED TO IDENTIFY THE CORRECT SOIL COMPONENTS OF THE COMPLEX. HYDROLOGIC SOIL GROUP FROM KSAT VALUES FOR NEW HAMPSHIRE SOILS, SOCIETY OF SOIL SCIENTISTS OF NEW ENGLAND, SPECIAL PUBLICATION NO. 5, SEPTEMBER, 2009.



SSSS SYM.	SSSS MAP NAME	HISS SYM.	HYDROLOGIC SOIL GRP.
32	BOXFORD SILT LOAM	343	C
141	HOLLIS-ROCK OUTCROP-CHATFIELD COMPLEX	228	D
449	SCITUATE VERY STONY	323	C
547	WALPOLE VERY STONY	523	C

SLOPE PHASE:	
0-8%	B
8-15%	C
15-25%	D
25%+	E



CERTIFICATION:

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 UNADJUSTED LINEAR ERROR OF CLOSURE THAT EXCEEDS BOTH THE MINIMUM OF 1:10,000 AS DEFINED IN SECTION 503.04 OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES AND THE MINIMUM OF 1:15,000 AS DEFINED IN SECTION 4.2 OF THE N.H.L.S.A. ETHICS AND STANDARDS.

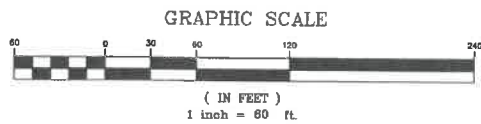
THIS SURVEY CONFORMS TO A CATEGORY 1 CONDITION 1 SURVEY AS DEFINED IN SECTION 4.1 OF THE N.H.L.S.A. ETHICS AND STANDARDS.

I CERTIFY THAT THIS SURVEY PLAN 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.



DAVID M. COLLIER, LLS 892
ON BEHALF OF JONES & BEACH ENGINEERS, INC.

DATE:



Design: LAZ	Draft: LAZ	Date: 9/8/21
Checked: BAJ	Scale: 1"=30'	Project No.: 21137
Drawing Name: 21137-PLAN.dwg		
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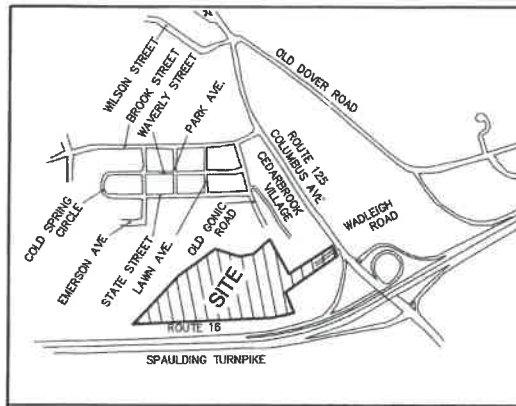
REV.	DATE	REVISION	BY
5	3/14/22	REVISED PER CITY COMMENTS	LAZ
4	1/14/22	REVISED PER CITY COMMENTS	LAZ
3	12/14/21	REVISED PER CITY COMMENTS	LAZ
2	12/8/21	REVISED PER CONSERVATION COMMISSION COMMENTS	LAZ
1	9/21/21	ISSUED FOR PLANNING BOARD	LAZ

J/B Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave.
PO Box 219
Stratham, NH 03885
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

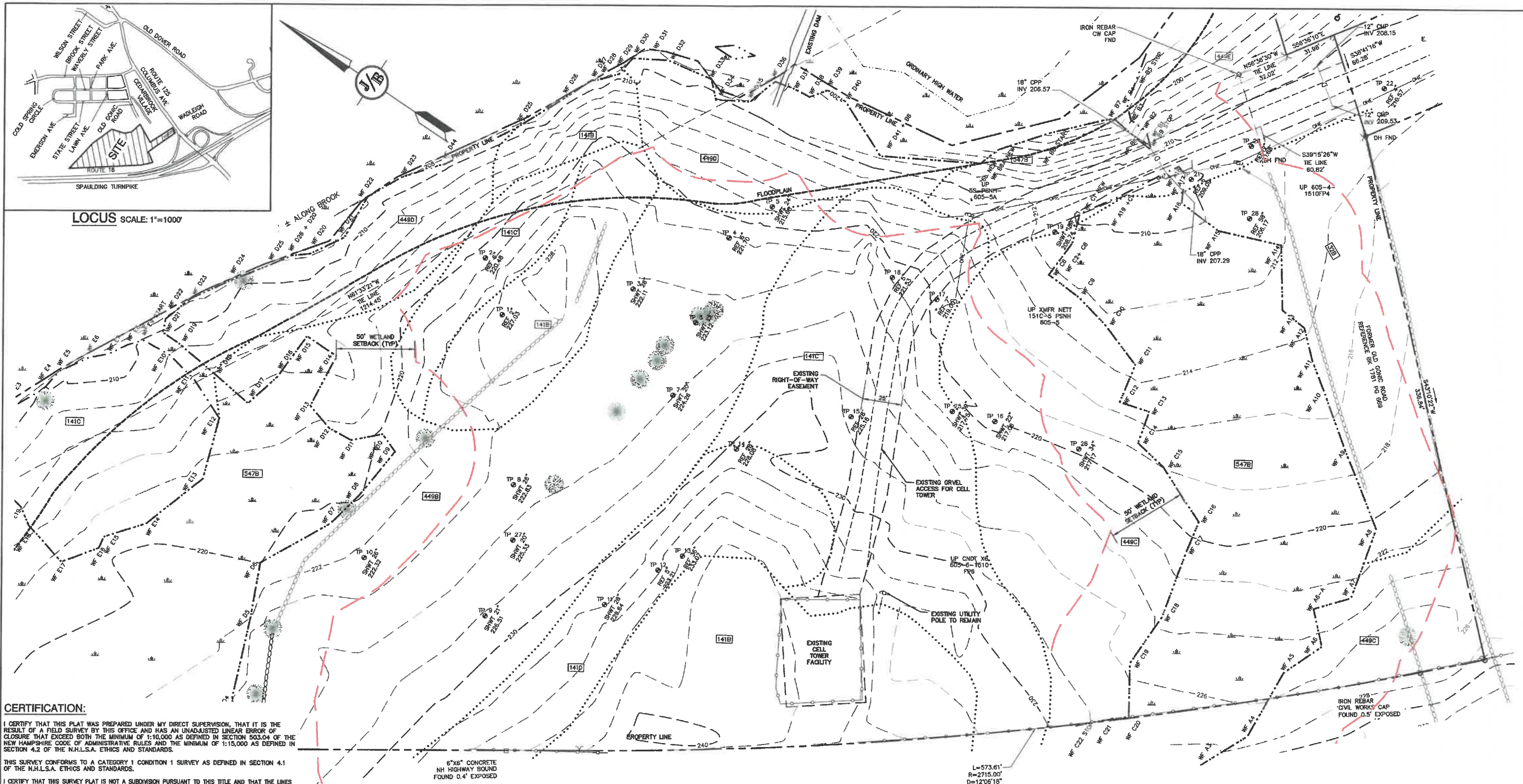
Plan Name:	EXISTING CONDITIONS OVERVIEW PLAN
Project:	WADLEIGH ROAD APARTMENTS ROCHESTER, NH
Owner of Record:	SSG, LLC ATTN: FENTON GROEN 120 WASHINGTON STREET, ROCHESTER, NH 03839

PROJECT PARCEL CITY OF ROCHESTER TAX MAP 137, LOT 35-1
APPLICANT GROEN CONSTRUCTION 120 WASHINGTON STREET SUITE 302 ROCHESTER NH 03839
TOTAL LOT AREA 8.4 ACRES±

DRAWING No.
OVR EX
SHEET 2 OF 27
JBE PROJECT NO. 21137



LOCUS SCALE: 1"=1000'



CERTIFICATION:

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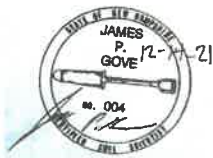
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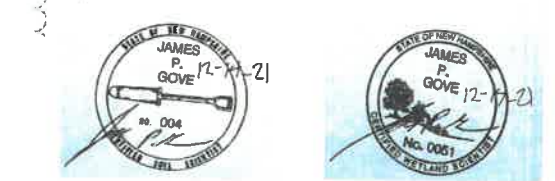
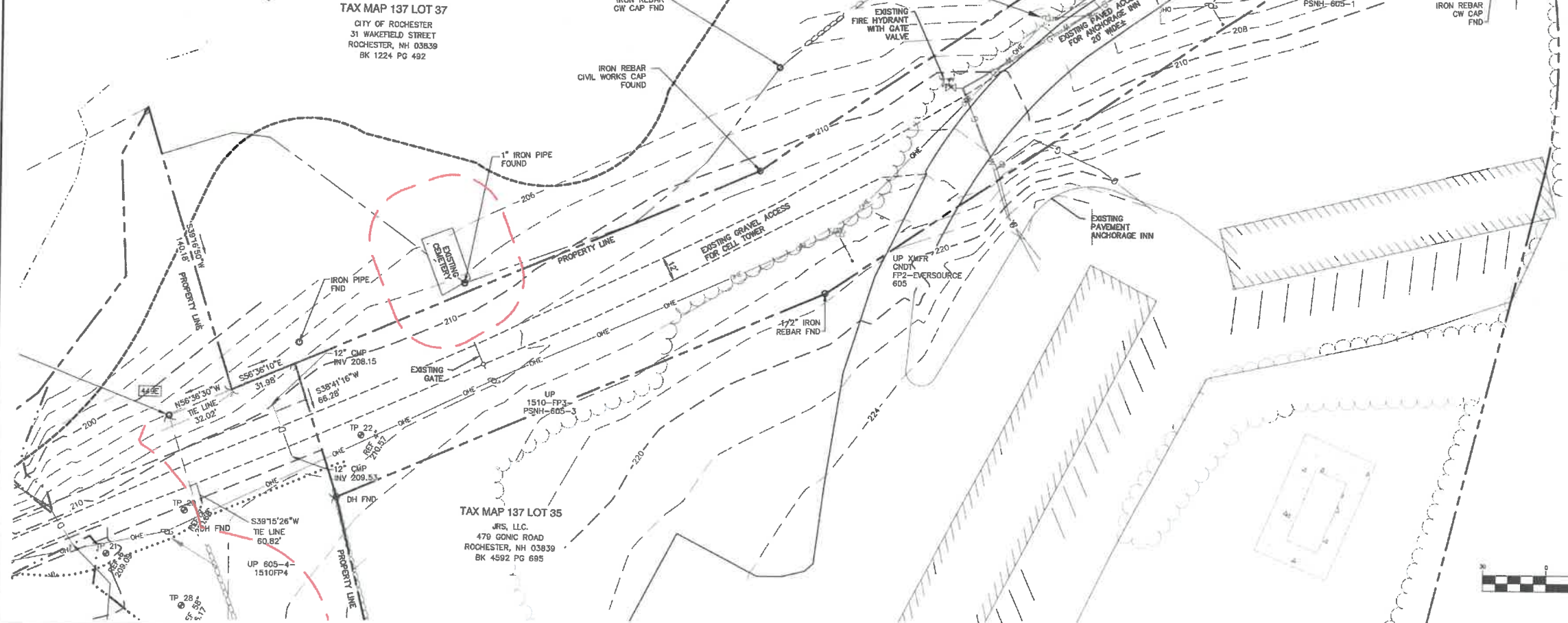
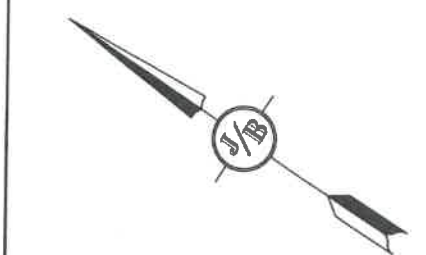
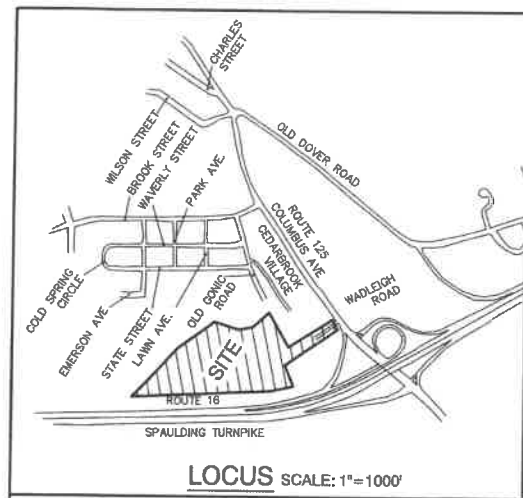
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1	9/21/21	ISSUED FOR PLANNING BOARD	LAZ

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PROJECT PARCEL CITY OF ROCHESTER TAX MAP 137, LOT 35-1
APPLICANT GROEN CONSTRUCTION 120 WASHINGTON STREET SUITE 302 ROCHESTER, NH 03839
TOTAL LOT AREA 8.4 ACRES ±

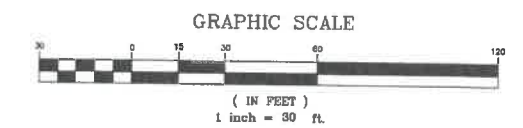
DRAWING No.
C1
SHEET 3 OF 27 JBE PROJECT NO. 21137



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DAVID M. COLLIER, LLS 892
ON BEHALF OF JONES & BEACH ENGINEERS, INC.

DATE: 3/15/2022



PROJECT PARCEL
CITY OF ROCHESTER
TAX MAP 137, LOT 35-1
APPLICANT
GROEN CONSTRUCTION
120 WASHINGTON STREET
SUITE 302
ROCHESTER NH 03839
TOTAL LOT AREA
8.4 ACRES±

Design: LAZ Draft: LAZ Date: 9/8/21
Checked: BAJ Scale: 1"=90' Project No.: 21137
Drawing Name: 21137-PLAN.dwg
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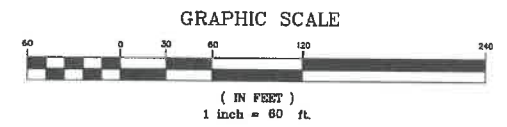
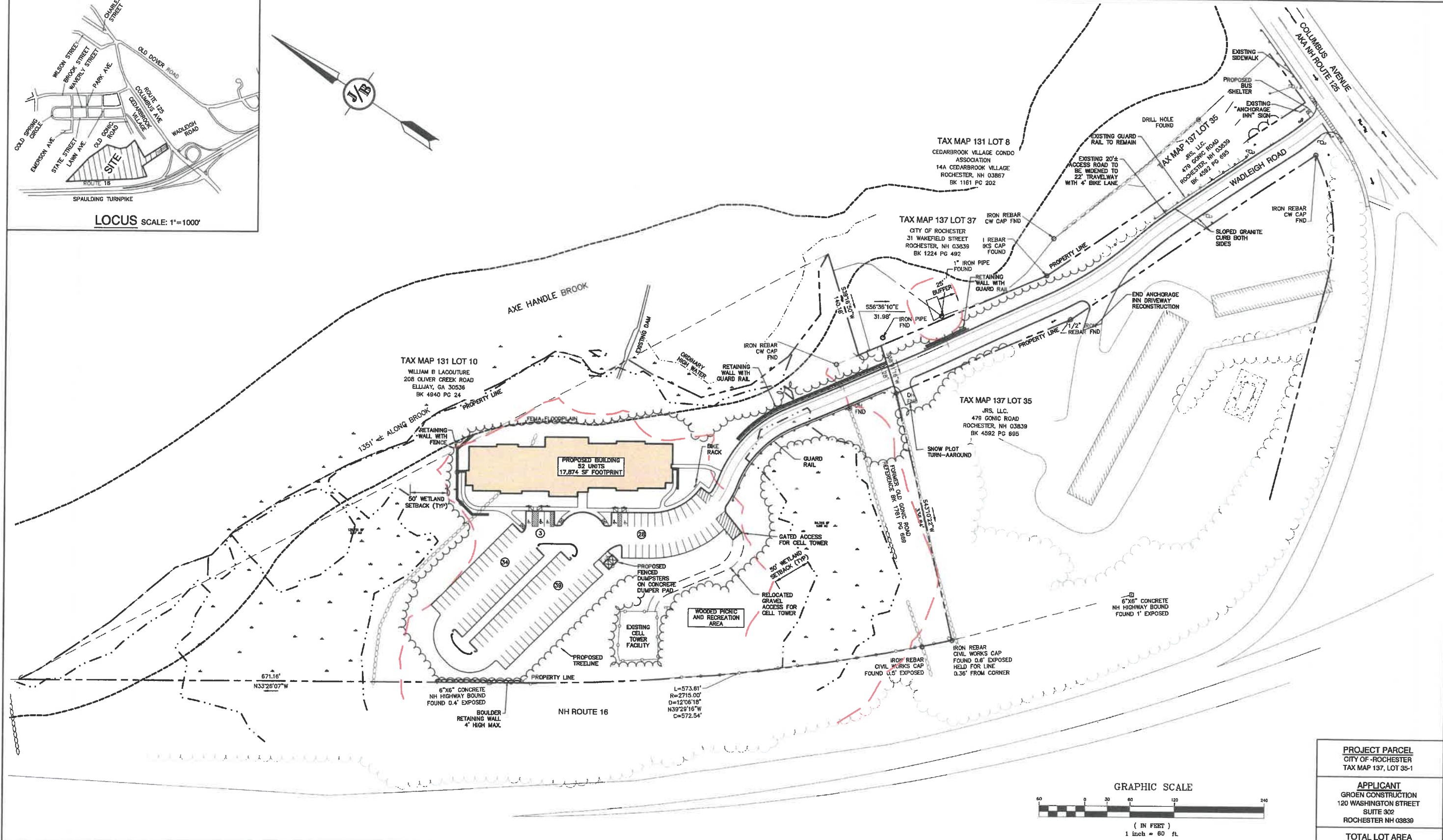
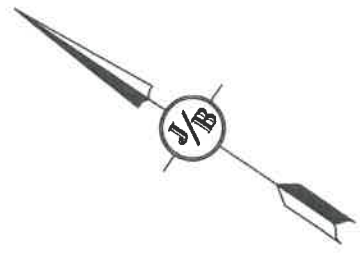
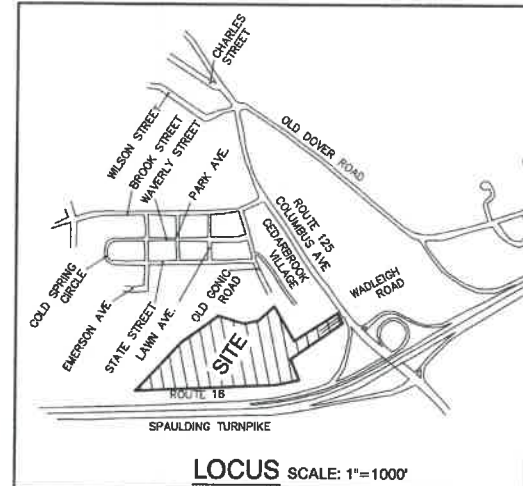


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3	12/14/21	REVISED PER CITY COMMENTS	LAZ
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1	9/21/21	ISSUED FOR PLANNING BOARD	LAZ

J/B Jones & Beach Engineers, Inc.
Civil Engineering Services
85 Portsmouth Ave. PO Box 219 Stratham, NH 03885
603-772-4748 FAX: 603-772-0227 E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	EXISTING CONDITIONS PLAN
Project:	WADLEIGH ROAD APARTMENTS ROCHESTER, NH
Owner of Record:	SSG, LLC ATTN: FENTON GROEN 120 WASHINGTON STREET, ROCHESTER, NH 03839

DRAWING No.
C2
SHEET 4 OF 27
JBE PROJECT NO. 21137



PROJECT PARCEL
CITY OF ROCHESTER
TAX MAP 137, LOT 35-1

APPLICANT
GROEN CONSTRUCTION
120 WASHINGTON STREET
SUITE 302
ROCHESTER NH 03839

TOTAL LOT AREA
6.4 ACRES±

Design: LAZ Draft: LAZ Date: 9/8/21
Checked: BAJ Scale: 1"=30' Project No.: 21137
Drawing Name: 21137-PLAN.dwg

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Civil Engineering Services

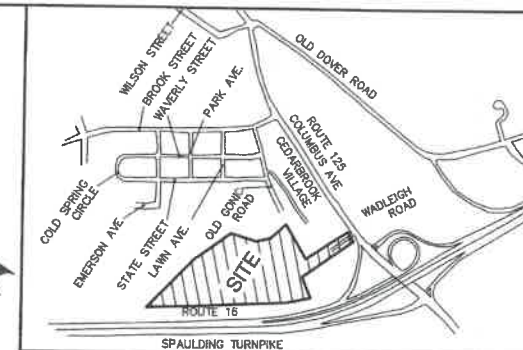
85 Portsmouth Ave.
PO Box 218
Stratham, NH 03885

Designed and Produced in NH
603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	OVERVIEW SITE PLAN
Project:	WADLEIGH ROAD APARTMENTS ROCHESTER, NH
Owner of Record:	SSG, LLC ATTN: FENTON GROEN 120 WASHINGTON STREET, ROCHESTER, NH 03839

DRAWING No.
OVRS
SHEET 5 OF 27
JBE PROJECT NO. 21137

TAX MAP 131 LOT 10
WILLIAM B LACOUTURE
206 OLIVER CREEK ROAD
ELLIJAY, GA 30536
BK 4840 PG 24



SITE NOTES:

LOCUS SCALE: 1"=1000'

- THE INTENT OF THIS PLAN IS TO SHOW A LAYOUT FOR A FIFTY-TWO (52) UNIT APARTMENT COMPLEX ON TAX MAP 137, LOT 35-1. ACCESS FOR THE SITE WILL BE FROM WADLEIGH ROAD. PROJECT TO BE SERVED BY ELECTRIC, MUNICIPAL SEWER & PUBLIC WATER.
- ZONING DISTRICT: HIGHWAY COMMERCIAL
LOT AREA MINIMUM = 20,000 SF
LOT FRONTAGE MINIMUM = 100'
LOT AREA PER DWELLING UNIT = 7,500 SF
BUILDING SETBACKS
FRONT SETBACK = 20'
SIDE SETBACK = 10'
REAR SETBACK = 25'
WETLAND SETBACK = 50'
PAVEMENT SETBACKS
FRONT SETBACK = 10'
SIDE SETBACK = 5'
REAR SETBACK = 10'
MAX LOT COVERAGE = 85%
- PARKING CALCULATIONS:
TOTAL NUMBER OF UNITS = 52
2 SPACES PER UNIT = 104 SPACES REQUIRED
SPACES PROVIDED = 104 SPACES (INCLUDING 5 HANDICAP ACCESSIBLE SPACES)
- THIS PLAN SET HAS BEEN PREPARED BY JONES & BEACH ENGINEERS, INC., FOR MUNICIPAL AND STATE APPROVALS. BASED ON DATA OBTAINED FROM ON-SITE FIELD SURVEY AND EXISTING MUNICIPAL RECORDS AND LIDAR CONTOUR INFORMATION. THROUGHOUT THE CONSTRUCTION PROCESS, THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY FIELD DISCREPANCY FROM DATA AS SHOWN ON THE DESIGN PLANS, INCLUDING ANY UNFORESEEN CONDITIONS, SUBSURFACE OR OTHERWISE, FOR EVALUATION AND RECOMMENDATIONS. ANY CONTRADICTION BETWEEN ITEMS ON THIS PLAN/PLAN SET, OR BETWEEN THE PLANS AND ON-SITE CONDITIONS, MUST BE RESOLVED BEFORE RELATED CONSTRUCTION HAS BEEN INITIATED. CONTRACTOR TO ALWAYS CONTACT DIG SAFE PRIOR TO DIGGING ON-SITE OR OFF-SITE TO ENSURE SAFETY AND OBEY THE LAW.
- ALL CONSTRUCTION SHALL CONFORM TO TOWN STANDARDS AND REGULATIONS, AND NHDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, WHICHEVER IS MORE STRINGENT.
- SUBJECT PROPERTY IS PARTIALLY LOCATED WITHIN FEDERALLY DESIGNATED 100 YEAR FLOOD HAZARD ZONE A. REFERENCE FEMA COMMUNITY PANEL NO. 33017 C0211D, DATED MAY 17, 2005.
- LANDOWNERS ARE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL WETLAND REGULATIONS, INCLUDING PERMITTING REQUIRED UNDER THESE REGULATIONS.
- ALL CONSTRUCTION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN (S.W.P.P.P.). THIS DOCUMENT IS TO BE KEPT ON-SITE AT ALL TIMES AND UPDATED AS REQUIRED.
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER, ARCHITECT AND/OR OWNER, IN ORDER TO OBTAIN AND/OR PAY ALL THE NECESSARY LOCAL PERMITS, FEES AND BONDS.
- ALL PROPOSED SIGNAGE SHALL CONFORM WITH THE TOWN ZONING REGULATIONS, UNLESS A VARIANCE IS OTHERWISE REQUESTED.
- ALL SIGNAGE AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) AND NHDOT STANDARDS AND SPECIFICATIONS (NON-REFLECTORIZED PAVEMENT MARKINGS), UNLESS OTHERWISE NOTED.
- ALL PARKING STALLS SHALL BE SEPARATED USING 4" WIDE SOLID STRIPES. STRIPING SHALL BE 100% ACRYLIC TYPE, LOW VOC, FAST DRYING, IN A COLOR OF WHITE.
- ALL STOP BARS SHALL BE 18" IN WIDTH IN A COLOR OF WHITE; ALL TRAFFIC ARROWS SHALL BE PAINTED IN A COLOR OF WHITE.
- ALL CURBING TO BE SLOPED GRANITE WITH A MINIMUM RADIUS OF 2', UNLESS OTHERWISE NOTED.
- ALL BUILDING DIMENSIONS SHALL BE VERIFIED WITH THE ARCHITECTURAL AND STRUCTURAL PLANS PROVIDED BY THE OWNER. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND OWNER PRIOR TO THE START OF CONSTRUCTION. BUILDING DIMENSIONS AND AREAS TO BE TO OUTSIDE OF MASONRY, UNLESS OTHERWISE NOTED.
- SNOW TO BE STORED AT EDGE OF PAVEMENT AND IN AREAS SHOWN ON THE PLANS, OR TRUCKED OFF-SITE TO AN APPROVED SNOW DUMPING LOCATION.
- ALL CONSTRUCTION ACTIVITIES SHALL CONFORM TO LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) RULES AND REGULATIONS.
- THE FOLLOWING VARIANCES HAVE BEEN RECEIVED BY THE CITY OF ROCHESTER ZONING BOARD OF ADJUSTMENT:
SECTION 275-20.2-K.3 FOR APARTMENT USE
SECTION 275-19.2-E BUILDING SIZE
TABLE 19-B BUILDING HEIGHT
- A CONDITIONAL USE PERMIT WILL BE REQUIRED FOR ALL WORK WITHIN WETLAND BUFFERS.
- THE EXISTING HISTORICAL MARKER SHALL BE RESTORED AT THE EXPENSE OF THE APPLICANT PRIOR TO THE CERTIFICATE OF OCCUPANCY.
- A BLASTING PERMIT SHALL BE SUBMITTED AND APPROVED BY THE ROCHESTER FIRE DEPARTMENT PRIOR TO ANY BLASTING WORK.
- SNOW SHALL BE REMOVED USING GREEN SNO-PRO TECHNIQUES.
- ADDITIONAL CITY PERMITS REQUIRED:
CITY DPW STORMWATER PERMIT
CITY WATER AND SEWER CONNECTION PERMIT
CITY ROW EXCAVATION AND DRIVEWAY PERMIT
- STATE PERMITS REQUIRED:
NHDES WETLAND PERMIT
NHDES ALTERATION OF TERRAIN PERMIT
NHDES SEWER CONNECTION PERMIT
NHDOT DRIVEWAY PERMIT

PROJECT PARCEL
CITY OF ROCHESTER
TAX MAP 137, LOT 35-1

APPLICANT
GROEN CONSTRUCTION
120 WASHINGTON STREET
SUITE 302
ROCHESTER NH 03839

TOTAL LOT AREA
8.4 ACRES±

GRAPHIC SCALE



Design: LAZ Draft: LAZ Date: 9/8/21
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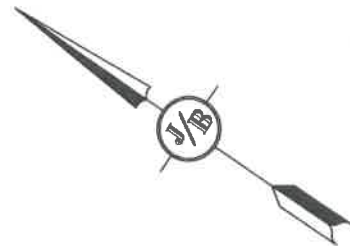
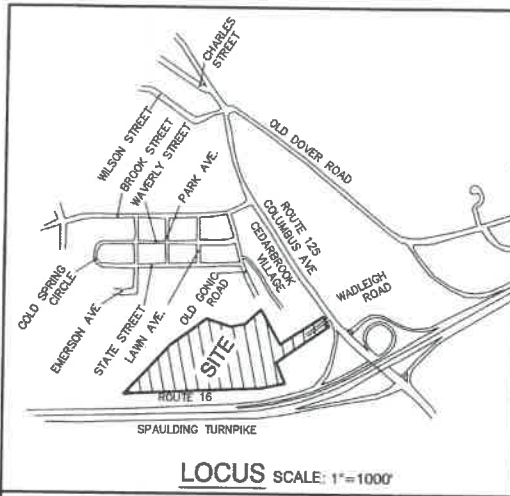
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603-772-4746
FAX: 603-772-0227
E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: **SITE PLAN**
Project: **WADLEIGH ROAD APARTMENTS
ROCHESTER, NH**
Owner of Record: **SSG, LLC ATTN: FENTON GROEN
120 WASHINGTON STREET, ROCHESTER, NH 03839**

DRAWING No.

C3

SHEET 8 OF 27
JBE PROJECT NO. 21137



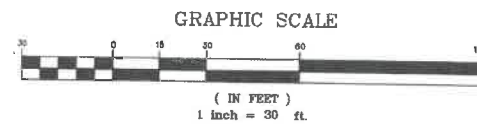
TAX MAP 131 LOT 8
CEDARBROOK VILLAGE CONDO
ASSOCIATION
14A CEDARBROOK VILLAGE
ROCHESTER, NH 03867
BK 1161 PG 202

TAX MAP 137 LOT 37
CITY OF ROCHESTER
31 WAKEFIELD STREET
ROCHESTER, NH 03839
BK 1224 PG 492

TAX MAP 137 LOT 35
JRS, LLC
479 GONIC ROAD
ROCHESTER, NH 03839
BK 4582 PG 695

TAX MAP 137 LOT 35
JRS, LLC
479 GONIC ROAD
ROCHESTER, NH 03839
BK 4582 PG 695

SMH
RM ELEV.=189.08'
IN.VAN 8" PVC
ELEV.=185.02
INV.OUT 8" PVC
ELEV.=185.00'



PROJECT PARCEL
CITY OF ROCHESTER
TAX MAP 137, LOT 35-1

APPLICANT
GROEN CONSTRUCTION
120 WASHINGTON STREET
SUITE 302
ROCHESTER NH 03839

TOTAL LOT AREA
8.4 ACRES±

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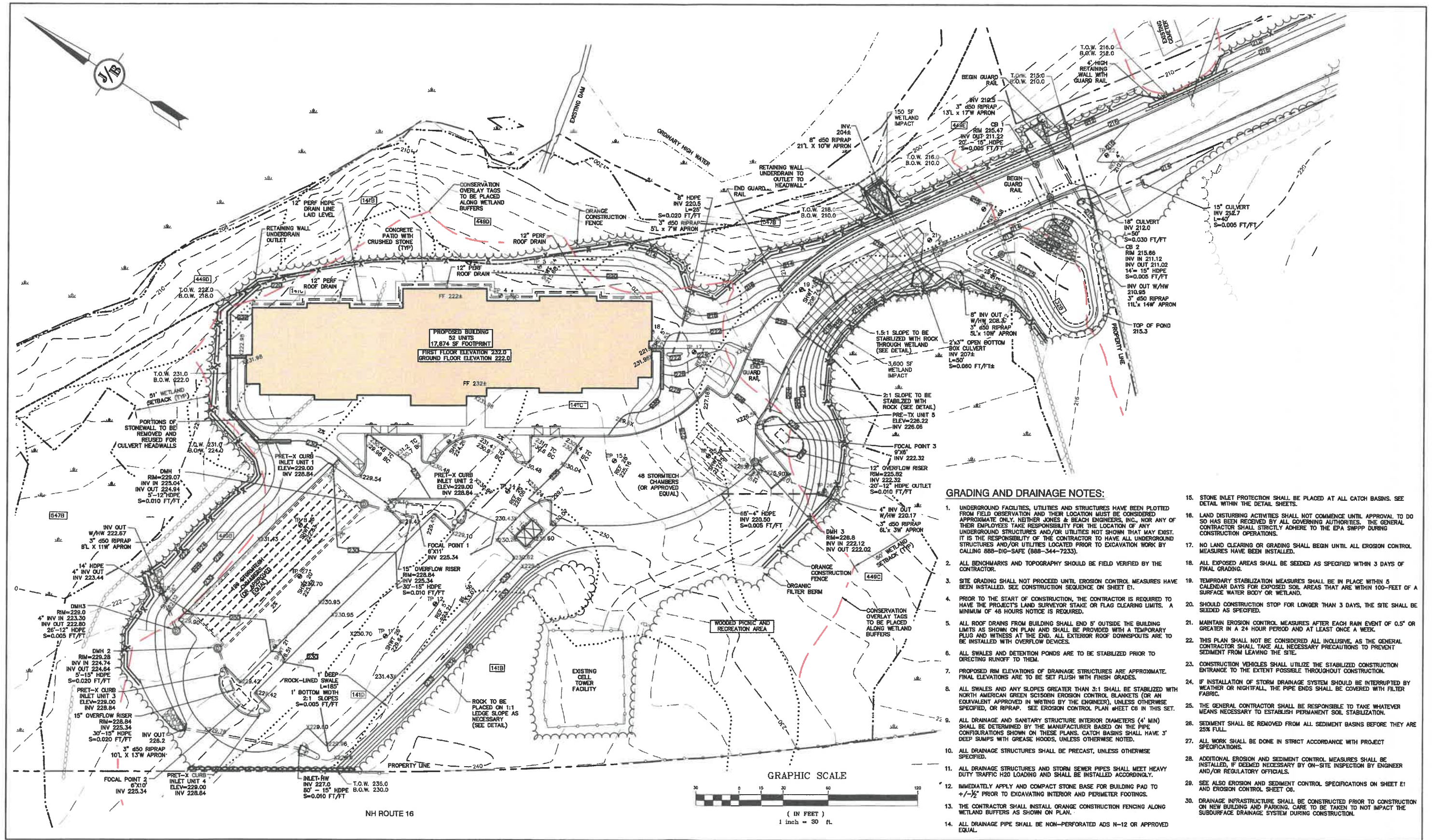


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DRAWING No.
C4
SHEET 7 OF 27
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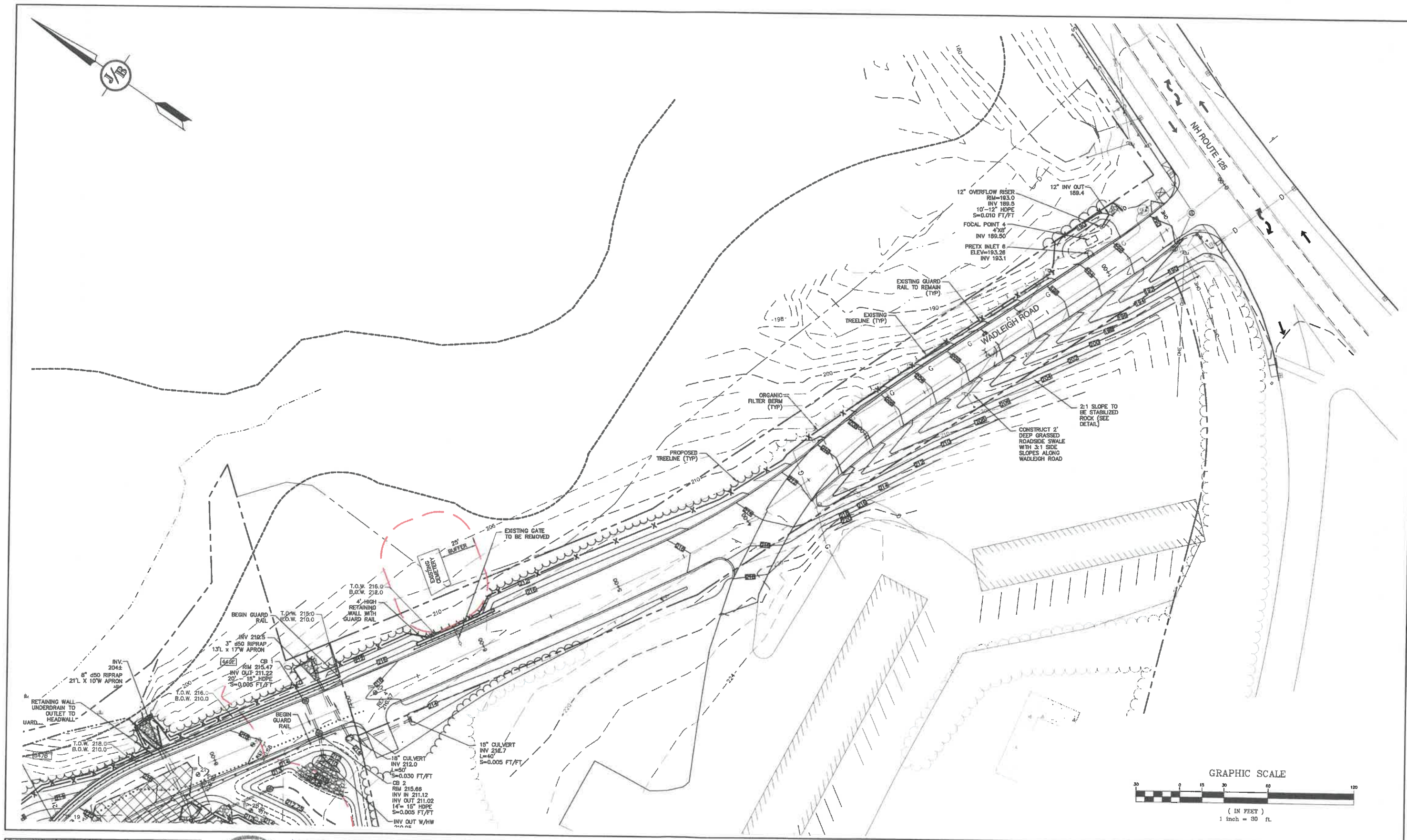


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Plan Name: **GRADING AND DRAINAGE PLAN**
 Project: **WADLEIGH ROAD APARTMENTS ROCHESTER, NH**
 Owner of Record: **SSG, LLC ATTN: FENTON GROEN 120 WASHINGTON STREET, ROCHESTER, NH 03639**

DRAWING No. **C5**
 SHEET 6 OF 27
 JBE PROJECT NO. 21137



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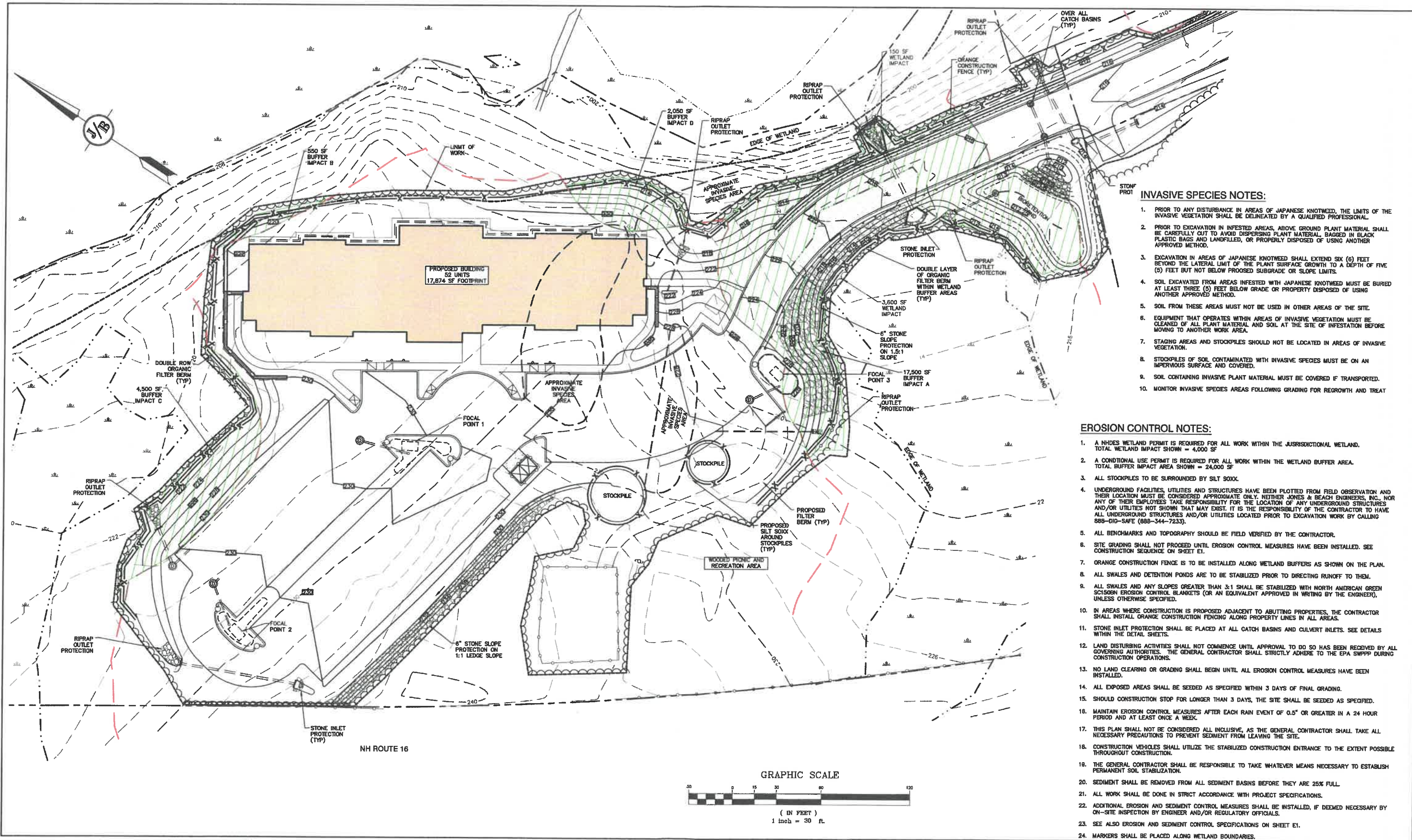


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Plan Name: **GRADING AND DRAINAGE PLAN**
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ROCHESTER, NH**
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DRAWING No.
C6
 SHEET 9 OF 27
 JBE PROJECT NO. 21137



INVASIVE SPECIES NOTES:

1. PRIOR TO ANY DISTURBANCE IN AREAS OF JAPANESE KNOTWEED, THE LIMITS OF THE INVASIVE VEGETATION SHALL BE DELINEATED BY A QUALIFIED PROFESSIONAL.
2. PRIOR TO EXCAVATION IN INFESTED AREAS, ABOVE GROUND PLANT MATERIAL SHALL BE CAREFULLY CUT TO AVOID DISPERSING PLANT MATERIAL. BAGGED IN BLACK PLASTIC BAGS AND LANDFILLED, OR PROPERLY DISPOSED OF USING ANOTHER APPROVED METHOD.
3. EXCAVATION IN AREAS OF JAPANESE KNOTWEED SHALL EXTEND SIX (6) FEET BEYOND THE LATERAL LIMIT OF THE PLANT SURFACE GROWTH TO A DEPTH OF FIVE (5) FEET BUT NOT BELOW PROPOSED SUBGRADE OR SLOPE LIMITS.
4. SOIL EXCAVATED FROM AREAS INFESTED WITH JAPANESE KNOTWEED MUST BE BURIED AT LEAST THREE (3) FEET BELOW GRADE OR PROPERLY DISPOSED OF USING ANOTHER APPROVED METHOD.
5. SOIL FROM THESE AREAS MUST NOT BE USED IN OTHER AREAS OF THE SITE.
6. EQUIPMENT THAT OPERATES WITHIN AREAS OF INVASIVE VEGETATION MUST BE CLEANED OF ALL PLANT MATERIAL AND SOIL AT THE SITE OF INFESTATION BEFORE MOVING TO ANOTHER WORK AREA.
7. STAGING AREAS AND STOCKPILES SHOULD NOT BE LOCATED IN AREAS OF INVASIVE VEGETATION.
8. STOCKPILES OF SOIL CONTAMINATED WITH INVASIVE SPECIES MUST BE ON AN IMPERVIOUS SURFACE AND COVERED.
9. SOIL CONTAINING INVASIVE PLANT MATERIAL MUST BE COVERED IF TRANSPORTED.
10. MONITOR INVASIVE SPECIES AREAS FOLLOWING GRADING FOR REGROWTH AND TREAT

EROSION CONTROL NOTES:

1. A NHDES WETLAND PERMIT IS REQUIRED FOR ALL WORK WITHIN THE JURISDICTIONAL WETLAND. TOTAL WETLAND IMPACT SHOWN = 4,000 SF.
2. A CONDITIONAL USE PERMIT IS REQUIRED FOR ALL WORK WITHIN THE WETLAND BUFFER AREA. TOTAL BUFFER IMPACT AREA SHOWN = 24,000 SF.
3. ALL STOCKPILES TO BE SURROUNDED BY SILT SOX.
4. UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM FIELD OBSERVATION AND THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. NEITHER JONES & BEACH ENGINEERS, INC. NOR ANY OF THEIR EMPLOYEES TAKE RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES AND/OR UTILITIES NOT SHOWN THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND STRUCTURES AND/OR UTILITIES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 888-DIG-SAFE (888-344-7233).
5. ALL BENCHMARKS AND TOPOGRAPHY SHOULD BE FIELD VERIFIED BY THE CONTRACTOR.
6. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED. SEE CONSTRUCTION SEQUENCE ON SHEET E1.
7. ORANGE CONSTRUCTION FENCE IS TO BE INSTALLED ALONG WETLAND BUFFERS AS SHOWN ON THE PLAN.
8. ALL SWALES AND DETENTION PONDS ARE TO BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
9. ALL SWALES AND ANY SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITH NORTH AMERICAN GREEN SC1508N EROSION CONTROL BLANKETS (OR AN EQUIVALENT APPROVED IN WRITING BY THE ENGINEER), UNLESS OTHERWISE SPECIFIED.
10. IN AREAS WHERE CONSTRUCTION IS PROPOSED ADJACENT TO ABUTTING PROPERTIES, THE CONTRACTOR SHALL INSTALL ORANGE CONSTRUCTION FENCING ALONG PROPERTY LINES IN ALL AREAS.
11. STONE INLET PROTECTION SHALL BE PLACED AT ALL CATCH BASINS AND CULVERT INLETS. SEE DETAILS WITHIN THE DETAIL SHEETS.
12. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY ALL GOVERNING AUTHORITIES. THE GENERAL CONTRACTOR SHALL STRICTLY ADHERE TO THE EPA SWPPP DURING CONSTRUCTION OPERATIONS.
13. NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
14. ALL EXPOSED AREAS SHALL BE SEEDED AS SPECIFIED WITHIN 3 DAYS OF FINAL GRADING.
15. SHOULD CONSTRUCTION STOP FOR LONGER THAN 3 DAYS, THE SITE SHALL BE SEEDED AS SPECIFIED.
16. MAINTAIN EROSION CONTROL MEASURES AFTER EACH RAIN EVENT OF 0.5" OR GREATER IN A 24 HOUR PERIOD AND AT LEAST ONCE A WEEK.
17. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE, AS THE GENERAL CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SEDIMENT FROM LEAVING THE SITE.
18. CONSTRUCTION VEHICLES SHALL UTILIZE THE STABILIZED CONSTRUCTION ENTRANCE TO THE EXTENT POSSIBLE THROUGHOUT CONSTRUCTION.
19. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.
20. SEDIMENT SHALL BE REMOVED FROM ALL SEDIMENT BASINS BEFORE THEY ARE 25% FULL.
21. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH PROJECT SPECIFICATIONS.
22. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED, IF DEEMED NECESSARY BY ON-SITE INSPECTION BY ENGINEER AND/OR REGULATORY OFFICIALS.
23. SEE ALSO EROSION AND SEDIMENT CONTROL SPECIFICATIONS ON SHEET E1.
24. MARKERS SHALL BE PLACED ALONG WETLAND BOUNDARIES.

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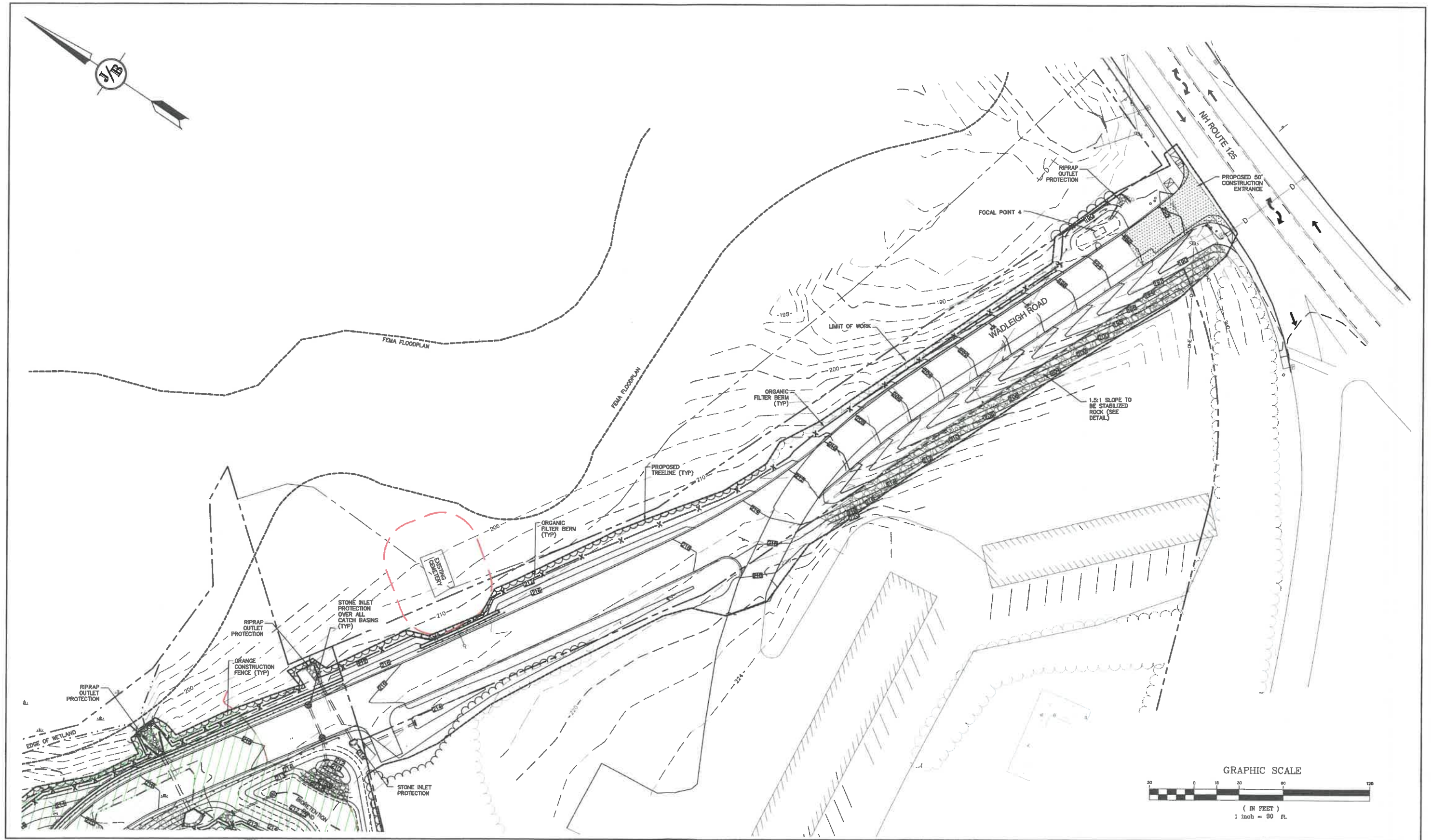


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Plan Name: **EROSION CONTROL PLAN**
Project: **WADLEIGH ROAD APARTMENTS ROCHESTER, NH**
Owner of Record: **SSG, LLC ATTN: FENTON GROEN 120 WASHINGTON STREET, ROCHESTER, NH 03839**

Drawing No. **C7**
SHEET 10 OF 27
JBE PROJECT NO. 21137



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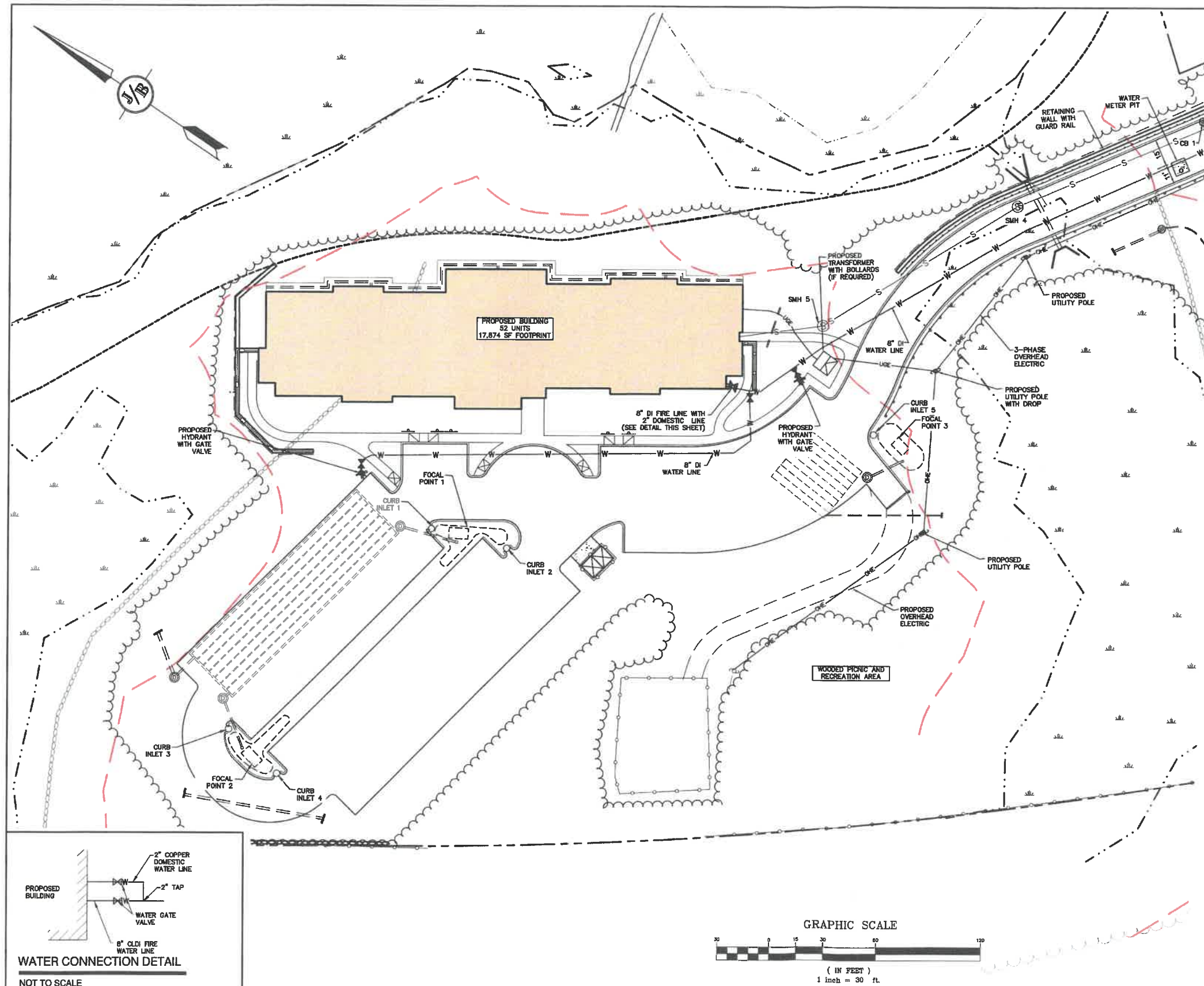


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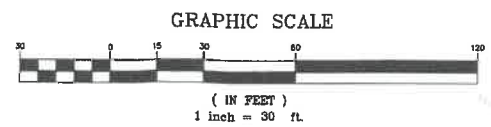
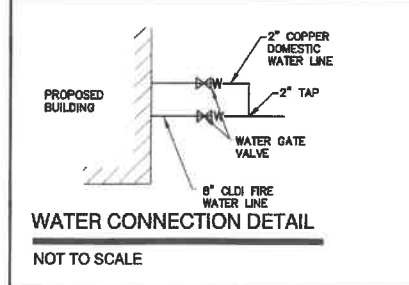
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DRAWING No. **C8**
 SHEET 9 OF 27
 JBE PROJECT NO. 21137



UTILITY NOTES:

1. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER, ARCHITECT AND/OR OWNER, IN ORDER TO OBTAIN AND/OR PAY ALL THE NECESSARY LOCAL PERMITS, CONNECTION FEES AND BONDS.
2. THE CONTRACTOR SHALL PROVIDE A MINIMUM NOTICE OF FOURTEEN (14) DAYS TO ALL CORPORATIONS, COMPANIES AND/OR LOCAL AUTHORITIES OWNING OR HAVING A JURISDICTION OVER UTILITIES RUNNING TO, THROUGH OR ACROSS PROJECT AREAS PRIOR TO DEMOLITION AND/OR CONSTRUCTION ACTIVITIES.
3. THE LOCATION, SIZE, DEPTH AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE TO THE STANDARDS AND REQUIREMENTS OF THE RESPECTIVE UTILITY COMPANY (ELECTRIC, TELEPHONE, CABLE TELEVISION, FIRE ALARM, GAS, WATER, AND SEWER).
4. A PRECONSTRUCTION MEETING SHALL BE HELD WITH THE OWNER, ENGINEER, ARCHITECT, CONTRACTOR, LOCAL OFFICIALS, AND ALL PROJECT-RELATED UTILITY COMPANIES (PUBLIC AND PRIVATE) PRIOR TO START OF CONSTRUCTION.
5. ALL CONSTRUCTION SHALL CONFORM TO THE CITY STANDARDS AND REGULATIONS, AND NHDES STANDARDS AND SPECIFICATIONS, WHICHEVER ARE MORE STRINGENT, UNLESS OTHERWISE SPECIFIED.
6. ALL CONSTRUCTION ACTIVITIES SHALL CONFORM TO LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) RULES AND REGULATIONS.
7. BUILDING TO BE SERVED BY UNDERGROUND UTILITIES UNLESS OTHERWISE NOTED.
8. THE CONTRACTOR IS TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITY STUBS PRIOR TO CONSTRUCTION AND DISCONNECT ALL EXISTING SERVICE CONNECTIONS AT THEIR RESPECTIVE MAINS IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANY'S STANDARDS AND SPECIFICATIONS. ENGINEER TO BE NOTIFIED.
9. AS-BUILT PLANS SHALL BE SUBMITTED TO DEPARTMENT OF PUBLIC WORKS.
10. INVERTS AND SHELVES: MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT, CONSTRUCTED TO CONFORM TO THE SIZE OF PIPE AND FLOW AT CHANGES IN DIRECTION. THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE THROUGH CHANNEL UNDERLAYMENT OF INVERT, AND SHELF SHALL CONSIST OF BRICK MASONRY.
11. FRAMES AND COVERS: MANHOLE FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN AND PROVIDE A 30 INCH DIA. CLEAR OPENING. THE WORD "SEWER" OR "DRAIN" SHALL BE CAST INTO THE CENTER OF THE UPPER FACE OF EACH COVER WITH RAISED, 3" LETTERS.
12. SHALLOW MANHOLE: IN LIEU OF A CONE SECTION, WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER MAY BE USED HAVING AN ECCENTRIC ENTRANCE OPENING AND CAPABLE OF SUPPORTING H20 LOADS.
13. CONTRACTOR SHALL PLACE 2" WIDE METAL WIRE IMPREGNATED RED PLASTIC WARNING TAPE OVER ENTIRE LENGTH OF ALL GRAVITY SEWERS, SERVICES, AND FORCE MAINS.
14. SANITARY SEWER FLOW CALCULATIONS:
38 - TWO BEDROOM UNITS @ 150 GPD/BEDROOM = 11,400 GPD
14 - ONE BEDROOM UNITS @ 150 GPD/BEDROOM = 2,100 GPD
TOTAL FLOW = 13,500 GPD
15. ALL SANITARY STRUCTURE INTERIOR DIAMETERS (4" MIN) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS.
16. PROPOSED RIM ELEVATIONS OF DRAINAGE AND SANITARY MANHOLES ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH WITH FINISH GRADES. ADJUST ALL OTHER RIM ELEVATIONS OF MANHOLES, WATER GATES, GAS GATES AND OTHER UTILITIES TO FINISH GRADE AS SHOWN ON THE GRADING AND DRAINAGE PLAN.
17. ALL WATER MAINS AND SERVICE PIPES SHALL HAVE A MINIMUM 12" VERTICAL AND 24" HORIZONTAL SEPARATION TO MANHOLES, OR CONTRACTOR SHALL INSTALL BOARD INSULATION FOR FREEZING PROTECTION.
18. WATER MAINS SHALL BE HYDROSTATICALLY PRESSURE TESTED FOR LEAKAGE PRIOR TO ACCEPTANCE. WATERMAINS SHALL BE TESTED AT 1.5 TIMES THE WORKING PRESSURE OR 150 PSI, WHICHEVER IS GREATER. TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH SECTION 4 OF AWWA STANDARD C 600. WATERMAINS SHALL BE DISINFECTED AFTER THE ACCEPTANCE OF THE PRESSURE AND LEAKAGE TESTS ACCORDING TO AWWA STANDARD C 651.
19. ALL WATER AND SANITARY LEADS TO BUILDING(S) SHALL END 5' OUTSIDE THE BUILDING LIMITS AS SHOWN ON PLANS AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AND WITNESS AT END.
20. IF THE BUILDING IS REQUIRED TO HAVE A SPRINKLER SYSTEM, A PRECONSTRUCTION MEETING SHALL BE HELD BETWEEN THE CONTRACTOR, OWNER, ARCHITECT AND THE LOCAL FIRE DEPARTMENT PRIOR TO THE INSTALLATION.
21. THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS, TEES, MECHANICAL JOINTS AND FIRE HYDRANTS.
22. DIMENSIONS ARE SHOWN TO CENTERLINE OF PIPE OR FITTING.
23. REFER TO FIRE PROTECTION SHEETS FOR LOCATION AND DETAIL OF FIRE LINE LEAD IN TO BUILDING.
24. FIRE LINE SHALL BE STUBBED UP 1' ABOVE FINISH FLOOR ELEVATION IN SPRINKLER ROOM.
25. THE CONTRACTOR SHALL HAVE THE APPROVAL OF ALL GOVERNING AGENCIES HAVING JURISDICTION OVER FIRE PROTECTION SYSTEM PRIOR TO INSTALLATION.
26. CONTRACTOR TO FURNISH SHOP DRAWINGS FOR UTILITY RELATED ITEMS TO ENSURE CONFORMANCE WITH THE PLANS AND SPECIFICATIONS. SHOP DRAWINGS SHOULD BE SENT IN TRIPLICATE TO THE DESIGN ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
27. EXISTING UTILITIES SHALL BE DISINFECTED BEFORE CONSTRUCTION.
28. ALL WATER LINES SHOULD HAVE TESTABLE BACKFLOW PREVENTERS AT THE ENTRANCE TO BUILDING. TESTABLE BACKFLOW PREVENTION DEVICES MUST BE REGISTERED WITH THE CITY UTILITY BILLING OFFICE. TEST RESULTS SHALL BE SUBMITTED TO UTILITY BILLING PRIOR TO DPW SIGN-OFF ON CERTIFICATE OF OCCUPANCY.
29. ALL GRAVITY SEWER PIPE, MANHOLES, AND FORCE MAINS SHALL BE TESTED ACCORDING TO NHDES STANDARDS OF DESIGN AND CONSTRUCTION FOR SEWAGE AND WASTEWATER TREATMENT FACILITIES, CHAPTER ENV-WO 700, ADOPTED ON 10-15-14.
30. ENV-WO 704.06 GRAVITY SEWER PIPE TESTING: GRAVITY SEWERS SHALL BE TESTED FOR WATER TIGHTNESS BY USE OF LOW-PRESSURE AIR TESTS CONFORMING WITH ASTM F1417-92(2005) OR UNI-BELL PVC PIPE ASSOCIATION UNI-B-8. LINES SHALL BE CLEANED AND VISUALLY INSPECTED AND TRUE TO LINE AND GRADE. DEFLECTION TESTS SHALL TAKE PLACE AFTER 30 DAYS FOLLOWING INSTALLATION AND THE MAXIMUM ALLOWABLE DEFLECTION OF FLEXIBLE SEWER PIPE SHALL BE 5% OF AVERAGE INSIDE DIAMETER. A RIGID BALL OR MANHOLE WITH A DIAMETER OF AT LEAST SIZE OF THE AVERAGE INSIDE PIPE DIAMETER SHALL BE USED FOR TESTING PIPE DEFLECTION. THE DEFLECTION TEST SHALL BE CONDUCTED WITHOUT MECHANICAL PULLING DEVICES.
31. ENV-WO 704.17 SEWER MANHOLE TESTING: SHALL BE TESTED FOR LEAKAGE USING A VACUUM TEST PRIOR TO BACKFILLING AND PLACEMENT OF SHELVES AND INVERTS.
32. SANITARY SEWER LINES SHALL BE LOCATED AT LEAST TEN (10) FEET HORIZONTALLY FROM AN EXISTING OR PROPOSED WATER LINE. WHEN A SEWER LINE CROSSES UNDER A WATER LINE, THE SEWER PIPE JOINTS SHALL BE LOCATED AT LEAST 6 FEET HORIZONTALLY FROM THE WATERMAIN. THE SEWER LINE SHALL ALSO MAINTAIN A VERTICAL SEPARATION OF NOT LESS THAN 18 INCHES.
33. SEWERS SHALL BE BURIED TO A MINIMUM DEPTH OF 6 FEET BELOW GRADE IN ALL ROADWAY LOCATIONS, AND TO A MINIMUM DEPTH OF 4 FEET BELOW GRADE IN ALL CROSS-COUNTRY LOCATIONS. PROVIDE TWO-INCHES OF R-10 FOAM BOARD INSULATION 2-FOOT WIDE TO BE INSTALLED 6-INCHES OVER SEWER PIPE IN AREAS WHERE DEPTH IS NOT ACHIEVED. A WAIVER FROM THE DEPARTMENT OF ENVIRONMENTAL SERVICES WASTEWATER ENGINEERING BUREAU IS REQUIRED PRIOR TO INSTALLING SEWER AT LESS THAN MINIMUM COVER.
34. THE CONTRACTOR SHALL MINIMIZE THE DISRUPTIONS TO THE EXISTING SEWER FLOWS AND THOSE INTERRUPTIONS SHALL BE LIMITED TO FOUR (4) HOURS OR LESS AS DESIGNATED BY THE TOWN SEWER DEPARTMENT.
35. LIGHTING CONDUIT SHALL BE SCHEDULE 40 PVC, AND SHALL BE INSTALLED IN CONFORMANCE WITH THE NATIONAL ELECTRIC CODE. CONTRACTOR SHALL PROVIDE EXCAVATION AND BACKFILL.
36. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
37. DISINFECTION OF WATER MAINS SHALL BE CARRIED OUT IN STRICT ACCORDANCE WITH AWWA STANDARD C851, LATEST EDITION. THE BASIC PROCEDURE TO BE FOLLOWED FOR DISINFECTING WATER MAINS IS AS FOLLOWS:
 - a. PREVENT CONTAMINATING MATERIALS FROM ENTERING THE WATER MAIN DURING STORAGE, CONSTRUCTION, OR REPAIR.
 - b. REMOVE BY FLUSHING OR OTHER MEANS, THOSE MATERIALS THAT MAY HAVE ENTERED THE WATER MAINS.
 - c. CHLORINATE ANY RESIDUAL CONTAMINATION THAT MAY REMAIN, AND FLUSH THE CHLORINATED WATER FROM THE MAIN.
 - d. PROTECT THE EXISTING DISTRIBUTION SYSTEM FROM BACKFLOW DUE TO HYDROSTATIC PRESSURE TEST AND DISINFECTION PROCEDURES.
 - e. DETERMINE THE BACTERIOLOGICAL QUALITY BY LABORATORY TEST AFTER DISINFECTION.
 - f. MAKE FINAL CONNECTION OF THE APPROVED NEW WATER MAIN TO THE ACTIVE DISTRIBUTION SYSTEM.
38. WATER MAIN SHALL BE POLYWRAPPED. HYDRANTS SHALL BE NON-DRAINING, NON-ROTATING STEM EQUAL TO KENNEDY K-81-D. VALVES SHALL OPEN CLOCKWISE.



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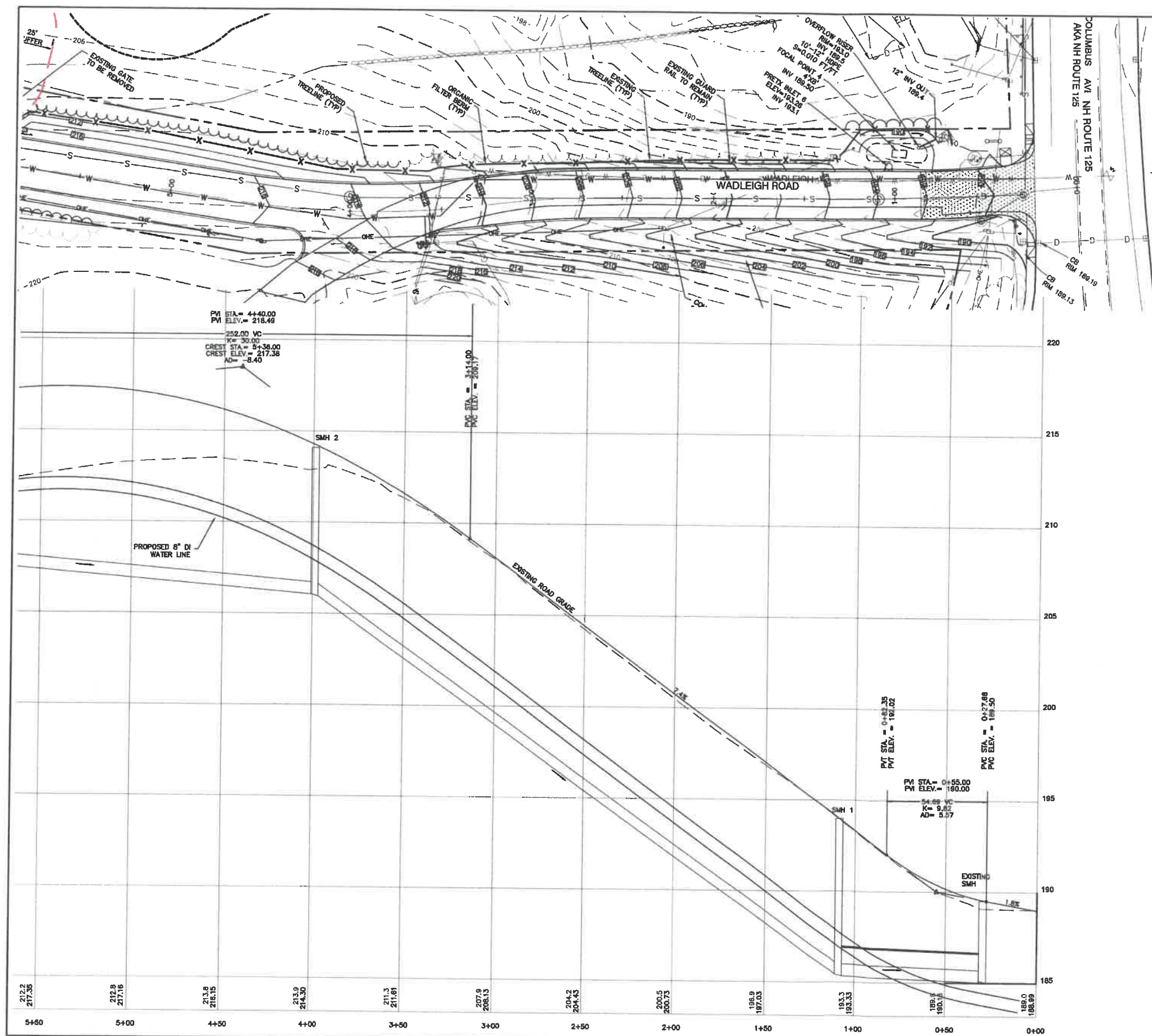


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Plan Name:	UTILITY PLAN
Project:	WADLEIGH ROAD APARTMENTS ROCHESTER, NH
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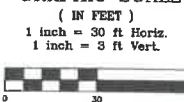
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SHEET 11 OF 27
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NOTES:

- THIS SITE WILL REQUIRE A USEPA NPDES PERMIT FOR STORMWATER DISCHARGE FOR THE CONSTRUCTION SITE. THE CONSTRUCTION SITE OPERATOR SHALL DEVELOP AND IMPLEMENT A CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN (SWPPP), WHICH SHALL REMAIN ON SITE AND BE MADE ACCESSIBLE TO THE PUBLIC. THE CONSTRUCTION SITE OPERATOR SHALL SUBMIT A NOTICE OF INTENT (NOI) TO THE EPA REGIONAL OFFICE SEVEN DAYS PRIOR TO COMMENCEMENT OF ANY WORK ON SITE. EPA WILL POST THE NOI AT [HTTP://CFPUB.EPA.GOV/NPESES/STORMWATER/NOI/NOISEARCH.CFM](http://cfpub.epa.gov/nepes/stormwater/noi/noisearch.cfm). AUTHORIZATION IS GRANTED UNDER THE PERMIT ONCE THE NOI IS SHOWN IN "ACTIVE" STATUS ON THIS WEBSITE. A COMPLETED NOTICE OF TERMINATION SHALL BE SUBMITTED TO THE NPDES PERMITTING AUTHORITY WITHIN 30 DAYS AFTER EITHER OF THE FOLLOWING CONDITIONS HAVE BEEN MET:
 - FINAL STABILIZATION HAS BEEN ACHIEVED ON ALL PORTIONS OF THE SITE FOR WHICH THE PERMITTEE IS RESPONSIBLE; OR
 - ANOTHER OPERATOR/PERMITTEE HAS ASSUMED CONTROL OVER ALL AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED. PROVIDE CPW WITH A COPY OF THE NOTICE OF TERMINATION (NOT).
- ALL ROAD AND DRAINAGE WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR THE CITY, AND NHDOT SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, WHICHEVER IS MORE STRINGENT.
- DEVELOPER IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL WETLAND REGULATIONS, INCLUDING ANY PERMITTING AND SETBACK REQUIREMENTS REQUIRED UNDER THESE REGULATIONS.
- CONTRACTOR TO COORDINATE AND COMPLETE ALL WORK REQUIRED FOR THE RELOCATION AND/OR INSTALLATION OF ELECTRIC, CATV, TELEPHONE, AND FIRE ALARM PER UTILITY DESIGN AND STANDARDS. LOCATIONS SHOWN ARE APPROXIMATE. LOW PROFILE STRUCTURES SHALL BE USED TO THE GREATEST EXTENT POSSIBLE.
- THIS PLAN HAS BEEN PREPARED BY JONES & BEACH ENGINEERS, INC. FOR MUNICIPAL AND STATE APPROVALS AND FOR CONSTRUCTION BASED ON DATA OBTAINED FROM ON-SITE FIELD SURVEY AND EXISTING MUNICIPAL RECORDS. THROUGHOUT THE CONSTRUCTION PROCESS, THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY FIELD DISCREPANCY FROM DATA SHOWN ON THE DESIGN PLANS. THIS INCLUDES ANY UNFORESEEN CONDITIONS, SUBSURFACE OR OTHERWISE, FOR EVALUATION AND RECOMMENDATIONS. ANY CONTRADICTION BETWEEN ITEMS OF THIS PLAN/PLAN SET, OR BETWEEN THE PLANS AND ON-SITE CONDITIONS MUST BE RESOLVED BEFORE RELATED CONSTRUCTION HAS BEEN INITIATED.
- SILTATION AND EROSION CONTROLS SHALL BE INSTALLED PRIOR TO CONSTRUCTION, SHALL BE MAINTAINED DURING CONSTRUCTION, AND SHALL REMAIN UNTIL SITE HAS BEEN STABILIZED WITH PERMANENT VEGETATION. SEE DETAIL SHEET E1 FOR ADDITIONAL NOTES ON EROSION CONTROL.
- ALL DISTURBED AREAS NOT STABILIZED BY NOVEMBER 1st SHALL BE COVERED WITH AN EROSION CONTROL BLANKET. PRODUCT TO BE SPECIFIED BY THE ENGINEER.
- FINAL DRAINAGE, GRADING AND EROSION PROTECTION MEASURES SHALL CONFORM TO REGULATIONS OF THE PUBLIC WORKS DEPARTMENT.
- CONTRACTOR TO VERIFY EXISTING UTILITIES AND TO NOTIFY ENGINEER OF ANY DISCREPANCY IMMEDIATELY.
- ROADWAY INTERSECTIONS WITH SLOPE GRANITE CURB SHALL EXTEND AROUND RADIUS WITH 6" STRAIGHT PIECE ALONG TANGENT.
- RETAINING WALLS SHALL BE DESIGNED AND STAMPED BY A LICENSED PROFESSIONAL ENGINEER. CONTRACTOR SHALL COORDINATE WITH MANUFACTURER PRIOR TO INSTALLATION.
- 6" PERFORATED ADS UNDER DRAIN PLACEMENT TO BE DETERMINED BY THE ENGINEER DURING TIME OF SUBGRADE INSPECTION. CONTRACTOR TO ADJUST LOCATION IN THE FIELD ONLY WITH PRIOR APPROVAL OF PROJECT ENGINEER OR PUBLIC WORKS DEPARTMENT. CONTRACTOR TO INCLUDE 3000 LF IN BID PRICE.
- ENGINEER TO INSTALL PERMANENT BENCHMARK (REINFORCED GRANITE MARKER) AT LOCATIONS SHOWN ON PLANS. BENCH MARKS TO BE TIED TO STATE PLANE COORDINATE SYSTEM.
- DRAINAGE INSPECTION AND MAINTENANCE SCHEDULE: SILT FENCING WILL BE INSPECTED DURING AND AFTER STORM EVENTS TO ENSURE THAT THE FENCE STILL HAS INTEGRITY AND IS NOT ALLOWING SEDIMENT TO PASS. SEDIMENT BUILD UP IN SWALES WILL BE REMOVED IF IT IS DEEPER THAN SIX INCHES, AND IS TO BE REMOVED FROM SUMPS BELOW THE INLET OF CULVERTS SEMIANNUALLY, AS WELL AS FROM CATCH BASINS. FOLLOWING MAJOR STORM EVENTS, THE STAGE DISCHARGE OUTLET STRUCTURES ARE TO BE INSPECTED AND ANY DEBRIS REMOVED FROM THE ORIFICE, TRASH TRACK AND EMERGENCY SPILL WAY. INFREQUENTLY, SEDIMENT MAY ALSO HAVE TO BE REMOVED FROM THE SUMP OF THE STRUCTURE.
- ALL DRAINAGE INFRASTRUCTURE SHALL BE INSTALLED AND STABILIZED PRIOR TO DIRECTING ANY RUNOFF TO IT.
- DETENTION PONDS REQUIRE TIMELY MAINTENANCE AND SHOULD BE INSPECTED AFTER EVERY MAJOR STORM EVENT, AS WELL AS FREQUENTLY DURING THE FIRST YEAR OF OPERATION, AND ANNUALLY THEREAFTER. EVERY FIVE YEARS, THE SERVICES OF A PROFESSIONAL ENGINEER SHOULD BE RETAINED TO PERFORM A THOROUGH INSPECTION OF THE DETENTION POND AND ITS INFRASTRUCTURE. ANY DEBRIS AND SEDIMENT ACCUMULATIONS SHOULD BE REMOVED FROM THE OUTLET STRUCTURE(S) AND EMERGENCY SPILLWAY(S) AND DISPOSED OF PROPERLY. DETENTION POND BERMS SHOULD BE MOVED AT LEAST ONCE ANNUALLY SO AS TO PREVENT THE ESTABLISHMENT OF WOODY VEGETATION. TREES SHOULD NEVER BE ALLOWED TO GROW ON A DETENTION POND BERM, AS THEY MAY DESTABILIZE THE STRUCTURE AND INCREASE THE POTENTIAL FOR FAILURE. AREAS SHOWING SIGNS OF EROSION OR THIN OR DYING VEGETATION SHOULD BE REPAIRED IMMEDIATELY BY WHATEVER MEANS NECESSARY, WITH THE EXCEPTION OF FERTILIZER. RODENT BORROWS SHOULD BE REPAIRED IMMEDIATELY AND THE ANIMALS SHOULD BE TRAPPED AND RELOCATED IF THE PROBLEM PERSISTS.
- THE DETENTION PONDS ARE TO BE CONSTRUCTED PRIMARILY THROUGH EXCAVATION. IN THOSE AREAS WHERE THE BERMS MUST BE CONSTRUCTED BY THE PLACEMENT OF FILL, THE ENTIRE EMBANKMENT AREA OF THE DETENTION PONDS SHALL BE EXCAVATED TO PROPOSED GRADE, STRIPPED OF ALL ORGANIC MATERIALS, COMPACTED TO AT LEAST 95% AND SCARIFIED PRIOR TO THE PLACEMENT OF THE EMBANKMENT MATERIAL. THE EVENT THE FOUNDATION MATERIAL EXPOSED DOES NOT ALLOW THE SPECIFIED COMPACTION, AN ADDITIONAL ONE FOOT (1') OF EXCAVATION AND THE PLACEMENT OF A ONE FOOT (1') THICK TWELVE FOOT (12') WIDE PAD OF THE MATERIAL DESCRIBED IN THE NOTE BELOW, COMPACTED TO 95% OF ASTM D-1557 MAY BE NECESSARY. PLACEMENT AND COMPACTION SHOULD OCCUR AT A MOISTURE CONTENT OF OPTIMUM PLUS OR MINUS 3%, AND NO FROZEN OR ORGANIC MATERIAL SHOULD BE PLACED WITHIN FOR ANY REASON.
- EMBANKMENT MATERIAL FOR THE BERMS SHALL BE CLEAN MINERAL SOIL WITH A CLAY COMPONENT FREE OF ROOTS, ORGANIC MATTER, AND OTHER DELETERIOUS SUBSTANCES, AND SHALL CONTAIN NO ROCKS OR LUMPS OVER FOUR INCHES (4") IN DIAMETER. THIS MATERIAL SHOULD BE INSTALLED IN 6" LIFTS AND COMPACTED TO 95% OS ASTM D-1557, AND SHOULD MEET THE FOLLOWING SPECIFICATIONS: 4" PASSING 100%, #4 SIEVE 25-70%, #200 SIEVE 10-29% (IN TOTAL SAMPLE).
- EMBANKMENT IS TO HAVE 3:1 SIDE SLOPES (MAX.) AND IS TO BE BROUGHT TO SPECIFIED GRADES PRIOR TO THE ADDITION OF LOAM (4" MINIMUM) SO AS TO ALLOW FOR THE COMPACTION OF THE STRUCTURE OVER TIME WHILE MAINTAINING THE PROPER BERM ELEVATION.
- COMPACTION TESTING SERVICES (I.E. NUCLEAR DENSITY TESTS) ARE TO BE PERFORMED BY AN INDEPENDENT GEOTECHNICAL ENGINEER RETAINED BY THE CONTRACTOR FOR ROADWAY CONSTRUCTION, AND ON THE FOUNDATION OF THE BERM AND ON EVERY LIFT OF NEWLY PLACED MATERIAL.

GRAPHIC SCALE



Design: LAZ Draft: LAZ Date: 9/8/21
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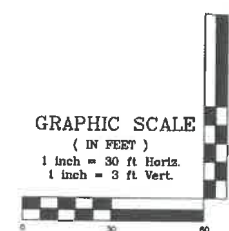
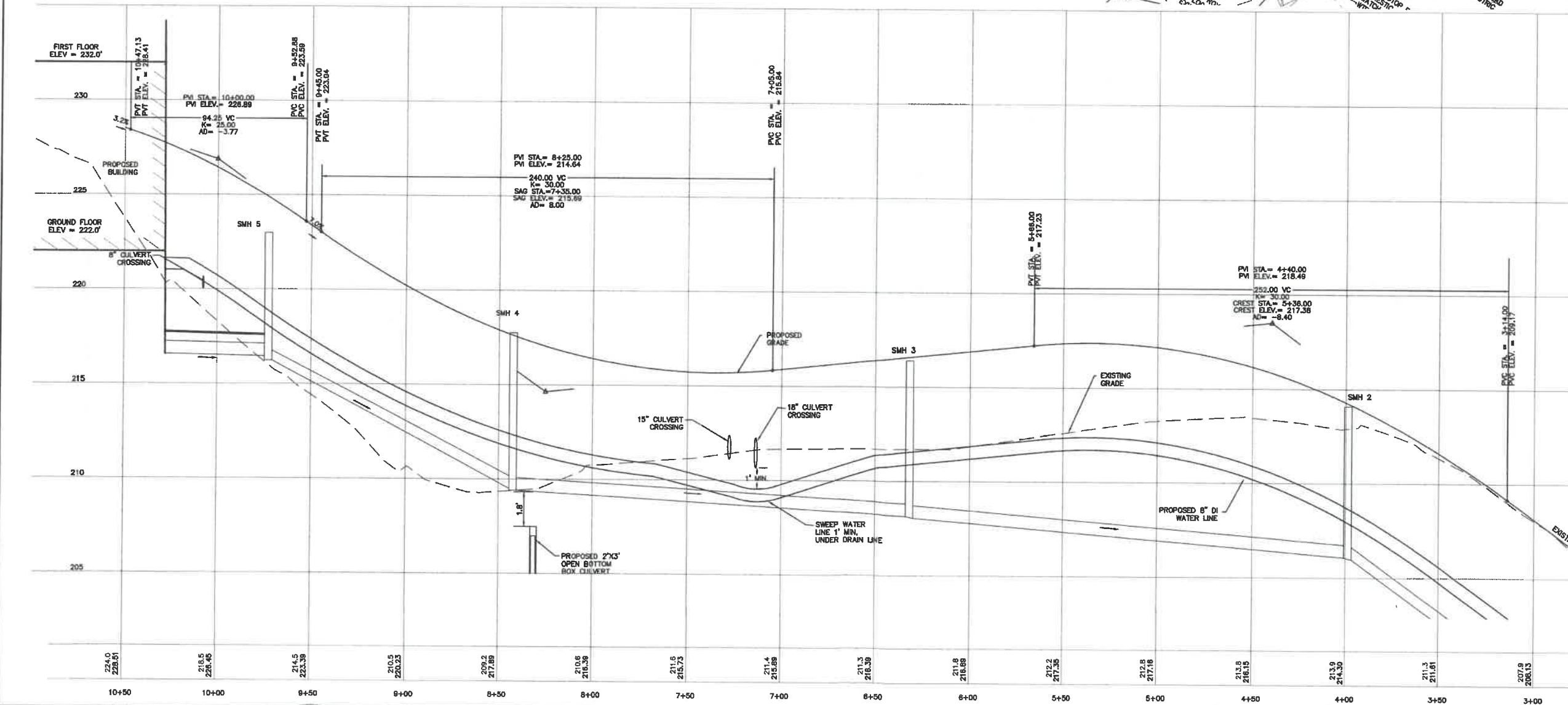
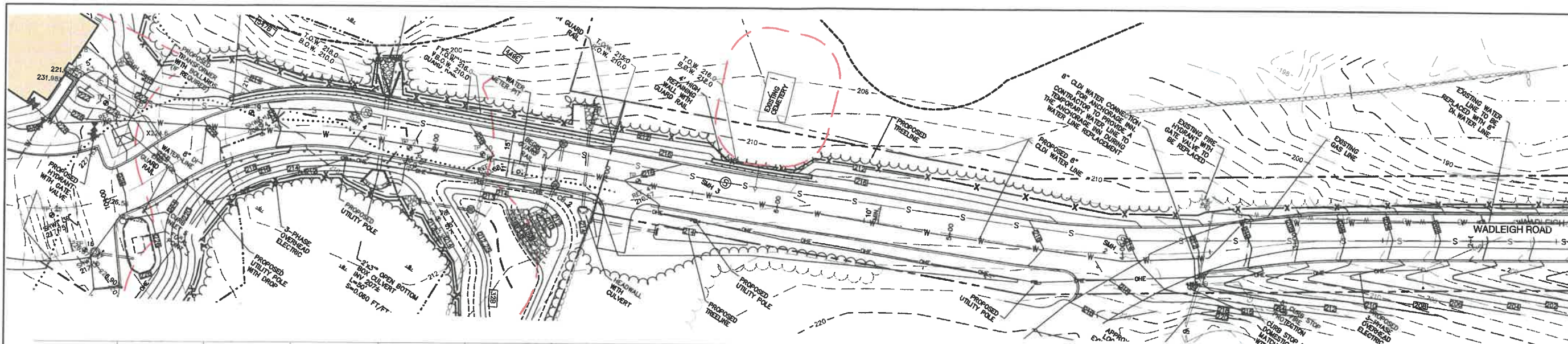


REV.	DATE	REVISION	BY
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4	1/14/22	REVISED PER CITY COMMENTS	LAZ
3	12/14/21	REVISED PER CITY COMMENTS	LAZ
2	12/6/21	REVISED PER CONSERVATION COMMISSION COMMENTS	LAZ
1	9/21/21	ISSUED FOR PLANNING BOARD	LAZ

Designed and Produced in NH
J/B Jones & Beach Engineers, Inc.
 Civil Engineering Services
 85 Portsmouth Ave. PO Box 219 Stratham, NH 03885
 603-772-4746
 FAX: 603-772-0227
 E-MAIL: JBE@JONESANDBEACH.COM

Plan Name: **PLAN AND PROFILE**
 Project: **WADLEIGH ROAD APARTMENTS ROCHESTER, NH**
 Owner of Record: **SSG, LLC ATTN: FENTON GROEN 120 WASHINGTON STREET, ROCHESTER, NH 03689**

DRAWING No.
P1
 SHEET 13 OF 27
 JBE PROJECT NO. 21137



Design: LAZ Draft: LAZ Date: 9/8/21
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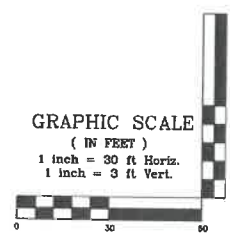
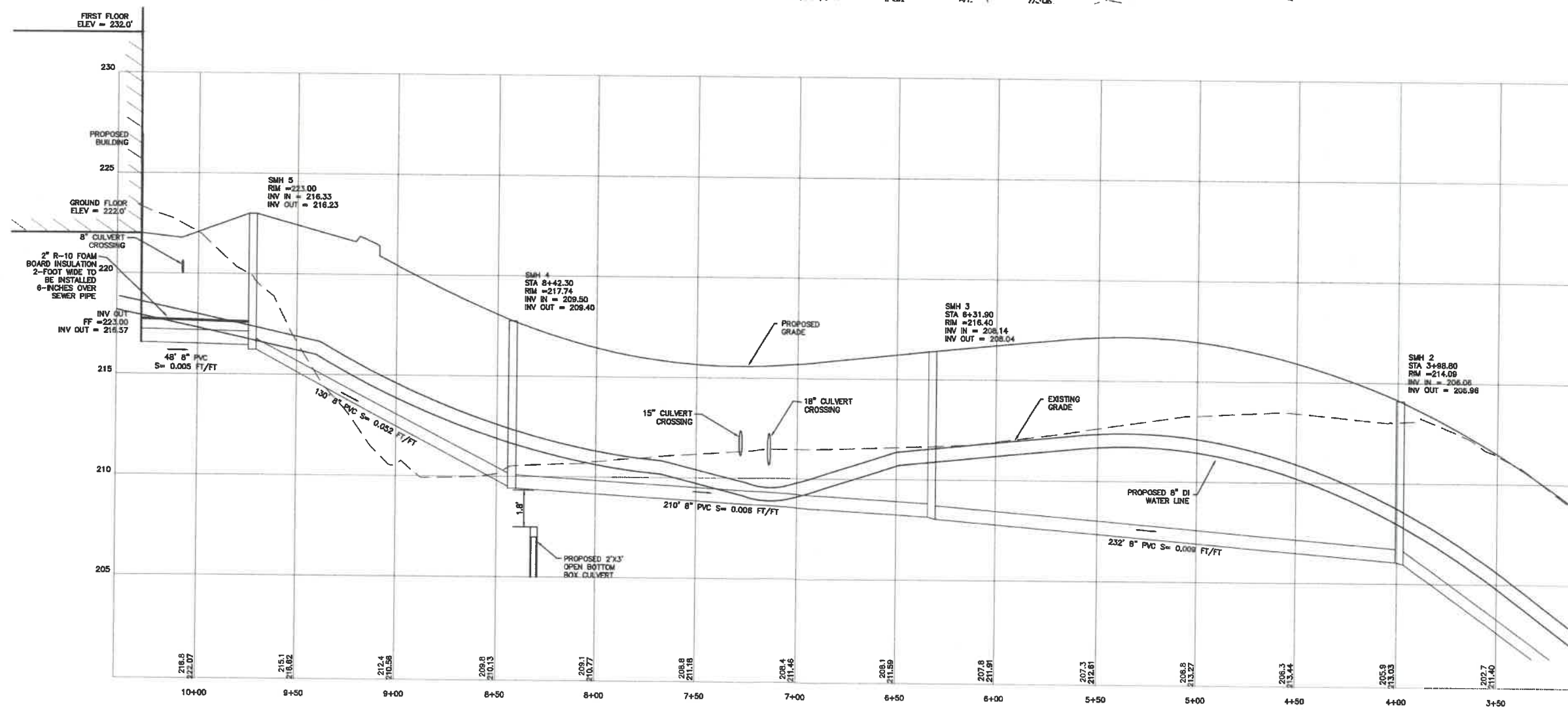
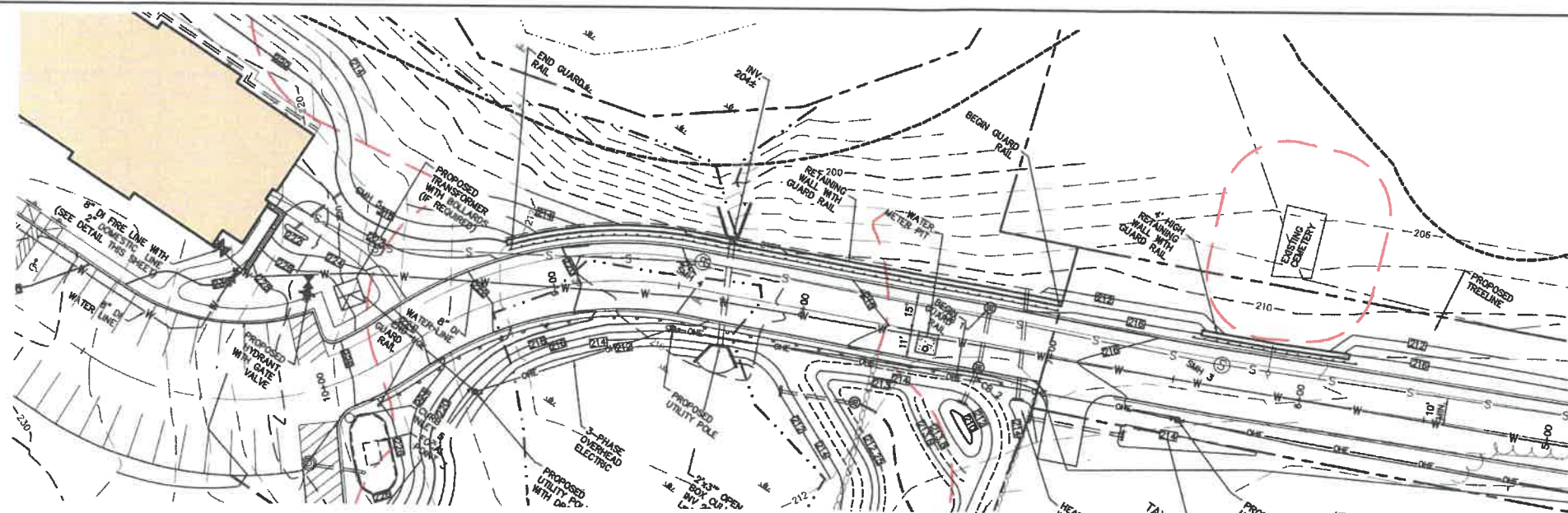


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Plan Name: **PLAN AND PROFILE**
 Project: **WADLEIGH ROAD APARTMENTS ROCHESTER, NH**
 Owner of Record: **SSG, LLC ATTN: FENTON GROEN 120 WASHINGTON STREET, ROCHESTER, NH 03839**

DRAWING No. **P2**
 SHEET 14 OF 27
 JBE PROJECT NO. 21137



Design: LAZ Draft: LAZ Date: 9/8/21
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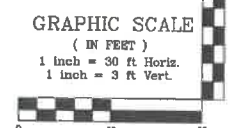
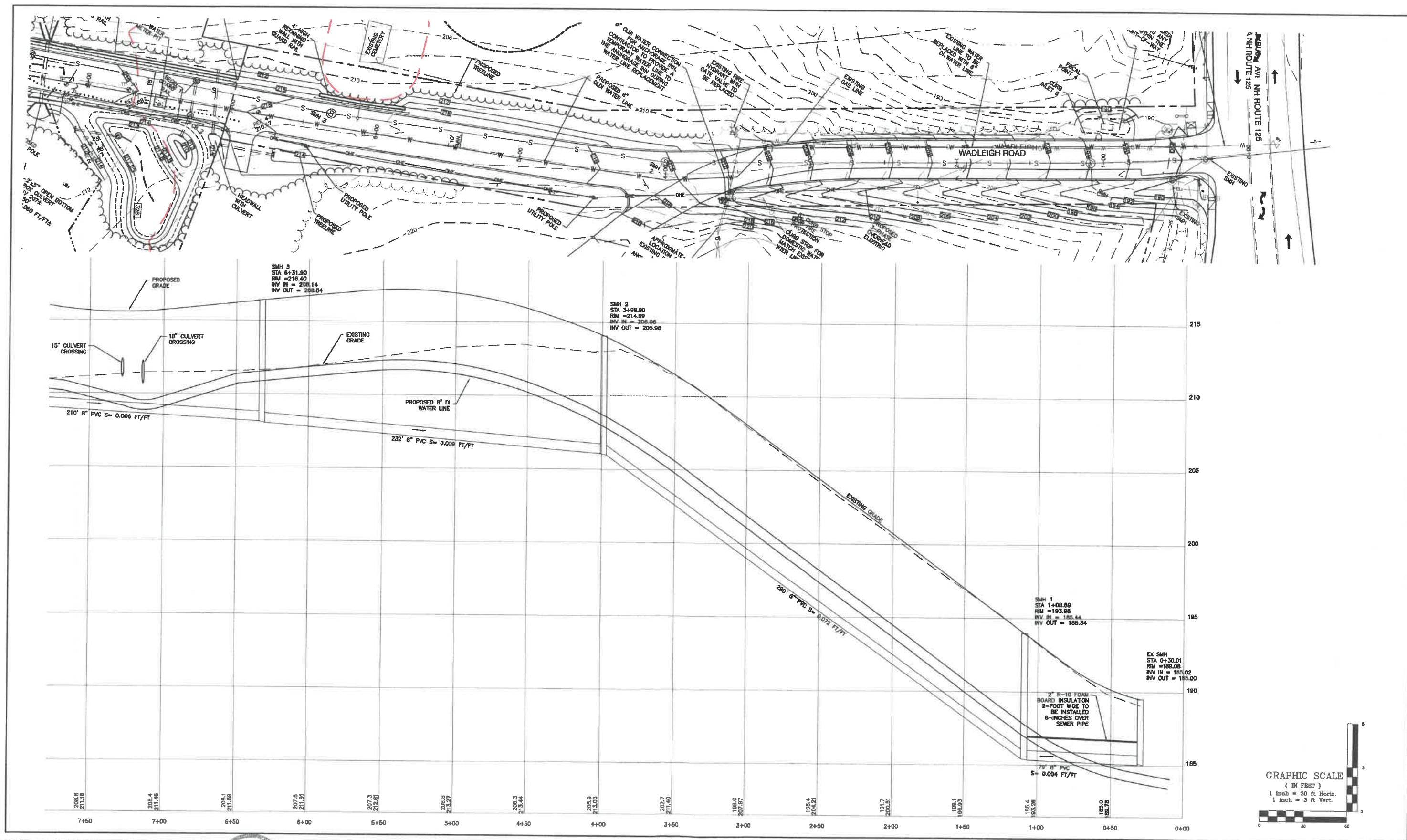


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3	12/14/21	REVISED PER CITY COMMENTS	LAZ
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1	9/21/21	ISSUED FOR PLANNING BOARD	LAZ

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Plan Name: **SEWER PLAN AND PROFILE**
 Project: **WADLEIGH ROAD APARTMENTS ROCHESTER, NH**
 Owner of Record: **SSG, LLC ATTN: FENTON GROEN 120 WASHINGTON STREET, ROCHESTER, NH 03839**

DRAWING No.
P3
 SHEET 15 OF 27
 JBE PROJECT NO. 21137



Design: LAZ Draft: LAZ Date: 9/8/21
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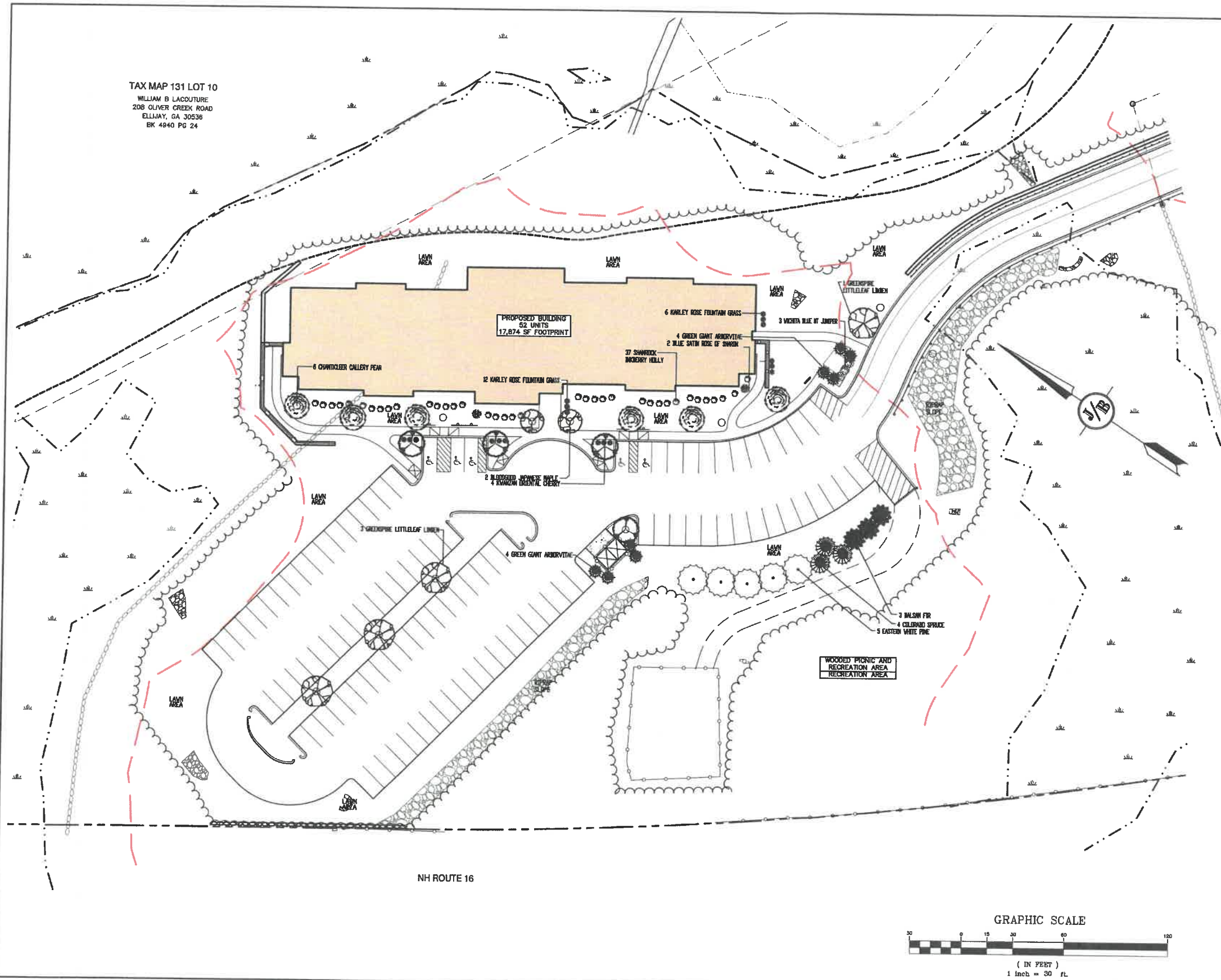
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Plan Name:	SEWER PLAN AND PROFILE
Project:	WADLEIGH ROAD APARTMENTS ROCHESTER, NH
Owner of Record:	SSG, LLC ATTN: FENTON GROEN 120 WASHINGTON STREET, ROCHESTER, NH 03839

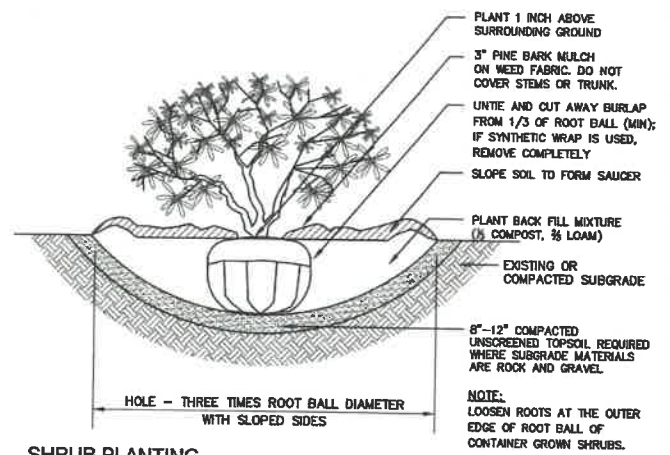
DRAWING No.
P4
 SHEET 16 OF 27
 JBE PROJECT NO. 21137

TAX MAP 131 LOT 10
WILLIAM B LACOUTURE
208 OLIVER CREEK ROAD
ELLIS, GA 30536
BK 4940 PG 24



LANDSCAPE NOTES:

1. THE CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTENCE OF ALL UTILITIES PRIOR TO STARTING WORK.
2. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTINGS SHOWN ON THE DRAWINGS.
3. PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, UPON DELIVERY OR AT THE JOB SITE WHILE WORK IS ON-GOING FOR CONFORMITY TO SPECIFIED QUALITY, SIZE AND VARIETY.
4. PLANTS FURNISHED IN CONTAINERS SHALL HAVE THE ROOTS WELL ESTABLISHED IN THE SOIL MASS AND SHALL HAVE AT LEAST ONE (1) GROWING SEASON. ROOT-BOUND PLANTS OR INADEQUATELY SIZED CONTAINERS TO SUPPORT THE PLANT MAY BE DEEMED UNACCEPTABLE.
5. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24-HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL BE WATERED WEEKLY, OR MORE OFTEN IF NECESSARY, DURING THE FIRST GROWING SEASON.
6. BY THE END OF THE GUARANTEE PERIOD, THE CONTRACTOR SHALL HAVE REPLACED ANY PLANT MATERIAL THAT IS MISSING, NOT TRUE TO SIZE AS SPECIFIED, THAT HAS DIED, LOST NATURAL SHAPE DUE TO DEAD BRANCHES, EXCESSIVE PRUNING OR INADEQUATE OR IMPROPER CARE, OR THAT IS, IN THE OPINION OF THE LANDSCAPE ARCHITECT, IN UNHEALTHY OR UNSIGHTLY CONDITION.
7. ALL LANDSCAPING ON THE PLANS SHALL BE MAINTAINED AND DEAD OR DYING VEGETATION SHALL BE REPLACED IN A TIMELY MANNER.
8. ALL LANDSCAPE AREAS TO BE GRASS COMMON TO REGION, EXCEPT FOR INTERIOR LANDSCAPED ISLANDS OR WHERE OTHER PLANT MATERIAL IS SPECIFIED.
9. ALL TREES AND SHRUBS SHALL BE PLANTED IN MULCH BEDS WITH EDGE STRIPS TO SEPARATE TURF GRASS AREAS.
10. THE CONTRACTOR SHALL REMOVE WEEDS, ROCKS, CONSTRUCTION ITEMS, ETC. FROM ANY LANDSCAPE AREA SO DESIGNATED TO REMAIN, WHETHER ON OR OFF-SITE. GRASS SEED OR PINE BARK MULCH SHALL BE APPLIED AS DEPICTED ON PLANS.
11. ALL LANDSCAPING SHALL MEET THE TOWN STANDARDS AND REGULATIONS.
12. ALL MULCH AREAS SHALL RECEIVE A 3" LAYER OF SHREDDED PINE BARK MULCH OVER A 10 MIL WEED MAT EQUAL TO 'WEEDBLOCK' BY EASY GARDENER OR DEWITT WEED BARRIER.
13. ALL LANDSCAPED AREAS SHALL HAVE SELECT MATERIALS REMOVED TO A DEPTH OF AT LEAST 8" BELOW FINISH GRADE. THE RESULTING VOID IS TO BE FILLED WITH A MINIMUM OF 8" HIGH-QUALITY SCREENED LOAM AMENDED WITH 3" OF AGED ORGANIC COMPOST.
14. THIS PLAN IS INTENDED FOR LANDSCAPING PURPOSES ONLY. REFER TO CIVIL/SITE DRAWINGS FOR OTHER SITE CONSTRUCTION INFORMATION.



SHRUB PLANTING
NOT TO SCALE

WADLEIGH RD APARTMENT BUILDING PLANT LIST

Plants	Quantity	Botanical Name	Common Name	Size
3	3	Aster latifolius	BALSM FIR	8-10 FT. HT.
2	2	Acer palmatum 'Bloodgood'	BLOODGOOD JAPANESE MAPLE	15 GALLON
3	3	Juniperus scopulorum 'Wichita Blue'	WICHITA BLUE MT JUNIPER	7-8 FT. HT.
4	4	Prunus pumila	COLORADO SPRUCE	8-10 FT. HT.
5	5	Pinus strobus	EASTERN WHITE PINE	10-12 FT. HT.
4	4	Prunus serrulata 'Kwanzan'	KWANZAN ORIENTAL CHERRY	2.5' CALIPER
6	6	Prunus candelabra 'Chanticleer'	CHANTICLEER CALLERY PEAR	2.5' CALIPER
8	8	Thuja plicata 'Green Giant'	GREEN GIANT ARBORVITAE	7-8 FT. HT.
3	3	Tilia cordata 'Greenspire'	GREENSPIRE LITTLELEAF LINDEN	3' CALIPER
2	2	Hibiscus syriacus 'DVPazun'	BLUE SATIN ROSE OF SHARON	5 GALLON
37	37	Ilex glabra 'Shamrock'	SHAMROCK INKBERRY HOLLY	5 GALLON
18	18	Pennisetum orientale 'Karley Rose'	KARLEY ROSE FOUNTAIN GRASS	2 GALLON

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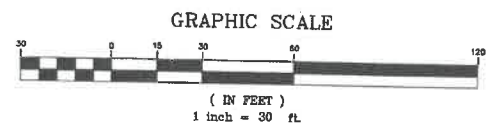
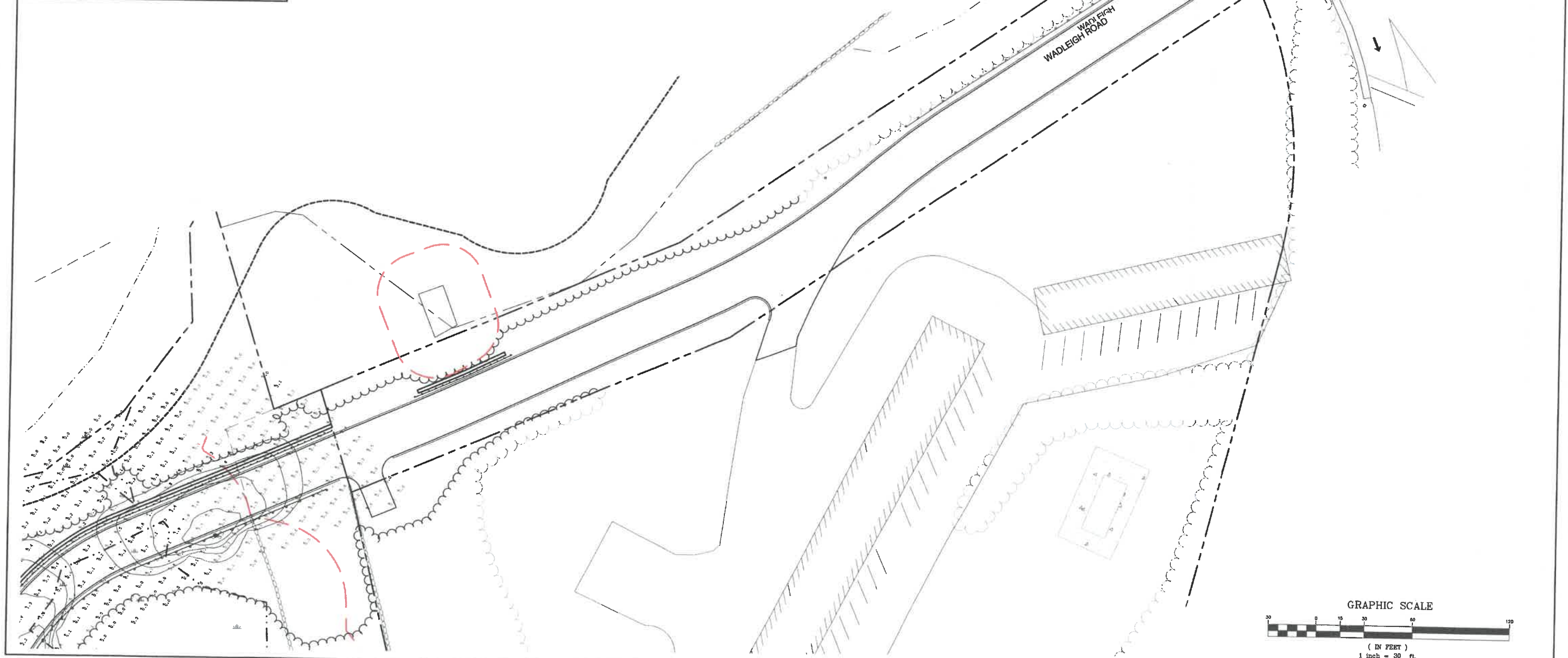
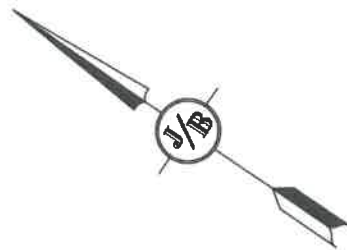
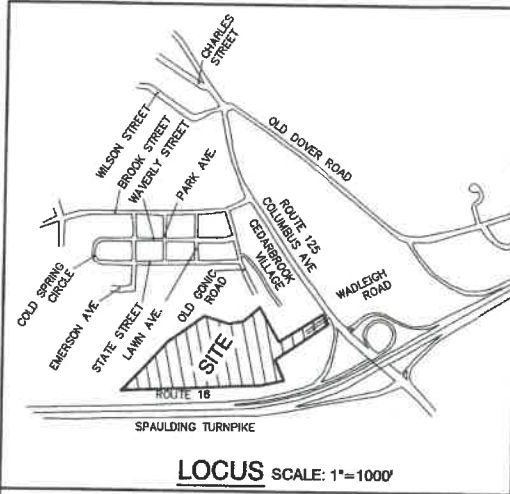


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4	1/14/22	REVISED PER CITY COMMENTS	LAZ
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1	9/21/21	ISSUED FOR PLANNING BOARD	LAZ

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Plan Name: **LANDSCAPE PLAN**
Project: **WADLEIGH ROAD APARTMENTS ROCHESTER, NH**
Owner of Record: **SSG, LLC ATTN: FENTON GROEN 120 WASHINGTON STREET, ROCHESTER, NH 03839**

DRAWING No.
L1
SHEET 17 OF 27
JBE PROJECT NO. 21137



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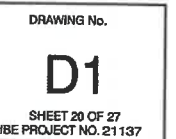


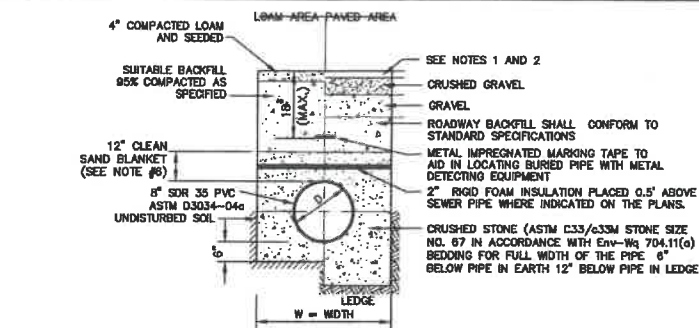
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REV.	DATE	REVISION	BY

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Plan Name: **LIGHTING PLAN**
 Project: **WADLEIGH ROAD APARTMENTS ROCHESTER, NH**
 Owner of Record: **SSG, LLC ATTN: FENTON GROEN 120 WASHINGTON STREET, ROCHESTER, NH 03839**

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L3
 SHEET 18 OF 27
 JBE PROJECT NO. 21137

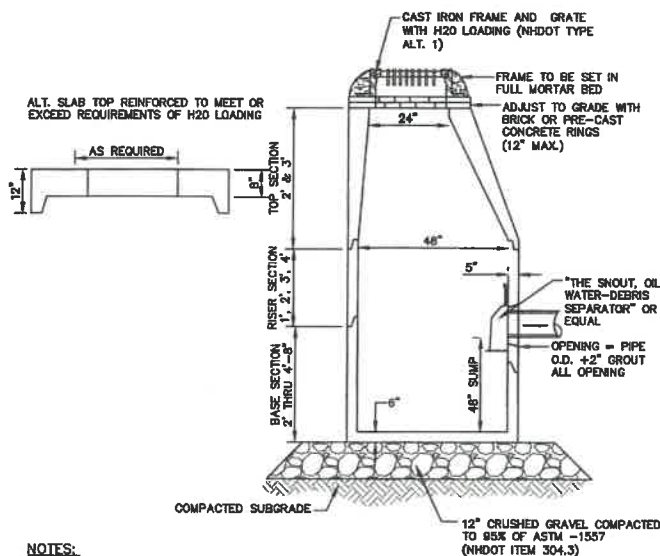




- NOTES:**
1. PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO PAVEMENT DETAILS.
 2. NEW ROADWAY CONSTRUCTION SHALL CONFORM TO SUBDIVISION SPECIFICATIONS.
 3. TRENCH BACKFILL SHALL CONFORM WITH ENV-WQ 704.11(h) AND BE FREE OF DEBRIS, PAVEMENT, ORGANIC MATTER, TOP SOIL, WET OR SOFT MUCK, PEAT OR CLAY, EXCAVATED LEDGE OR ROCKS OVER SIX INCHES.
 4. W= MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12" INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, WIDTH SHALL BE NO MORE THAN 36"; FOR PIPES GREATER THAN 15 INCHES NOMINAL DIAMETER, WIDTH SHALL BE 24 INCHES PLUS PIPE O.D. WIDTH SHALL ALSO BE THE PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE.
 5. RIGID FOAM INSULATION TO BE PROVIDED WHERE COVER IN THE ROADWAY IS LESS THAN 6' AND CROSS COUNTRY IS LESS THAN 4', PURSUANT TO DES WAIVER BEING ISSUED.
 6. PIPE SAND BLANKET MATERIAL SHALL BE GRADED SAND, FREE FROM ORGANIC MATERIALS, GRADED SUCH THAT 100% PASSES A 1/2" SIEVE AND A MAXIMUM OF 15% PASSES A #200 SIEVE IN ACCORDANCE WITH ENV-WQ 704.11(b).
 7. JOINT SEALS FOR PVC PIPE SHALL BE OIL RESISTANT COMPRESSION RINGS OF ELASTOMERIC MATERIAL AND CERTIFIED BY THE MANUFACTURER AS CONFORMING TO THE ASTM D3212 STANDARD IN EFFECT WHEN THE JOINT SEALS WERE MANUFACTURED, AND SHALL BE PUSH-ON, BELL-AND-SPIGOT TYPE PER ENV-WQ 704.05 (e).

SEWER TRENCH

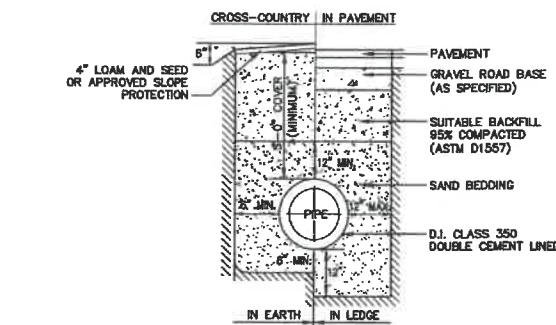
NOT TO SCALE



- NOTES:**
1. BASE SECTION SHALL BE MONOLITHIC WITH 48" INSIDE DIAMETER.
 2. ALL SECTIONS SHALL BE DESIGNED FOR H2O LOADING.
 3. CONCRETE SHALL BE COMPRESSIVE STRENGTH 4000 PSI, TYPE II CEMENT.
 4. FRAMES AND GRATES SHALL BE HEAVY DUTY AND DESIGNED FOR H2O LOADING.
 5. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS SO AS TO BE WATERTIGHT.
 6. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE BUTYL RUBBER.
 7. ALL CATCH BASIN FRAMES AND GRATES SHALL BE NHDOT CATCH BASIN TYPE ALTERNATE 1 OR NEEDHAM R-3570 OR APPROVED EQUAL (24"x24" TYPICAL).
 8. STANDARD CATCH BASIN FRAME AND GRATE(S) SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM, BUT NO MORE THAN 12"), OR PRECAST CONCRETE "DONUTS".
 9. ALL CATCH BASINS ARE TO BE FITTED WITH GREASE HOODS.

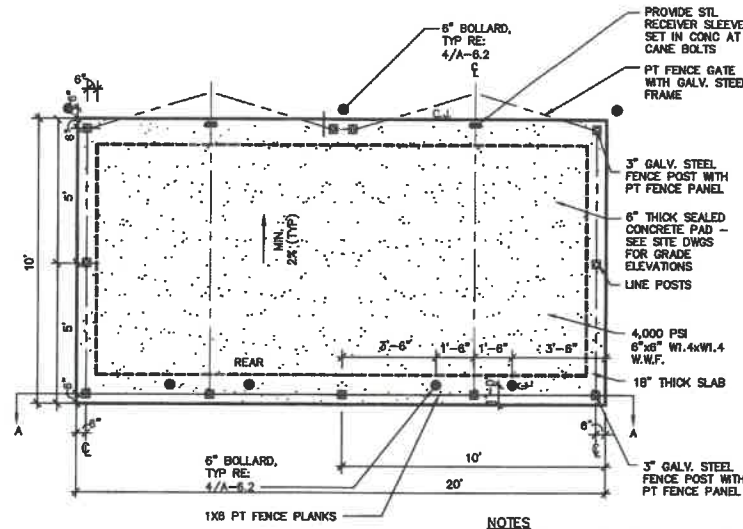
CATCH BASIN WITH GREASE HOOD

NOT TO SCALE



WATER SYSTEM TRENCH

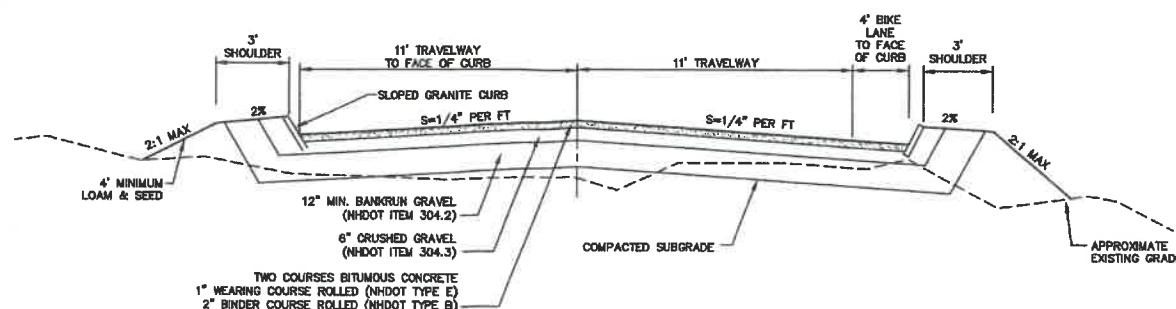
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- NOTES:**
1. ALL LUMBER TO BE PRESSURE TREATED.
 2. WOOD FENCE TO BE PAINTED OR STAINED TO MATCH BUILDING FOUNDATION.
 3. DUMPSTER SIZE VARIES, SEE SITE PLANS FOR SCREENING SIZE.

DUMPSTER ENCLOSURE PLAN

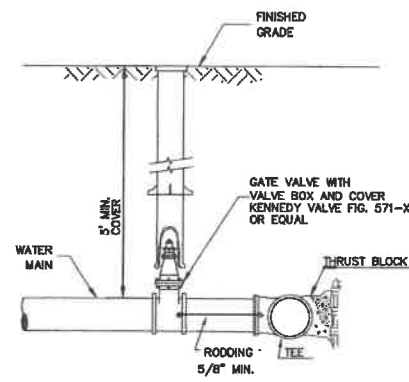
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- NOTES:**
1. REMOVE ALL ORGANICS, TOPSOIL AND MATERIAL YIELDING TO A 10 TON ROLLER. SUBBASE AREAS THAT CONTAIN UNSUITABLE MATERIALS MUST BE EXCAVATED TO A DEPTH NO LESS THAN 36" BELOW FINISH GRADE AND BE REPLACED WITH GRAVEL COMPACTED TO 95%.
 2. ALL MATERIALS TO BE AS SPECIFIED PER TOWN STANDARDS AND NHDOT, WHICHEVER IS MOST STRINGENT. GRADATION AND COMPACTION TEST RESULTS (95% MIN.) SHALL BE SUBMITTED FOR REVIEW AND APPROVAL.
 3. TOWN MAY REQUIRE UNDERDRAIN AND/OR ADDITIONAL DRAINAGE IF SOIL CONDITIONS WARRANT.
 4. WOVEN GEOTEXTILE FABRIC SHALL BE PLACED ABOVE SUBGRADE AT ALL WETLAND CROSSINGS.

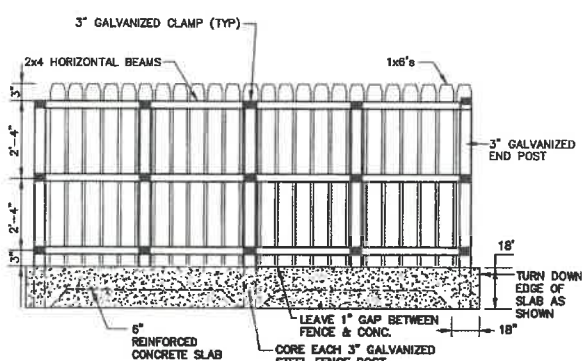
TYPICAL ROADWAY SECTION W/CURBING

NOT TO SCALE

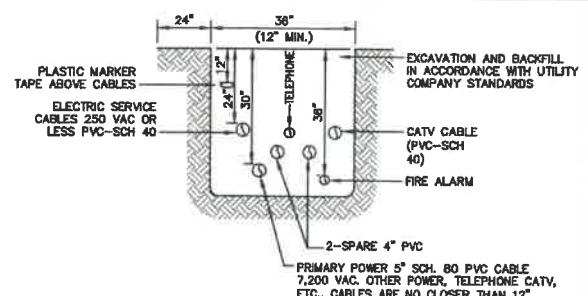


BURIED GATE VALVE DETAIL

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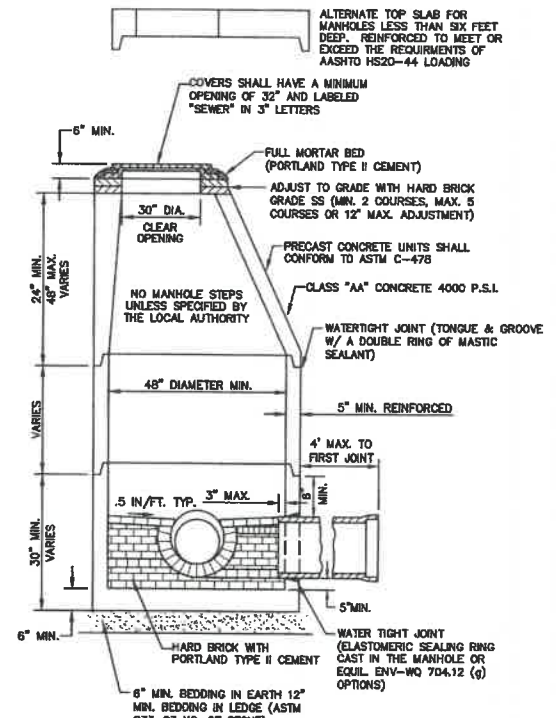
SECTION A-A



NOTE: ALL UTILITIES SHALL BE REVIEWED AND APPROVED BY APPROPRIATE UTILITY COMPANY.

UTILITY TRENCH

NOT TO SCALE



- NOTES:**
1. PER NHDES ENV-WQ 704.13(C), MORTAR USED IN MANHOLE CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING:
 - a. MORTAR SHALL BE COMPOSED OF TYPE II PORTLAND CEMENT AND SAND WITH OR WITHOUT HYDRATED LIME ADDITION
 - b. PROPORTIONS IN MORTAR OF PARTS BY VOLUMES SHALL BE PER TABLE 704-4:
 - (1) 4.5 PARTS SAND AND 1.5 PARTS CEMENT; OR
 - (2) 4.5 PARTS SAND, ONE PART CEMENT AND 0.5 PART HYDRATED LIME.
 - c. CEMENT SHALL BE TYPE I PORTLAND CEMENT THAT IS CERTIFIED BY ITS MANUFACTURER AS CONFORMING TO THE ASTM C150/C150M STANDARD IN EFFECT AT THE TIME THE CEMENT WAS MANUFACTURED
 - d. HYDRATED LIME SHALL BE TYPE S THAT IS CERTIFIED BY ITS MANUFACTURER AS CONFORMING TO THE ASTM C207 STANDARD IN EFFECT AT THE TIME THE HYDRATED LIME WAS PROCESSED
 - e. SAND SHALL CONSIST OF INERT NATURAL SAND THAT IS CERTIFIED BY ITS SUPPLIER AS CONFORMING TO THE ASTM C33 STANDARD IN EFFECT AT THE TIME THE SAND IS PROCESSED BY STANDARD SPECIFICATIONS FOR CONCRETE, FINE AGGREGATES
 - f. CONCRETE FOR DROP SUPPORTS SHALL CONFORM TO THE REQUIREMENT FOR CLASS AAA CONCRETE OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS AVAILABLE AT: [HTTP://WWW.NH.GOV/DOT/ORG/PROJECTDEVELOPMENT/HIGHWAYDESIGN/SPECIFICATIONS/INDEX.HTM](http://www.nh.gov/dot/org/projectdevelopment/highwaydesign/specifications/index.htm)
 2. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPED TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL IN ACCORDANCE WITH ENV-WQ 704.12 (K).
 3. ALL MANHOLES SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH ENV-WQ 704.17 (a) THROUGH (e).
 4. SEWER MANHOLE COVERS SHALL CONFORM TO ASTM A48/48M WITH A CASTING EQUAL TO CLASS 30 IN ACCORDANCE WITH ENV-WQ 704.13 (c) (8).
 5. ALL PRECAST SECTIONS SHALL BE COATED ON THE EXTERIOR WITH A BITUMINOUS DAMP-PROOFING COATING IN ACCORDANCE WITH ENV-WQ 704.12 (J).
 6. ALL PRECAST SECTIONS AND BASES SHALL HAVE THE DATE OF MANUFACTURE AND THE NAME OR TRADEMARK OF THE MANUFACTURER IMPRESSED OR INDELIBLY MARKED ON THE INSIDE WALL PER ENV-WQ 704.12(I).
 7. BRICK MASONRY SHALL CONFORM TO ASTM C32 (ENV-WQ 704.12(a)(8))

SEWER MANHOLE

NOT TO SCALE

Design: LAZ	Draft: LAZ	Date: 9/8/21
Checked: BAJ	Scale: AS NOTED	Project No.: 21137
Drawing Name: 21137-PLAN.dwg		
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REV.	DATE	REVISION	BY
5	3/14/22	REVISED PER CITY COMMENTS	LAZ
4	1/14/22	REVISED PER CITY COMMENTS	LAZ
3	12/14/21	REVISED PER CITY COMMENTS	LAZ
2	12/6/21	REVISED PER CONSERVATION COMMISSION COMMENTS	LAZ
1	9/21/21	ISSUED FOR PLANNING BOARD	LAZ

Designed and Produced in NH

J/B Jones & Beach Engineers, Inc.

85 Portsmouth Ave. PO Box 219 Stratham, NH 03885

Civil Engineering Services

603-772-4748 FAX: 603-772-0227 E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	DETAIL SHEET
Project:	WADLEIGH ROAD APARTMENTS ROCHESTER, NH
Owner of Record:	SSG, LLC ATTN: FENTON GROEN 120 WASHINGTON STREET, ROCHESTER, NH 03839
DRAWING No.	D2
SHEET 21 OF 27	JBE PROJECT NO. 21137

	MATERIAL LOCATION	DESCRIPTION	AASHTO M43 DESIGNATION	AASHTO M145 DESIGNATION	COMPACTION/DENSITY REQUIREMENT
(D)	PAVEMENT SUBGRADE, DEPTH(S) PER SPECIFICATIONS	PAVEMENT SUBGRADE, MATERIALS PER SPECIFICATIONS	N/A	N/A	PREPARE PER SPECIFICATIONS AND PLANS, PAVED INSTALLATIONS HAVE STRENGTH MATERIAL AND PREPARATION REQUIREMENTS.
(C)	FILL MATERIAL FROM 1.5' ABOVE CHAMBERS TO BOTTOM OF PAVEMENT SUBGRADE	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES.	3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	A-1 A-2 A-3	COMPACT IN 6" LIFTS TO A MINIMUM 95% STANDARD PROCTOR DENSITY. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 LBS. DYNAMIC FORCE NOT TO EXCEED 20,000 LBS.
(B)	EMBEDMENT STONE SURROUNDING AND TO A 1.5' ELEVATION ABOVE CHAMBERS	WASHED ANGULAR STONE WITH THE MAJORITY OF PARTICLES BETWEEN X - 2 INCH	3, 357, 4, 467, 5, 56, 57	N/A	NO COMPACTION REQUIRED
(A)	12" FOUNDATION STONE BELOW CHAMBERS	WASHED ANGULAR STONE WITH THE MAJORITY OF PARTICLES BETWEEN X - 2 INCH	3, 357, 4, 467, 5, 56, 57	N/A	PLATE COMPACT OR ROLL TO ACHIEVE A 95% STANDARD PROCTOR DENSITY

CHAMBER
SYSTEM #1 & #2
(SC-740)



1. STORMTECH LLC ("STORMTECH") REQUIRES THE CONTRACTOR TO USE AND UNDERSTAND STORMTECH'S LATEST INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION.
2. STORMTECH OFFERS INSTALLATION CONSULTATIONS TO INSTALLING CONTRACTORS. FOR TECHNICAL OR SERVICE DEPARTMENT OR LOCAL STORMTECH REPRESENTATIVE AT LEAST 30 DAYS PRIOR TO SYSTEM INSTALLATION TO ARRANGE A PRE-INSTALLATION CONSULTATION. OUR REPRESENTATIVES CAN THEN ANSWER QUESTIONS OR ADDRESS COMMENTS ON THE STORMTECH CHAMBER SYSTEM AND INFORM THE INSTALLING CONTRACTOR OF THE LATEST INSTALLATION REQUIREMENTS BEFORE BEGINNING THE SYSTEM'S CONSTRUCTION. CALL 860-523-8188 TO SPEAK TO A TECHNICAL SERVICE REPRESENTATIVE AT WWW.STORMTECH.COM TO RECEIVE A COPY OF OUR INSTALLATION INSTRUCTIONS.
3. STORMTECH'S REQUIREMENTS FOR SYSTEMS WITH PAVEMENT DESIGN (ASPHALT, CONCRETE, PAVERS, ETC.): MINIMUM COVER IS 24 INCHES NOT INCLUDING PAVEMENT; MAXIMUM COVER IS 6.5 FEET INCLUDING PAVEMENT. FOR INSTALLATIONS THAT ARE NOT ON PAVEMENT, WHERE RUTTING FROM VEHICLES MAY OCCUR, MINIMUM REQUIRED COVER IS 24 INCHES, MAXIMUM COVER IS 6.5 FEET.
4. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE DESIGN ENGINEER.
5. AASHTO M288 CLASS 2 NON-WOVEN GEOTEXTILE (FILTER FABRIC) MUST BE USED AS INDICATED IN THE PROJECT PLANS.
6. STONE PLACEMENT BETWEEN CHAMBERS ROWS AND AROUND PERIMETER MUST FOLLOW INSTRUCTIONS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
7. BACKFILLING OVER THE CHAMBERS MUST FOLLOW REQUIREMENTS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
8. THE CONTRACTOR MUST REFER TO STORMTECH'S INSTALLATION INSTRUCTIONS FOR A TABLE OF ACCEPTABLE VEHICLE LOADS AT VARIOUS DEPTHS COVER. THIS INFORMATION IS ALSO AVAILABLE AT STORMTECH'S WEBSITE: WWW.STORMTECH.COM. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING VEHICLES THAT EXCEED STORMTECH'S REQUIREMENTS FROM TRAVELING ACROSS OR PARALLEL TO THE STORMWATER SYSTEM. TEMPORARY FENCING, WARNING TAPE AND APPROPRIATELY LOCATED SIGNS ARE COMBINATION USE TO PREVENT UNAUTHORIZED VEHICLES FROM ENTERING SENSITIVE CONSTRUCTION AREAS.
9. THE CONTRACTOR MUST APPLY EROSION AND SEDIMENT CONTROL MEASURES TO PROTECT THE STORMWATER SYSTEM DURING ALL PHASES OF SITE CONSTRUCTION PER LOCAL CODES AND DESIGN ENGINEER'S SPECIFICATIONS.
10. STORMTECH PRODUCT WARRANTY IS LIMITED. CONTACT STORMTECH FOR WARRANTY INFORMATION.



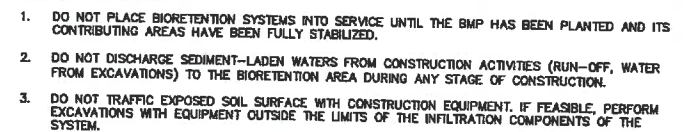
	ELEVATIONS/DIMENSIONS								
	A	B	C	D	E	F	G	H	I
SYSTEM P3	215.30	210.0	213.8	214.0	212.25	208.83	214.0	208.50	B"

3130 Verona Avenue - Buford, Georgia 30518
Tel. (770) 932-2443 - Fax (770) 932-2490

[illegible]

1. BASE SECTION SHALL BE MONOLITHIC WITH 48" INSIDE DIAMETER.
2. ALL SECTIONS SHALL BE DESIGNED FOR H2O LOADING.
3. CONCRETE SHALL BE COMPRESSIVE STRENGTH 4000 PSI, TYPE II CEMENT.
4. FRAMES AND GRATES SHALL BE HEAVY DUTY AND DESIGNED FOR H2O LOADING.
5. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS SO AS TO BE WATERTIGHT.
6. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE BUTYL RUBBER.
7. ALL DRAIN MANHOLE FRAMES AND GRATES SHALL BE NEENAH R-1799 OR APPROVED EQUAL (30" DIA. TYPICAL).
8. STANDARD FRAME(S) AND GRATE(S) SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM, BUT NO MORE THAN 12"), OR PRECAST CONCRETE DOMUTS.

NOT TO SCALE



1. SYSTEMS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EVENT EXCEEDING 2.5 INCHES IN A 24 HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION CONDUCTED AS WARRANTED BY SUCH INSPECTION.
2. PRETREATMENT MEASURES SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND CLEANED OF ACCUMULATED SEDIMENT AS WARRANTED BY INSPECTION, BUT NO LESS THAN ONCE ANNUALLY.
3. TRASH AND DEBRIS SHOULD BE REMOVED AT EACH INSPECTION.
4. AT LEAST ONCE ANNUALLY, SYSTEM SHOULD BE INSPECTED FOR DRAINDOWN TIME. IF BIORETENTION SYSTEM DOES NOT DRAIN WITHIN 72 HOURS FOLLOWING A RAINFALL EVENT, THEN A QUALIFIED PROFESSIONAL SHOULD ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE FILTRATION FUNCTION OR INFILTRATION FUNCTION (AS APPLICABLE), INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE FILTER MEDIA.
5. VEGETATION SHOULD BE INSPECTED AT LEAST ANNUALLY, AND MAINTAINED IN HEALTHY CONDITION, INCLUDING PRUNING, REMOVAL AND REPLACEMENT OF DEAD OR DISEASED VEGETATION, AND REMOVAL OF INVASIVE SPECIES.
6. COMPACTION AND MATERIALS TESTING SERVICES SHALL BE PERFORMED BY AN INDEPENDENT GEOTECHNICAL ENGINEER RETAINED BY THE OWNER.

NOT TO SCALE



1. PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REGULATIONS.
2. NEW ROADWAY CONSTRUCTION SHALL CONFORM WITH PROJECT AND TOWN SPECIFICATIONS.
3. ALL MATERIALS ARE TO BE COMPACTED TO 95% OF ASTM D-1557.

NOT TO SCALE

5	3/14/22	REVISED PER CITY COMMENTS	LAZ
4	1/14/22	REVISED PER CITY COMMENTS	LAZ
3	12/14/21	REVISED PER CITY COMMENTS	LAZ
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1	9/21/21	ISSUED FOR PLANNING BOARD	LAZ
REV.	DATE	REVISION	BY

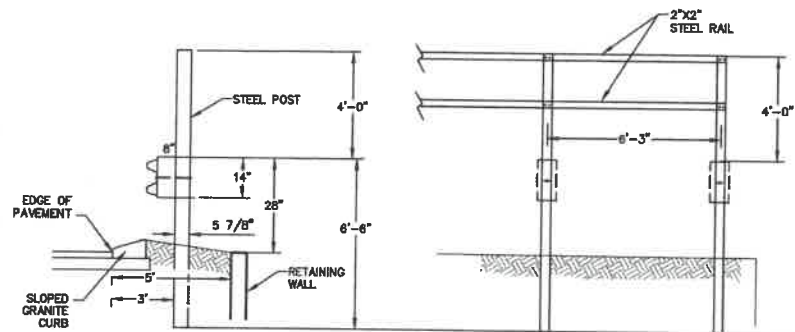
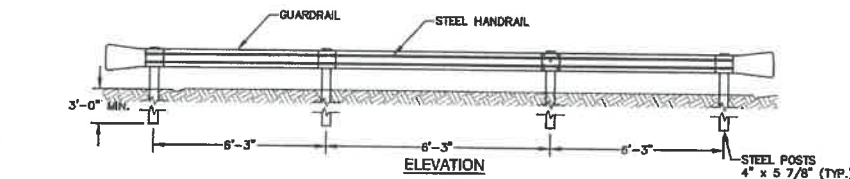
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Plan Name:	DETAIL SHEET
Project:	WADLEIGH ROAD APARTMENTS ROCHESTER, NH
Owner of Record:	SSG, LLC ATTN: FENTON GROEN 120 WASHINGTON STREET, ROCHESTER, NH 03839

DRAWING No.

D3

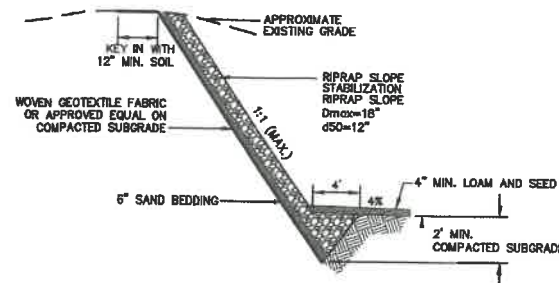
SHEET 22 OF 27
PROJECT NO. 21137



- NOTES:**
1. USE IN LIGHT TRAFFIC AREAS.
 2. HAND RAIL TO BE GALVANIZED STEEL TYPE (OR EQUIVALENT APPROVED BY THE ENGINEER).
 3. POST BOLTS TO BE 10" W/MIN. 2 1/2" THREAD LENGTH.

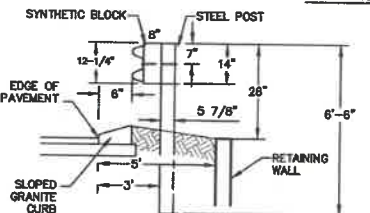
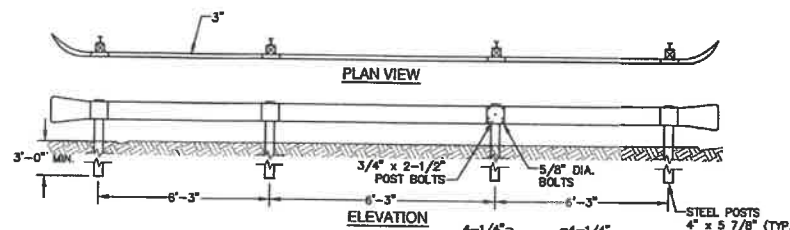
STEEL HAND RAIL DETAIL

NOT TO SCALE



RIPRAP STABILIZED STEEP SLOPE

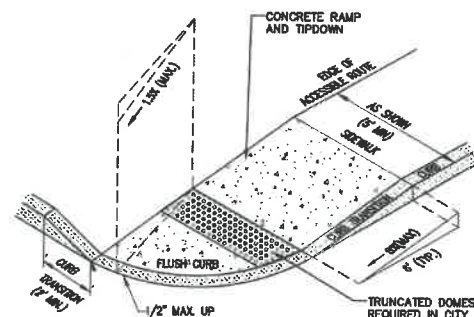
NOT TO SCALE



- NOTES:**
1. USE IN LIGHT TRAFFIC AREAS.
 2. GUARD RAIL TO BE GALVANIZED STEEL TYPE (OR EQUIVALENT APPROVED BY THE ENGINEER).
 3. POST BOLTS TO BE 10" W/MIN. 2 1/2" THREAD LENGTH.

GUARD RAIL (STEEL)

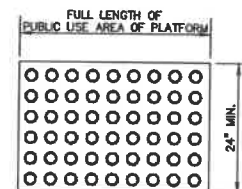
NOT TO SCALE



- NOTES:**
1. THE MAXIMUM ALLOWABLE CROSS SLOPE OF ACCESSIBLE ROUTE (SIDEWALK) AND CURB SHALL BE 1.5%.
 2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
 3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE (SIDEWALK) CURB RAMPS SHALL BE 8%.
 4. A MINIMUM OF 4 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
 5. CURB TREATMENT VARIES. SEE PLANS FOR CURB TYPE.
 6. BASE OF RAMP SHALL BE GRADED TO PREVENT PONDING.
 7. SEE TYPICAL SECTION FOR RAMP CONSTRUCTION.

ACCESSIBLE CURB RAMP (TYPE 'B') (WITHIN CITY ROW)

NOT TO SCALE

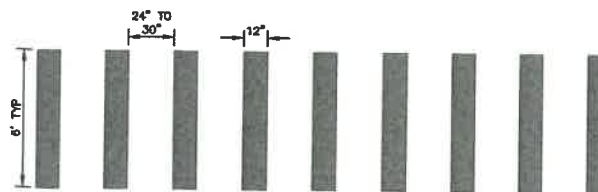


- DETECTABLE WARNING SURFACES SHALL CONSIST OF A SURFACE OF TRUNCATED DOMES AND SHALL COMPLY WITH THE FOLLOWING:
- A. TRUNCATED DOMES SHALL HAVE A BASE DIAMETER OF 0.9" (MIN.) AND 1.4" (MAX.), A TOP DIAMETER OF 50% OF THE BASE DIAMETER MINIMUM TO 65% OF THE BASE DIAMETER MAXIMUM, AND A HEIGHT OF 0.2".
 - B. TRUNCATED DOMES SHALL HAVE A CENTER-TO-CENTER SPACING OF 1.6" MINIMUM AND 2.4" MAXIMUM, AND A BASE-TO-BASE SPACING OF .85" MINIMUM AND 1.5" MAXIMUM, MEASURED BETWEEN THE MOST ADJACENT DOMES ON A SQUARE GRID.
 - C. TRUNCATED DOMES TO BE CAST IRON PER NHDOT SPECIFICATIONS.
 - D. DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT.
- TRUNCATED DOMES TO BE PLACED IN SIDEWALK BASE IN PUBLIC TRAFFIC AREAS.

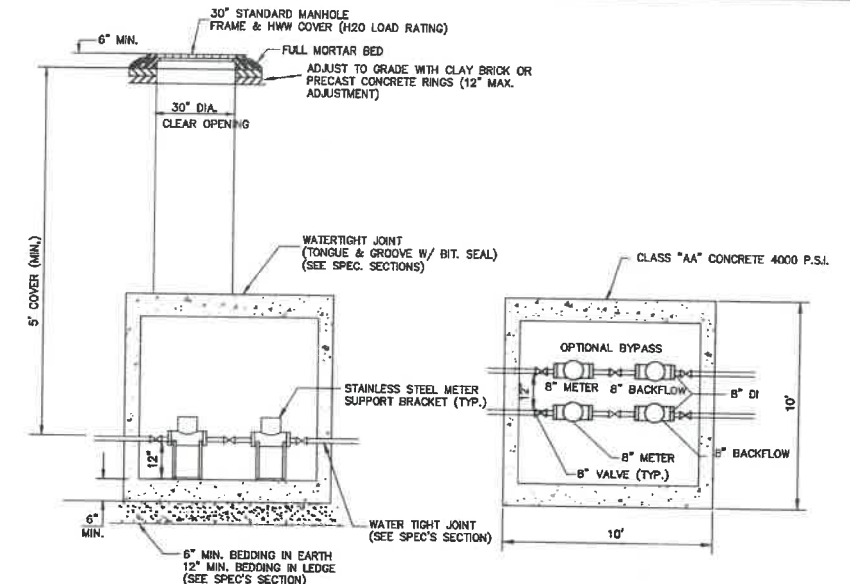
ACCESSIBLE CURB RAMP TRUNCATED DOMES

NHDOT CONTINENTAL BLOCK MARKING DETAIL

NOT TO SCALE



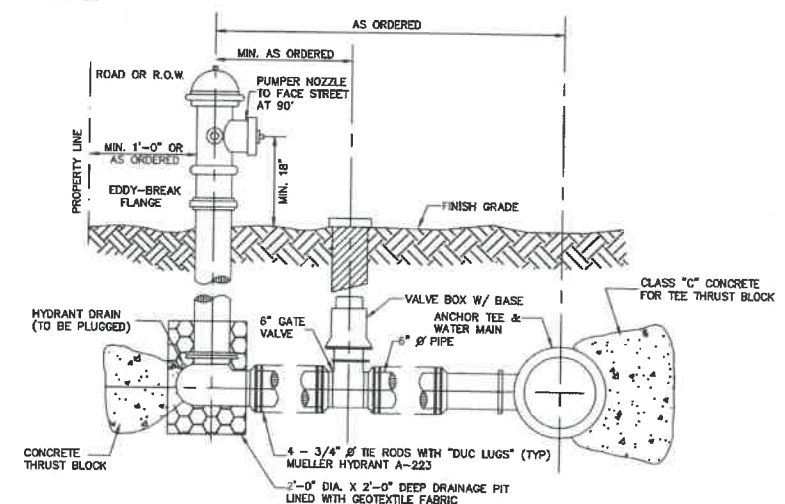
- NOTES:**
1. TRANSVERSE CROSSWALK LINES SHALL BE THERMOPLASTIC, NOT LESS THAN 6" WIDE AND NOT LESS THAN 6" APART.
 2. SPACING FOR THE CONTINENTAL CLOCK MARKINGS SHALL BE UNIFORM FOR EACH INDIVIDUAL CROSSWALK BUT CAN BE MODIFIED FOR ONE CROSSWALK TO THE NEXT TO ELIMINATE A CROSSWALK MARKING DIRECTLY IN THE WHEELPATH.



- NOTES:**
1. METER TO BE SENSUS OMNI C2 OF APPROPRIATE SIZE.
 2. BACKFLOW TO BE TESTABLE DOUBLE CHECK VALVE ASSEMBLY WITH CENTER-SHAFT OR TOP HINGE CHECKS (WILKINS 350AST OR EQUAL) OF APPROPRIATE SIZE, IF APPLICATION IS DESIGNED LOW HAZARD.
 3. OPTIONAL BYPASS MAY BE SIZED FOR DOMESTIC SERVICE ONLY.
 4. VAULT TO HAVE ADEQUATE ANTI-BUOYANCY FEATURES.
 5. VAULT COVERS TO BE STAMPED WITH "WATER" AND MATCH EXISTING CITY OF ROCHESTER INFRASTRUCTURE STANDARDS.
 6. ISOLATION VALVES REQUIRED AROUND EQUIPMENT FOR MAINTENANCE, TESTING AND SERVICE.
 7. IF APPLICATION IS DESIGNATED HIGH HAZARD, THE ASSEMBLY MUST USE RP2 BACKFLOW DEVICES AND BE LOCATED IN AN ABOVE GRADE, HEATED AND INSULATED ENCLOSURE TO ALLOW FOR DRAINING.
 8. VAULT AND ACCESS HATCHES SHALL BE SIZED TO ALLOW ENTRY FOR INSPECTION, TESTING AND COMPLETE REPLACEMENT OF DEVICES.
- BYPASS USAGE:**
9. IF OPTIONAL BYPASS LINE IS INSTALLED, WHEN MAIN FEED IS TAKEN OFFLINE AND BYPASS ENGAGED, OWNER SHALL CALL 530-7128 TO COORDINATE LOW FLOW CONDITION WITH ROCHESTER FIRE DEPARTMENT AND ROCHESTER PUBLIC WORKS DEPARTMENT.

WATER METER PIT ROCHESTER

NOT TO SCALE



- NOTES:**
1. ALL PIPE FITTINGS TO BE D.I. PRESSURE CLASS 350, THICKNESS CLASS 52.
 2. HYDRANT TO BE PAINTED RED WITH WHITE "REFLECTOR" PAINT ON BONNET.
 3. MECHANICAL JOINTS SHALL HAVE MEGALUG RETAINING GLANDS AS MADE BY EBBA OR APPROVED EQUAL.
 4. STEAMER NOZZLE TO BE "STORCH" TYPE.
 5. NATIONAL STANDARD THREAD.
 6. HYDRANTS SHALL BE NON-DRAINING, NON-ROTATING STEM EQUAL TO KENNEDY K-81-D. VALVES SHALL OPEN CLOCKWISE.

HYDRANT INSTALLATION

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Checked: BAJ	Scale: AS NOTED	Project No.: 21137
Drawing Name: 21137-PLAN.dwg		
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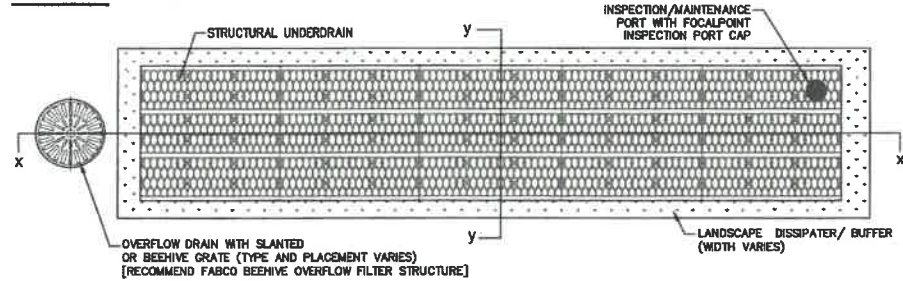
REV.	DATE	REVISION	BY
5	3/14/22	REVISED PER CITY COMMENTS	LAZ
4	1/14/22	REVISED PER CITY COMMENTS	LAZ
3	12/14/21	REVISED PER CITY COMMENTS	LAZ
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1	9/21/21	ISSUED FOR PLANNING BOARD	LAZ

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 85 Portsmouth Ave. PO Box 219 Stratham, NH 03885
 Civil Engineering Services
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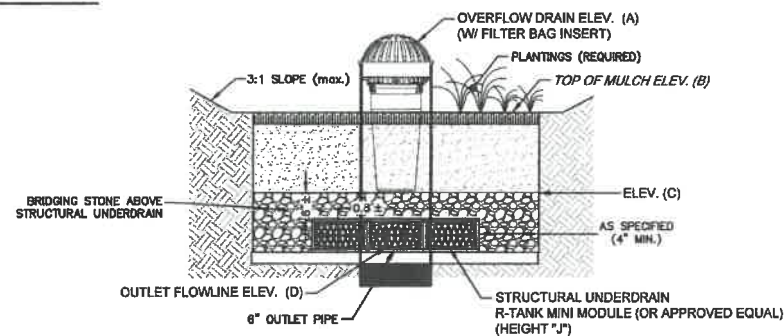
Plan Name:	DETAIL SHEET
Project:	WADLEIGH ROAD APARTMENTS ROCHESTER, NH
Owner of Record:	SSG, LLC ATTN: FENTON GROEN 120 WASHINGTON STREET, ROCHESTER, NH 03839

DRAWING No.	D4
SHEET 23 OF 27	JBE PROJECT NO. 21137

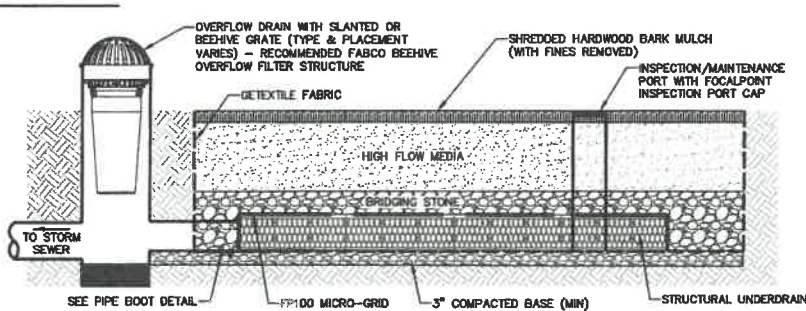
PLAN VIEW



SECTION Y-Y



SECTION X-X



FOCALPOINT BIOFILTRATION SYSTEM TYPICAL LAYOUT AND SECTIONS

NOT TO SCALE

FOCALPOINT HP PERFORMANCE SPECIFICATION:

HIGH PERFORMANCE MEDIA MUST MEET A MINIMUM OF 100-INCHES PER HOUR INFILTRATION RATE. FIELD HYDRAULIC CONDUCTIVITY TESTING MUST BE CONDUCTED WITHIN 30 DAYS OF INSTALLATION. FIELD TEST MUST BE CONDUCTED WITH PROSCRIBED INFILTROMETER AND SOP (SEE SPECIFICATIONS). FAILURE TO MEET FIELD TESTING WILL RESULT IN THE REMOVAL OF MEDIA AND REPLACEMENT FROM ALTERNATE BATCH.

HIGH PERFORMANCE STRUCTURAL UNDERDRAIN

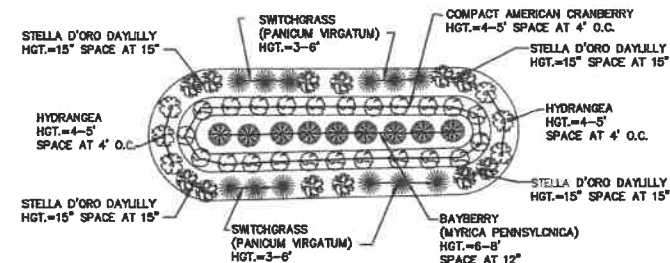
MUST HAVE A MINIMUM OF 19 SQUARE INCHES OF ORIFACE OPENING PER SQUARE FOOT. MUST MEET H2O LOADING REQUIREMENTS. MUST BE MODULAR IN NATURE AND ASSEMBLED ON SITE. MUST HAVE MINIMUM 90% INTERIOR VOID SPACE.

PLANT COMPONENT

SUPPLIER SHALL PROVIDE LIST OF ACCEPTABLE PLANTS. PLANTS SHALL BE INSTALLED AT THE TIME THE SYSTEM IS COMMISSIONED FOR USE. PLANTING OUTSIDE THIS TIME REQUIRES APPROVAL BY THE ENGINEER OF RECORD. SEE FOCALPOINT INSTALLATION GUIDE FOR PLANT SPACING, PLANTING PROCEDURES, ETC.

FOCALPOINT HP CONSTRUCTION GUIDE

FOCALPOINT ID	FP-1	FP-2	FP-3	FP-4
FOCALPOINT LENGTH	11'	10'	9'	8'
FOCALPOINT WIDTH	6'	6'	6'	4'
FOCALPOINT INV	228.34	228.34	222.32	189.50
TOP OF MULCH	228.34	228.34	225.32	192.50
OVERFLOW SIZE	15"	15"	12"	12"
OVERFLOW ELEVATION	228.84	228.84	225.82	193.00

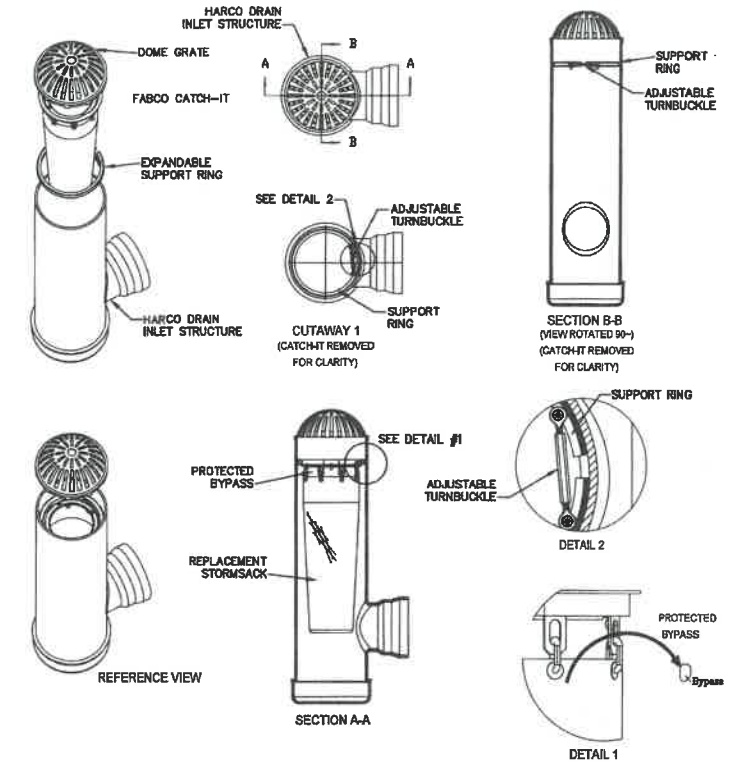


NOTES

- NATIVE PLANTS ARE BEST SUITED AS THEY ADJUST WELL TO PERIODIC DROUGHTS AND TEMPERATURE EXTREMES. USE USDA HARDINESS ZONES AS THE FIRST GUIDE FOR PLANTS.
- ROOT MORPHOLOGY IS IMPORTANT. SHALLOW FIBROUS ROOT SYSTEMS ARE BEST AND GENERALLY ONLY GROW TO DEPTHS OF 3 FT. PLANTS WITH TAP ROOTS OR THAT ARE SURFACE SPREADING SHOULD NOT BE USED.
- SMALL TREES, WOODY SHRUBS OR HERBACEOUS PLANTS ARE ALL SUITABLE FOR THE SYSTEM.
- IF THE RUNOFF COULD BE CONTAMINATED WITH ROAD SALTS, SALT TOLERANT PLANTS SHOULD BE USED.
- GENERALLY FACULTATIVE PLANTS THAT LIKE WELL DRAINED SOILS SHOULD BE USED. DESPITE THE VOLUME OF WATER TREATED, THE SOIL DRAINS VERY WELL. SO FACULTATIVE-WET OR OBLIGATE PLANTS WILL NOT DO WELL IN THESE SYSTEMS.
- SOIL MOISTURE IS MAINTAINED THROUGH THE USE OF 10% PEAT MOSS IN THE ORIGINAL MEDIA MIX AND THE USE OF A 3 INCH LAYER OF MULCH ON THE MEDIA SURFACE. OVER THE YEARS, DUE TO ROUTINE REPLACEMENT OF THE MULCH AND ONGOING INPUT OF ORGANIC MATERIAL FROM THE RUNOFF (LEAF LITTER, ORGANICS AND DETRITUS MATERIALS), THIS LEVEL OF ORGANIC CONTENT IS MAINTAINED. THROUGH EXPERIENCE THIS HAS BEEN ADEQUATE TO HELP THE PLANTS SURVIVE EXTENDED DROUGHTS.
- PLANT SELECTION CAN SOMETIMES BE A FUNCTION OF THE SOIL DEPTH USED FOR THE FOCALPOINT SYSTEM. FOR EXAMPLE, IF LARGE CANOPY TREES ARE REQUIRED, A SOIL DEPTH OF 6 FT. OR MORE MAY BE NEEDED TO PREVENT WIND THROW. IF THERE IS ONLY 1 FT. OF MEDIA THEN FLOWERS OR GRASSES SHOULD BE USED.
- THE PALETTE USED IS OFTEN DICTATED BY THE LIST OF ACCEPTABLE MATERIALS IN LOCAL REGULATIONS. MOST OF THE TIME, IT IS POSSIBLE TO FIND THE PROPER PLANT FROM THAT LIST.
- ALTERNATE PLANTINGS MUST BE OF THE TYPE APPROVED BY ACF ENVIRONMENTAL AND APPROVED BY ENGINEER OF RECORD.

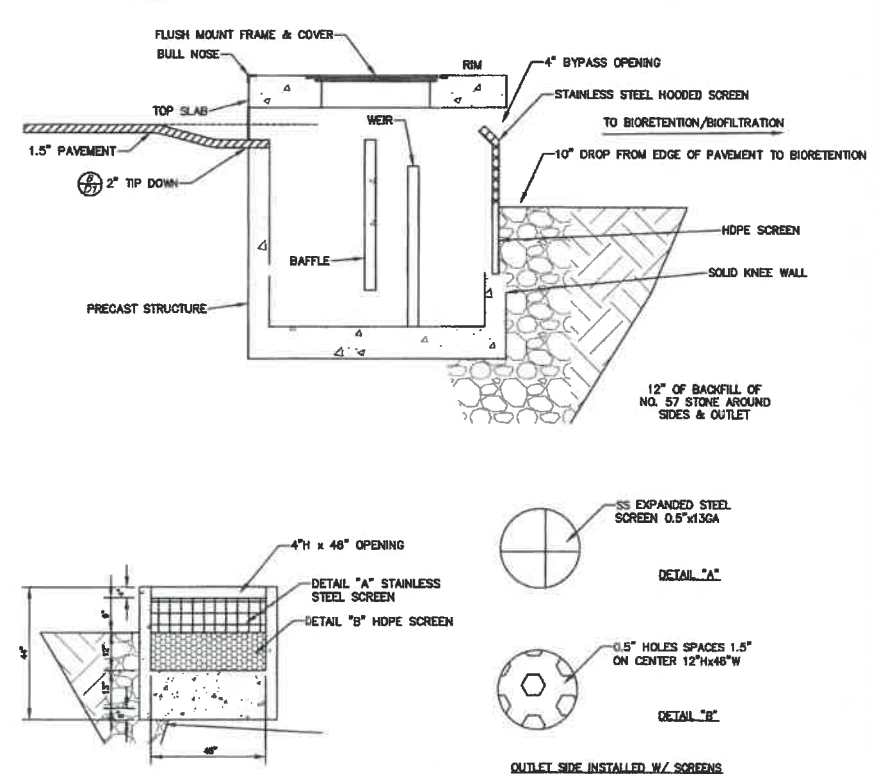
TYPICAL FOCALPOINT PLANTINGS

NOT TO SCALE



FABCO BEEHIVE OVERFLOW FILTER STRUCTURE DETAILS (FOCALPOINT)

NOT TO SCALE



PRETX CURB INLET PRE-TREATMENT DETAIL

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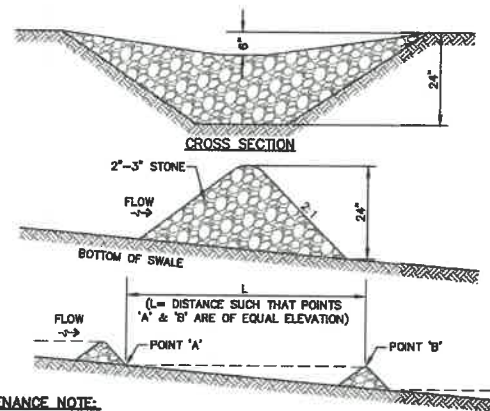
85 Portsmouth Ave. PO Box 219 Stratham, NH 03885

Civil Engineering Services

603-772-4746 FAX: 603-772-0227 E-MAIL: JBE@JONESANDBEACH.COM

Plan Name:	DETAIL SHEET
Project:	WADLEIGH ROAD APARTMENTS ROCHESTER, NH
Owner of Record:	SSG, LLC ATTN: FENTON GROEN 120 WASHINGTON STREET, ROCHESTER, NH 03839

DRAWING No.	D5
SHEET 23 OF 27	JBE PROJECT NO. 21137

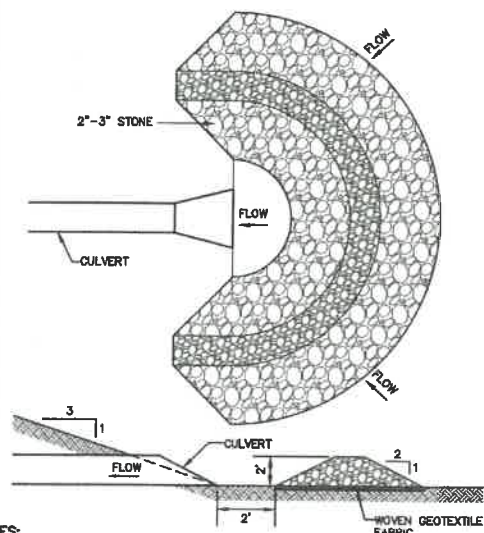


MAINTENANCE NOTE:

1. STONE CHECK DAMS SHOULD BE CHECKED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY NECESSARY REPAIRS SHOULD BE MADE IMMEDIATELY. PARTICULAR ATTENTION SHOULD BE GIVEN TO END RUN AND EROSION AT THE DOWNSTREAM TOE OF THE STRUCTURE. WHEN THE STRUCTURES ARE REMOVED, THE DISTURBED PORTION SHOULD BE BROUGHT TO THE EXISTING CHANNEL GRADE AND THE AREAS PREPARED, SEEDED AND MULCHED. WHILE THIS PRACTICE IS NOT INTENDED TO BE USED PRIMARILY FOR SEDIMENT TRAPPING, SOME SEDIMENT WILL ACCUMULATE BEHIND THE STRUCTURES. SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURES WHEN IT HAS ACCUMULATED TO ONE HALF OF THE ORIGINAL HEIGHT OF THE STRUCTURE.

STONE CHECK DAM

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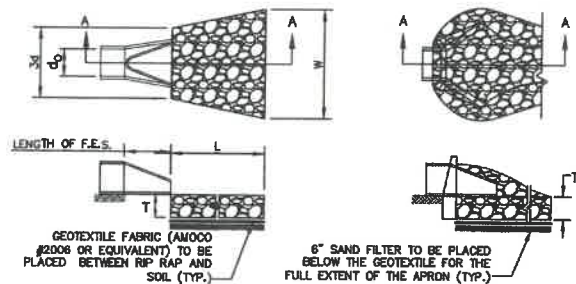


NOTES:

1. TEMPORARY CULVERT INLET PROTECTION CHECK DAMS SHALL BE CONSTRUCTED OF 2-3" STONE OVER WOVEN GEOTEXTILE FABRIC.
2. INLET PROTECTION MEASURES SHALL BE INSTALLED AT THE OPENINGS OF ALL EXISTING AND PROPOSED CULVERTS LOCATED BELOW (DOWNSTREAM) FROM AND WITHIN 100' OF THE PROJECT SITE.
3. SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURE WHEN IT HAS ACCUMULATED TO ONE HALF THE ORIGINAL HEIGHT OF THE STRUCTURE.
4. STRUCTURES SHALL BE REMOVED WHEN THE SITE IS STABILIZED WITH VEGETATION AND THE CHANNEL SHALL BE SMOOTHED AND REVEGETATED.

TEMPORARY CULVERT INLET PROTECTION CHECK DAM

NOT TO SCALE



SECTION A-A

PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL.

SECTION A-A

PIPE OUTLET TO WELL-DEFINED CHANNEL.

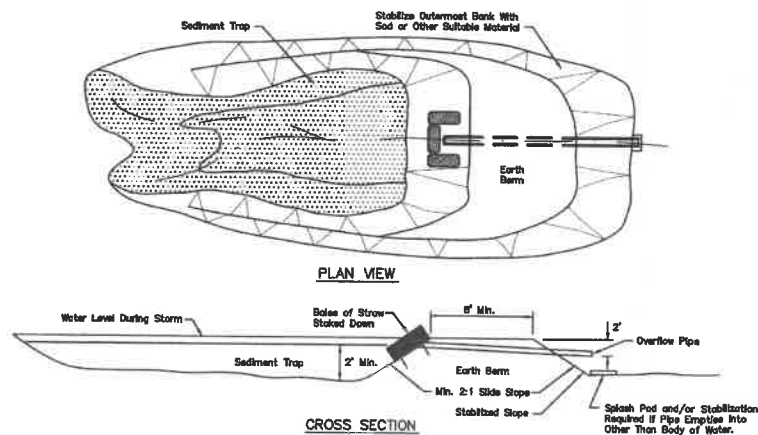
TABLE 7-24—RECOMMENDED RIP RAP GRADATION RANGES			
THICKNESS OF RIP RAP = 1.5 FEET			
d50 SIZE=	0.50	FEET	6 INCHES
% OF WEIGHT SMALLER THAN THE GIVEN d50 SIZE	SIZE OF STONE (INCHES) FROM TO		
100%	9	12	
85%	8	11	
50%	6	9	
15%	2	3	

NOTES:

1. THE SUBGRADE FOR THE GEOTEXTILE FABRIC AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
2. THE RIP RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE RIP RAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
4. STONE FOR THE RIP RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.
5. OUTLETS TO A DEFINED CHANNEL SHALL HAVE 2:1 OR FLATTER SIDE SLOPES AND SHOULD BEGIN AT THE TOP OF THE CULVERT AND TAPER DOWN TO THE CHANNEL. BOTTOM THROUGH THE LENGTH OF THE APRON.
6. MAINTENANCE: THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM. IF THE RIP RAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. THE CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO OUTLET PROTECTION.

RIP RAP OUTLET PROTECTION APRON

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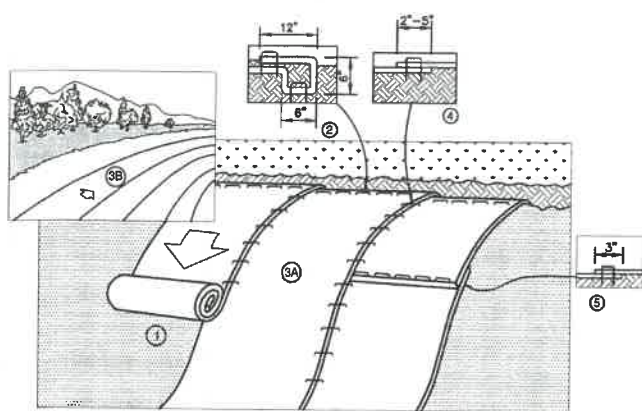


PLAN VIEW

CROSS SECTION

TEMPORARY SEDIMENT BASIN

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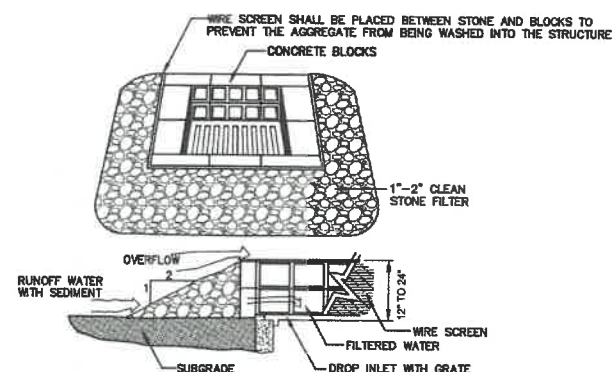
NOTES:

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH. NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

NORTH AMERICAN GREEN
14649 HIGHWAY 41 NORTH
EVANSVILLE, INDIANA 47725
1-800-772-2040

EROSION CONTROL BLANKET SLOPE INSTALLATION

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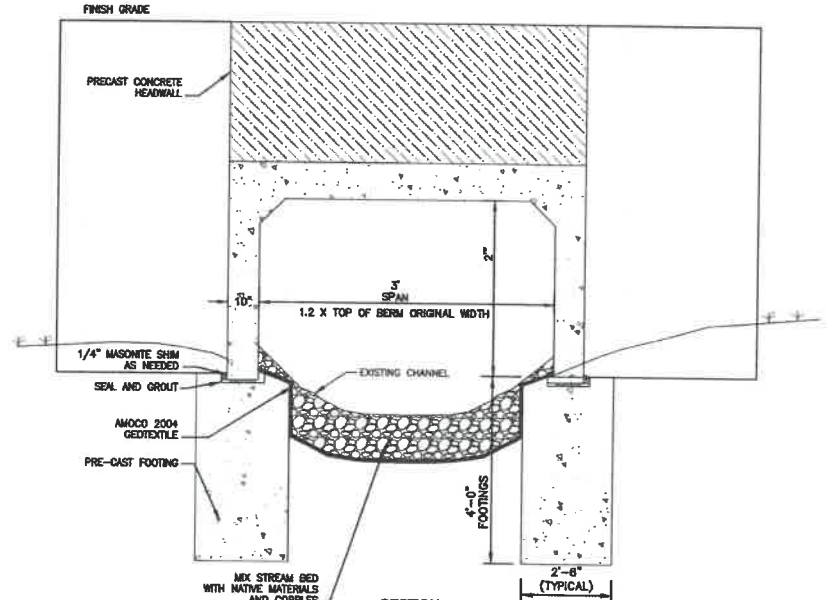
MAINTENANCE NOTE:

1. ALL STRUCTURES SHOULD BE INSPECTED AFTER EVERY RAINFALL AND REPAIRS MADE AS NECESSARY. SEDIMENT SHOULD BE REMOVED FROM TRAPPING DEVICES AFTER THE SEDIMENT HAS REACHED A MAXIMUM OF ONE HALF THE DEPTH OF THE TRAP. THE SEDIMENT SHOULD BE DISPOSED IN A SUITABLE UPLAND AREA AND PROTECTED FROM EROSION BY EITHER STRUCTURE OR VEGETATIVE MEANS. THE TEMPORARY TRAPS SHOULD BE REMOVED AND THE AREA REPAIRED AS SOON AS THE CONTRIBUTING DRAINAGE AREA TO THE INLET HAS BEEN COMPLETELY STABILIZED.

TEMPORARY CATCH BASIN INLET PROTECTION

(Block and Gravel Drop Inlet Sediment Filter)

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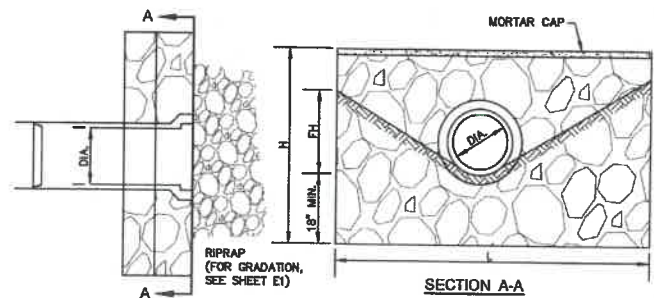


NOTES:

1. STRUCTURE TO BE DESIGNED FOR H20 LOADING.
2. THIS DETAIL IS FOR ILLUSTRATIVE PURPOSES ONLY. PRECAST CULVERT & WINGWALLS TO BE DESIGNED AND STAMPED BY A LICENSED STRUCTURAL ENGINEER.
3. SHOP DRAWINGS & DETAILS STAMPED BY A LICENSED STRUCTURAL ENGINEER SHALL BE REVIEWED & APPROVED FOR PLAN COMPLIANCE BY JONES & BEACH ENGINEERS, INC. (JBE) PRIOR TO INSTALLATION. JBE TAKES NO LIABILITY FOR THE DESIGN OF THIS BRIDGE STRUCTURE OR ITS COMPONENTS.

PRECAST RIGID FRAME BOX CULVERT W/ WINGWALLS

NOT TO SCALE



SECTION A-A

DIA.	HEADWALL LENGTH	HEADWALL HEIGHT	FILL HEIGHT	PIPE COVER	HEADWALL BOTTOM WIDTH
D	L	H	FH	h	W
12"	4'-3"	3'-8"	1'-1"	1'-3"	2'-0"
15"	6'-0"	4'-3"	1'-7"	1'-6"	2'-1"
18"	7'-0"	4'-6"	1'-10"	1'-6"	2'-2"
24"	9'-0"	5'-0"	2'-4"	1'-8"	2'-3"
30"	11'-0"	5'-6"	2'-10"	1'-6"	2'-5"
36"	13'-0"	6'-0"	3'-4"	1'-8"	2'-6"
42"	15'-9"	6'-8"	4'-1"	1'-8"	2'-9"
48"	17'-9"	7'-3"	4'-7"	1'-8"	2'-10"

NOTES:

1. ALL DIMENSIONS GIVEN IN FEET AND INCHES.
2. PROVIDE BELL END AT INLET HEADWALL, AND SPIGOT END AT OUTLET END HEADWALL.
3. RIPRAP SHALL BE SIZED TO RESIST THE TRACTIVE VELOCITY FORCES.

MORTAR RUBBLE MASONRY HEADWALL

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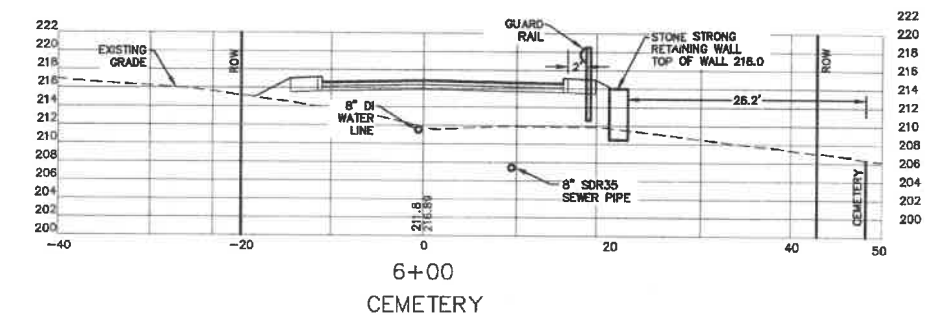
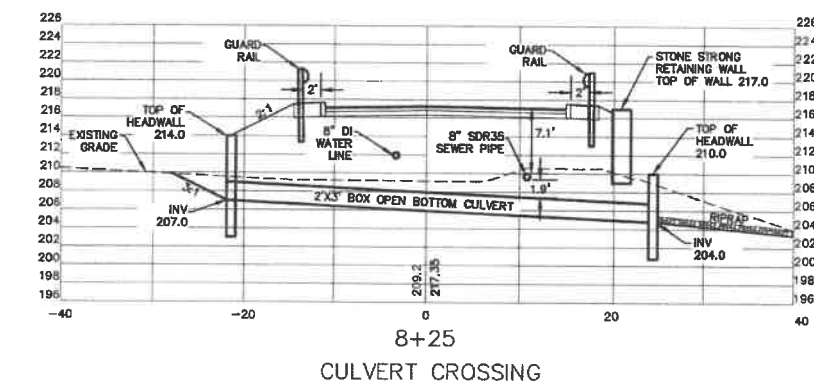
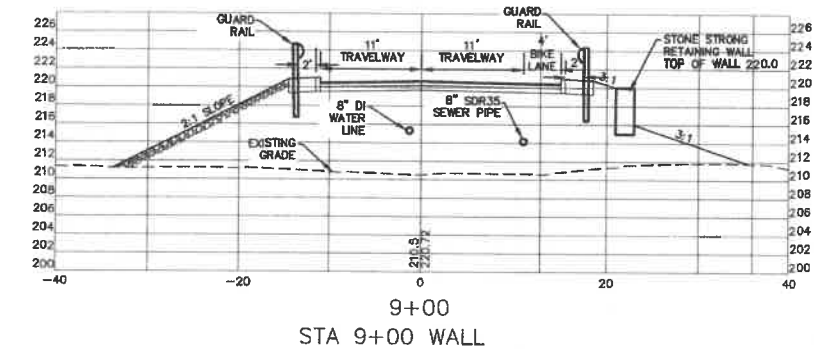


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3	12/14/21	REVISED PER CITY COMMENTS	LAZ
2	12/8/21	REVISED PER CONSERVATION COMMISSION COMMENTS	LAZ
1	9/21/21	ISSUED FOR PLANNING BOARD	LAZ

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Civil Engineering Services
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Plan Name:	DETAIL SHEET
Project:	WADLEIGH ROAD APARTMENTS ROCHESTER, NH
Owner of Record:	SSG, LLC ATTN: FENTON GROEN 120 WASHINGTON STREET, ROCHESTER, NH 03839

DRAWING No.	D6
SHEET 24 OF 27	JBE PROJECT NO. 21137



SELECT CROSS SECTIONS

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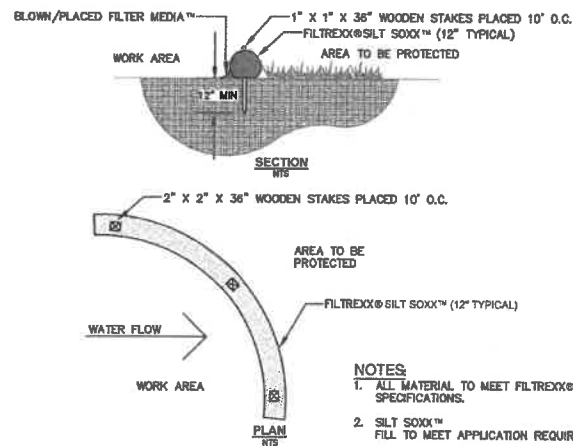
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Plan Name: **DETAIL SHEET CROSS SECTIONS**
 Project: **WADLEIGH ROAD APARTMENTS ROCHESTER, NH**
 Owner of Record: **SSG, LLC ATTN: FENTON GROEN 120 WASHINGTON STREET, ROCHESTER, NH 03839**

DRAWING No.
D6
 SHEET 25 OF 27
 JBE PROJECT NO. 21137

TEMPORARY EROSION CONTROL NOTES

- THE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED AT ANY ONE TIME. AT NO TIME SHALL AN AREA IN EXCESS OF 5 ACRES BE EXPOSED AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED.
- EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND AT LOCATIONS AS REQUIRED, DIRECTED BY THE ENGINEER.
- ALL DISTURBED AREAS (INCLUDING POND AREAS BELOW THE PROPOSED WATERLINE) SHALL BE RETURNED TO PROPOSED GRADES AND ELEVATIONS. DISTURBED AREAS SHALL BE LOADED WITH A MINIMUM OF 6" OF SCREENED ORGANIC LOAM AND SEEDED WITH SEED MIXTURE 1/2" AT A RATE NOT LESS THAN 1.10 POUNDS OF SEED PER 1,000 S.F. OF AREA (48 LBS. / ACRE).
- SILT FENCES AND OTHER BARRIERS SHALL BE INSPECTED EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 0.5" OR GREATER. ALL DAMAGED AREAS SHALL BE REPAIRED, AND SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED OF.
- AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED AND THE AREA DISTURBED BY THE REMOVAL SMOOTHED AND RE-VEGETATED.
- AREAS MUST BE SEED AND MULCHED OR OTHERWISE PERMANENTLY STABILIZED WITHIN 3 DAYS OF FINAL GRADING, OR TEMPORARILY STABILIZED WITHIN 14 DAYS OF THE INITIAL DISTURBANCE OF SOIL. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE. TEMPORARY STABILIZATION MEASURES SHOULD BE IN PLACE WITHIN 5 CALENDAR DAYS FOR EXPOSED SOIL AREAS THAT ARE WITHIN 100-FOOT OF A SURFACE WATER BODY OR A WETLAND.
- IN AREAS WHERE FINAL GRADING HAS NOT OCCURRED, TEMPORARY STABILIZATION MEASURES SHOULD BE IN PLACE WITHIN 5 CALENDAR DAYS FOR EXPOSED SOIL AREAS THAT ARE WITHIN 100 FEET OF A SURFACE WATERBODY OR A WETLAND AND NO MORE THAN 14 CALENDAR DAYS FOR ALL OTHER AREAS. PERMANENT STABILIZATION SHOULD BE IN PLACE WITHIN 3 CALENDAR DAYS FOLLOWING COMPLETION OF FINAL GRADING OF EXPOSED SOIL AREAS.
- ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED BETWEEN OCTOBER 15 AND MAY 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING NORTH AMERICAN GREEN 575 EROSION CONTROL BLANKETS (OR AN EQUIVALENT APPROVED IN WRITING BY THE ENGINEER) ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING. ELSEWHERE, THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- AFTER OCTOBER 15th AND BEFORE MAY 15th, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3" OF CRUSHED GRAVEL PER NHDOT ITEM 304.3.
- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH STONE OR RIPRAP HAS BEEN INSTALLED; OR
 - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- FUGITIVE DUST CONTROL IS REQUIRED TO BE CONTROLLED IN ACCORDANCE WITH ENV-A 1000, AND THE PROJECT IS TO MEET THE REQUIREMENTS AND INTENT OF RSA 430.53 AND AGR 3800 RELATIVE TO INVASIVE SPECIES.
- PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR'S NAME, ADDRESS, AND PHONE NUMBER SHALL BE SUBMITTED TO DES VIA EMAIL (SEE BELOW).
- PRIOR TO CONSTRUCTION, A PHASING PLAN THAT DELINEATES EACH PHASE OF THE PROJECT SHALL BE SUBMITTED. ALL TEMPORARY SEDIMENT BASINS THAT WILL BE NEEDED FOR DEWATERING WORK AREAS SHALL BE LOCATED AND IDENTIFIED ON THIS PLAN.
- IN ORDER TO ENSURE THE STABILITY OF THE SITE AND EFFECTIVE IMPLEMENTATION OF THE SEDIMENT AND EROSION CONTROL MEASURES SPECIFIED IN THE PLANS FOR THE DURATION OF CONSTRUCTION, THE CONTRACTOR SHALL BE IN STRICT COMPLIANCE WITH THE FOLLOWING INSPECTION AND MAINTENANCE REQUIREMENTS IN ADDITION TO THOSE CALLED FOR IN THE SWPPP:
 - A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL OR A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW HAMPSHIRE ("MONITOR") SHALL BE EMPLOYED TO INSPECT THE SITE FROM THE START OF ALTERATION OF TERRAIN ACTIVITIES UNTIL THE SITE IS IN FULL COMPLIANCE WITH THE SITE SPECIFIC PERMIT ("PERMIT").
 - DURING THIS PERIOD, THE MONITOR SHALL INSPECT THE SUBJECT SITE AT LEAST ONCE A WEEK, AND IF POSSIBLE, DURING ANY 1/2 INCH OR GREATER RAIN EVENT (I.E. 1/2 INCH OF PRECIPITATION OR MORE WITHIN A 24 HOUR PERIOD). IF UNABLE TO BE PRESENT DURING SUCH A STORM, THE MONITOR SHALL INSPECT THE SITE WITHIN 24 HOURS OF THIS EVENT.
 - THE MONITOR SHALL PROVIDE TECHNICAL ASSISTANCE AND RECOMMENDATIONS TO THE CONTRACTOR ON THE APPROPRIATE BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROLS REQUIRED TO MEET THE REQUIREMENTS OF RSA 485 A:17 AND ALL APPLICABLE DES PERMIT CONDITIONS.
 - WITHIN 24 HOURS OF EACH INSPECTION, THE MONITOR SHALL SUBMIT A REPORT TO DES VIA EMAIL (RIDGELY MAUX AT: RIDGELY.MAUX@DES.NH.GOV).
 - THE MONITOR SHALL MEET WITH DES TO DECIDE UPON A REPORT FORMAT. THE REPORT FORMAT SHALL BE REVIEWED AND APPROVED BY DES PRIOR TO THE START OF CONSTRUCTION.

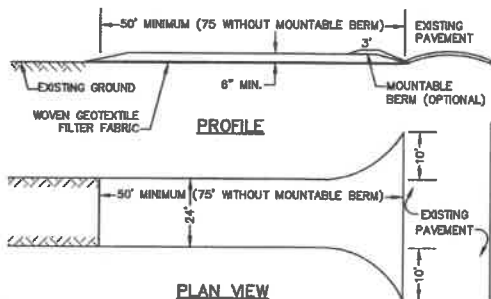


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BLASTING SPECIFICATIONS

- BEST MANAGEMENT PRACTICES FOR BLASTING.** ALL ACTIVITIES RELATED TO BLASTING SHALL FOLLOW BEST MANAGEMENT PRACTICES (BMPS) TO PREVENT CONTAMINATION OF GROUNDWATER INCLUDING PREPARING, REVIEWING AND FOLLOWING AN APPROVED BLASTING PLAN; PROPER DRILLING, EXPLOSIVE HANDLING AND LOADING PROCEDURES; OBSERVING THE ENTIRE BLASTING PROCEDURE; EVALUATING BLASTING PERFORMANCE; AND HANDLING AND STORAGE OF BLASTED ROCK.
 - LOADING PRACTICES.** THE FOLLOWING BLASTHOLE LOADING PRACTICES TO MINIMIZE ENVIRONMENTAL EFFECTS SHALL BE FOLLOWED:
 - DRILLING LOGS SHALL BE MAINTAINED BY THE DRILLER AND COMMUNICATED DIRECTLY TO THE BLASTER. THE LOGS SHALL INDICATE DEPTHS AND LENGTHS OF VOIDS, CAVITIES, AND FAULT ZONES OR OTHER WEAK ZONES ENCOUNTERED AS WELL AS GROUNDWATER CONDITIONS.
 - EXPLOSIVE PRODUCTS SHALL BE MAHAED ON-SITE SO THAT THEY ARE EITHER USED IN THE BOREHOLE, RETURNED TO THE DELIVERY VEHICLE, OR PLACED IN SECURE CONTAINERS FOR OFF-SITE DISPOSAL.
 - SPILLAGE AROUND THE BOREHOLE SHALL EITHER BE PLACED IN THE BOREHOLE OR CLEANED UP AND RETURNED TO AN APPROPRIATE VEHICLE FOR HANDLING OR PLACEMENT IN SECURED CONTAINERS FOR OFF-SITE DISPOSAL.
 - LOADED EXPLOSIVES SHALL BE DETONATED AS SOON AS POSSIBLE AND SHALL NOT BE LEFT IN THE BLASTHOLES OVERNIGHT, UNLESS WEATHER OR OTHER SAFETY CONCERNS REASONABLY DICTATE THAT DETONATION SHOULD BE POSTPONED.
 - LOADING EQUIPMENT SHALL BE CLEANED IN AN AREA WHERE WASTEWATER CAN BE PROPERLY CONTAINED AND HANDLED IN A MANNER THAT PREVENTS RELEASE OF CONTAMINANTS TO THE ENVIRONMENT.
 - EXPLOSIVES SHALL BE LOADED TO MAINTAIN GOOD CONTINUITY IN THE COLUMN LOAD TO PROMOTE COMPLETE DETONATION. INDUSTRY ACCEPTED LOADING PRACTICES FOR PRIMING, STEMMING, DECKING AND COLUMN RISE NEED TO BE ATTENDED TO.
 - EXPLOSIVE SELECTION.** THE FOLLOWING BMPS SHALL BE FOLLOWED TO REDUCE THE POTENTIAL FOR GROUNDWATER CONTAMINATION WHEN EXPLOSIVES ARE USED:
 - EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT ARE APPROPRIATE FOR SITE CONDITIONS AND SAFE BLAST EXECUTION.
 - EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT HAVE THE APPROPRIATE WATER RESISTANCE FOR THE SITE CONDITIONS PRESENT TO MINIMIZE THE POTENTIAL FOR HAZARDOUS EFFECT OF THE PRODUCT UPON GROUNDWATER.
 - PREVENTION OF MISFIRE.** APPROPRIATE PRACTICES SHALL BE DEVELOPED AND IMPLEMENTED TO PREVENT MISFIRES.
 - MUCK PILE MANAGEMENT.** MUCK PILES (THE BLASTED PIECES OF ROCK) AND ROCK PILES SHALL BE MANAGED IN A MANNER TO REDUCE THE POTENTIAL FOR CONTAMINATION BY IMPLEMENTING THE FOLLOWING MEASURES:
 - REMOVE THE MUCK PILE FROM THE BLAST AREA AS SOON AS REASONABLY POSSIBLE.
 - MANAGE THE INTERACTION OF BLASTED ROCK PILES AND STORMWATER TO PREVENT CONTAMINATION OF WATER SUPPLY WELLS OR SURFACE WATER.
 - SPILL PREVENTION MEASURES AND SPILL MITIGATION.** SPILL PREVENTION AND SPILL MITIGATION MEASURES SHALL BE IMPLEMENTED TO PREVENT THE RELEASE OF FUEL AND OTHER RELATED SUBSTANCES TO THE ENVIRONMENT. THE MEASURES SHALL INCLUDE AT A MINIMUM:
 - THE FUEL STORAGE REQUIREMENTS SHALL INCLUDE:
 - STORAGE OF REGULATED SUBSTANCES ON AN IMPERVIOUS SURFACE.
 - SECURE STORAGE AREAS AGAINST UNAUTHORIZED ENTRY.
 - LABEL REGULATED CONTAINERS CLEARLY AND WISBLY.
 - INSPECT STORAGE AREAS WEEKLY.
 - COVER REGULATED CONTAINERS IN OUTSIDE STORAGE AREAS.
 - WHEREVER POSSIBLE, KEEP REGULATED CONTAINERS THAT ARE STORED OUTSIDE MORE THAN 50 FEET FROM SURFACE WATER AND STORM DRAINS, 75 FEET FROM PRIVATE WELLS, AND 400 FEET FROM PUBLIC WELLS.
 - SECONDARY CONTAINMENT IS REQUIRED FOR CONTAINERS CONTAINING REGULATED SUBSTANCES STORED OUTSIDE, EXCEPT FOR ON PREMISE USE HEATING FUEL TANKS, OR ABOVEGROUND OR UNDERGROUND STORAGE TANKS OTHERWISE REGULATED.
 - THE FUEL HANDLING REQUIREMENTS SHALL INCLUDE:
 - EXCEPT WHEN IN USE, KEEP CONTAINERS CONTAINING REGULATED SUBSTANCES CLOSED AND SEALED.
 - PLACE DRIP PANS UNDER SPOOTS, VALVES, AND PUMPS.
 - HAVE SPILL CONTROL AND CONTAINMENT EQUIPMENT READILY AVAILABLE IN ALL WORK AREAS.
 - USE FUNNELS AND DRIP PANS WHEN TRANSFERRING REGULATED SUBSTANCES.
 - PERFORM TRANSFERS OF REGULATED SUBSTANCES OVER AN IMPERVIOUS SURFACE.
 - THE TRAINING OF ON-SITE EMPLOYEES AND THE ON-SITE POSTING OF RELEASE RESPONSE INFORMATION DESCRIBING WHAT TO DO IN THE EVENT OF A SPILL OF REGULATED SUBSTANCES.
 - FUELING AND MAINTENANCE OF EXCAVATION, EARTHMOVING AND OTHER CONSTRUCTION RELATED EQUIPMENT WILL COMPLY WITH THE REGULATIONS OF NHDES [NOTE THESE REQUIREMENTS ARE SUMMARIZED IN NH-D06822.6: "BEST MANAGEMENT PRACTICES FOR FUELING AND MAINTENANCE OF EXCAVATION AND EARTHMOVING EQUIPMENT" OR ITS SUCCESSOR DOCUMENT.



NOTES:

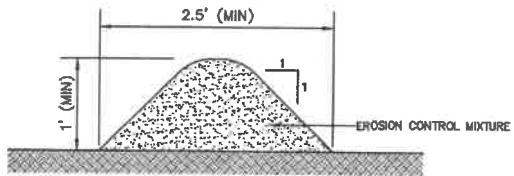
- STONE FOR STABILIZED CONSTRUCTION ENTRANCE SHALL BE 3 INCH STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
- THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 50 FEET, 75' WITHOUT A MOUNTABLE BERM, AND EXCEPT FOR A SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
- THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
- THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS, OR 10 FEET, WHICHEVER IS GREATER.
- GEOTEXTILE FILTER FABRIC SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER FABRIC IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENTIAL LOT.
- ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A STONE BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO THE PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED, OR TRACKED ONTO THE PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

SEEDING SPECIFICATIONS

- GRADING AND SHAPING.**
 - SLOPES SHALL NOT BE STEEPER THAN 2:1 WITHOUT APPROPRIATE EROSION CONTROL MEASURES AS SPECIFIED ON THE PLANS (3:1 SLOPES OR FLATTER ARE PREFERRED).
 - WHERE MOWING WILL BE DONE, 3:1 SLOPES OR FLATTER ARE RECOMMENDED.
- SEEDING PREPARATION.**
 - SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.
 - STONES LARGER THAN 4 INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF ABOUT 4 INCHES TO PREPARE A SEEDBED AND FERTILIZER AND LIME MIXED INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.
- ESTABLISHING A STAND.**
 - LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL. TYPES AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED:
 - AGRICULTURAL LIMESTONE, 2 TONS PER ACRE OR 100 LBS. PER 1,000 SQ.FT.
 - NITROGEN(N), 50 LBS. PER ACRE OR 1.1 LBS. PER 1,000 SQ.FT.
 - PHOSPHATE(P2O5), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ.FT.
 - POTASH(K2O), 100 LBS. PER ACRE OR 2.2 LBS. PER 1,000 SQ.FT.
 (NOTE: THIS IS THE EQUIVALENT OF 500 LBS. PER ACRE OF 10-20-20 FERTILIZER OR 1,000 LBS. PER ACRE OF 5-10-10.)
 - SEED SHOULD BE SPREAD UNIFORMLY BY THE METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDE BROADCASTING, DRILLING AND HYDROSEEDING. WHERE BROADCASTING IS USED, COVER SEED WITH .25 INCH OF SOIL OR LESS, BY CULTIPACKING OR RAKING.
 - REFER TO THE "SEEDING GUIDE" AND "SEEDING RATES" TABLES ON THIS SHEET FOR APPROPRIATE SEED MIXTURES AND RATES OF SEEDING. ALL LEGUMES (CROWNFVETCH, BIRDSFOOT, TREFOIL AND FLATPEA) MUST BE INOCULATED WITH THEIR SPECIFIC INOCULANT PRIOR TO THEIR INTRODUCTION TO THE SITE.
 - WHEN SEEDS ARE NOT MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO EARLY OCTOBER. WHEN SEEDS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20th OR FROM AUGUST 10th TO SEPTEMBER 1st.
- MULCH.**
 - HAY, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING.
 - MULCH WILL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE BEST MANAGEMENT PRACTICE FOR MULCHING. HAY OR STRAW MULCH SHALL BE PLACED AT A RATE OF 90 LBS PER 1000 S.F.
- MAINTENANCE TO ESTABLISH A STAND.**
 - PLANTED AREAS SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED GROWTH.
 - FERTILIZATION NEEDS SHOULD BE DETERMINED BY ONSITE INSPECTIONS. SUPPLEMENTAL FERTILIZER IS USUALLY THE KEY TO FULLY COMPLETE THE ESTABLISHMENT OF THE STAND BECAUSE MOST PERENNIALS TAKE 2 TO 3 YEARS TO BECOME FULLY ESTABLISHED.
 - IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, ANNUAL MOWING MAY BE NECESSARY TO CONTROL GROWTH OF WOODY VEGETATION.



NOTES:

- ORGANIC FILTER BERMS MAY BE UTILIZED IN LIEU OF SILT FENCE, UNLESS OTHERWISE SPECIFIED.
- THE EROSION CONTROL MIX USED IN THE FILTER BERMS SHALL BE A WELL-GRADED MIXTURE OF PARTICLE SIZES, MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER, STUMP GRINDINGS, SHREDDED OR COMPOSTED BARK, OR ACCEPTABLE MANUFACTURED PRODUCTS, AND SHALL BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH, AND SHALL MEET THE FOLLOWING STANDARDS:
 - THE ORGANIC CONTENT SHALL BE 80-100% OF DRY WEIGHT.
 - PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN, AND 70-85% PASSING A 0.75" SCREEN.
 - THE ORGANIC PORTION SHALL BE FIBROUS AND ELONGATED.
 - LARGE PORTIONS OF SILTS, CLAYS, OR FINE SANDS SHALL NOT BE INCLUDED IN THE MIXTURE.
 - SOLUBLE SALTS CONTENT SHALL BE >4.0mmhos/cm.
 - THE pH SHALL BE BETWEEN 5.0 AND 8.0.
- ORGANIC FILTER BERMS SHALL BE INSTALLED ALONG A RELATIVELY LEVEL CONTOUR. IT MAY BE NECESSARY TO CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES THAT WOULD ENABLE FINES TO WASH UNDER THE BERM.
- ON SLOPES LESS THAN 5% OR AT THE BOTTOM OF SLOPES STEEPER THAN 3:1, UP TO 20' LONG, THE BERM SHALL BE A MINIMUM OF 12" HIGH (AS MEASURED ON THE UPHILL SIDE), AND A MINIMUM OF 36" WIDE. ON LONGER OR STEEPER SLOPES, THE BERM SHALL BE WIDER TO ACCOMMODATE THE POTENTIAL ADDITIONAL RUNOFF.
- FROZEN GROUND, OUTCROPS OF BEDROCK, AND VERY ROOTED FORESTED AREAS PRESENT THE MOST PRACTICAL AND EFFECTIVE LOCATIONS FOR ORGANIC FILTER BERMS. OTHER BMPS SHOULD BE USED AT LOW POINTS OF CONCENTRATED RUNOFF, BELOW CULVERT OUTLET APRONS, AROUND CATCH BASINS, AND AT THE BOTTOM OF STEEP PERIMETER SLOPES THAT HAVE A LARGE CONTRIBUTING AREA.
- SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURES WHEN IT HAS ACCUMULATED TO ONE HALF THE ORIGINAL HEIGHT OF THE STRUCTURE.
- STRUCTURES MAY BE LEFT IN PLACE ONCE THE SITE IS STABILIZED.

ORGANIC FILTER BERM

NOT TO SCALE

CONSTRUCTION SEQUENCE

- PRIOR TO THE START OF ANY ACTIVITY, IT IS THE RESPONSIBILITY OF THE SITE'S SITE DEVELOPER (OR OWNER) TO FILE A NOTICE OF INTENT (NOI) FORM WITH THE ENVIRONMENTAL PROTECTION AGENCY (EPA) IN ORDER TO GAIN COVERAGE UNDER THE NPDES GENERAL PERMIT FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES. A PRE CONSTRUCTION MEETING IS TO BE HELD WITH ALL DEPARTMENT HEADS PRIOR TO THE START OF CONSTRUCTION.
- WETLAND BOUNDARIES ARE TO BE CLEARLY MARKED PRIOR TO THE START OF CONSTRUCTION. AT LEAST A TEMPORARY CULVERT OR ROADBED TO BE IN PLACE PRIOR TO THE START OF CONSTRUCTION.
- CUT AND REMOVE TREES IN CONSTRUCTION AREA AS REQUIRED OR DIRECTED.
- INSTALL SILT FENCING, HAY BALES AND CONSTRUCTION ENTRANCES PRIOR TO THE START OF CONSTRUCTION. THESE ARE TO BE MAINTAINED UNTIL THE FINAL PAVEMENT SURFACING AND LANDSCAPING AREAS ARE ESTABLISHED.
- CLEAR, CUT, GRUB AND DISPOSE OF DEBRIS IN APPROVED FACILITIES. THIS INCLUDES ANY REQUIRED DEMOLITION OF EXISTING STRUCTURES, UTILITIES, ETC.
- CONSTRUCT AND/OR INSTALL TEMPORARY OR PERMANENT SEDIMENT AND/OR DETENTION BASIN(S) AS REQUIRED. THESE FACILITIES SHALL BE INSTALLED AND STABILIZED PRIOR TO DIRECTING RUN-OFF TO THEM.
- STRIP LOAM AND PAVEMENT, OR RECLAIM EXISTING PAVEMENT WITHIN LIMITS OF WORK PER THE RECOMMENDATIONS OF THE PROJECT ENGINEER AND STOCKPILE EXCESS MATERIAL. STABILIZE STOCKPILE AS NECESSARY.
- PERFORM PRELIMINARY SITE GRADING IN ACCORDANCE WITH THE PLANS, INCLUDING THE CONSTRUCTION OF ANY RETAINING WALLS AND SOUND WALLS.
- PREPARE BUILDING PAD(S) TO ENABLE BUILDING CONSTRUCTION TO BEGIN.
- INSTALL THE SEWER AND DRAINAGE SYSTEMS FIRST, THEN ANY OTHER UTILITIES IN ACCORDANCE WITH THE PLAN AND DETAILS. ANY CONFLICTS BETWEEN UTILITIES ARE TO BE RESOLVED WITH THE INVOLVEMENT AND APPROVAL OF THE ENGINEER.
- INSTALL INLET PROTECTION AT ALL CATCH BASINS AS THEY ARE CONSTRUCTED IN ACCORDANCE WITH DETAILS.
- ALL SWALES AND DRAINAGE STRUCTURES ARE TO BE CONSTRUCTED AND STABILIZED PRIOR TO HAVING RUN-OFF DIRECTED TO THEM.
- DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINAGE DITCHES, CHECK DAMS, SEDIMENT TRAPS, ETC., TO PREVENT EROSION ON THE SITE AND PREVENT ANY SILTATION OF ADJUTING WATERS AND/OR PROPERTY.
- PERFORM FINAL FINE GRADING, INCLUDING PLACEMENT OF "SELECT" SUBGRADE MATERIALS.
- PAVE ALL PARKING LOTS AND ROADWAYS WITH INITIAL "BASE COURSE".
- PERFORM ALL REMAINING SITE CONSTRUCTION (I.E. BUILDING, CURBING, UTILITY CONNECTIONS, ETC.).
- LOAM AND SEED ALL DISTURBED AREAS AND INSTALL ANY REQUIRED SEDIMENT AND EROSION CONTROL FACILITIES (I.E. RIP RAP, EROSION CONTROL BLANKETS, ETC.).
- FINISH PAVING ALL ROADWAYS AND PARKING AREAS WITH "FINISH" COURSE.
- ALL ROADWAYS AND PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- ALL CUT AND FILL SLOPES SHALL BE SEED/LOADED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- COMPLETE PERMANENT SEEDING AND LANDSCAPING.
- REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER SEEDING AREAS HAVE BEEN 75%-85% ESTABLISHED AND SITE IMPROVEMENTS ARE COMPLETE. SMOOTH AND RE-VEGETATE ALL DISTURBED AREAS.
- CLEAN SITE AND ALL DRAINAGE STRUCTURES, PIPES AND SUMPS OF ALL SILT AND DEBRIS.
- INSTALL ALL PAINTED PAVEMENT MARKINGS AND SIGNAGE PER THE PLANS AND DETAILS.
- ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER EVERY HALF-INCH OF RAINFALL.
- UPON COMPLETION OF CONSTRUCTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ANY RELEVANT PERMITTING AGENCIES THAT THE CONSTRUCTION HAS BEEN FINISHED IN A SATISFACTORY MANNER.

USE	SEEDING MIXTURE 1/	DROUGHTY	WELL DRAINED	MODERATELY WELL DRAINED	POORLY DRAINED
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A B C D	FAIR POOR POOR FAIR	GOOD GOOD GOOD EXCELLENT	GOOD FAIR EXCELLENT EXCELLENT	FAIR FAIR GOOD POOR
WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER.	A C	GOOD GOOD	GOOD EXCELLENT	GOOD EXCELLENT	FAIR FAIR
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY USE RECREATION SITES.	A B C	GOOD GOOD GOOD	GOOD GOOD EXCELLENT	GOOD FAIR EXCELLENT	FAIR POOR FAIR
PLAY AREAS AND ATHLETIC FIELDS.	E F	FAIR FAIR	EXCELLENT EXCELLENT	EXCELLENT EXCELLENT	2/ 2/

GRAVEL PIT, SEE NH-PM-24 IN APPENDIX FOR RECOMMENDATION REGARDING RECLAMATION OF SAND AND GRAVEL PITS.
1/ REFER TO SEEDING MIXTURES AND RATES IN TABLE BELOW.
2/ POORLY DRAINED SOILS ARE NOT DESIRABLE FOR USE AS PLAYING AREA AND ATHLETIC FIELDS.
NOTE: TEMPORARY SEED MIX FOR STABILIZATION OF TURF SHALL BE WINTER RYE OR OATS AT A RATE OF 2.5 LBS. PER 1000 S.F. AND SHALL BE PLACED PRIOR TO OCTOBER 15th, IF PERMANENT SEEDING NOT YET COMPLETE.

SEEDING GUIDE

MIXTURE	POUNDS PER ACRE	POUNDS PER 1,000 Sq. Ft.
A. TALL FESCUE	20	0.45
CREeping RED FESCUE	20	0.45
RED TOP	2	0.05
TOTAL	42	0.95
B. TALL FESCUE	15	0.35
CREeping RED FESCUE	10	0.25
CROWN VETCH	15	0.35
OR FLAT PEA	30	0.75
TOTAL	40 OR 55	0.95 OR 1.35
C. TALL FESCUE	20	0.45
CREeping RED FESCUE	20	0.45
BIRDS FOOT TREFOIL	8	0.20
TOTAL	48	1.10
D. TALL FESCUE	20	0.45
FLAT PEA	30	0.75
TOTAL	50	1.20
E. CREeping RED FESCUE 1/	50	1.15
KENTUCKY BLUEGRASS 1/	30	1.15
TOTAL	80	2.30
F. TALL FESCUE 1	150	3.60

*

SEEDING RATES

Design: LAZ	Draft: LAZ	Date: 9/8/21
Checked: BAJ	Scale: AS NOTED	Project No.: 21137
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4	1/14/22	REVISED PER CITY COMMENTS	LAZ
3	12/14/21	REVISED PER CITY COMMENTS	LAZ
2	12/6/21	REVISED PER CONSERVATION COMMISSION COMMENTS	LAZ
1	9/21/21	ISSUED FOR PLANNING BOARD	LAZ
REV.	DATE	REVISION	BY



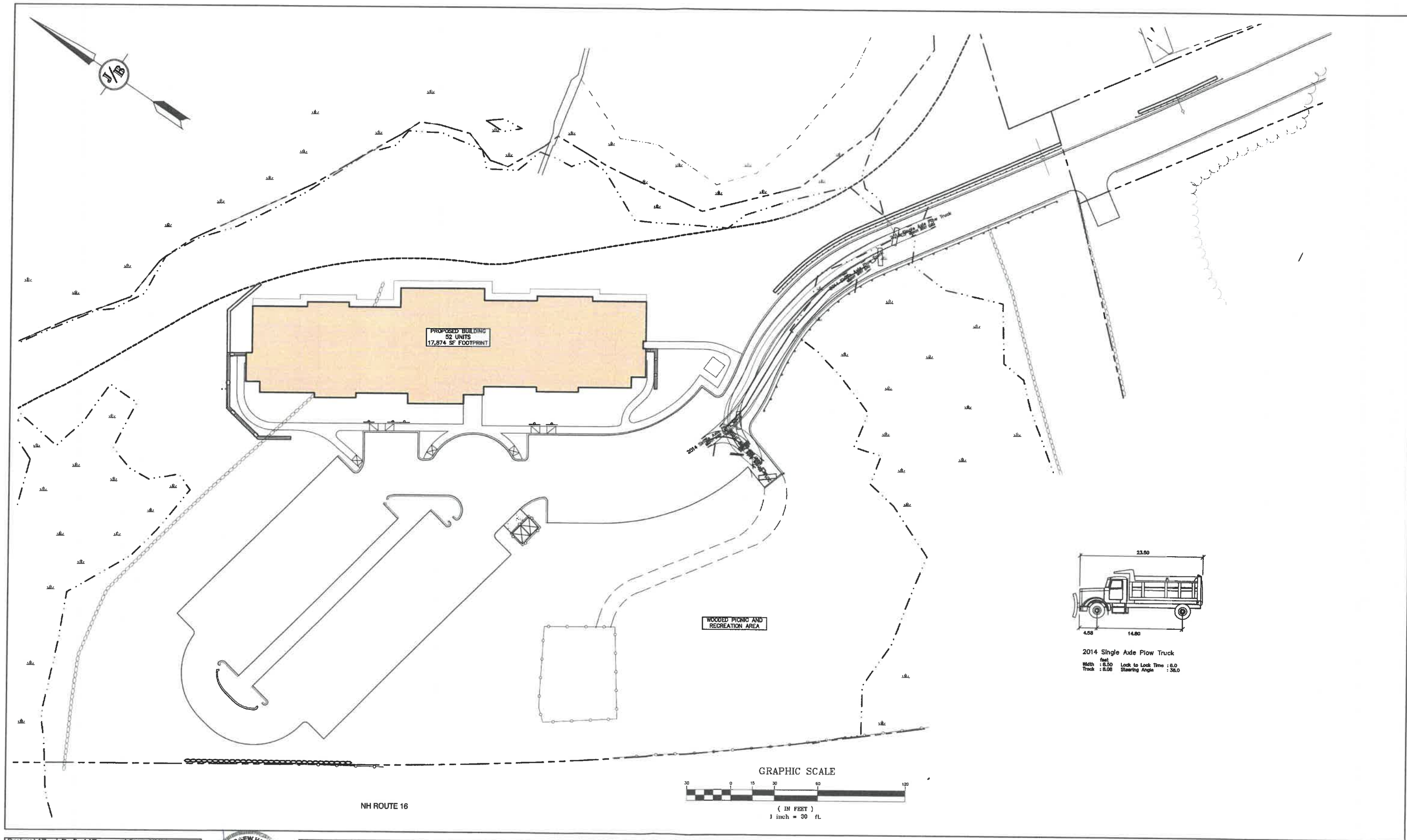
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Plan Name:	EROSION AND SEDIMENT CONTROL DETAILS
Project:	WADLEIGH ROAD APARTMENTS ROCHESTER, NH
Owner of Record:	SSG, LLC ATTN: FENTON GROEN 120 WASHINGTON STREET, ROCHESTER, NH 03859

DRAWING No.

E1

SHEET 26 OF 27
JBE PROJECT NO. 21137



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Plan Name: **TRUCK TURNING PLAN**
 Project: **WADLEIGH ROAD APARTMENTS ROCHESTER, NH**
 Owner of Record: **SSG, LLC ATTN: FENTON GROEN 120 WASHINGTON STREET, ROCHESTER, NH 03839**

DRAWING No.
T1
 SHEET 27 OF 27
 JBE PROJECT NO. 21137