

SOIL & STRUCTURE

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STRUCTURAL • GEOTECHNICAL • CIVIL

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July 19, 2013

Mr. Pervaiz Ahmed
Community Manager
McLean Gardens Condominiums
3811 Porter Street NW
Washington, DC 20008

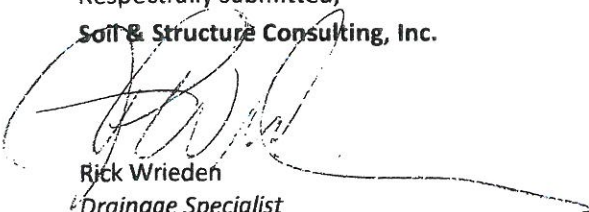
**Re: Drainage Evaluation of Common Grounds
McLean Gardens Condominiums**

Dear Mr. Ahmed:


As requested, Soil & Structure Consulting, Inc. and Drainage & Erosion Solutions, LLC has prepared a drainage evaluation report that presents our site evaluation results and recommendations. Our interpretation of the surface conditions encountered on the common grounds and our recommendations for design and remedial construction are presented in this report.

We appreciate the opportunity to serve as your drainage consultant and look forward to the opportunity to work with you in the future. If you have any questions concerning this report, please call us.

Respectfully submitted,
Soil & Structure Consulting, Inc.



Rick Wrieden
Drainage Specialist



Kenneth G. Fraine, P.E.
Principal – Geotechnical Division

INTRODUCTION

Soil & Structure Consulting, Inc. (SSC) in partnership with Drainage & Erosion Solutions, LLC (DES) was engaged to perform a complete community inspection, review and analysis of a thirty-one building complex to determine the status of conditions involving site grade and proper drainage, areas affected by poor grade and drainage, and recommended corrections or additional work.

The community was built in the early 1940's and consists of all brick faced buildings and wood or vinyl windows, with slate roofs, copper gutters, aluminum downspouts, and concrete walkways.

SSC/DES conducted its survey over a period between May and June 2013. SSC/DES performed all inspections where conditions were dry or relatively dry while on site. SSC/DES was provided no input as to any specific concerns or areas of focus, such as known issues or areas of water infiltration or flooding in any buildings or units. As a result, SSC/DES observations and opinions identifying potential water infiltration issues are based on practiced knowledge of conditions normally leading to the likely event of foundation or building water infiltration. Telltale signs include areas of recent ground disturbance due to grading issues, evidence of recent soil disturbance around windows and foundations, observable recent waterproofing at buildings, and general and specific disturbed or undisturbed soil areas. These items are noted in the detailed report that follows.

The report will utilize a rating system categorizing each noted item in a ranking system from purely aesthetic to critical. Each building will number each item and corresponding each item with its relative location around each of the buildings, for reference and ease of identification.

Rating System

1. **CRITICAL.** Items needing immediate attention.
2. **HIGH.** Items needing improvement to avoid becoming critical.
3. **LOW.** Items indicating no current need, but may be future issue.
4. **AESTHETIC.** Items that would enhance appearance or benefit.

General Summary

The overall findings of our inspection and survey, indicates the vast most important need involves topsoil or lack thereof, and resulting grading or re-grading solutions. The property, given its age, indicates a mostly universal lack of proper or recommended grades away from the buildings, due again mostly to age where buildings have settled over the decades and resulted in flat, or even negative grade adjacent to the buildings. This item alone can both be a precursor to eventual water flooding or infiltration into the building units and general re-grading can be one simple solution. The observation of several buildings having added external sump pumps speaks largely to the point of evidence of water leaks or flooding, and is also part of a solution. Re-grading would be the other predominant part for improved conditions.

It would be our opinion that due to the age of these buildings, it is very likely that no foundation drainage system exists or in the very least that it is dysfunctional. This point only emphasizes the need for really good grading and surface drainage as a first line of defense.

The next level of observation has to do with the great number of lower level windows that are either too low to the ground and need the addition of window wells, or that windows with window wells are also too low to the ground and prone to overflowing. Windows without wells should be at minimum 8" above grade (to not necessitate a window well), and wells should be no less than 8" above ground. Window wells should be caulked where attached to the buildings, and due to the relative age and corrosion levels of existing wells, a replacement program over time should be considered throughout the community, as well. No tests were done on wells to check adequate or drainage rates, but many were noted to be in distress of flooding due to observed high water staining levels on many of the windows inside the wells themselves. There does not appear to be any active physical drainage system for the window wells other than gravel and soil absorption.

Gutters could not be checked for blockages due to the building heights, but due to the style of Architecture in these buildings, there are no appreciable roof extensions or eaves, so any lack of maintenance of clearing debris from them, will easily cause overflow of the gutters and the near proximity of the gutters to the face of the building will cause more water pressure and infiltration below grade against the building foundations. Downspouts are adequate in size and almost universally have been piped underground, and discharge to daylight. The downspouts are designed with a deliberate space between the downspout and the beginning of the underground piping and a deliberate screen placed on top of the piping, which allows frequent observation and cleaning of any gutter debris build up and reduces the potential for the underground pipe to fail. There were isolated instances where erosion of soils immediately around certain downspouts indicates either a blockage in the downspout, or leakage or blockage in the gutters themselves.

All building entrances have a consistent design omission of having any gutters or adequate downspouts. Almost universal throughout, and although small in total square feet of roof area over the entrances, they nonetheless are shedding a significant amount of run off to create either erosion, flooding, and/or rotting of the entry columns themselves. McLean Gardens should consider a design to incorporate gutter/downspout applications to the entrance structures.

BUILDING 1

Numbering begins at the far right entrance to building facing Rodman Street and moving clockwise around the building.

1. Downspout to right of entrance should be buried and end in a pop up drain. **Rating: 3 Estimated Cost: \$500**
2. Settlement of soil to left of entry should have topsoil added and re-grade. **Rating: 3 Estimated Cost: \$650**
Windows to left of entry too low. Add window 4 wells. **Rating: 2 Estimated Cost \$ 2,000**
3. Extend buried downspout near vault grating and tree to sidewalk with a pop up drain. **Rating: 3 Estimated Cost: \$320**
4. Flat/settled area needs topsoil and re-grade for positive grade away from building. **Rating: 2 Estimated Cost: \$200**
5. Flat/settled /eroded area needs topsoil and re-grade for positive grade away from building. **Rating: 2 Estimated Cost: \$450**
6. Extend buried Downspout to sidewalk with pop up drain. **Rating: 3 Estimated Cost \$700**
7. Flat/settled area needs topsoil and re-grade for positive grade away from building. **Rating: 2 Estimated Cost: \$1240**
8. Extend buried Downspout to sidewalk to stop erosion of ground near present discharge. **Rating: 2 Estimated Cost: \$700**
9. Flat/settled area needs topsoil and re-grade for positive grade from building. **Rating: 2 Estimated Cost: \$850**
10. In area between both Entrances area is flat/settled and needs topsoil and re-grade for positive drainage away from building. **Rating: 2 Estimated Cost: \$1300**
11. To left of entrance area flat/settled add topsoil and re-grade for positive drainage away from building **Rating: 2 Estimated Cost: \$1300**. Add 4 ea window wells after re-grading. **Rating: 2 Estimated Cost \$2000**
12. Re-grade length of side of building for positive drainage away from building. Area flat/negative grade. **Rating: 2 Estimated Cost: \$1600**
13. Area from corner to entry is flat/settled. Add topsoil and re-grade. **Rating: 2 Estimated Cost: \$600**
14. Runoff from parking area is causing erosion and water appears to be overrunning the lower sidewalk area. Re-grade around end of building and install 24 feet of Trench Drain to go under sidewalk into underground pipe and drain downslope approx. 40 feet away. **Rating 3. Estimated Cost: \$1,520**
15. Area is settled/flat against building. Add soil/re-grade the length of the section of building. Add window wells (2 each) where windows too low. **Rating 2. Estimated Cost: \$2000**

16. Rework existing swale to better control and direct water flow from inside corner of building around behind the building to connect to added Trench Drain in Item 14. There is poor water flow/control in this area. Higher window wells should be considered as well (2 each) **Rating 2. Estimated Cost: \$2300**
 17. Re-grade area from inside corner east to next building corner for improved grading and positive water flow away from building. **Rating 2. Estimated Cost: \$2000**
 18. This is a large area of irregular and poor grading adjacent to the building from the end building from item 17, along inside corner and the remaining length of building to last 40 feet of building before the corner of building. **Rating 2. Estimated Cost: \$10,000**
 19. Last 53 feet of rear of building up to far east end of building should be re-graded and topsoil added to create positive slope from building. **Rating 2. Estimated Cost: \$2650**
 20. Downspout should be buried at far east end of building rear. **Rating 3. Estimated Cost: \$ 400**
 21. Area along east end of building flat/settled. Add soil and re-grade for positive drainage from building. **Rating 2. Estimated Cost \$ 400**
- Re-bury existing buried downspout to pop up drain at sidewalk. **Rating 3. Estimated Cost: \$400.**

BUILDING 2

Numbering begins at front left corner of building facing Rodman Street and running clockwise around remainder of building.

1. Impromptu stone footpath shortcutting sidewalks. Grass eroded due to foot traffic. Create formal sidewalk connecting the corner. **Rating 4. Estimated Cost: \$2700**
2. Re-grade settled flat area extending from first inside corner toward Rodman St approx. 15 feet. **Rating 2. Estimated Cost: \$ 350.**
3. Sidewalk settled and causing poor drainage at entry toward back of building. Replace 18 feet of sidewalk. **Rating: 3 Estimated Cost: \$ 650**
4. Re-grade area to left of entry in front of two window wells. Wells too low and flooding over. **Rating: 2 Estimated Cost: \$200**
5. Large area at far west facing portion of building needs re-grading for improved positive grade away from building. Grading needs to extend approx. 17 feet from building. **Rating 2. Estimated Cost: \$1800**
6. Extend re-grading around corner behind building approx. 12 feet along building facing parking lot. **Rating 2 Estimated Cost: \$450**
7. Note: Disturbed and recently seeded area.

8. At area just adjacent to top of basement walk out and along sidewall of walkout, area flat/settled. Re-grade to improve grade drainage. **Rating 3. Estimated cost: \$800**
9. Along rear inside corner entrance, area settled/flat. Re-grade for positive grade drainage. **Rating 2. Estimated Cost: \$800**
10. Downspout misaligned and water not entering underground drain pipe. Repair. **Rating 2. Estimated Cost: \$50**
11. Re-grade general area between two rear entrance structures and out to area surrounding the existing open site grating drain for improved flow from building area. **Rating 2. Estimated Cost: \$2200**
12. At far east end of building, re-grade entire length of building for better positive grade from building. Will require new window wells (4 each) after grading. **Rating 2. Estimated Cost: \$3,750 (including wells)**
13. Front right corner of building, realign downspout missing connection to underground piping. **Rating 2. Estimated Cost: \$50**

BUILDING 3

Numbering begins at right rear corner of building adjacent to the parking lot and extends clockwise around the perimeter of the building.

1. Remove excess mulch buildup around window well causing water overflow. **Rating 2. Estimated Cost: \$100.**
2. RE-grade area adjacent to window wells to improve positive water drainage. **Rating 2. Estimated Cost: \$650**
3. Re-grade garden area to right side of entry to improve positive drainage. **Rating 2. Estimated Cost: \$100**
4. Add window well at second window where too low too ground. **Rating 2. Estimated Cost: \$500**
5. Re-grade area approx. 10 feet from windows for improved positive drainage. **Rating 2. Estimated Cost: \$ 500**
6. At second main entry, sidewalk is settled and cracked. **Rating 3. Estimated Cost: \$ 600**
7. At next corner return, re-grade for positive drainage away from building. **Rating: 2 Estimated Cost: \$150**
8. At last section of building to front right corner of building, re-grade entire length and create swale from midpoint of building wall to sidewalk to establish good positive drainage both away from building and downslope. **Rating 2. Estimated Cost: \$ 3600**
9. At front right end of building add soil and re-grade for positive drainage in front of both window wells. **Rating 2. Estimated Cost: \$300.**
10. To left of first main entry (on right) re-grade area for improved positive drainage, as well as between to center window wells. **Rating 2. Estimated Cost: \$225**

11. Replace separated section of walkway in front of main entry on left. **Rating 2. Estimated Cost: \$400**
12. Along left front section of building and around the length of building facing west from the corner to approx. the fourth window well, add soil and re-grade erosion/settlement area due to runoff from eyebrow roof edge above. **Rating 2. Estimated Cost: \$1650**
13. Along rear facing portion of building rear add soil and re-grade entire length creating runoff swale area to left end away from corner. **Rating 2. Estimated Cost: \$1000**
14. At rear inside corner of building around concrete retaining wall, serious re-grading is required to improve and control erosion and positive drainage with an enlarged swale area extending to the existing open site sewer. **Rating 1. Estimated Cost: \$3000**
15. Extending north from midpoint walkout area to second set of entry stairs, add soil and re-grade for positive drainage away from building. **Rating 2. Estimated Cost: \$1400**
16. Replace step and landing. **Rating 3. Estimated Cost: \$1500**
17. Re-grade and add soil for positive drainage away from building and window wells. **Rating: 2 Estimated Cost: \$750**

Along rear of building adjacent to parking area, add spoil and re-grade entire length for positive drainage and grade away from building. **Rating 2. Estimated Cost: \$1150**

BUILDING 4

Numbering begins at right corner of building facing Rodman Street, and runs clockwise around the building.

1. At right corner area is eroding due to flat ground. Re-grade with added soil to create positive drainage. **Rating 2. Estimated Cost \$1100**
2. Window wells are too low to the ground to prevent water overflow. Add three new wells. **Rating 2. Estimated Cost: \$1500**
3. General area adjacent to two left window wells significant erosion due to poor graded. Re-grade for positive grade and drainage toward Rodman Street. **Rating 2. Estimated Cost: 1250**
4. Flat/eroded area under tree. No grass growth due to constant shade and flat ground. Re-grade entire area from main entry sidewalk south to Rodman Street to create positive drainage in front of building and create swale to control positive direction of water toward Rodman Street. **Rating 1. Estimated Cost: \$ 6750**
5. Re-grade upper garden area above brick retaining wall to lower garden area for better overall drainage and water flow away from building. Grading should create more direct flow of water toward sidewalk at entry (see #6 for additional drainage control) **Rating 2. Estimated Cost: \$1150**

6. Beginning at upper side of brick wall extending around wall and toward lower garden and grass area, install a French Drain extending to and under entry sidewalk all the way to discharge (under swale) near Rodman Street. This will reduce greatly the surface runoff occurring across this entire area during rains. **Rating 1. Estimated Cost: \$1900**
7. Re-grade area above brick wall to improve drainage away from building. **Rating 2 Estimated Cost: \$750**
8. Add open site drain at north side of entry walkway where French Drain extends underneath. Run additional underground drain from upper side of sidewalk adjacent to French Drain and discharging at sidewalk at Rodman Street. **Rating 1. Estimated Cost: \$1200**
9. At middle building entry, replace cracked and settled walkway. **Rating 2. Estimated Cost: \$1000**
10. Install pavers under bench seat **Rating 4. Estimated Cost: \$500** due to eroded ground.
11. Re-grade area to left of middle entry and behind transformer box to improve positive drainage from inside corner of building. Install open site drain where garden meets entry walk and run pipe underground to discharge at sidewalk along 39th street. **Rating 2. Estimated Cost: \$1400**
12. From last entry at top of 39th Street to the right building corner add topsoil and re-grade for improved drainage to stop erosion. Add stack wall and soil across window wells to reduce severe grade and control erosion as well. **Rating 2. Estimated Cost \$2800** (including stack wall).
13. NOTE: DC sidewalk severely humped due to tree root. Have DC remove tree. Serious safety hazard.
14. Re-grade garden around entry steps for improved drainage from building. **Rating 2. Estimated Cost: \$980**
15. Repair eroded area near curb with topsoil and sod. **Rating 3. Estimated Cost: \$150**
16. Along north end of building, replace window wells too low (3 ea). **Rating 2. Estimated Cost: \$1500**
17. At north end of rear of building, repair sink hole with new soil. Re-grade area up to first brick wall. Create swale along rear of building extending toward brick wall. **Rating 1. Estimated Cost: \$5000**
18. From first brick wall extending the swale above continue swale and re-grading along the building into the new swale to improve drainage and water flow away from rear of building. Extend swale to second brick retaining wall. **Rating 1. Estimated Cost: \$5800**
19. Extending from second retaining wall to Rodman street continue swale from above #18 to provide continuous positive and controlled drainage away from and downhill from building. This entire area currently appears to have little or no drainage away from the building proper. It was noted there exists a very large external sump pump basin, which most likely was installed due to underground water flows and flooding in the building. This re-grading should greatly reduce the further risk of surface water affecting the foundation. **Rating 1. Estimated Cost: \$12,500**

BUILDING 5

Numbering begins at left corner of building closest to 39th Street and continues counter clockwise around the building.

1. From left corner of end of building extending around the right rear side area, re-grade to correct negative slope against building with soil and swale to direct flow of water around rear of building toward curb. **Rating 2. Estimated Cost: \$2200**
2. Note: External sump pump installed in bottom of landing at basement walk out. If drain lines are permanently clogged repair or replace. We are not sure why the pump exists there unless there is flooding into the basement.
3. Bury all three downspouts behind the building to discharge at curb. **Rating 2. Estimated Cost: \$1280**
4. Re-grade area along rear of building between downspouts for improved positive drainage away from building. **Rating 2. Estimated Cost: \$2250**
5. Entire area behind back of building facing wood line is seriously eroded due to extreme flatness and no grade, leaving hard pan with no topsoil, coupled with dense shade canopy. Add 6"-8" of topsoil and perform serious re-grade of area to provide positive drainage away from building toward wood line. **Rating 1. Estimated Cost: \$10,800**
6. In passageway between buildings the ground is very flat, with no grade. Create grade from buildings toward center to provide proper drainage away from building. Add soil, re-grade and create swale toward wood line to provide positive drainage. **Rating 2. Estimated Cost: \$2340**
7. Window wells adjacent to rear entry are too low and should be replaced. **Rating 2. Estimated Cost: \$1000**
8. Area between Archway and entry should be regarded for improved drainage toward and into the existing open site drain. **Rating 3. Estimated Cost: \$6000**
9. Sidewalk near rear entry is settled/cracked. Should be replaced to improve appearance and drainage as well. **Rating 3. Estimated Cost: \$750**
10. Re-grade areas on both sides of entryway should be re-graded to reduce buildup and poor drainage of water. **Rating 2. Estimated Cost \$150**
11. Sidewalk in front of entry is settled and cracked and should be replaced to improve appearance and assist with better drainage. **Rating 2. Estimated Cost: \$900**
12. Add topsoil and re-grade entire area from upper entry sidewalk to lower entry sidewalk due to erosion of soil and uncontrolled water flows. Install a Trench drain along line of garden area in middle to direct re-graded area water. Install a new open site drain at bottom of Trench Drain and direct underground to existing open site drain. **Rating 1. Estimated Cost: \$6900**

13. Window wells between building inset and lower entrance way are too low and should be replaced (3 each). **Rating 3 Estimated Cost: \$1500**
14. Window wells to right of upper entry are too low and should be replaced. **Rating 3. Estimated Cost: \$1000**
15. Install open site drain on upper side of upper entry to collect runoff from above. Connect under sidewalk to Trench Drain. **Rating 2. Estimated Cost: \$175**

BUILDING 6

Numbering begins at building adjacent to Arch way between building 5 & 6, and continues clockwise around the building.

1. Window wells adjacent to entry are too low and should be replaced. **Rating 3. Estimated cost: \$1000**
2. Re-grade grassy area between building and sidewalk crossing to bldg. 5 to improve drainage to open site drain. **Rating 2. Estimated Cost: \$5800**
3. Remove excess soil and mulch buildup adjacent to left side of bottom entry. Re-grade. **Rating 1. Estimated Cost: \$300**
4. Replace damaged sidewalk near second entry. **Rating 2. Estimated Cost: \$300**
5. Remove excess soil and mulch build upon both sides of middle entry for improved drainage away from entry. **Rating 2. Estimated Cost: \$600**
6. Replace and re-grade impromptu dirt path with Trench Drain from upper level entry. Line with River Jack and stepping stones. **Rating 1. Estimated Cost: \$8550**
7. At brick retaining wall re-grade and add soil to eliminate flat/eroded area and better positive drainage away from building. Re-grade toward new Trench Drain. **Rating 2. Estimated Cost: \$1400**
8. Provide River Jack stone around end of brick retaining wall to reduce potential for continued erosion. **Rating 3. Estimated Cost: \$150**
9. Window wells on either side of retaining wall are too low. Replace. **Rating 2. Estimated Cost: \$1000**
10. Replace settled walk way at upper entry walk. **Rating 2. Estimated Cost: \$300**
11. Add new open site drain on upper side of entry walk and connect to Trench drain under sidewalk to control water runoff. **Rating 2. Estimated Cost: \$175**
12. At left of upper entry way, window wells are too low. Replace. **Rating 2. Estimated Cost: \$1000**
13. At end of building facing 39th Street, window well too low. Replace. **Rating 2. Estimated Cost: \$500**

14. Across end of building, re-grade with added swale to direct water away from building and toward left end of building to slope. **Rating 2. Estimated Cost: \$1250**
15. To left of walk out behind building replace window wells too low (3 each). **Rating 2. Estimated Cost: \$1500**
16. To left of concrete retaining wall replace window wells too low (4 each). **Rating 2. Estimated Cost: \$2000**
17. Beginning at concrete wall to left end of rear of building, re-grade for positive improved drainage away from building (approx. 90 feet by 25 feet of area). **Rating 2. Estimated Cost: \$11,250**
18. Window wells at end of building are too low. Replace 2 each. **Rating: 2. Estimated Cost: \$1000**
19. Re-grade entire area to wood line due to flat and eroded area along entire length. Erosion severe resulting in exposure of rock hard pan ground. Add 6"-8" of topsoil and re-grade area for positive drainage away from building and toward wood line. **Rating 1. Estimated Cost: \$10,800**

BUILDING 7

Numbering begins at front right corner of building extending clockwise around the building perimeter.

1. Two window wells too low should be replaced. **Rating 2. Estimated Cost: \$1000**
2. At right front of building area is flat to negative slope toward the building making it difficult to re-grade to establish improved drainage since the current grade moves any water toward the lower middle section. Coupled with the middle section between the entries, and being lower than the main sidewalk, there is not a practical way to alter this area. There is an open site drain that would appear to be managing any drainage albeit minimal. If there were or are drainage/flooding issues in this area, additional external sump pumps may be the means with which to deal with excess water retention.
3. Area in front of left end of front of building has flat/settled grade. Add soil and re-grade for improved positive grade away from building. **Rating 2. Estimated Cost: \$750**
4. The first three window wells on the south side of the building appear to be too low. Install new wells. Rating 2. Estimated Cost: \$1500. Re-grade and add topsoil, to create swale drainage away from building and draining out toward corner of building toward 39th St. **Rating 2. Estimated Cost: \$1050**
5. At second return area, re-grade small area for positive drainage away from building. **Rating 2. Estimated Cost: \$350**
6. Adjacent to Arch Way on right end window well too low. Replace. **Rating 2. Estimated Cost: \$500**
7. At rear of building backing up to wood line, area is severely eroded and flat exposing hard pan and rock. Infill area with 6"- 8" of topsoil and re-grade for positive grade and drainage away from building. **Rating: 2. Estimated Cost: \$6875**

8. Three downspouts at rear of building should be buried underground and discharge into wood line. **Rating 2. Estimated Cost: \$1800**
9. At area behind building walk out and corner step down entrance, bury two downspouts to curb discharge. **Rating: 3 Estimated Cost: \$600**
10. Window well to right of rear entry too low. Replace. **Rating 2. Estimated cost: \$500**
11. At area between to rear entrances bury two downspouts to curb discharge. **Rating 2. Estimated Cost: \$300**
12. Three window wells too low. Replace. **Rating 2. Estimated Cost: \$1500**
13. Add 6" soil at building and re-grade for positive drainage away from building. **Rating 2. Estimated Cost: \$2000**

On right side of building facing driveway, bury two corner downspouts to curb discharge. **Rating 2. Estimated Cost: \$37**

BUILDING 8

Numbering begins at front right side of building where transformer sits and extends clockwise around the building.

1. At area around transformer ground is very flat and retaining water. Add soil and re-grade area from front corner to set back corner. Install a new open site drain, run pipe discharge underground under walkway to tie in to existing open site drain. **Rating 2. Estimated Cost: \$6300**
2. Garden to right of left side entry on 39th Street needs to be lowered for better drainage away from entry and window wells. **Rating 2. Estimated Cost: \$240**
3. Garden in front of two windows on left front of building need to be lowered for better drainage around window wells (or wells raised) **Rating 2. Estimated Cost: \$350**
4. Windows along end of building facing south are too low to ground. Add four window wells. **Rating 2. Estimated Cost: \$2000**
5. Area along end of building facing south has flat/settled grade. Re-grade area to provide positive drainage toward rear and away from bldg. **Rating 2. Estimated Cost: \$3000**
6. At area along west facing area with two step down entrances, the grade generally exists flowing only south along building. Re-grade and add soil to re-grade so positive drainage occurs away from building as well. **Rating 2. Estimated cost: \$5650**
7. Between corner back entrance and walk out to left three windows are too low to ground. Add window wells. **Rating 2. Estimated Cost: \$1500**

8. Along very back of building severe erosion and flat area exposing rock and hard pan. Add 6"-8" of new topsoil and re-grade entire area to wood line for positive drainage. **Rating 2. Estimated cost: \$7500**
9. Bury two downspouts at rear of building to wood line discharge. **Rating 2. Estimated Cost: \$900**

BUILDING 9

Numbering begins at right side of building adjacent to rear main entry and extends clockwise around building perimeter.

1. Window to left of bldg. entry too low to ground. Add window well. **Rating 2. Estimated Cost: \$500**
2. Window wells adjacent to next main entry are too low. Add two wells. **Rating 2. Estimated Cost: \$1000**
3. Windows to right of next main entry are too low to ground. Add two window wells. **Rating 2. Estimated Cost: \$1000**
4. Area between two middle main entries is flat/eroded and needs re-grading and topsoil for positive drainage from building. **Rating 2. Estimated Cost: \$2000**
5. Area between middle and left entry with transformer in middle needs to be re-graded with new topsoil due to flat/eroded area. **Rating 2. Estimate Cost: \$3000**
6. Replace settled sidewalk in front of left middle entry. **Rating 2. Estimated Cost: \$550**
7. Add open site drain at low point adjacent to walkway near re-graded area around transformer to collect runoff from overrunning the walkway. Run discharge pipe under walk to discharge down slope. **Rating 2. Estimated Cost: \$575**
8. At next main entry close to corner of building bury downspout and discharge down slope. **Rating 2. Estimated Cost: \$450**
9. Flat eroded area between entry and bldg. corner needs re-grading for positive drainage away from building. **Rating 2. Estimated Cost: \$500**
10. Windows along west end of bldg. facing 39th St and one on first section of building facing north are too low to ground. Add four wells. **Rating 2. Estimated Cost: \$2000**
11. Bury downspout at building corner. **Rating 2. Estimated Cost: \$180**
12. At first bldg. section facing north, area is flat/eroding needs soil and re-grade of area for positive drainage away from bldg. **Rating 2. Estimated Cost: \$750**
13. In middle section of building on north end windows are all too low. Add four wells. Area poorly graded with flat and actual negative grading toward building. A recently added external sump pump indicates recent or

ongoing water issues below grade. Re-grade entire area with added topsoil and positive drainage away from bldg. for improved water flow. **Rating 1. Estimated Cost: \$1800**

14. At left end of north facing end of building, area seriously eroded and flat to negative grade. Evidence of surface erosion due to either/both gutter overflow or downspout blockage. Add 6"-8" of topsoil and re-grade for positive grade and flow away from building. **Rating 1. Estimated Cost: \$2400**
15. Window wells in same area as #14 are too low. Add three window wells. **Rating 2. Estimated Cost: \$1500**
16. At east facing rear of building at north corner, the first six window wells are too low or need to be replaced. **Rating 2. Estimated Cost: \$3000**
17. Along same section as #16, significant settlement and erosion. Add topsoil at building and re-grade for positive grade away from bldg. as well as create new swale to assist in positive drainage away from area. Split swale direction so half-length flows toward Rodman St, and half-length flows toward general area of existing open site drain behind building. **Rating 1 Estimated Cost: \$7000**
18. Area adjacent and between open site drain and building needs regarding to eliminate flat ponding of water. **Rating 2. Estimated Cost: \$1500**
19. Area at first setback corner in back and adjacent area indicate recent construction in repair of window wells or work on water issues with the foundation. Window wells are still too low. Replace wells. **Rating 2. Estimated Cost: \$1800**
20. In area from first corner setback to next corner of bldg. area needs serious re-grade and topsoil to improve overall drainage and positive grade away from bldg. **Rating 2. Estimated Cost: \$5400**
21. Area of last setback along back, needs re-grading from corner to corner providing overall better positive flow away from bldg. and retaining wall. **Rating 2. Estimated Cost: \$1850**
22. Window well too low. Replace. **Rating 2. Estimated Cost: \$500**
23. At south facing end of building provide new topsoil and regarding to improve drainage away from bldg. and water flow. **Rating 2. Estimated Cost: \$2650**

BUILDING 10

Numbering starts at front left corner of building facing Rodman St and extends clockwise around building perimeter.

1. At corner re-grade area to correct flat/negative slope to positive grade away from building for improved drainage. **Rating 2. Estimated Cost: \$1350**
2. Re-grade area along walkway at bldg. entrance for improved flow away from walkway toward sloped hillside adjacent to old tree "hump" site. Area should be regarded entirely for improvement of drainage. **Rating 2. Estimated Cost: \$3100**

3. Severely eroded hillside leading from sidewalk down to street. Due to location we are not sure if this is city property and under their control, but if not slope stabilization is needed to stop erosion from continuing unabated. Needs stabilization matting and seeding control. **Rating 1. Estimated Cost: \$4500**
4. At windows to right of front right entry, windows too low to ground. Add two wells. **Rating 2. Estimated Cost: \$1000**
5. At windows to left of front left entry, windows too low to ground. Add two wells. **Rating 2. Estimated Cost: \$1000**
6. Install French Drain along curved walkway toward upper left end bldg. entry from street walk intercepting walkway around left end of building. French Drain to control erosion along walk and flow of water. Discharge drain at lower sidewalk. **Rating 2. Estimated Cost: \$1800**
7. Window well to right side of left entry needed where window too low to grade. **Rating 2. Estimated Cost: \$500**
8. Flat grade against east end of bldg. Add soil and re-grade for positive drainage away from bldg. Create swale for improved directional flow. **Rating 2. Estimated Cost: \$850**
9. At first south facing back of bldg., re-grade area for directional flow away from bldg. and down slope for improved flow away from bldg. **Rating 2. Estimated Cost: \$1250**
10. At first set back area behind bldg. provide re-grading for positive drainage away from bldg. **Rating 2. Estimated Cost: \$1400**
11. Create significant re-grade and swale to provide directional flow away from center section of build rear due to "bowl" effect of current grading. Less water needs to flow toward bldg. and directed more directly at the existing open site drain at bottom of slope near east facing corner with large swale. **Rating 1. Estimated Cost: \$4650**
12. In bottom corner of rear of bldg., flat eroded area needs soil and re-grade for positive slope toward drain. **Rating 2. Estimated Cost: \$125**
13. Window wells along east facing return end of building are too low. Replace three wells. **Rating 2. Estimated Cost: \$1500**
14. Area in front of low wells needs re-grade for direct improved drainage away from bldg. and more directly into open site drain. **Rating 2. Estimated Cost: \$1000**
15. Flat/eroded area at back of bldg. from east corner needs topsoil and re-grade to stop erosion and improve drainage. **Rating 2. Estimated Cost: \$2400**

BUILDING 11

Numbering begins at right end of front of building facing the juncture of Rodman and 38th Streets and extends clockwise around the building perimeter.

1. Window well closest to front of building adjacent to entry has recent soil disturbance and needs additional soil /grading **Rating 3. Estimated Cost: \$100**
2. Re-grade front of building to improve flat/settled grade. Provide positive drainage away from bldg. **Rating 2. Estimated cost: \$1500**
3. Entry walkway has significant settlement at entry. Remove/replace 30 feet of walkway. **Rating 2. Estimated Cost: \$1100**
4. Re-grade at two lower windows to left of main entry. Current grading allowing overrun of water. Recommend removal of three trees against building for improved grade. **Rating 1. Estimated Cost: \$450** (Option would be to build stone window well around existing wells to block and divert water flow Est. Cost \$3000)
5. Entry walkway to left has significant settlement at entry. Remove and replace 20 feet of walkway. **Rating 2. Estimated Cost: \$750**
6. At left front side of building windows are too low to ground. Add wells. **Rating 2. Estimated Cost: \$1000.** Re-grade area in front of windows for improved positive drainage away from bldg. **Rating 2. Estimated Cost: \$800**
7. At first south facing section of bldg., 6 of first 7 window wells are too low. Replace wells. **Rating 2. Estimated Cost: \$3500**
8. Re-grade area in front of first south facing area of bldg. for improved positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$1600**
9. At middle main entry, walkway has significant settlement at entry. Remove/replace 20 feet. **Rating 2. Estimated Cost: \$750**
10. At downspout at corner of building to far left of second main entry, it appears the downspout piping was dug up and reburied. Add oil and sod to improve appearance. **Rating 3. Estimated Cost: \$1150**
11. At most south extending section of bldg. add window wells for two windows too low to ground. **Rating 2. Estimated Cost: \$1000**
12. At most south facing side of bldg., add soil and re-grade against bldg. with 8" of topsoil for improved grading and drainage from bldg. **Rating 2. Estimated Cost: \$925**
13. At first west facing portion of bldg. windows are again too low to ground. Add wells. **Rating 2. Estimated Cost: \$1000**
14. At west facing portion re-grade along bldg. for improved positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$800**

15. At most west face of bldg. window too low to ground. Add well. **Rating 2. Estimated Cost: \$500**
16. Re-grade and add 6" of topsoil; at bldg. for positive drainage and grade away from bldg. **Rating 2. Estimated Cost: \$800**
17. At first north facing section of bldg. re-grade flat settled area along bldg. for improved positive grade and drainage. **Rating 2. Estimated Cost: \$2125**
18. At inner corner of bldg. around transformer area, re-grade for positive grade and drainage away from both sides at corner. **Rating 1. Estimated Cost: \$2200**
19. From middle of west facing portion of bldg. to corner, add topsoil and re-grade area for improved positive grade and drainage away from bldg. grading direction toward north for drainage. **Rating 2. Estimated Cost: \$2600**
20. At most north end of bldg., windows are too low to ground. Add wells. **Rating 2. Estimated Cost: \$2000**
21. Re-grade and add topsoil same area for improved positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$1200**

BUILDING 12

Numbering of items begins at north facing end of building and continues clockwise around perimeter of building.

1. Active construction area from north end of bldg. around to middle of front of bldg. facing 38th St. No evaluation can be made until construction completed.
2. At far south main entry add soil and re-grade small area between two trees in front for improved grade and drainage. **Rating 2 Estimated Cost: \$200**
3. At south corner and south facing bldg. windows are too low to ground. Add wells. **Rating 2. Estimated Cost: \$1000**
4. Add topsoil and re-grade area from left of east facing main entry around corner to far south facing corner of building for improved positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$3375**
5. Significant disturbance from prior construction and flat/eroded ground behind entire rear of bldg. Add 6"-8" of new topsoil and significant re-grade for positive grade and drainage away from bldg. **Rating 1. Estimated Cost: \$22000**

BUILDING 13

Numbering of items begins at east end of building facing Porter St and extending clockwise around building perimeter.

1. Bury downspout and discharge at Porter Street. **Rating 3 Estimated Cost: \$300**
2. Windows along south facing first section are too low to ground. Add wells. **Rating 2. Estimated Cost: \$1500**
3. At first main entry on west facing return bury downspout to left of entry and discharge at walkway. **Rating 2. Estimated Cost: \$320**
4. At inside corner of bldg. add window well where window too low to ground. **Rating 2. Estimated Cost: \$500**
5. Bury two corner area downspouts discharging to surface and causing eroding area. Discharge to pop up at sidewalk. **Rating 2. Estimated Cost: \$560**
6. Along area between to south facing main entries, add wells where windows too low to ground. **Rating 2. Estimated Cost: \$1500.** Re-grade and add topsoil along same area to improve positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$400**
7. Add well to left of middle main entry where window too low. **Rating 2. Estimated Cost: \$500**
8. Add topsoil and re-grade area to right of brick retaining wall and window well where soil is negative grade. Re-grade for drainage away from bldg. **Rating 2. Estimated Cost: \$250**
9. Significant erosion from end of brick retaining wall down to garden wall at walkway. This erosion is due to downspout not being properly buried. Add topsoil and re-grade area for better erosion control. **Rating 1. Estimated Cost: \$2200**
10. Bury downspout and place underground and discharge all the way at end of stone garden wall where it meets the walkway. **Rating 1. Estimated Cost: \$950**
11. Add topsoil and grade in corner adjacent main entry where exposed rock and hard pan. **Rating 1. Estimated Cost: \$300.** Install French Drain from corner along garden edge in front of bldg. and discharge downslope from end of bldg. **Rating 2. Estimated Cost: \$1050**
12. At west end main entry replace low window wells on either side of entrance. **Rating 2. Estimated Cost: \$1000**
13. Add window well at far left window too low to ground. **Rating 2. Estimated Cost: \$500**
14. Along first section of west facing end add topsoil and re-grade for positive drainage away from building. **Rating 2. Estimated Cost: \$1400**

15. From West corner along back wall to inside corner, compound grade pushing water toward bldg. Add 10" topsoil and re-grade entire area for flow away from bldg. and toward 39th St. **Rating 1. Estimated Cost: \$975**
16. At west facing end to back rear corner of bldg. re-grade area for grade away from both corners to prevent downhill flow of water into bldg. face. **Rating 1. Estimated Cost: \$4500**
17. At rear left corner of bldg. toward first inset at rear re-grade area for better improve positive drainage toward existing open site drain away from building. **Rating 2. Estimated Cost: \$2600**
18. Re-grade entire length of rear of building up to first inset corner. Improve condition and overall positive drainage away from bldg. **Rating 2. Estimated Cost: \$3200**
19. At middle inset portion of bldg. end facing east add topsoil and re-grade for positive grade and drainage away from bldg. **Rating 2 Estimated Cost: \$2800**
20. Bury downspout in this area and discharge toward front corner of bldg. **Rating 2. Estimated Cost: \$650**

BUILDING 14

Numbering of items begins at south facing end of building adjacent to parking area and extends clockwise along 39th St around building perimeter.

1. Window wells along south end of bldg. appear to be holding water. Check for proper drainage and replace or repair as required.
2. First main entry walkway is settled due to improper runoff from entry structure. Provide gutter downspout system for improved drainage. Remove replace entry walkway 15 feet. **Rating 2. Estimated Cost: \$500**
3. At window well at north facing corner replace well too low. **Rating 3. Estimated Cost: \$500**
4. At area to left side of large entry in corner area needs significant re-grade under 4 windows. Drain board exposed which should be trimmed down or add soil and grade. **Rating 2. Estimated cost: \$780**
5. Re-grade garden and bushes to prevent water overflow into window well **Rating 3. Estimated Cost: \$150**
6. Two window wells to right of middle entry too low to ground. Replace wells. **Rating 3. Estimated Cost: \$1000**
7. Replace three window wells behind transformer area where too low to ground. **Rating 2. Estimated Cost: \$1500**
8. Windows to left of third entry are too low to ground. Replace. **Rating 2. Estimated Cost: \$1500**
9. Settled walkway in front of third needs replacement. **Rating 2. Estimated Cost: \$450**
10. Settled walkway in front of south facing main entry needs replacement. **Rating 2. Estimated Cost: \$450**

11. At west facing end of bldg., add soil and re-grade along bldg. to improve positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$675**
12. Exposed downspout has erosion growing around bottom. Bury and run underground to discharge downslope. **Rating 2. Estimated Cost: \$290**
13. At first area of bldg. facing north area flat/settled. Add soil and re-grade for positive drainage to slope. **Rating 2. Estimated Cost: \$1000**
14. Large disturbed area from recent underground work. Inadequate grading with no topsoil. Add 8" of topsoil and re-grade area for positive grade away from bldg. all the way to east corner of bldg. **Rating 1. Estimated Cost: \$5100**
15. At last south facing portion of building 5 windows are all too low to ground and need wells added to avoid water damage. **Rating 2. Estimated Cost: \$2500**
16. At first four windows working south along rear of bldg., windows too low to ground. Need wells. **Rating 2. Estimated Cost: \$2000**
17. Extensive garden area has very flat grade and little or no drainage from the bldg. Due to extensive amount of garden SSC/DESoffers no suggestions unless there are water leaking issues along the foundation in this area.
18. Area along bldg. from garden to next corner is flat with no drainage. Re-grade for positive grade and drainage away from bldg. Re-grade should include swale to discharge at parking area to south. **Rating 2. Estimated Cost: \$4500**
19. Area along south facing length of building is severely eroded behind garden against bldg. Add 8" topsoil to entire garden area to create positive drainage away from bldg. Add mulch for soil retention as well. **Rating 1. Estimated Cost: \$2250**
20. Replace badly cracked walkway adjacent to parking roadway. **Rating 3. Estimated Cost: \$1000**

BUILDING 15

Numbering of items begins at very rear of building and extends counter clockwise around perimeter of building.

1. Entire rear side of bldg. bordering parking lot is very flat/settled with no drainage. Re-grade with added topsoil against bldg. to create positive grade and drainage away from bldg. **Rating 1 Estimated Cost: \$5900.** Windows are low to ground. With proper grading and topsoil, windows (17 ea.) will need new wells. **Rating 2. Estimated Cost: \$8500**
2. At south facing end of bldg. add window well where window too low to ground. **Rating 3. Estimated Cost: \$500.** Add 6" topsoil along building and re-grade length for positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$800**

3. At front left of bldg. windows too low to ground. Add two window wells. **Rating 3. Estimated Cost: \$500**
4. At windows between front entries and adjacent to bldg. setback add taller window wells where soil is built up. **Rating 3. Estimated Cost: \$1000**
5. Between left main entry and transformer box, add topsoil at bldg. re-grade entire area with positive grade and drainage to existing open site drain. **Rating 2. Estimated Cost: \$3380**
6. Observed external sump pump indicated sub surface water flooding issues inside bldg. No way to determine if there is an issue.
7. Adjacent to middle main entry right side there is noticeable erosion. Fill grade hole. **Rating 2. Estimated Cost: \$100**
8. Garden area around transformer and sump has negative grade drainage. Again not sure there is an issue but should be verified.
9. At far right end main entry the walkway in front is cracked/settled. Remove and replace. **Rating 2. Estimated Cost: \$1000**
10. At northern side of bldg., entire length needs topsoil added and re-grade to provide positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$1100**
11. Windows too low to ground. Install four window wells. **Rating 2. Estimated Cost: \$2000**

BUILDING 16

Numbering starts at end of building adjacent to Parking Lot D and extends clockwise around building perimeter.

1. Windows on end of bldg. too low to ground. Add four wells. **Rating 2. Estimated Cost: \$2000**
2. End of bldg. has flat to negative slope. Add 6" topsoil and re-grade for positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$1500.** NOTE: This area appears had significant soil removed, perhaps installing foundation waterproofing or removing same. Window wells were removed as well. Grading still an issue.
3. From front right main entry walkway is severely cracked/settled. Remove and replace. Replace approx. 50 feet of walkway. **Rating 2. Estimated Cost: \$1800**
4. All window wells existing (6 each) between the right and middle main entry are too low to ground and should be replaced. **Rating 2. Estimated Cost: \$3000**
5. All window wells to right of far left bldg. main entry are too low to ground. Replace five wells. **Rating 2. Estimated Cost: \$2500**

6. Area in front of window wells should be re-graded for improved positive drainage away from bldg. **Rating 2. Estimated Cost: \$2200**
7. At last bldg. section to left of main entry, add window well where too low to ground. **Rating 2. Estimated Cost: \$500**
8. At south end of bldg. area flat/negative grade. Add topsoil and re-grade for positive grade and drainage. Cut swale for run out downslope. **Rating 2. Estimated Cost: \$2500**
9. At rear of bldg. looking north, add topsoil and re-grade length up to last inset portion of bldg. Re-grade for positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$5800**
10. Along last rear section of building windows are too low to ground. Add four wells. **Rating 2. Estimated Cost: \$2000**
11. Along last rear section of building re-grade area for positive grade and drainage away from bldg. Cut swale for directed discharge away from corner. **Rating 2. Estimated Cost: \$1800**

BUILDING 17

Numbering of items begins at right rear corner of building and extends clockwise around the building perimeter.

1. Window at end of rear of bldg. too low to ground. Install well. **Rating 2. Estimated cost: \$500**
2. At west facing end of building window too low to ground. Add well. **Rating 2. Estimated Cost: \$500**
3. At front right end of bldg., window wells too low. Replace wells. **Rating 2. Estimated Cost: \$1000**
4. Sidewalk at right front main entry settled. Replace 16 feet. **Rating 2. Estimated Cost: \$575**
5. At right side of left front main entry window too low to ground. Install well. **Rating 2. Estimated Cost: \$500**
6. At right side of left front main entry window wells too low to ground. Replace two wells. **Rating 2. Estimated Cost: \$1000**
7. Adjacent to main entry, re-grade lower garden area for better positive drainage around entry area. **Rating 2. Estimated Cost: \$250**
8. Area at corner downspout indicates downspout or gutter is clogged. Erosion around downspout shows significant water flow. Check gutter/downspout.
9. To left of west facing main entry window too low. Add well. **Rating 2. Estimated Cost: \$500**

10. Area in front and on both sides of entry very flat negative grade holding water. Install French Drain across area under walk and extending to existing open site drain near corner of building. **Rating 2. Estimated Cost: \$1200**
11. At area and across last three windows to bldg. corner, add French Drain connected to existing open site drain. **Rating 2. Estimated Cost: \$1100**
12. At north facing end of bldg. Negative grade against bldg. from down slope from sidewalk. Re-grade for positive drainage and grade into swale cut along bldg. and discharging into existing open site drain. **Rating 2. Estimated Cost: \$1500**
13. At end of bldg. along drive road negative slope exists from curb to bldg. Re-grade for positive grade and drainage parallel to curb and added swale to discharge near walkway and tree in rear. **Rating 2. Estimated Cost: \$4200**
14. Add window wells at two end windows too low to grade. **Rating 2. Estimated Cost: \$1000**
15. Add topsoil and re-grade to connect to swale created in item #13 from in front of two windows on left end of bldg. **Rating 2. Estimated Cost: \$980**
16. Downspout at rear corner of bldg. appears to be clogged or gutter overflow. Erosion around downspout.
17. Add topsoil and re-grade area from rear corner along sidewalk area to approx. bldg. bump out. Create positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$8100**
18. Replace displaced walkway due to tree roots. Recommend tree removal. **Rating 3. Estimated Cost: \$975**

BUILDING 18

Numbering of items begins at front of building facing Porter St and extending clockwise around building perimeter.

1. Bldg. is generally lower grade at entrances from street so positive drainage from front of bldg. is limited by level of drainage into existing open site drain in center of garden area and two auxiliary open site drains toward each entry area. These were probably added to increase rate of overflow drainage at entry areas. Area in front of two main entries appears to be stable despite flatness and negative slope.
2. At end of bldg. to left of main entry windows are low to ground. Add wells **Rating 2. Estimated Cost: \$1000**. Re-grade area in front of bldg. for positive grade and drainage away from bldg. Cut swale to direct water to left of end of bldg. Negative slope from street and flatness of area may require French drain to underground holding tank. **Rating 2. Estimated Cost: \$1500 (Grading only)**
3. At left end of bldg. windows are too low to ground. Install window wells. **Rating 2. Estimated Cost: \$1500**. Area needs regrading due to flat/settled grade. Re-grade for positive grade and drainage away from bldg.

Area similar to item #2 and may require French Drain to underground holding tank. **Rating 2. Estimated Cost: \$2000** (grading only)

4. At rear of bldg. at south facing length, windows too low to ground. Install six window wells. **Rating 2. Estimated Cost: \$3000**
5. Grade along south facing end, very flat/settled. Add topsoil and re-grade area for positive grade and drainage away from bldg. Create swale to direct water to parking area. **Rating 2. Estimated Cost: \$4500**
6. Along west facing end of bldg. to north end there are three windows too low to ground. Install window wells. **Rating 2. Estimated Cost: \$1500.**
7. At sidewalk convergence in front of the two main entries on the north end of the bldg., there is significant erosion due to poor grading and flat areas. Install a French Drain system beginning on the east side of the walkway under the walkway and discharge into the existing open site drain outside the flagstone pavers. Add topsoil and re-grade for positive drainage throughout the area. **Rating 1. Estimated Cost: \$3800**
8. Windows to right of north facing main entry are too low to ground. Install wells. **Rating 2. Estimated Cost: \$2000**
9. Along north facing last section of bldg. near Porter, entire area needs Topsoil and re-grade for positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$2250**
10. Window well too low to ground. Replace. **Rating 2. Estimated Cost: \$500**
11. At east facing section adjacent to front entry, Grade is negative slope toward bldg. due to elevation of bldg. below street grade. Correct and redirect by creating swale across length of end of bldg. add topsoil and re-grade away from bldg. to swale for positive grade and drainage away from bldg.. Connect re-grade and swale to Item #9. **Rating 2. Estimated Cost: \$2000**

BUILDING 19

Numbering of items begins at first building setback to right of main entry facing Newark St and extends clockwise around the building perimeter.

1. Add topsoil and re-grade area at setback for positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$600**
2. At area in front of walkway from Main entry in corner of bldg., Cut out hump of ground acting as barrier to water drainage. Add topsoil due to erosion and re-grade area for positive drainage away from bldg. and walkway area toward Newark St, by extending swale in two diagonal directions. **Rating 2. Estimated Cost: \$1250**
3. Replace section of walkway in same area that has settled/cracked due to poor grade. **Rating 2. Estimated Cost: \$360**

4. At first west facing side of bldg., four windows are too low to ground. Install window wells. **Rating 2. Estimated Cost: \$2000**
5. At second area along west face of bldg., area needs topsoil and re-grade to create positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$600**
6. From back corner along north facing section all the way to corner of rear of bldg., area is very flat to negative grade toward the bldg. Add topsoil at bldg., cut swale along length with slope toward east end of bldg. for positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$4000**
7. In area of corner, are is eroded due to flat/negative grade. Add topsoil against bldg. and re-grade length for positive grade and drainage away from bldg. Tie in to swale created in item #6. **Rating 2. Estimated Cost: \$2800**
8. At front corner of end of bldg. facing Porter St, due to the negative grade from the street toward the bldg., there is flat/negative grade along front from walkway around to end. Due to grade difficulty, create swale and French Drain along front and around corner to discharge into existing open site drain. **Rating 2. Estimated Cost: \$1350**
9. Along front entries facing Porter Street again due to negative grade from the street, this area between the entries is flat with no real drainage except into open site drain in center. Window wells are generally low, but SSC/DEShas no directed change recommendation unless there are instances of water flooding or intrusion into the bldg.
10. At south facing section from front corner back to inset, area needs topsoil and regrading due to flat grading. Re-grade for positive grade and drainage away from the bldg. **Rating 2. Estimated Cost: \$1400**

BUILDING 20

Numbering of items begins at font right side of building facing Newark St and extends clockwise around the building perimeter.

1. Replace 25-foot section of walkway from city sidewalk toward front right main entry where walkway is heaved and settled due to grading. **Rating 2. Estimated Cos: \$900**
2. Replace 20 foot section of walkway at the next main entry due to heaving and settlement. **Rating 2. Estimated Cost: \$750**
3. Along first west facing section of bldg., flat area along bldg. needs topsoil against bldg. and re-grade from positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$650**
4. Window in corner to right of main entry is being overrun by water due to soil and mulch buildup. Poor grading. Re-grade area for improved drainage and flow away from window and corner. **Rating 1. Estimated Cost: \$400**

5. Windows to left of south facing main entry are too low to ground. Add wells. **Rating 2. Estimated Cost: \$2000**
6. At north facing end of bldg. grade between roadway and bldg. very narrow and negative grade. Area eroded due to flat grade and water retention. Add topsoil against bldg. and re-grade with swale to direct water toward existing open site drain. **Rating 2. Estimated Cost: \$1000.** Consider replacing window wells after re-grade since the existing will invariably be too low to ground. **Rating 2. Estimated Cost: \$2500**
7. Around next side of bldg. facing east, there is significant erosion due to flat/negative drainage in whole area. Add 8"-10" of new topsoil and re-grade area including along center section of bldg. rear for overall improved positive grade and better drainage directed toward existing open site drain. **Rating 1. Estimated Cost: \$6600.** Recommend added riprap around open site drain to control rate of flow into drain. **Rating 2. Estimated Cost: \$1100**
8. At far north facing rear of bldg. at corner, re-grade for improved positive flow from bldg. **Rating 2. Estimated Cost: \$1100**
9. At east facing end of bldg. from south corner re-grade approx. 18 foot length, re-grade area due to settlement/erosion. Add topsoil and grade for positive flow and drainage way from bldg. **Rating 2. Estimated Cost: \$720.** Connect graded area to re-grade in item#8.

BUILDING 21

Numbering begins at front center of bldg. facing Newark St and extends clockwise around perimeter of building.

1. Windows too low to ground between main entries. Install two wells. **Rating 2. Estimated Cost: \$1000**
2. In left corner of bldg., there are two windows too low to ground. Install wells. **Rating 2. Estimated Cost: \$1000**
3. At south facing left end of bldg., area eroded due to water runoff from bldg. eyebrow above. Add 6" topsoil and re-grade for positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$500**
4. At west facing end of bldg., area is flat/settled and needs re-grade. Add topsoil and re-grade for positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$1800**
5. Along first section of rear of bldg., window wells are all too low to grade. Replace wells. **Rating 1. Estimated Cost: \$2500.** Flat/settled grade needs correction. Add topsoil and re-grade for positive grade and drainage toward East end of bldg. **Rating 2. Estimated Cost: \$1500**
6. Next section of rear same condition as item #5. Add soil re-grade and create swale. Connect to Item #5. **Rating 2. Estimated Cost: \$2200.** Two window wells too low, add new wells. **Rating 2. Estimated Cost: \$1000**

7. Next section requires major re-grade due to poor condition. Add topsoil and re-grade with added swale connect to Item #6. **Rating 1. Estimate Cost: \$2500.** Additional window wells are too low. Add new wells. **Rating 2. Estimated Cost: \$4000**
8. From end of bldg. section at item #7, continue serious re-grade or positive grade and drainage away from bldg. Cut new swale and direct grade and flow east to drain into existing open site drain toward end of bldg. **Rating 1. Estimated Cost: \$3800**
9. At last rear section of bldg., serious erosion and negative grade needs correction. Add topsoil re-grade for positive grade and drainage toward open site drain. **Rating 1. Estimated Cost: \$900**
10. At very rear corner, waterproofing appears to be failed. Repair replace as needed to prevent further water leak potential into bldg. Re-grade for positive grade toward item #9. **Rating 1. Estimated cost: \$3200** (waterproofing repair). Grading work **Rating 2. Estimated Cost: \$800**
11. At east end of bldg. flat/settled grade needs re-grade. Add topsoil and re-grade for positive drainage away from bldg. and grade toward Newark St. **Rating 2. Estimated Cost: \$1400**

BUILDING 22

Numbering begins at south facing section along Newark St and extends clockwise around the building perimeter.

1. Right hand window too low to ground. Install well. **Rating 2. Estimated Cost: \$500**
2. Settled/flat area in front of window. Add topsoil and re-grade for positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$375**
3. Walkway approaching main entry is settled/cracked. Replace 28 feet. **Rating 2. Estimated Cost: \$1100**
4. Along first 39th St facing section of bldg. grade is flat. Add topsoil and re-grade direct grade toward open site drain. **Rating 2. Estimated Cost: \$2000**
5. At east facing section between bldg. inset and left inside corner entry has flat/negative grade. Add topsoil and re-grade for positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$1800**
6. At south facing main entry area to right corner is flat and holding water. Add topsoil and re-grade for positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$500**
7. At area behind transformer, windows are too low to ground. Install three wells. **Rating 2. Estimated Cost: \$1500.** Re-grade area around windows and transformer for improved grade and positive drainage. **Rating 2. Estimated Cost: \$400**
8. At next corner facing 39th st, very flat/negative grade causing water to flow toward bldg. Add topsoil and re-grade area for positive grade away from bldg. Connect grade to item #7. **Rating 2. Estimated Cost: \$1400**

9. Steep grade from sidewalk to bldg. showing erosion. Correct with added topsoil and stabilizing mat to hold grass. **Rating 2. Estimated Cost: \$1200**
10. Walkway toward right main entry along 39th St has negative grade toward entry, although there does not appear to be any notable water issue.
11. In next setback area between main entries, windows are too low to ground. Install 2 wells. **Rating 2. Estimated Cost: \$1000**
12. Re-grade area in front of windows for improved grade and water drainage away from bldg. **Rating 2. Estimated Cost: \$1400**
13. At bldg. offset between left side of upper main entry and north corner of bldg. area could use an open site drain to collect water coming down toward main entry and overrunning sidewalk. Extend drain underground and walkway to connect to item #12. **Rating 2. Estimated Cost: \$450**
14. Downspout has erosion around it due to either clog in downspout or gutter above. Check and repair. Maintenance.
15. At north end of bldg., window wells are too low to ground. Replace wells. **Rating 2. Estimate Cost: \$2000.** Due to negative slope from proximity to drive roadway, area is flat/eroded and holds water. Add topsoil and re-grade for positive grade and drainage toward existing open site drain. **Estimated Cost: \$1500**
16. Beginning at rear corner of building all the way down to inside corner of building area is in serious need of re-grade. Add 6"-8" of topsoil and re-grade to improve positive grade away from bldg. Some of this area has been negatively impacted by recent construction. **Rating 1. Estimated Cost: \$25000**
17. Rotted timber wall needs replacement. **Rating 2. Estimated cost: \$3000**
18. Balance of rear of building could not be evaluated due to active construction site.

BUILDING 23

Numbering begins at left rear of building and extends counter clockwise around the building perimeter.

1. Area between the rear basement walkout and the first bldg. offset appears to have had recent work done and a re-grading. The only observation would be that it has placed the existing window wells too low to grade. Add new wells. **Rating 2. Estimated Cost: \$1500**
2. Significant erosion around the inset downspout. Check to see if downspout or gutter clogged. Maintenance.
3. Window wells along the balance of the rear of the bldg. also appear to be too low to grade. Replace 7 wells. **Rating 2. Estimated Cost: \$3500**
4. Area behind entire bldg. has flat/negative grade. Add topsoil and re-grade with a swale for better positive grade and drainage away from bldg. to wood line. **Rating 2. Estimated Cost: \$6300**

5. Area at play area adjacent to path/stairs to Park, has severe erosion leaving rock and hardpan. Add topsoil and grade area. **Rating 3. Estimated Cost: \$8000**
6. Downspout discharge near wood line has created erosion. Repair area with rip rap around outlet. **Rating 3. Estimated Cost: \$150**
7. Stone pathway around back of bldg. has work being done. Ground disturbed. Not sure if this is Park Service repair work or not.
8. At right end of south facing portion of bldg. downspout should be buried and discharge to wood line. **Rating 3. Estimated Cost: \$800**
9. On east facing portion of front of bldg. Window wells are too low to ground. Replace 6 wells. **Rating 2. Estimated Cost: \$3000**
10. Re-grade area in front of window wells adjacent to Archway for better overall grade and drainage to open site drain. **Rating 2. Estimated Cost: \$3100**
11. At walkway to front right main entry it is apparent surface water is flowing over the walkway and causing flooding and erosion down slope along the added stone paver path. Install a trench drain along and under the existing paver path to control water flow and erosion. Drain under lower walkway and into existing open site drain. **Rating 2. Estimated Cost: \$1650**
12. Replace settled walkway along upper pathway. **Rating 3. Estimated cost: \$400**
13. At upper right end of bldg., two window wells are too low to ground. Replace. **Rating 2. Estimated Cost: \$1000**
14. In area off front corner of bldg., erosion occurring due to negative steep grade from 39th St. Re-grade and add topsoil. **Rating 2. Estimated Cost: \$1500**

BUILDING 24

Numbering of items begins at front left corner of building closest to 39th Street and extends clockwise around the building perimeter.

1. Window wells too low. Replace two wells. **Rating 2. Estimated Cost: \$1000**
2. General eroded area around tree due to extreme shade as well as flat grade and standing water. Add topsoil and seed/sod for better grade drainage away from area. **Rating 2. Estimated Cost: \$750**
3. Area along east end of bldg. flat/negative grade. Add topsoil and grade for positive grade and drainage. **Rating 2. Estimated Cost: \$750**
4. Basement walkout has significant exterior sump pump with battery backup and sandbags set up in bottom landing. There must be severe flooding occurring or recent. SSC/DEScannot assess the true manner of the

problem without input from the unit Owner or property management. Grading around the upper area of the walkout does not appear to be negatively affecting the drainage. **Rating 1.**

5. Window wells adjacent to the walkout are too low. Replace two wells. **Rating 2. Estimate Cost: \$1000**
6. Four window wells to left of concrete retaining wall are too low. Replace. **Rating 2. Estimated Cost: \$2000**
7. Install graded swale from concrete retaining wall curving around the transformer and discharging at rear stone pathway for improved positive grade and drainage for the bldg. Also re-grade and add topsoil from left end inset and grade toward end of swale (see item #9). **Rating 2. Estimated Cost: \$5500**
8. Window wells in the last section of the rear of bldg. are too low. Replace four wells. **Rating 2. Estimated Cost: \$1500**
9. Re-grade area between transformer and end section of bldg. for improved positive grade and drainage toward swale. **Rating 2. Estimated Cost: \$900**
10. Along west facing end of bldg., window wells at left end are too low to ground. Replace wells. **Rating 2. Estimated Cost: \$1000**
11. Bury downspout and discharge at wood line. **Rating 2. Estimated Cost: \$560**
12. At East facing bldg. adjacent to Archway main entry, wells on each side of entry are too low due to buildup of soil and mulch. Install new wells. **Rating 2. Estimated Cost: \$1000**
13. Re-grade area between the two main entries between the bldg. and sidewalk for improved grade and drainage away from bldg. **Rating 2. Estimated Cost: \$1100**
14. Beginning at the window well to right of retaining wall, install a French Drain along garden edge and under walkway to discharge into open site drain. **Rating 2. Estimated Cost: \$990**
15. At curved section of walkway toward juncture to main entry, add additional French Drain connected to item #14 to control water flow and flooding from up slope. **Rating 2. Estimated Cost: \$475**
16. To left side of retaining wall and inset corner of bldg. area is flat with no grade. Add topsoil and re-grade for positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$500**

BUILDING 25

Numbering of items begins at left rear corner of building toward 39th Street and extends clockwise around the building perimeter.

1. Area poorly graded. Add topsoil and re-grade the area wrapping the corner of the building for improved positive grade and drainage away from bldg. Grade toward stone wall area. **Rating 2. Estimated Cost: \$1500**
2. Replace window wells too low to ground. **Rating 2. Estimated Cost: \$1000**

3. Beginning at left end of east face of building, re-grade and create swale toward re-graded corner for improved grade and drainage away from bldg. **Rating 2. Estimated Cost: \$1650**
4. At south facing front of bldg. around to west facing main entry, area is very flat. Add topsoil and re-grade for positive grade and drainage toward corner of walkway and DC sidewalk. **Rating 2. Estimated Cost: \$9400**
5. Window well in corner of right end of main entry facing south too low. Replace. **Rating 2. Estimated Cost: \$500**
6. At corner area to left of west facing main entry, the area is poorly graded. Add topsoil and re-grade area for positive grade and drainage toward walkway. **Rating 2. Estimated Cost: \$600.** Add two new window wells after re-grading. **Rating 2. Estimated Cost: \$1000**
7. Window wells to left of next main entry facing south are too low to ground. Replace Wells. **Rating 2. Estimated Cost: \$1000**
8. At center bldg. offset, and toward center main entry, Grade is flat. Add topsoil and re-grade for positive drainage. **Rating 2. Estimated Cost: \$500**
9. In area between center main entry and left corner main entry re-grade around window wells and trees for improved drainage. **Rating 2. Estimated Cost: \$3100**
10. In corner to left of corner main entry, there is evidence of window well flooding. Replace two wells. **Rating 1. Estimated Cost: \$1000**
11. Next two wells along east facing bldg. section are also too low to ground and should be replaced. **Rating 2. Estimated Cost: \$1000**
12. Re-grade small area around existing open site drain due to erosion. **Rating 2. Estimated Cost: \$200**
13. Along east facing bldg. section from entry to corner of bldg., create swale for more directed flow of water away from bldg. re-grade to direct water toward open site drain beyond corner of bldg. **Rating 2. Estimated Cost: \$1850**
14. At south facing section of bldg., re-grade and create drainage swale toward open site drain for improved drainage of water away from bldg. area. **Rating 2. Estimated Cost: \$700**
15. To left of main entry on south face of bldg. create drainage swale across windows and toward discharge at curb for improved Drainage from bldg. **Rating 2. Estimated Cost: \$450**
16. Along west face of bldg., grade flat and negative along bldg. line. Re-grade and provide positive grade toward curb away from bldg. **Rating 2. Estimated Cost: \$1560**
17. Window wells between rear of bldg. exit stairway and west corner, three window wells are too low to ground. Replace. **Rating 2. Estimated Cost: \$1500**
18. Window wells to left of rear bldg. Stairway also too low. Replace. **Rating 2. Estimated Cost: \$1500**

BUILDING 26

Numbering of items begins at east end of front of building and extends counter clockwise around the building perimeter.

1. To right of main entry windows are too low to grade. Install window wells. **Rating 2. Estimated Cost: \$1000**
2. At corner downspout, evidence of erosion on ground indicates blockage in either the downspout drain or the overhead gutter. Maintenance check.
3. Beginning at downspout, along end of bldg. flat grade against bldg. Add topsoil and re-grade area for improved positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$1500**
4. At first section in rear facing west, area along bldg. is eroded and flat. Add topsoil and re-grade toward wood line. Due to extensive shade canopy, alternatives to grass might be considered. **Rating 2. Estimated Cost: \$1600**
5. Along main rear of bldg., three windows are too low to grade. Install window wells. **Rating 2. Estimated Cost: \$1500**
6. Add topsoil and re-grade entire length of rear fold from offset to corner. Provide graded swale for general improvement of drainage and positive grade away from bldg. **Rating 2. Estimated Cost: \$5400**
7. Add topsoil re-grade and sod in small picnic area. **Rating 2. Estimated Cost: \$2400**
8. Add pavers under bench. **Rating 3. Estimated Cost: \$500**
9. At south facing end of bldg., add topsoil in very high shade tree area, re-grade for better drainage. Consider ground cover in lieu of grass. **Rating 2. Estimated Cost: \$4500**

BUILDING 27 & 28

Numbering begins at front left corner entry of building facing north and extends counter clockwise around perimeter of building.

1. At main corner entry stairway walkway is severely cracked/settled. Replace walkway or stairway. **Rating 2. Estimated Cost: \$5000**
2. To right of next main entry two windows are too low to ground. Install window wells. **Rating 2. Estimated Cost: \$1000**
3. At large main entry structure in corner of bldg. erosion evidence of water overflowing overhead gutter. Repair/maintain gutter.

4. Windows on both sides of next main entry are too low to ground. Install window wells. **Rating 2. Estimated Cost: \$1500**
5. Window wells on both sides of next main corner entry are too low due to mulch ground buildup. Replace wells. **Rating 2. Estimated Cost: \$2500**
6. Area to right and along building at east facing section of bldg. has had recent construction disturbance. Poor regrading and no topsoil. Add topsoil and re-grade for improved grass growth and general positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$2100**
7. Area along north facing end of bldg. eroded flat and needs regrading. Add topsoil and re-grade for positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$800**
8. Significant erosion due to runoff. Exposed rock and hard pan due to poor grade. Add topsoil and re-grade for positive drainage away from bldg. toward wood line. Remove and replace flagstone paving. **Rating 1. Estimated Cost: \$12250**
9. Along first bldg. section going east along bldg. line and extending along west face of bldg. to corner, significant erosion due to poor grade. Flat to negative grade needs improvement. Add up to 10" of topsoil and re-grade area for positive grade and drainage. **Rating 1. Estimated Cost: \$13800**
10. Along balance of rear of bldg. from corner to corner same significant erosion due to poor grade leaving rock and hard pan. Add up to 10" of topsoil and re-grade for positive grade and drainage toward wood line. **Rating 2. Estimated Cost: \$26250.** NOTE: after re-grade of the rear of bldg., almost all window wells will be too low to grade and should be replaced. Assume replacing 20 window wells. **Rating 1. Estimated Cost: \$10000**
11. At east end of bldg., add topsoil and re-grade for improved grade and drainage away from bldg. **Rating 2. Estimated Cost: \$1600**

BUILDING 29

Numbering begins at right rear corner of building facing west and extends clockwise around the building perimeter.

1. Small area at corner of grass area eroded due to foot traffic. Add soil/sod to refresh area. **Rating 3. Estimated Cost: \$500**
2. Toward middle section of bldg. rear, there are three windows too low to ground. Install wells. **Rating 2. Estimated Cost: \$1500**
3. Along rear of bldg. on both sides of low windows in item #2 the existing window wells are too low. Replace six wells. **Rating 2. Estimated Cost: \$3000**
4. Last two windows at left corner of bldg. rear are too low to ground. Install wells. **Rating 2. Estimated Cost: \$1000**

5. First four window wells along north face of bldg. are too low and some are rotted. Replace Wells. **Rating 2. Estimated Cost: \$2000**
6. Next five windows are too low to ground and need wells. **Rating 2. Estimated Cost: \$2500**
7. Along end of bldg. and around to first south facing main entry, flat/negative grade. Add topsoil along end of bldg. and up to entry. Re-grade for positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$800.** Add window wells at five windows too low to ground. **Rating 2. Estimated Cost: \$ 2500**
8. In front corner of bldg. to right of right corner main entry, re-grade garden due to ground mulch buildup. Re-grade for better drainage away from bldg. and wells. **Rating 2. Estimated Cost: \$200.** Install new window wells. **Rating 2. Estimated Cost: \$1000**
9. At left corner main entry, add 6" topsoil and re-grade to right of entry for improved grading and drainage from bldg. **Rating 2. Estimated Cost: \$1600**
10. Remove and replace cracked settled walkway at juncture from left entry walkway to juncture at circular walk. Replace approx. 40 feet of walk. **Rating 2. Estimated Cost: \$1400**

BUILDING 30

Numbering begins at front left corner end of building facing south and extending counter clockwise around the building perimeter.

1. At left front end of bldg. flat/negative grade along length of bldg. Add topsoil and re-grade for positive grade and drainage. **Rating 2. Estimated Cost: \$750**
2. Window too low to ground. Install well. **Rating 2. Estimated Cost: \$500**
3. Recent disturbance and construction to right of main entry needs re-grade and new topsoil. Work left unsuitable topsoil for grass. **Rating 2. Estimated Cost: \$12500**
4. To right of second main entry are in front of bldg. is flat and needs topsoil and re-grade for positive grade and drainage from bldg. **Rating 2. Estimated Cost: \$600**
5. Length along main walkway east/west in front of bldg. and walkway to second main entry is poorly graded holding water and eroding. Add topsoil and re-grade 50 feet to halt erosion. **Rating 2. Estimated Cost: \$3000**
6. At east facing inset and along south facing section, area needs topsoil and re-grade to improve bldg. positive grade and proper drainage. **Rating 2. Estimated Cost: \$4000**
7. Off corner of bldg. in large area toward main walkway, poor grading and seeding of poor soil after recent work. Add new topsoil and re-grade for improved grade and grass growth. **Rating 3. Estimated Cost: \$18000**
8. Replace walkway near east facing main entry. **Rating 2. Estimated Cost: \$900**

9. Along east facing bldg. section from corner to left side of entry, add topsoil and re-grade area at bldg. for positive grade and drainage. **Rating 2. Estimated Cost: \$1000**
10. Between east facing entry and south facing corner entry, add topsoil and re-grade for improved positive drainage and grade from corner. **Rating 2. Estimated Cost: \$1000**
11. Add window well to right of entry in corner. **Rating 2. Estimated Cost: \$500**
12. To right of south facing main entry add topsoil and re-grade along bldg. for improved positive grade and drainage from bldg. **Rating 2. Estimated Cost: \$1500**
13. Add window well to left of south facing entry. **Rating 2. Estimated Cost: \$500.** Add topsoil and re-grade at window well. **Rating 2. Estimated Cost: \$250**
14. From last bldg. inset on south face, to east bldg. corner, flat/negative grade needs topsoil added and re-grade for positive grade and drainage away from bldg. **Rating 2. Estimated Cost: \$7000**
15. Window wells too low to ground in item#14. Add six new wells. **Rating 2. Estimated Cost: \$3000**
16. At east most end of bldg. between corner and entry add topsoil and re-grade end of bldg. for improved grade and positive drainage. **Rating 2. Estimated Cost: \$1200**
17. To right of entry add topsoil and re-grade for improved grade and drainage from bldg. to sidewalk. **Rating 2. Estimated Cost: \$1200**
18. Along rear of bldg. facing north after first inset to next corner, grade is flat/negative. Add topsoil and re-grade for improved grade and drainage from bldg. **Rating 2. Estimated Cost: \$3250**
19. From corner along west facing length to stairs in corner install new topsoil and re-grade for improved drainage. **Rating 2. Estimated Cost: \$750.** Add new window wells. **Estimated Cost: \$1000**
20. At innermost corner of rear of bldg. poor grading has flat and negative grading. Add topsoil and re-grade area for positive grade and drainage from bldg. corner. **Rating 2. Estimated Cost: \$2000**
21. Along rear of bldg. from corner inset to far corner at west end corner, add topsoil along wall and re-grade length for improved grade and drainage. **Rating 2. Estimated Cost: \$3800**
22. At far west end of bldg. area significant erosion. Add topsoil and re-grade to wood line for improved grade and drainage. **Rating 1. Estimated Cost: \$2000**

BUILDING 31

Numbering begins at front of building at east front corner and extends clockwise around the building perimeter.

1. Replace cracked settled walkway in front of bldg. **Rating 2. Estimated Cost: \$900**
2. Significant erosion extending from stone wall diagonally along 39th St extending along DC sidewalk and up to entry walkway to front left main entry has significant erosion due to recent disturbance. Add 6" topsoil and re-grade area to improve drainage and poor soil quality. **Rating 1. Estimated Cost: \$15500**
3. At north facing end of bldg. to left of entry window too low. Add well. **Rating 2. Estimated Cost: \$500**
4. Area at end of east facing section needs topsoil and re-grade for flat grade and improved drainage. **Rating 2. Estimated Cost: \$500**
5. Replace cracked/settled walkway to first main entry. **Rating 2. Estimated Cost: \$1200**
6. Replace cracked settled main walkway going east at juncture of item #5. **Rating 2. Estimated Cost: \$750**
7. Area of ground between first and second main entries has significant erosion due to disturbance and poor quality seeded soil. Add new topsoil re-grade and reseed for improved grass stand and drainage. **Rating 1. Estimated Cost: \$10500**
8. Replace settled cracked walkway at center main entry. **Rating 2. Estimated Cost: \$500**
9. To right of center entry way, windows are too low to ground. Install wells. **Rating 2. Estimated Cost: \$1000**
10. Area of ground between center and right main entries has poor quality ground due to recent disturbance. No topsoil. Poor grading. Add new topsoil and grade and reseed for improve grass stand and better water flow control. **Rating 1. Estimated Cost: 7200**
11. Window well to left of right end main entry is surrounded by sandbags and mounded fill due to recent disturbance and incomplete or very poor grading. This area needs immediate attention as water is continually accumulating water as grade was left below the elevation of a nearby open site drain. Re-grade area for positive grade and drainage to a new open site drain adjacent to walkway right at entry area. Open site drain to connect in buried drain line under walkway with open site drain on opposite side as well. Extend underground piping all the way to discharge at wood line. **Rating 1. Estimated Cost: \$1700**
12. Window too low to ground at end of north facing last front section. Install window well. **Rating 2. Estimated Cost: \$500.** Grade along end of bldg. very flat with no grade. Add topsoil and re-grade for positive drainage away from bldg. toward re-grade behind bldg. **Rating 1. Estimated Cost: \$1750**
13. Area of end of bldg. facing west has significant erosion exposing rock and hard pan. Add 6"-8" of topsoil along bldg. and re-grade for positive grade and drainage to wood line. **Rating 1. Estimated Cost: \$5000**

14. Low window to ground. Install window well. **Rating 2. Estimated Cost: \$500**
15. At rear of bldg. from west corner to center of rear, severe erosion with flat/negative grade leaving exposed rock and hard pan. Add 6"-8" topsoil and re-grade entire area for improved grade and drainage to wood line. **Rating 1. Estimated Cost: \$9400**
16. From right end of rear center offset in bldg. to far corner of bldg. at east end of bldg., severe erosion with flat grade. Add 6"-8" topsoil and re-grade entire length for improved grade and drainage toward wood line. **Rating 1. Estimated Cost: \$8800**
17. Four windows on east end of bldg. too low to ground. Add window wells. **Rating 2. Estimated Cost: \$2000**

POOL AREA

Numbering begins on west side of pool deck area.

1. Area along back of pool deck area severely eroded due to flat grade and heavy tree shade canopy. Add fresh 6" topsoil and re-grade for positive drainage away from pool area. Consider ground cover. **Rating 1. Estimated cost: \$7500**
2. At area around large and steep slope surrounding open site drain, add slope stabilization and Class I Rip Rap. **Rating 1. Estimated Cost: \$5000**
3. Restore and install additional Class I Rip Rap across swale area leading to open site drain behind building #13. **Rating 2. Estimated Cost: \$3500**



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VA Class 'B' Lic. No.: 2705 092015
 MHIC Lic. No. 123227
 Fed. Tax ID No.: 57-1147748

CONSULTING & CONTRACTING SERVICES

Date Prepared: _____

Proposal Submitted To: McLEAN GARDENS

Phone/Fax: _____

Street Address: _____

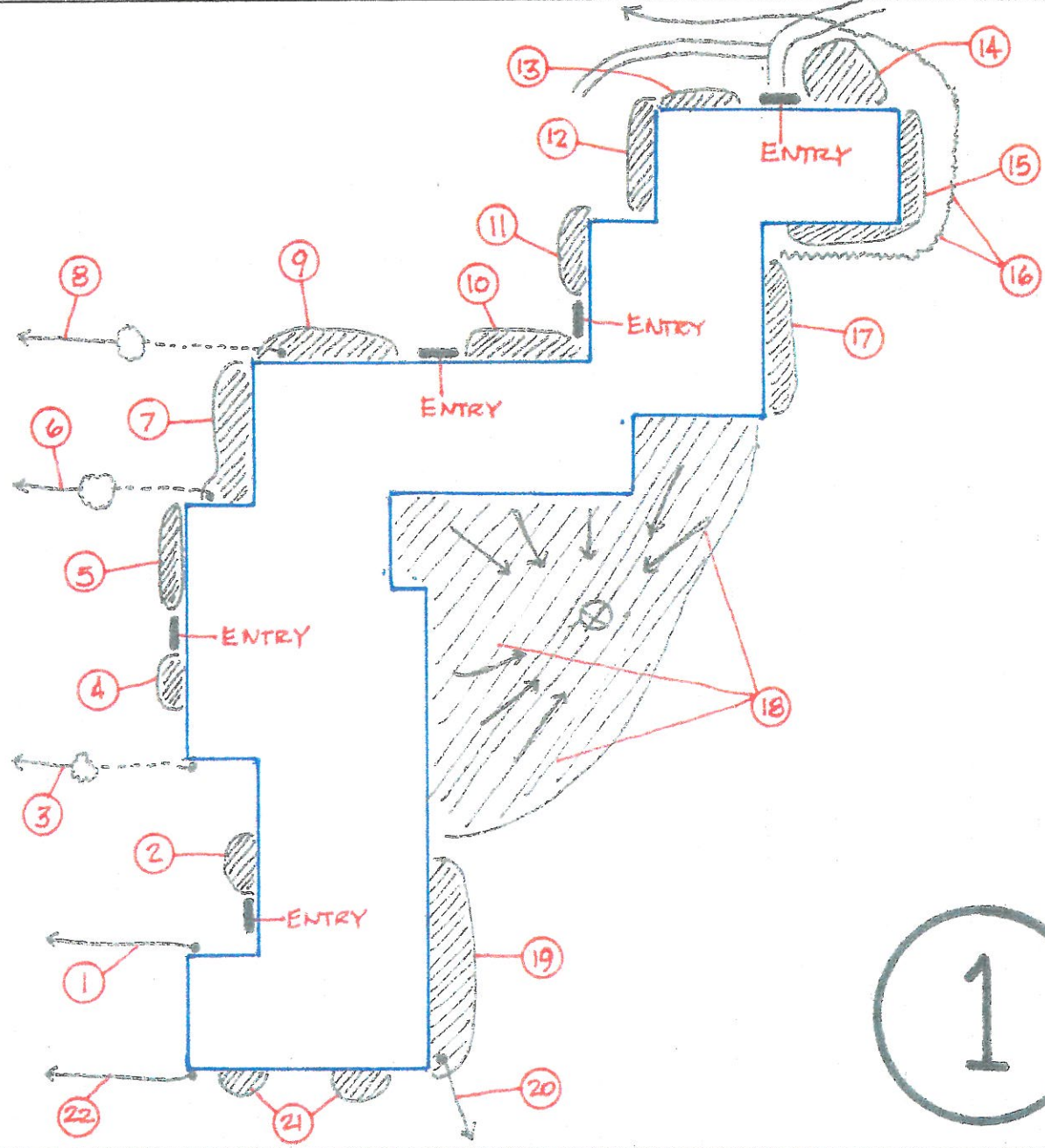
E-mail: _____

City, State and Zip Code: _____

Location: BLDG # 1

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.



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Fed. Tax ID No.: 57-1147748

Date Prepared: _____

Proposal Submitted To: M'LEAN GARDENS

Phone/Fax: _____

Street Address: _____

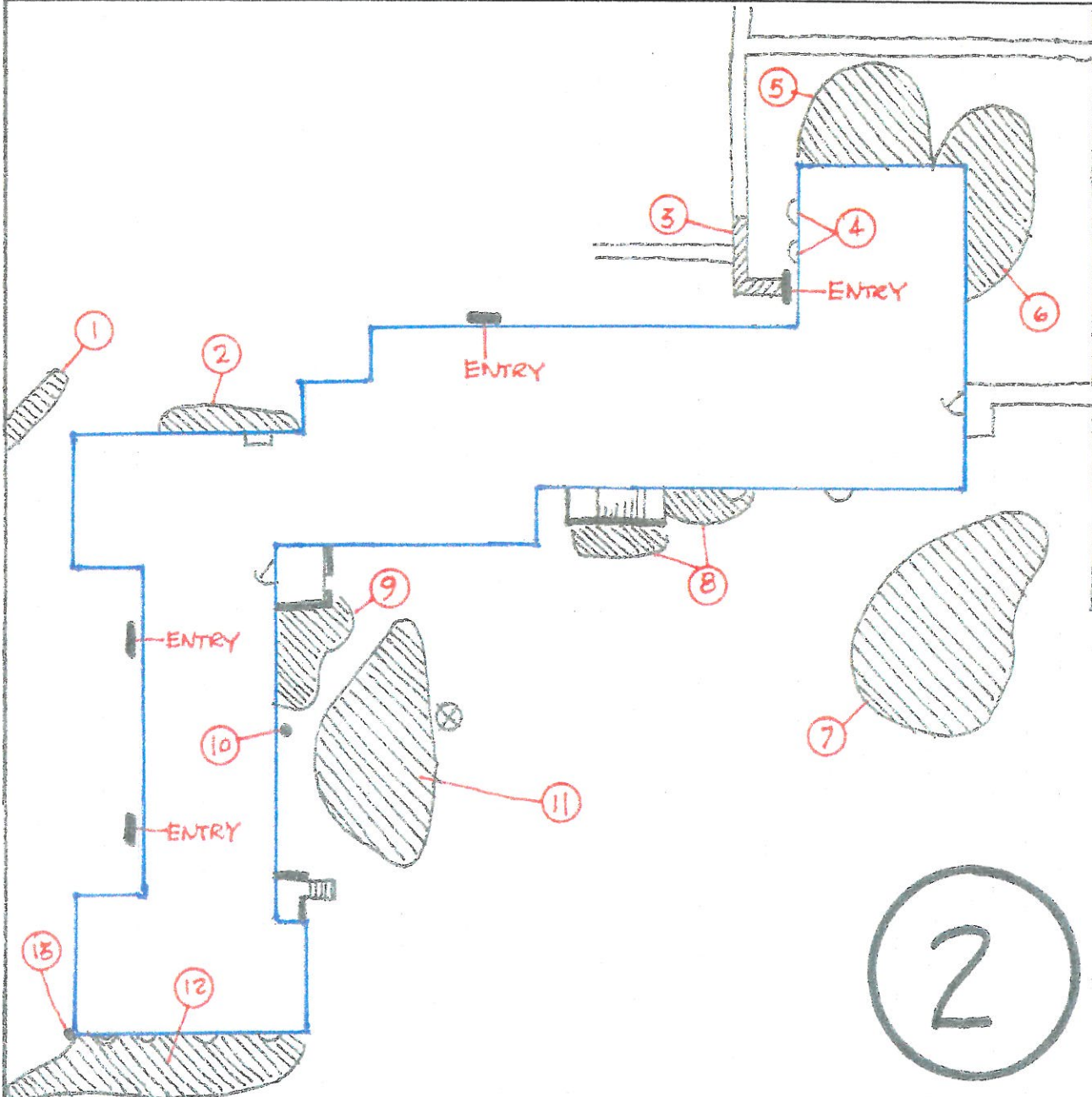
E-mail: _____

City, State and Zip Code: _____

Location: BLDG #2

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.



**Drainage
& Erosion
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Fed. Tax ID No.: 57-1147748

Date Prepared: _____

Proposal Submitted To: McLEAN GARDENS

Phone/Fax: _____

Street Address: _____

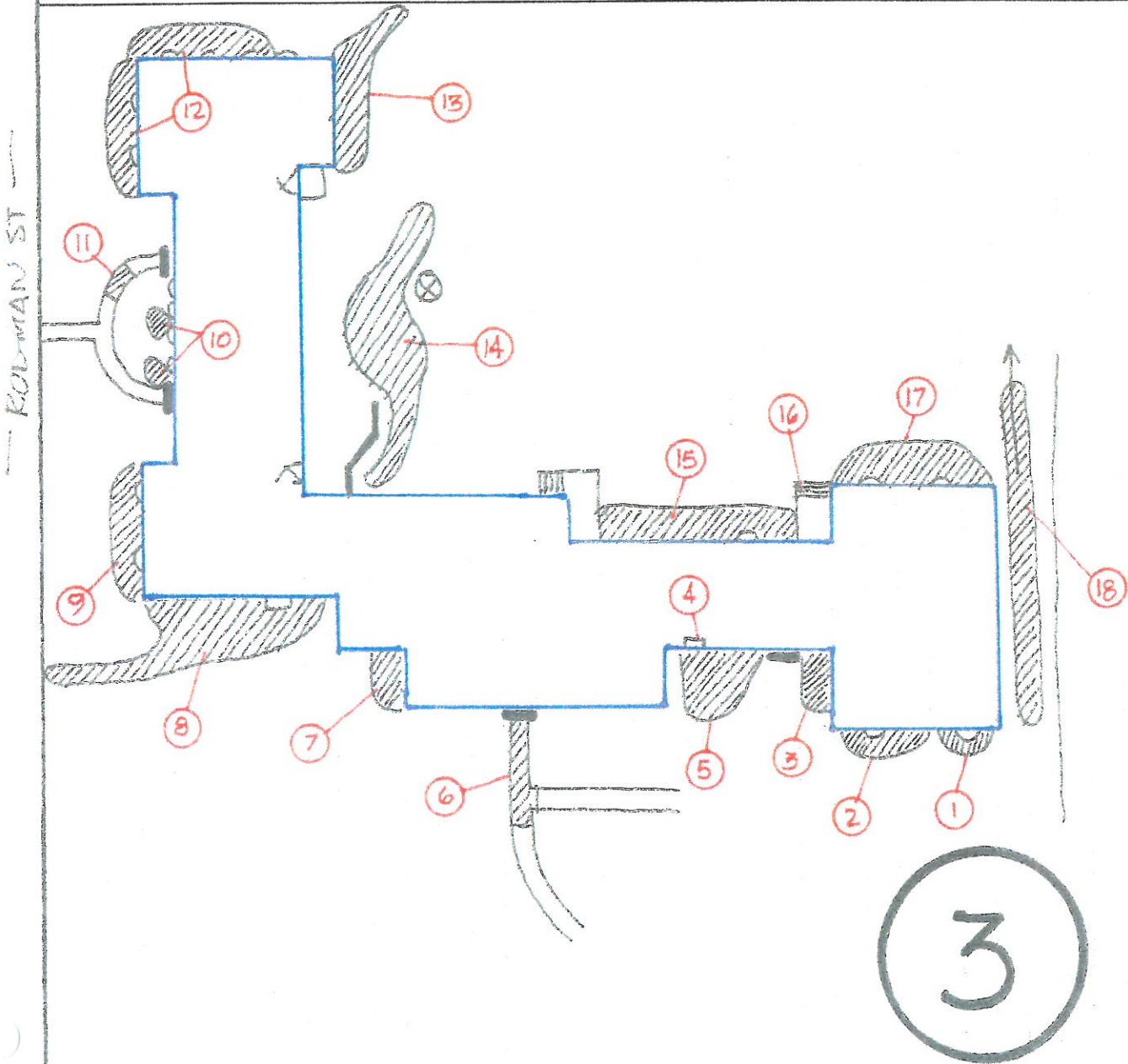
E-mail: _____

City, State and Zip Code: _____

Location: BLDG # 3

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.

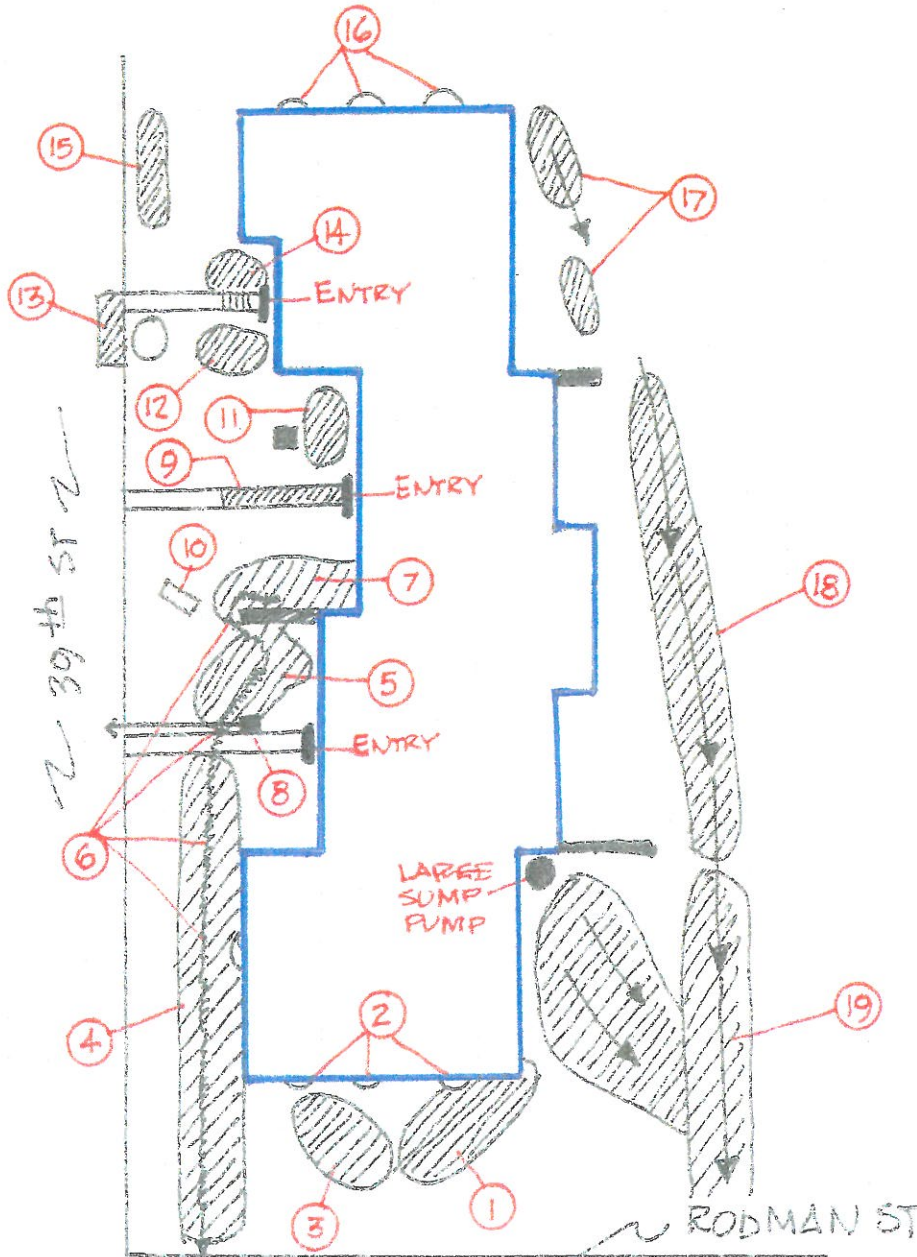
Date Prepared: _____

Proposal Submitted To: M^CLEAN GARDENS
 Street Address: _____
 City, State and Zip Code: _____

Phone/Fax: _____
 E-mail: _____
 Location: BLDG #4

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.

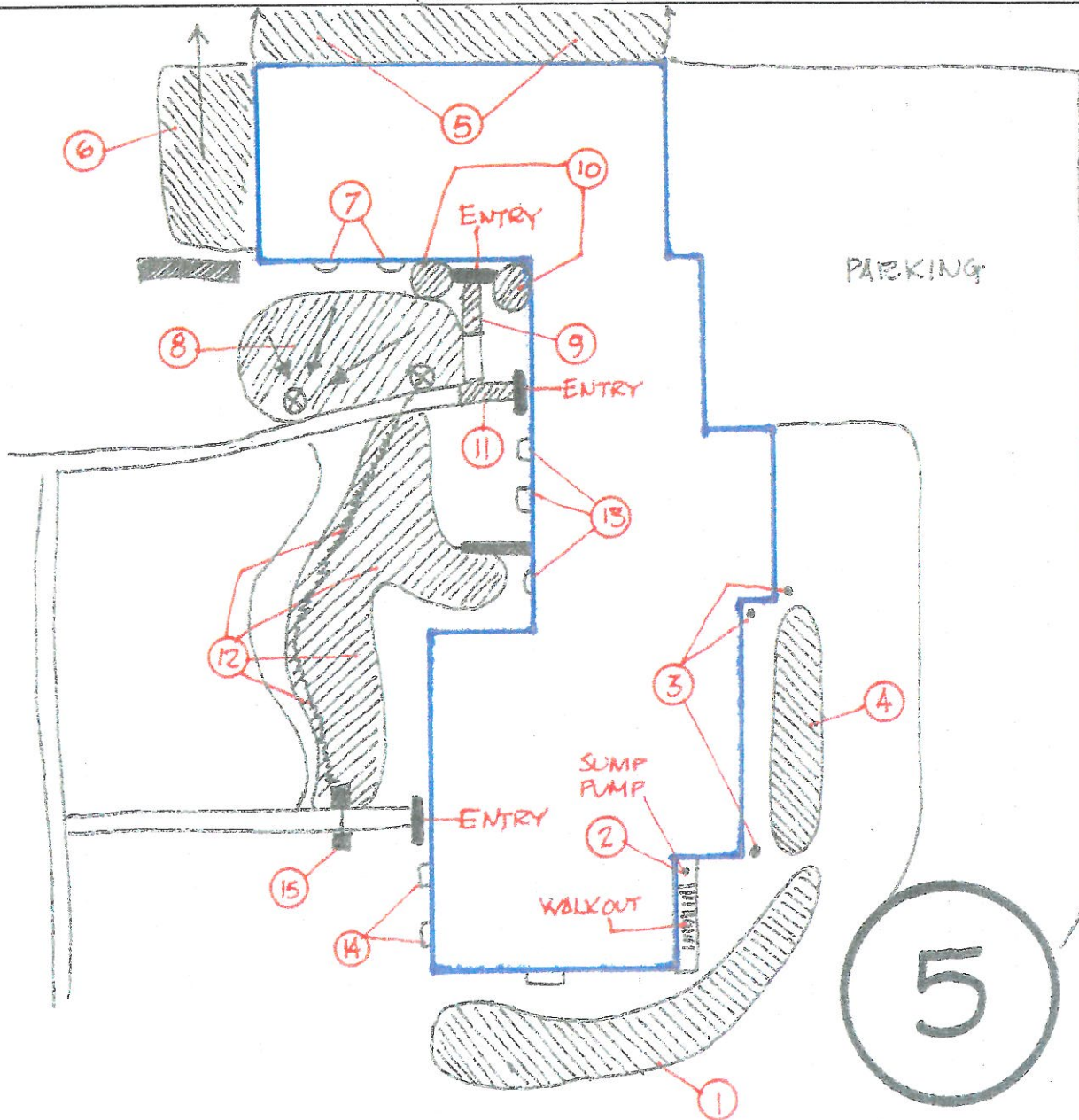
Date Prepared: _____

Proposal Submitted To: MCLEAN GARDENS
 Street Address: _____
 City, State and Zip Code: _____

Phone/Fax: _____
 E-mail: _____
 Location: BLDG # 5

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.

Date Prepared: _____

Proposal Submitted To: M^cLEAN GARDENS

Phone/Fax: _____

Street Address: _____

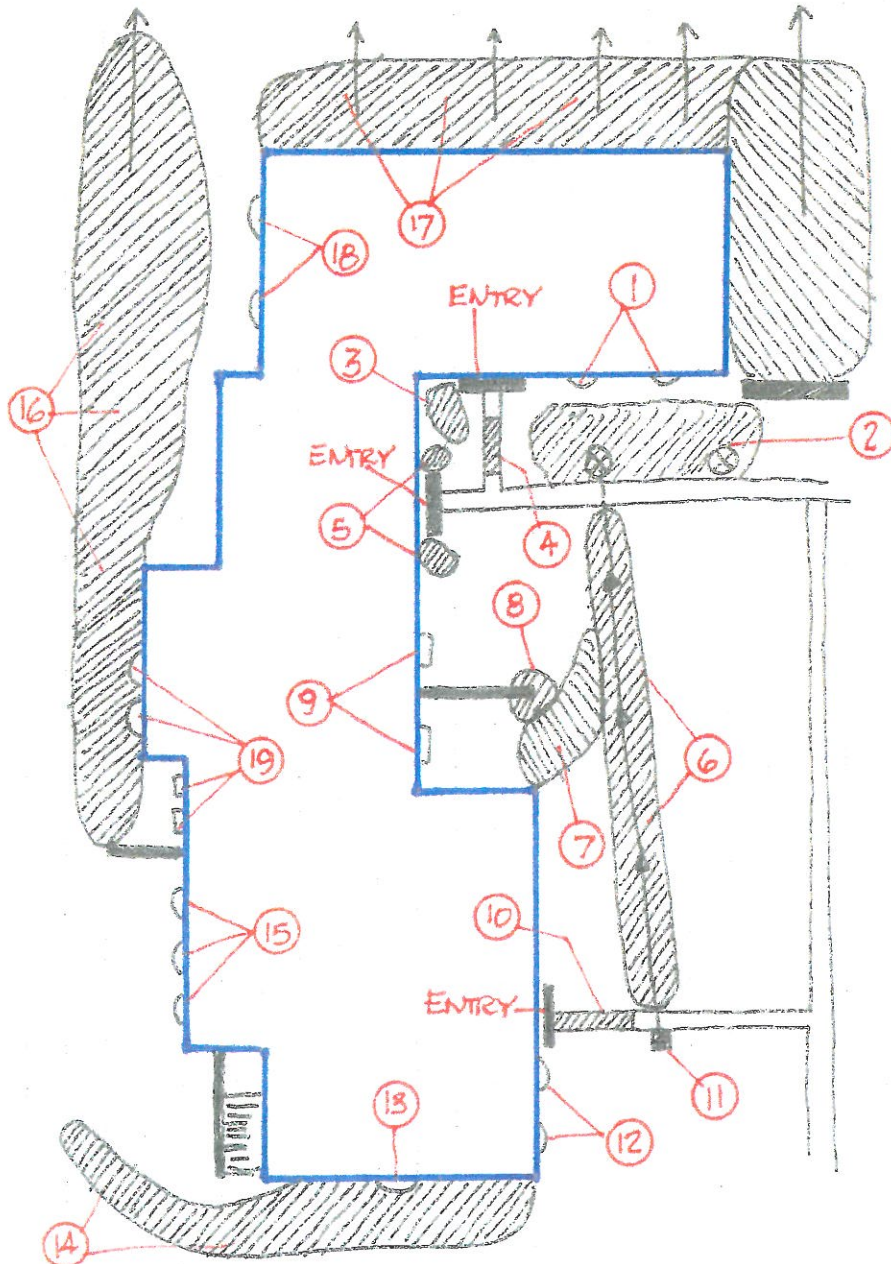
E-mail: _____

City, State and Zip Code: _____

Location: BLDG #6

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.

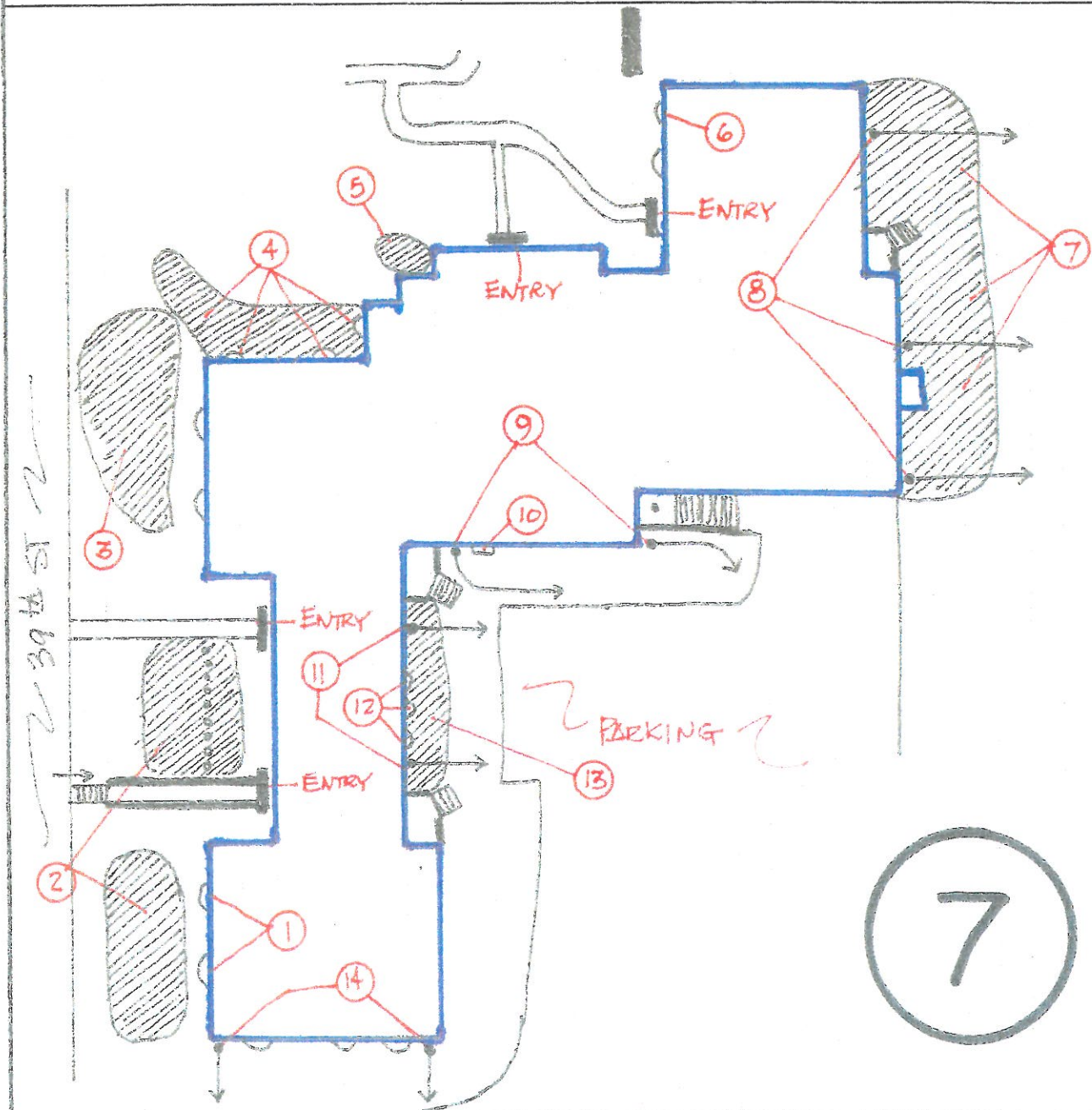
Date Prepared: _____

Proposal Submitted To: McLEBAN GARDENS
Street Address: _____
City, State and Zip Code: _____

Phone/Fax: _____
E-mail: _____
Location: BLDG # 7

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.



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MHIC Lic. No. 123227
Fed. Tax ID No.: 57-1147748

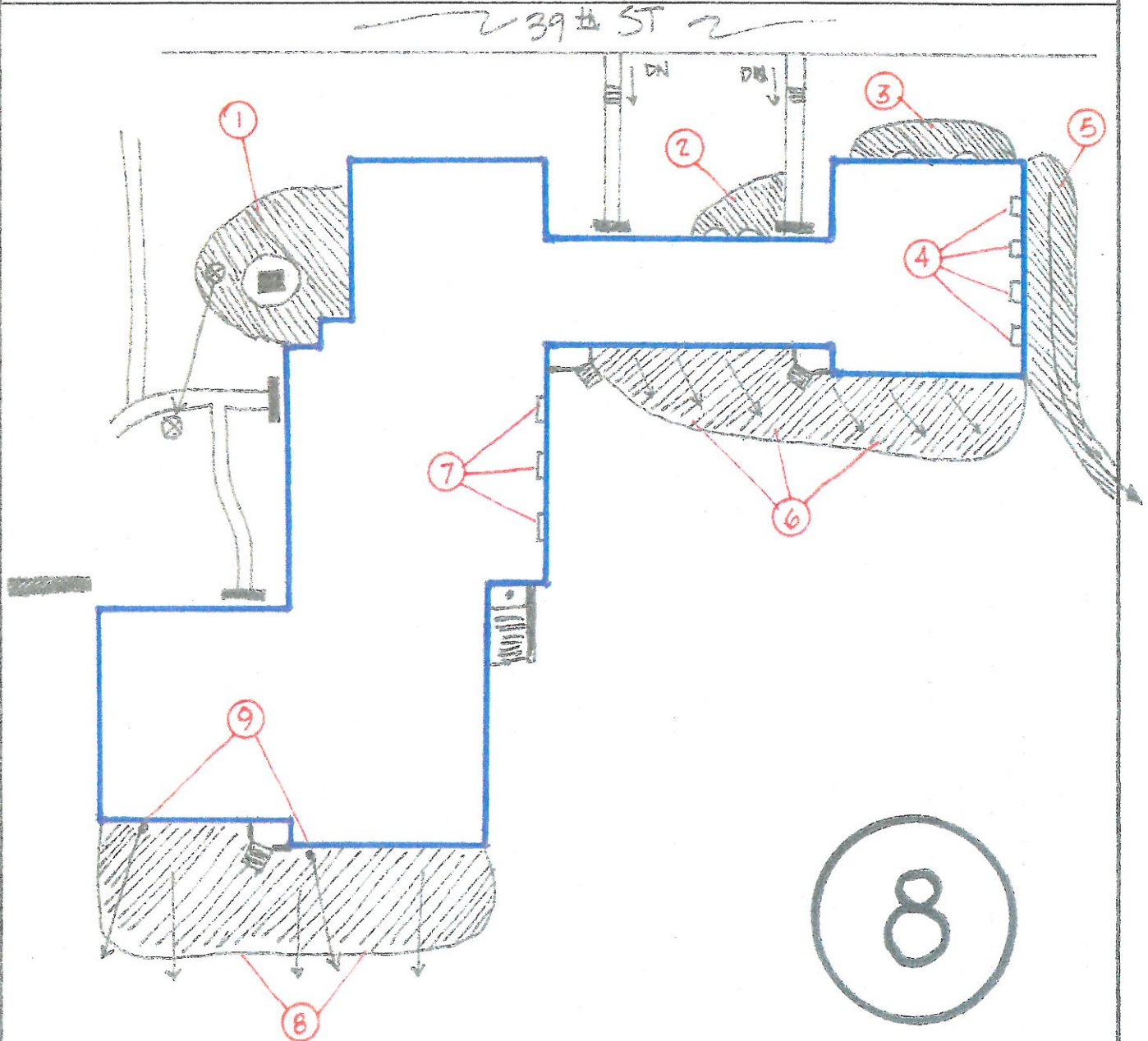
Date Prepared: _____

Proposal Submitted To: MCLEAN GARDENS
Street Address: _____
City, State and Zip Code: _____

Phone/Fax: _____
E-mail: _____
Location: BLDG #8

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.

Date Prepared: _____

Proposal Submitted To: M^oLEAN GARDENS

Phone/Fax: _____

Street Address: _____

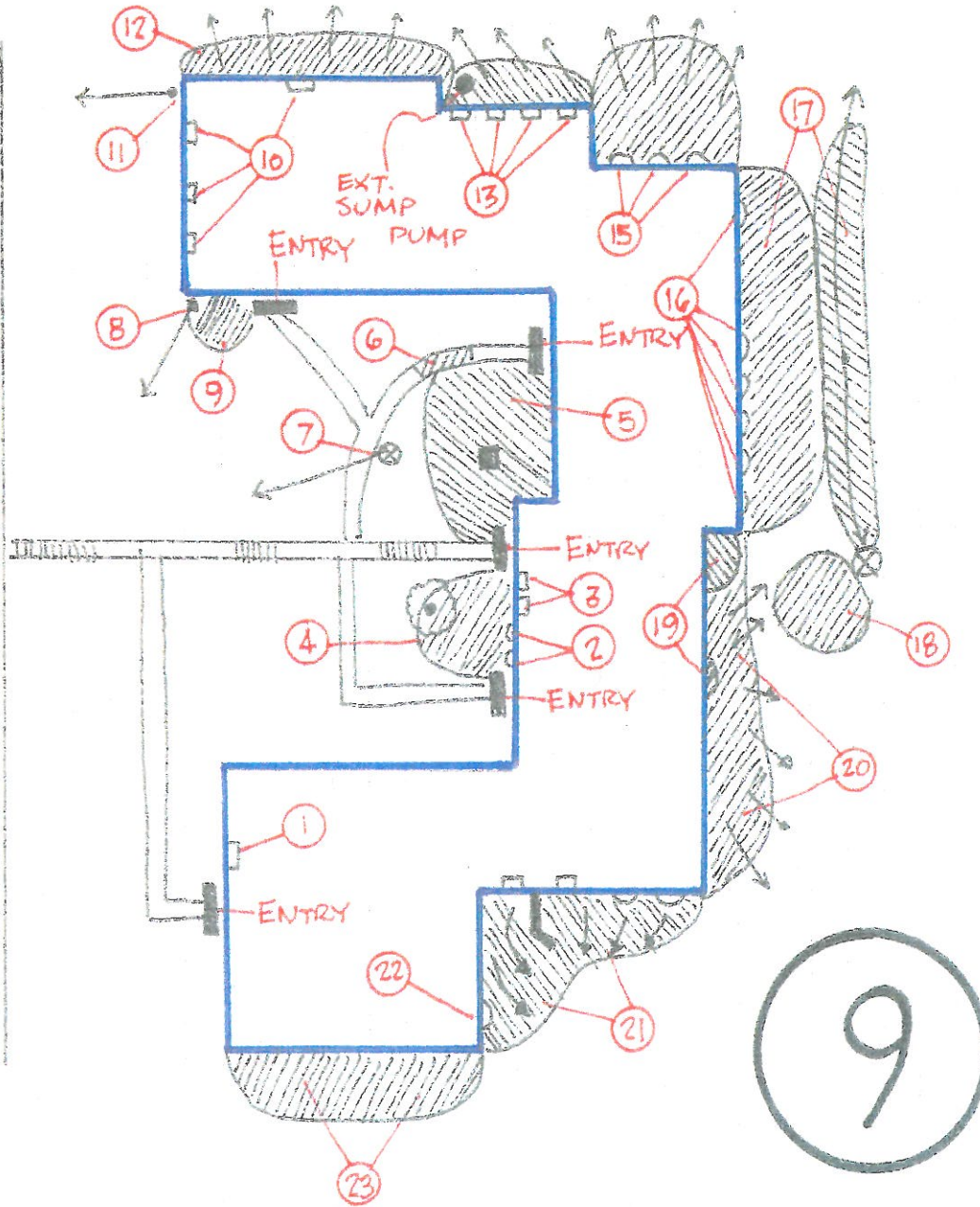
E-mail: _____

City, State and Zip Code: _____

Location: BLDG # 9

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.



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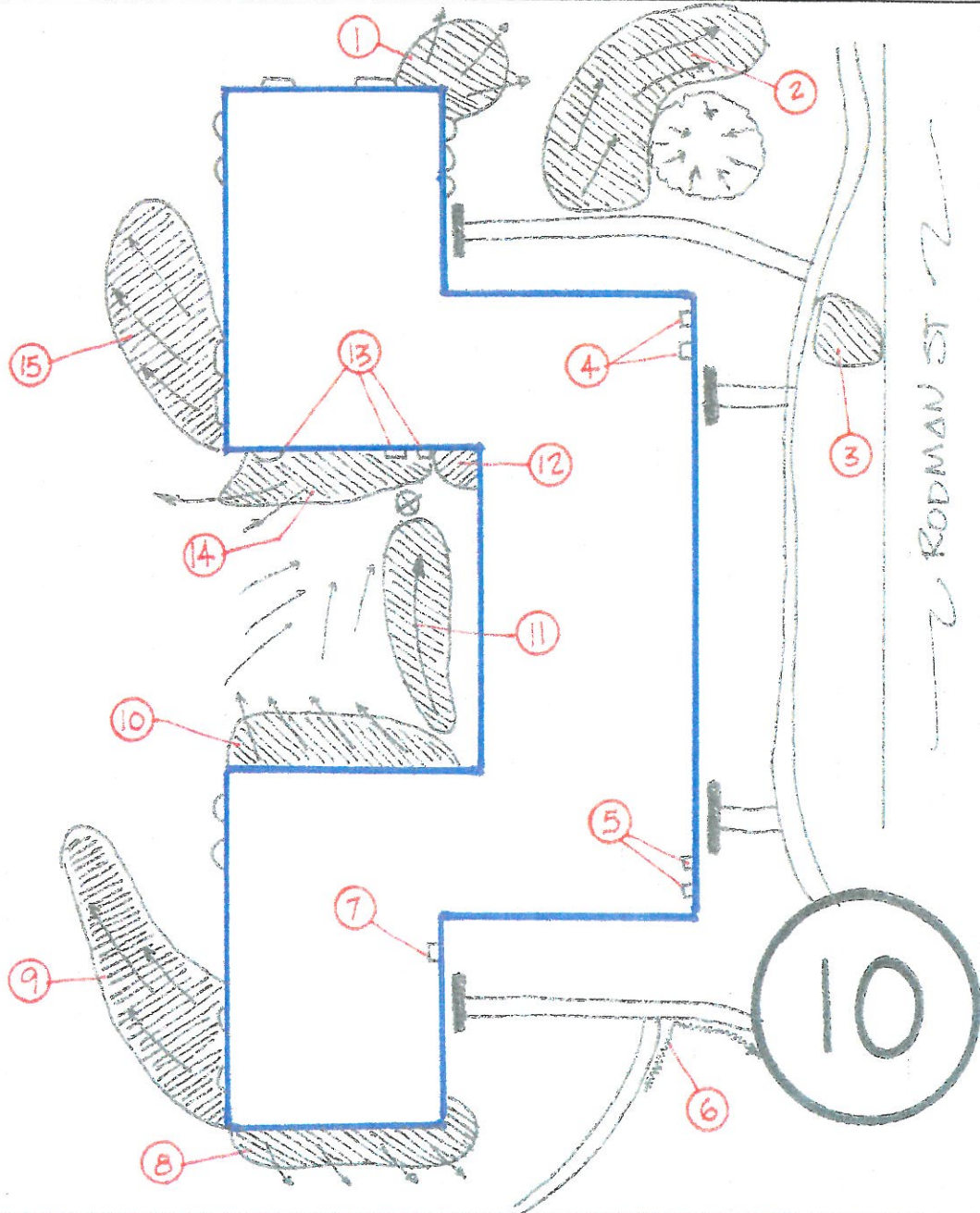
Date Prepared: _____

Proposal Submitted To: MCLEAN GARDENS
Street Address: _____
City, State and Zip Code: _____

Phone/Fax: _____
E-mail: _____
Location: BLDG # 10

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.

Date Prepared: _____

Proposal Submitted To: M^CLEAN GARDENS

Phone/Fax: _____

Street Address: _____

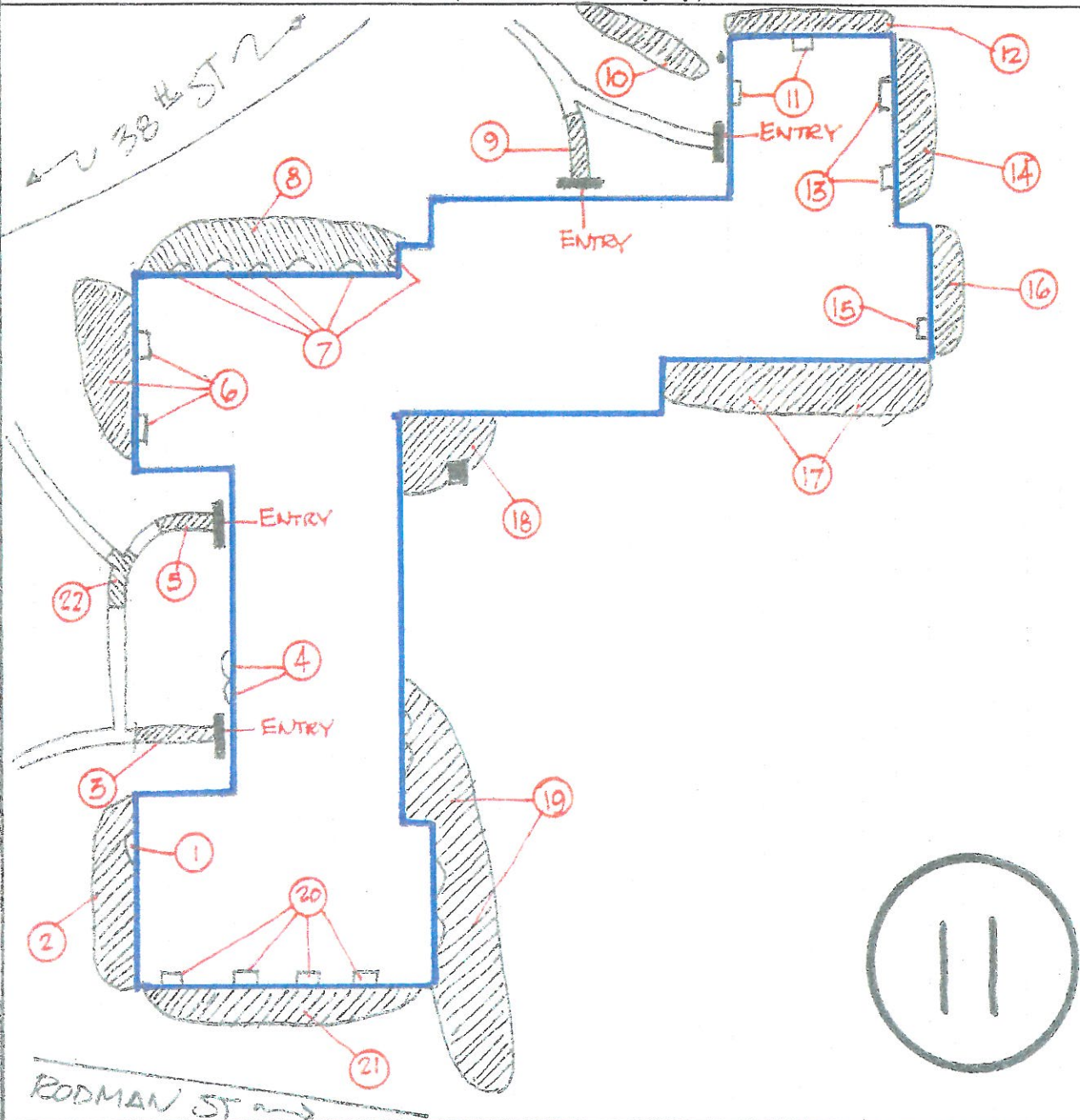
E-mail: _____

City, State and Zip Code: _____

Location: BLDG # 11

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.



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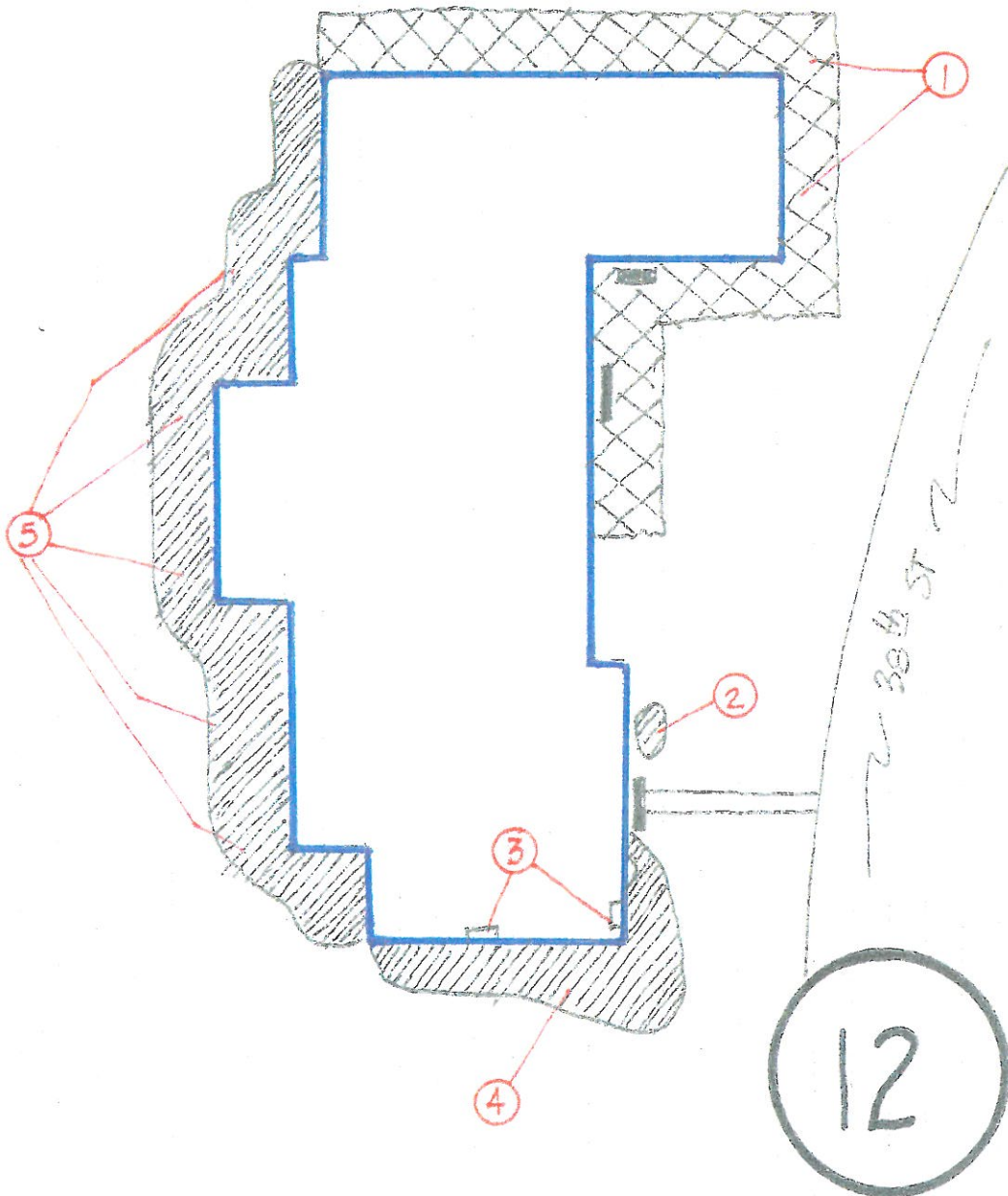
Date Prepared: _____

Proposal Submitted To: M'LEAN GARDENS
Street Address: _____
City, State and Zip Code: _____

Phone/Fax: _____
E-mail: _____
Location: BLDG #12

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.

Date Prepared: _____

Proposal Submitted To: MCLEAN GARDENS

Phone/Fax: _____

Street Address: _____

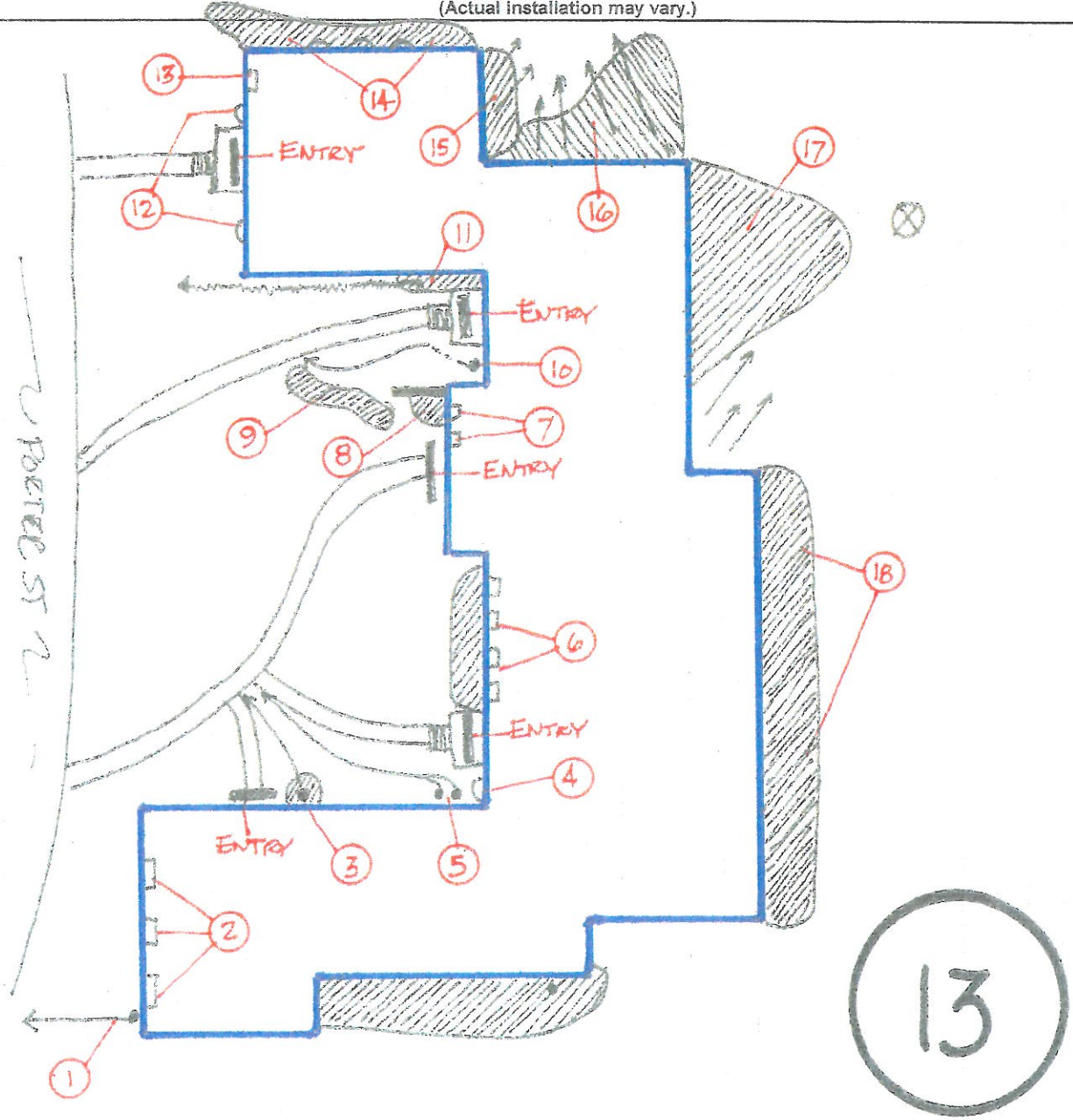
E-mail: _____

City, State and Zip Code: _____

Location: BLDG #13

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.

Date Prepared: _____

Proposal Submitted To: M^CLEAN GARDENS

Phone/Fax: _____

Street Address: _____

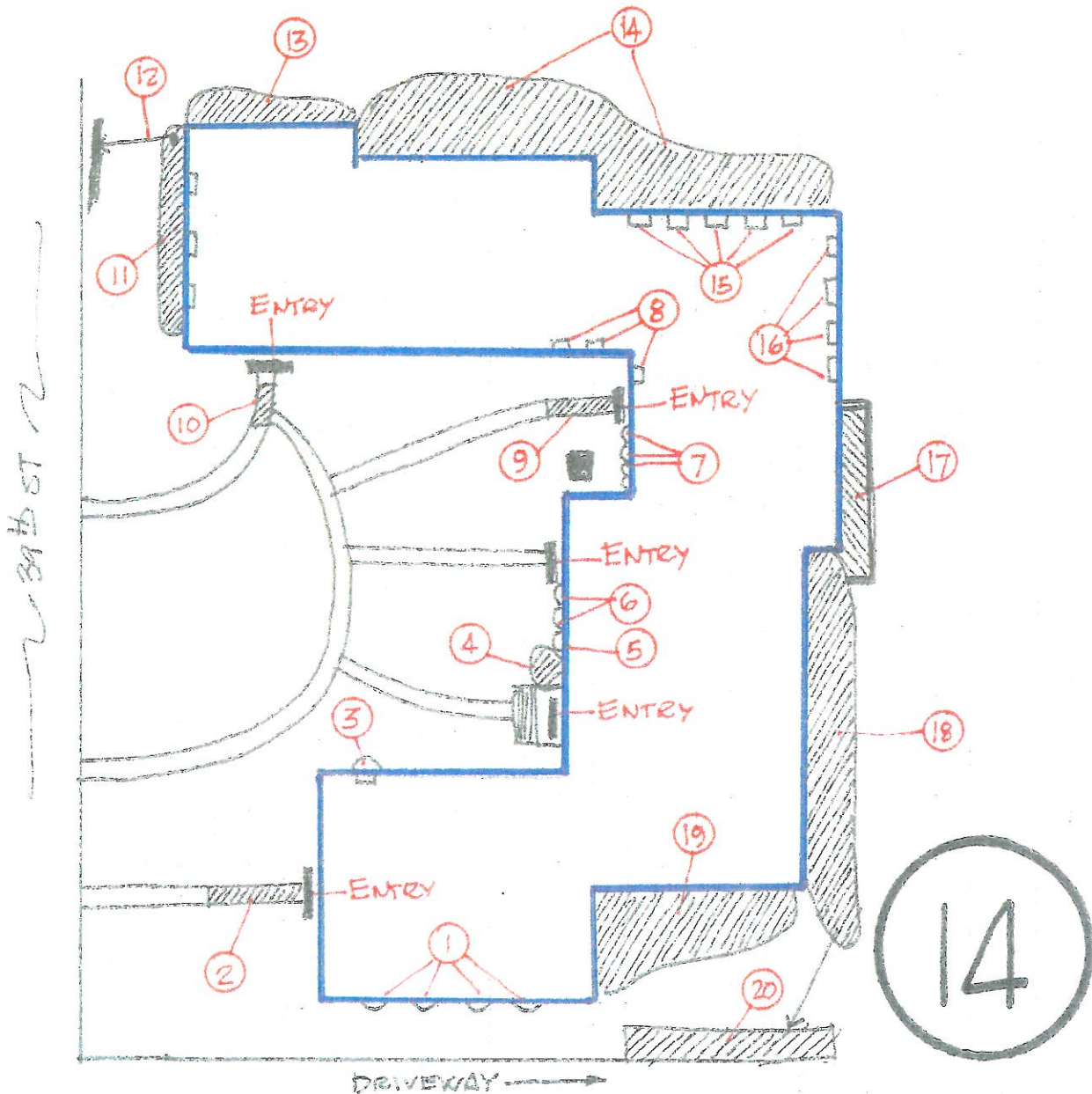
E-mail: _____

City, State and Zip Code: _____

Location: BLDG # 14

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.



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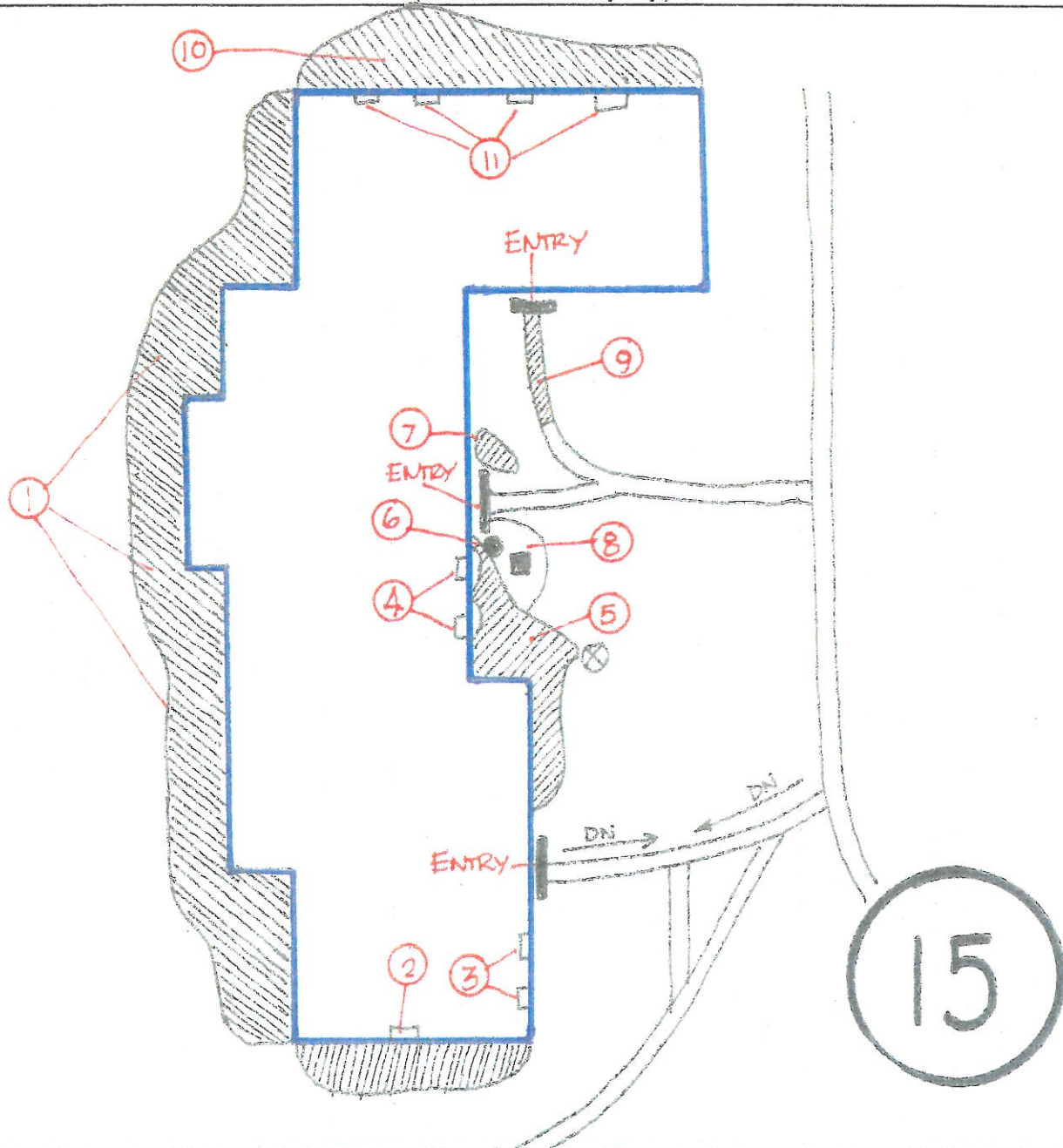
Date Prepared: _____

Proposal Submitted To: MCLEAN GARDENS
Street Address: _____
City, State and Zip Code: _____

Phone/Fax: _____
E-mail: _____
Location: BLDG #15

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.

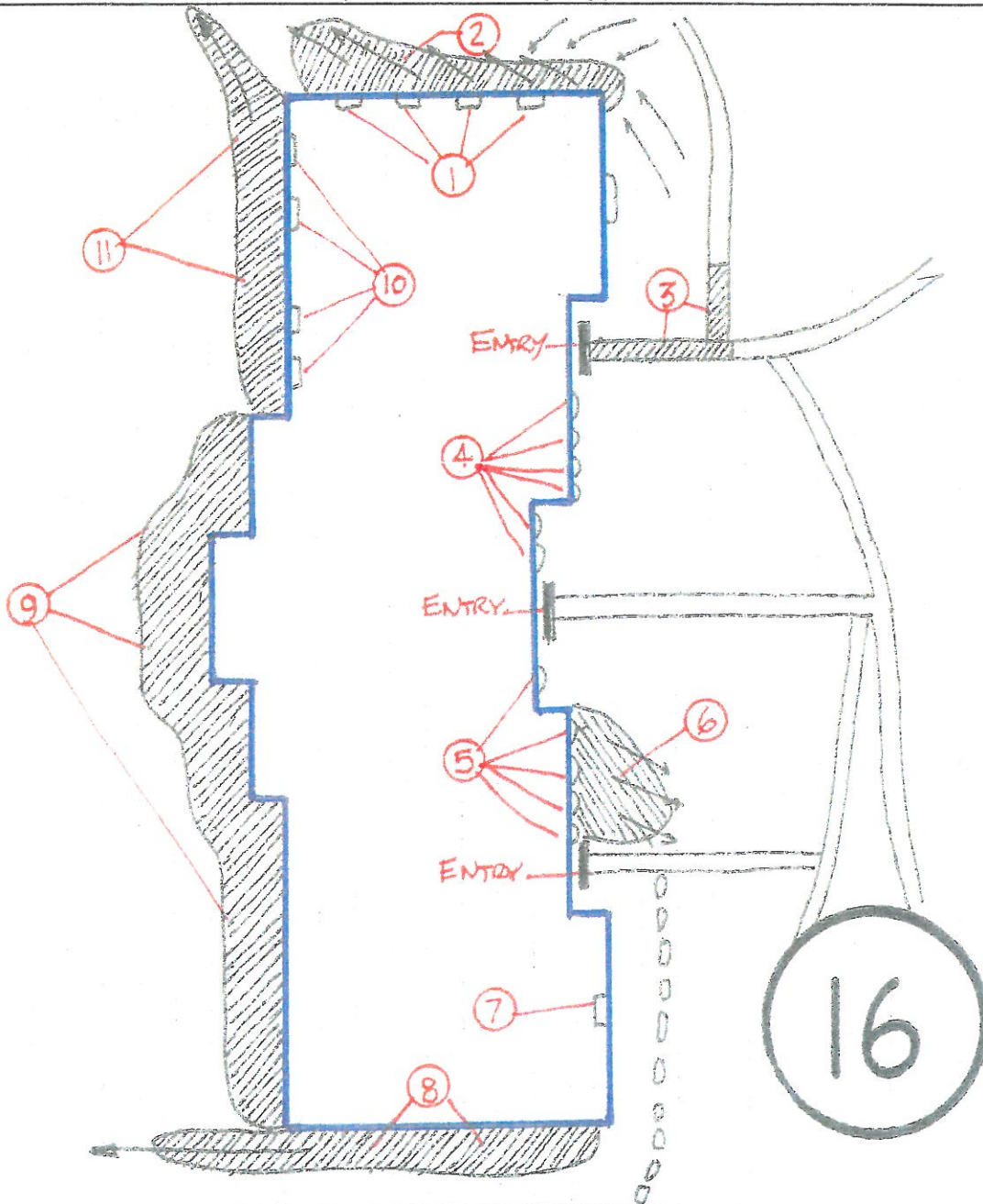
Date Prepared: _____

Proposal Submitted To: MCLEAN GARDENS
 Street Address: _____
 City, State and Zip Code: _____

Phone/Fax: _____
 E-mail: _____
 Location: BLDG #16

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.

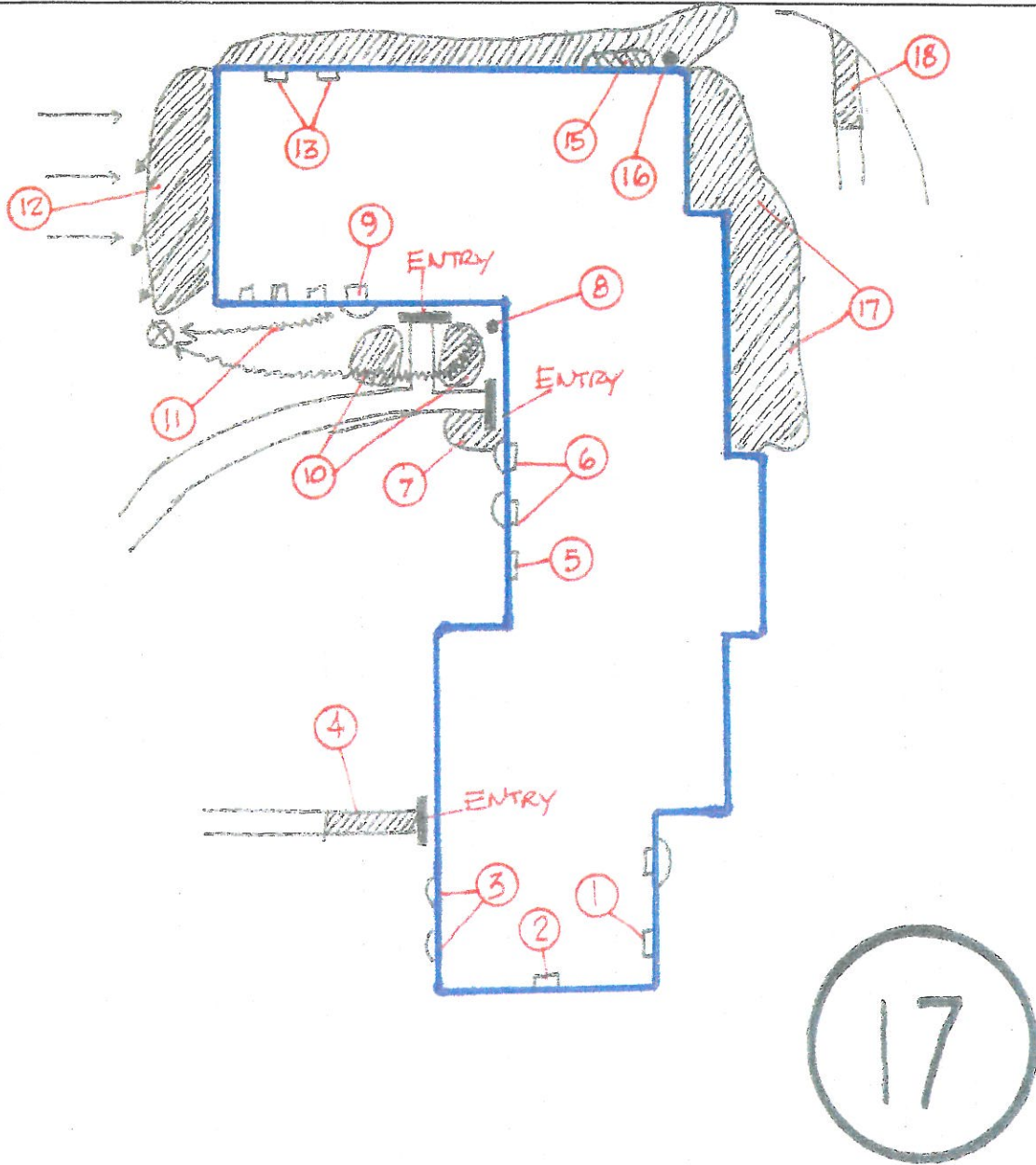
Date Prepared: _____

Proposal Submitted To: MCLEON GARDENS
Street Address: _____
City, State and Zip Code: _____

Phone/Fax: _____
E-mail: _____
Location: BLDG #17

PLAN SKETCH

(Actual installation may vary.)



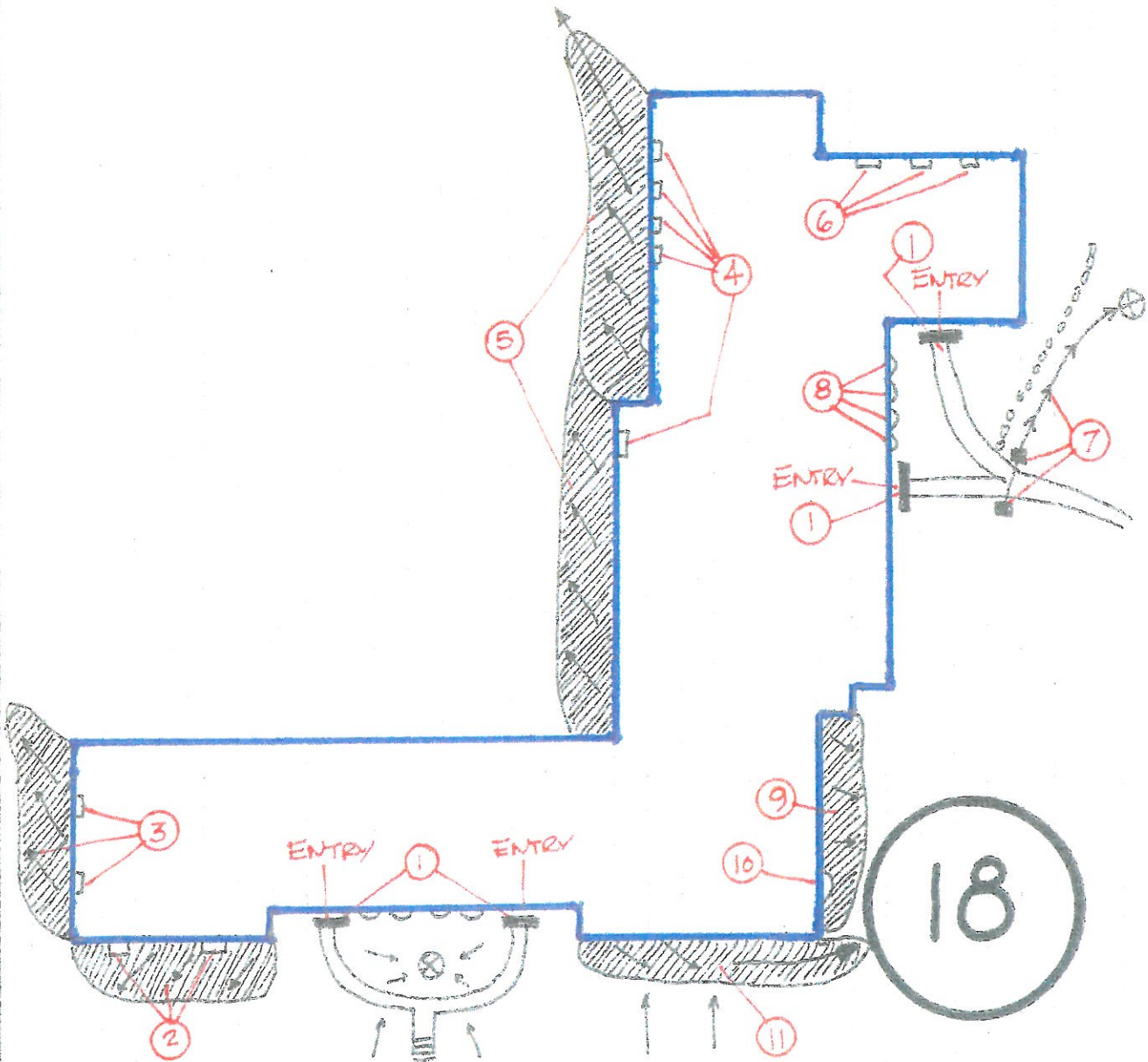
Date Prepared: _____

Proposal Submitted To: MCLEAN GARDENS
 Street Address: _____
 City, State and Zip Code: _____

Phone/Fax: _____
 E-mail: _____
 Location: BLDG # 18

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.

Date Prepared: _____

Proposal Submitted To: McLEAN GARDENS

Phone/Fax: _____

Street Address: _____

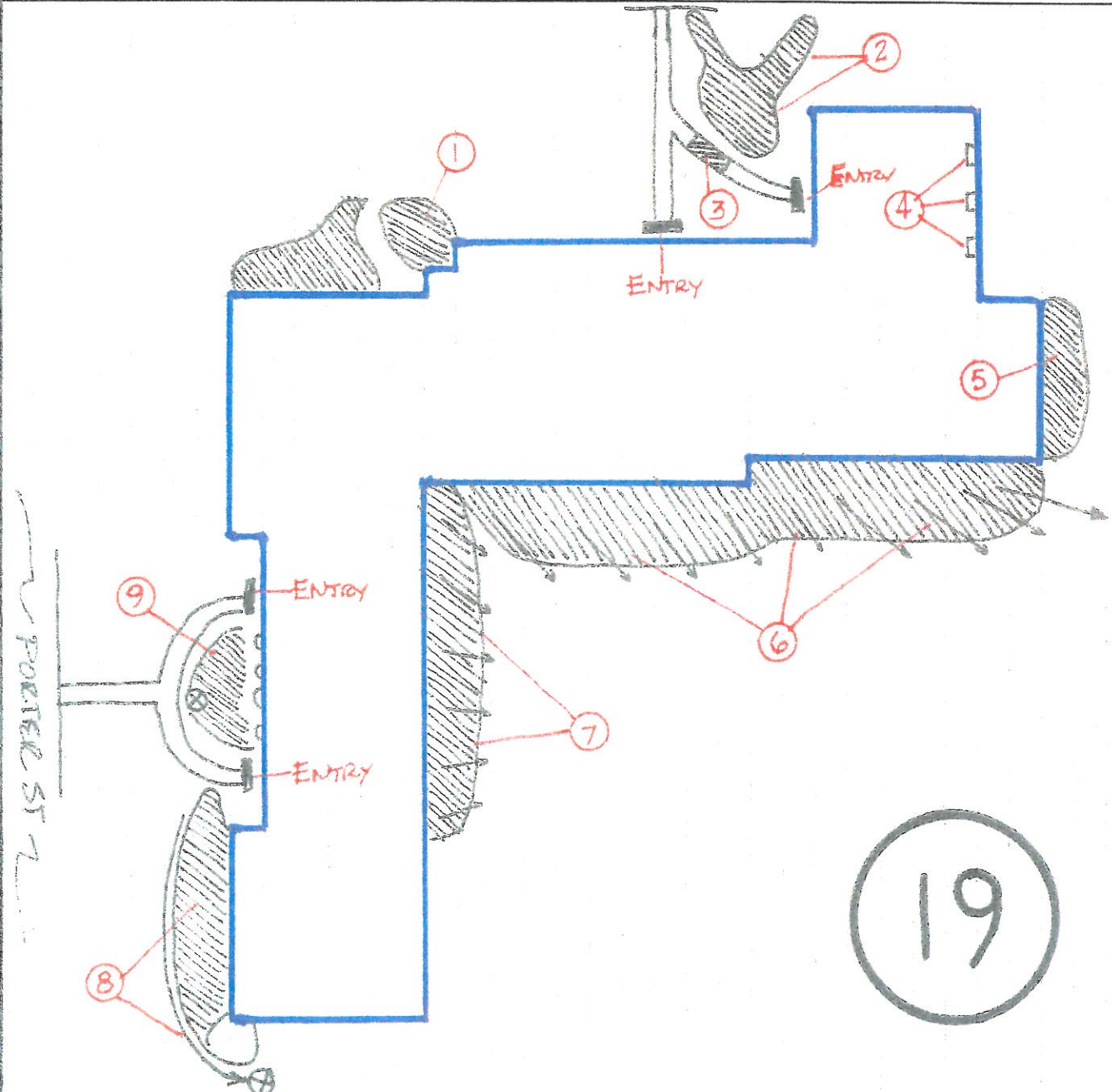
E-mail: _____

City, State and Zip Code: _____

Location: BLDG #19

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.



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 MHIC Lic. No. 123227
 Fed. Tax ID No.: 57-1147748

CONSULTING & CONTRACTING SERVICES

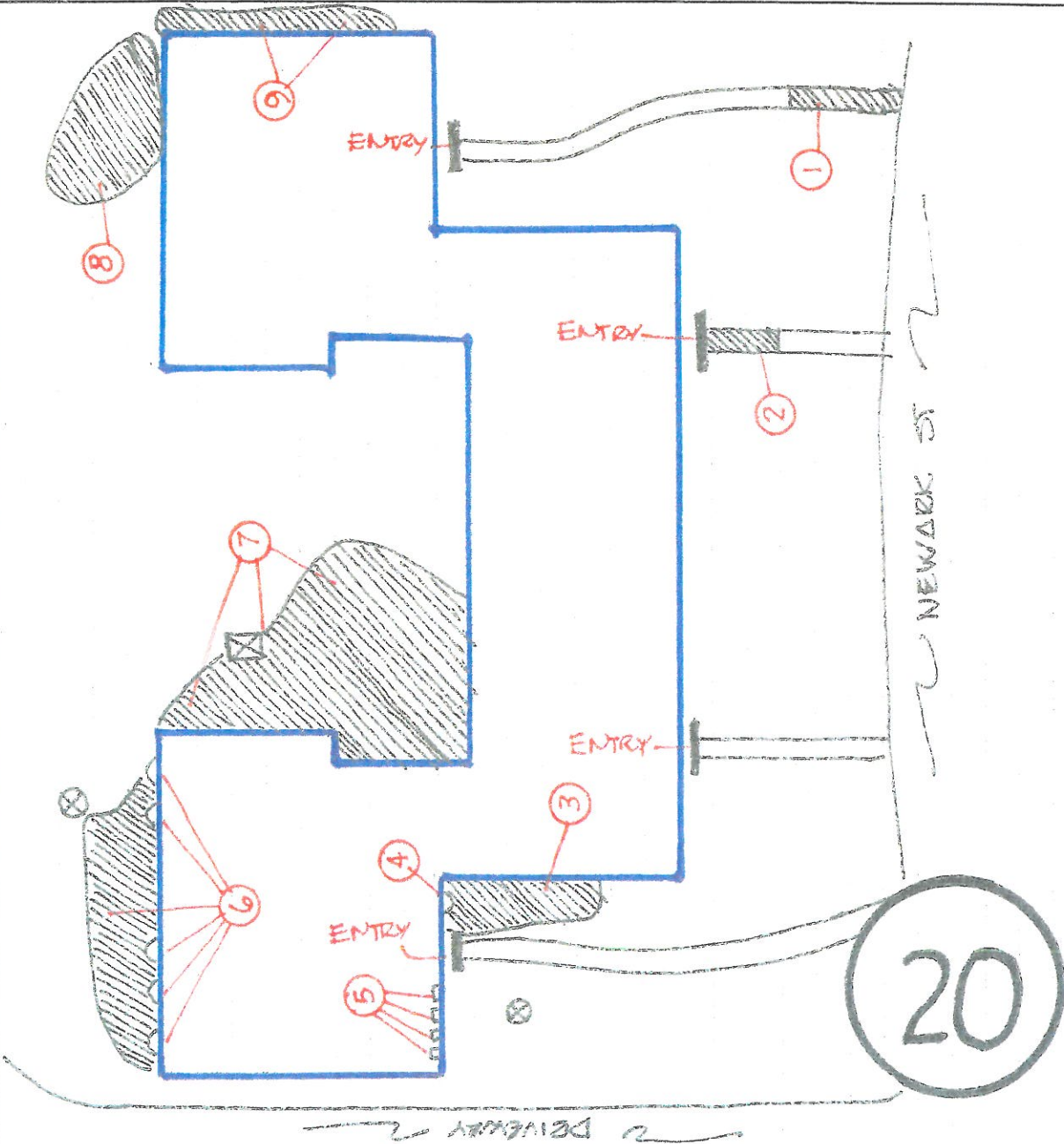
Date Prepared: _____

Proposal Submitted To: M'LEAN GARDENS
 Street Address: _____
 City, State and Zip Code: _____

Phone/Fax: _____
 E-mail: _____
 Location: BLDG #20

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.

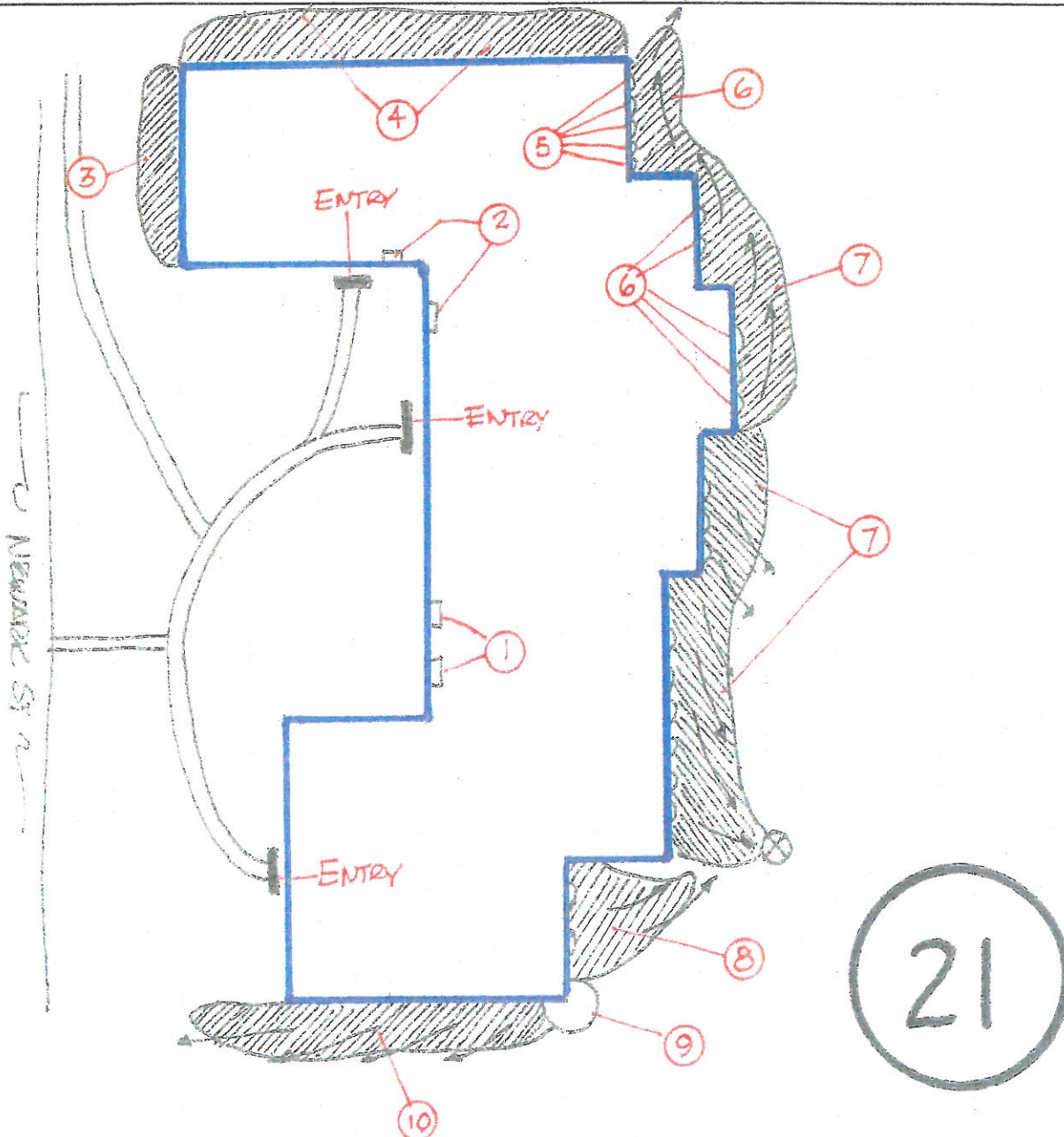
Date Prepared: _____

Proposal Submitted To: M^CLEAN GARDENS
 Street Address: _____
 City, State and Zip Code: _____

Phone/Fax: _____
 E-mail: _____
 Location: BLDG # 21

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.



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Fed. Tax ID No.: 57-1147748

Date Prepared: _____

Proposal Submitted To: MCLEAN GARDENS

Phone/Fax: _____

Street Address: _____

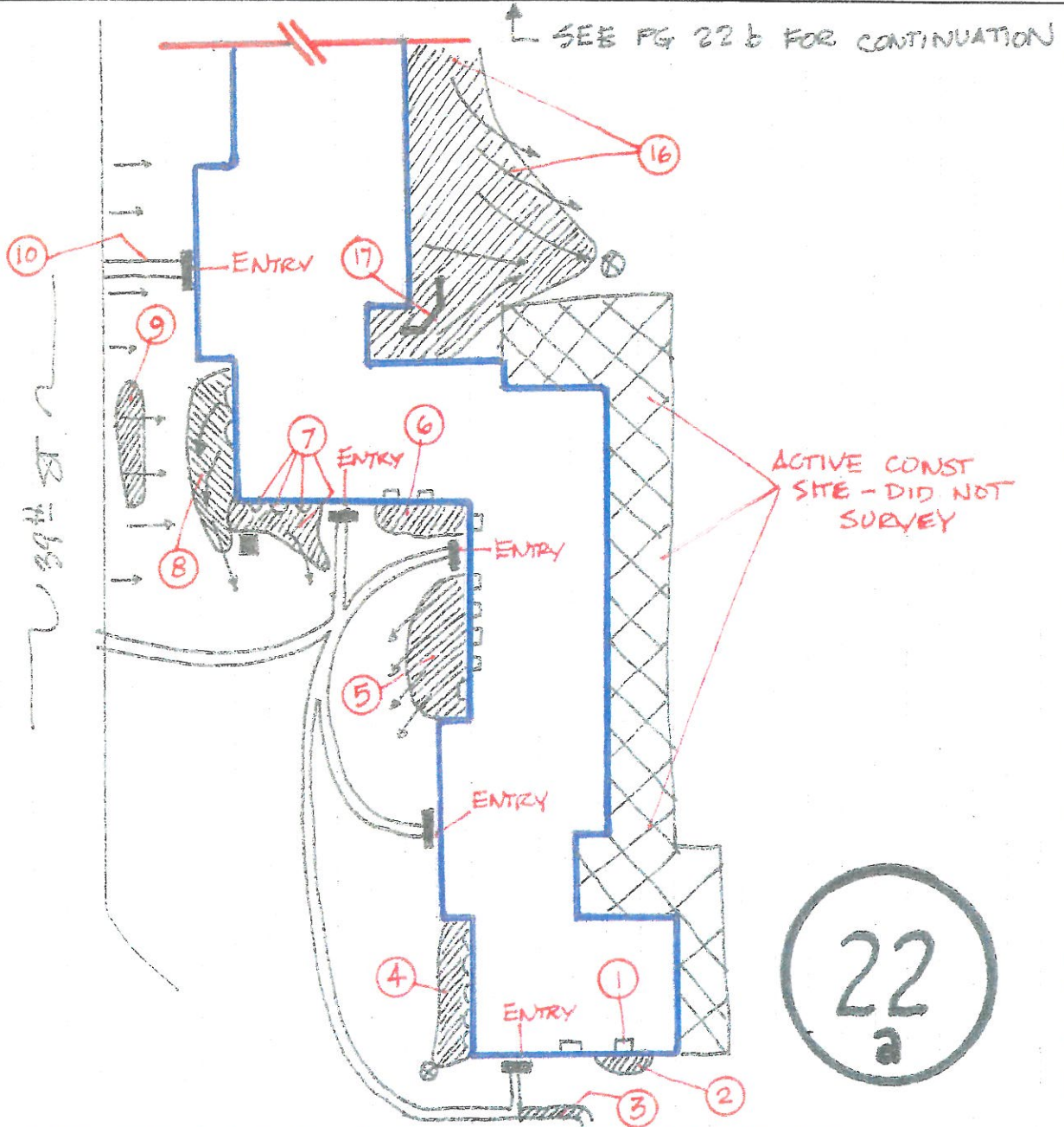
E-mail: _____

City, State and Zip Code: _____

Location: BLDG # 228

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.



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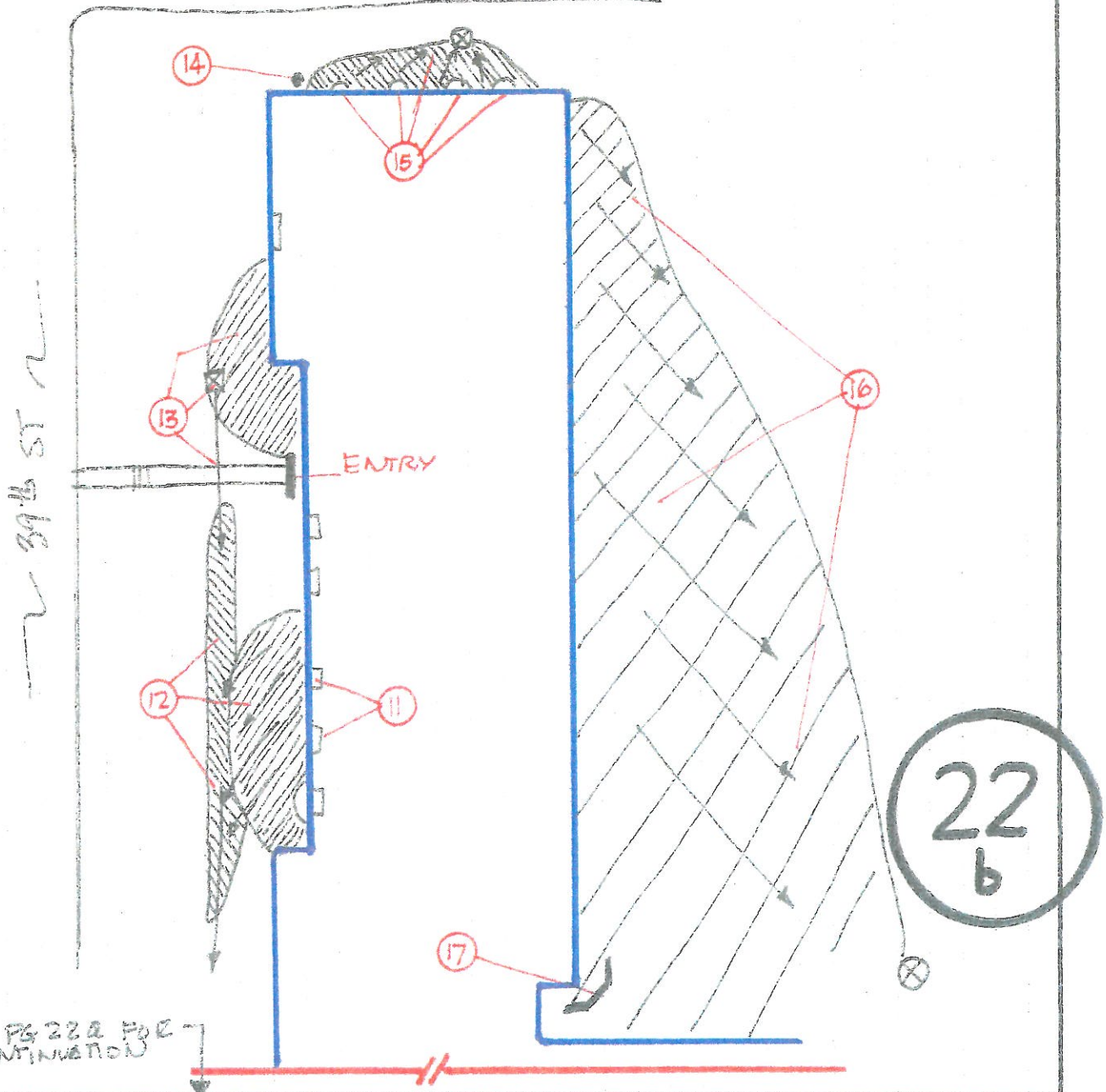
Date Prepared: _____

Proposal Submitted To: M^CLEAN GARDENS
Street Address: _____
City, State and Zip Code: _____

Phone/Fax: _____
E-mail: _____
Location: BLDG # 22b

PLAN SKETCH

(Actual installation may vary.)



SEE PG 22a FOR CONTINUATION

Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.



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Fed. Tax ID No.: 57-1147748

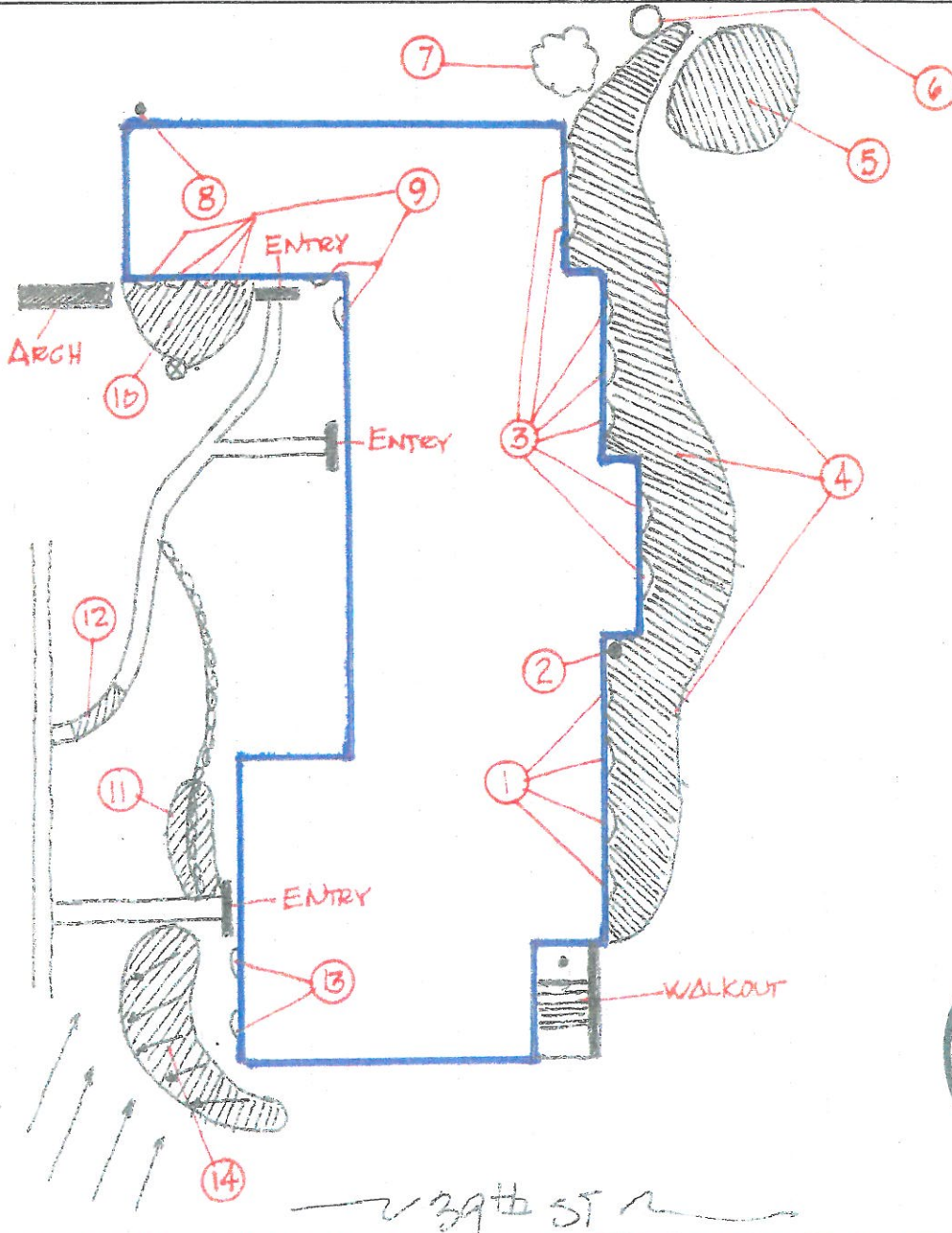
Date Prepared: _____

Proposal Submitted To: MLEAN GARDENS
Street Address: _____
City, State and Zip Code: _____

Phone/Fax: _____
E-mail: _____
Location: BLDG # 23

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.

Date Prepared: _____

Proposal Submitted To: M^cLEAN GARDENS

Phone/Fax: _____

Street Address: _____

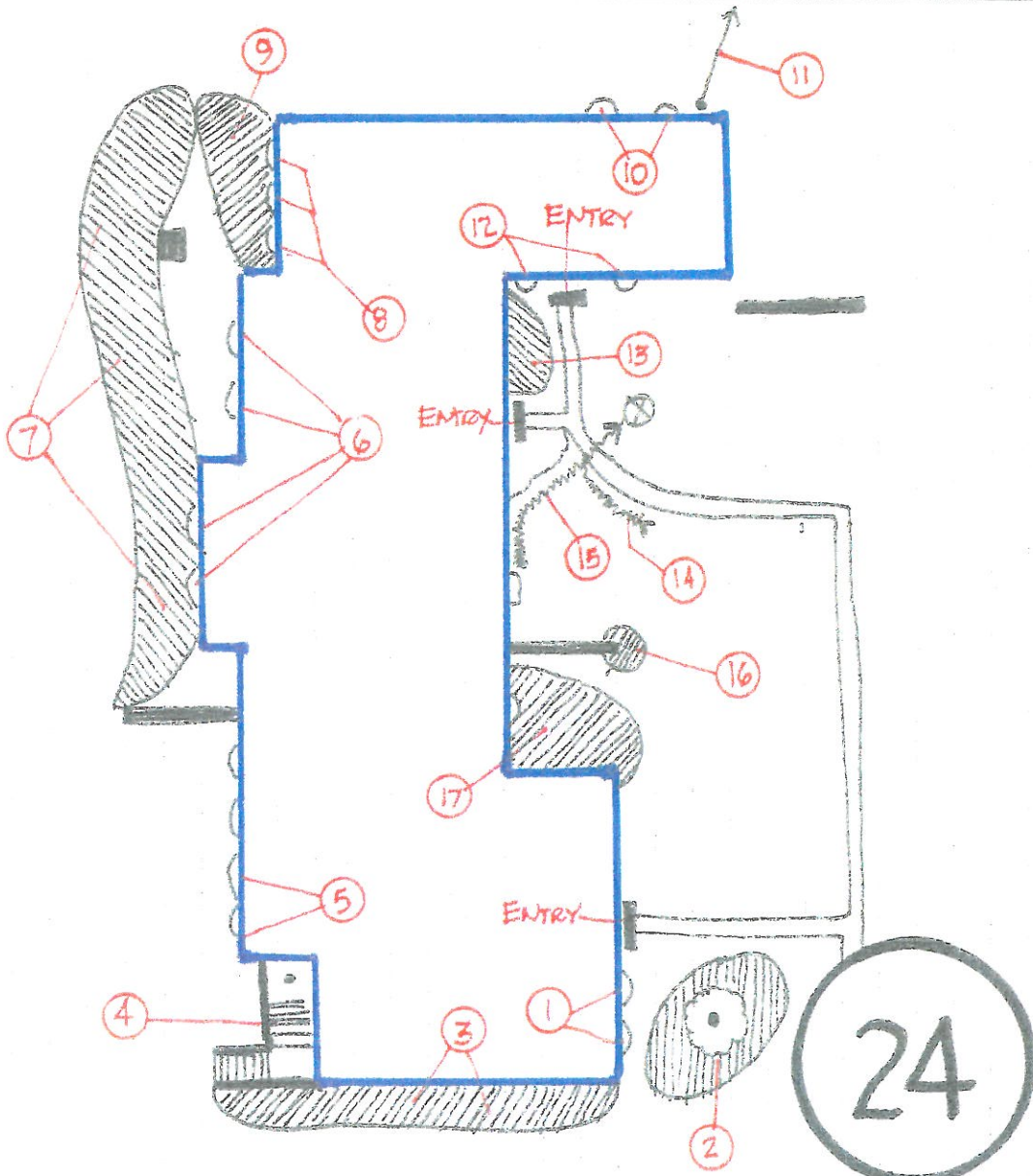
E-mail: _____

City, State and Zip Code: _____

Location: BLDG # 24

PLAN SKETCH

(Actual installation may vary.)



39th St

Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.

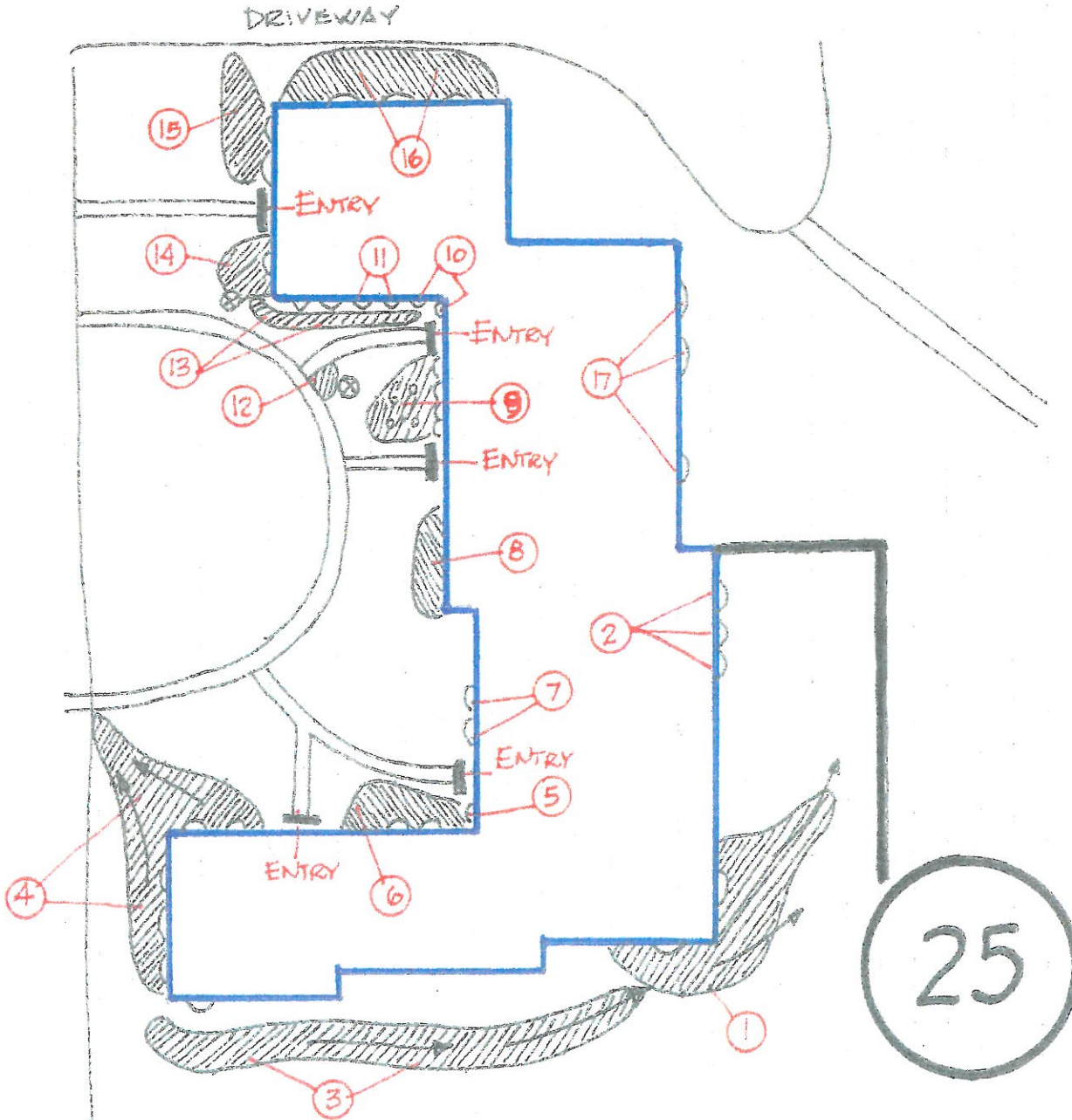
Date Prepared: _____

Proposal Submitted To: M'LEAN GARDENS
Street Address: _____
City, State and Zip Code: _____

Phone/Fax: _____
E-mail: _____
Location: BLDG #25

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.



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 Fed. Tax ID No.: 57-1147748

CONSULTING & CONTRACTING SERVICES

Date Prepared: _____

Proposal Submitted To: MCLEAN GARDENS

Phone/Fax: _____

Street Address: _____

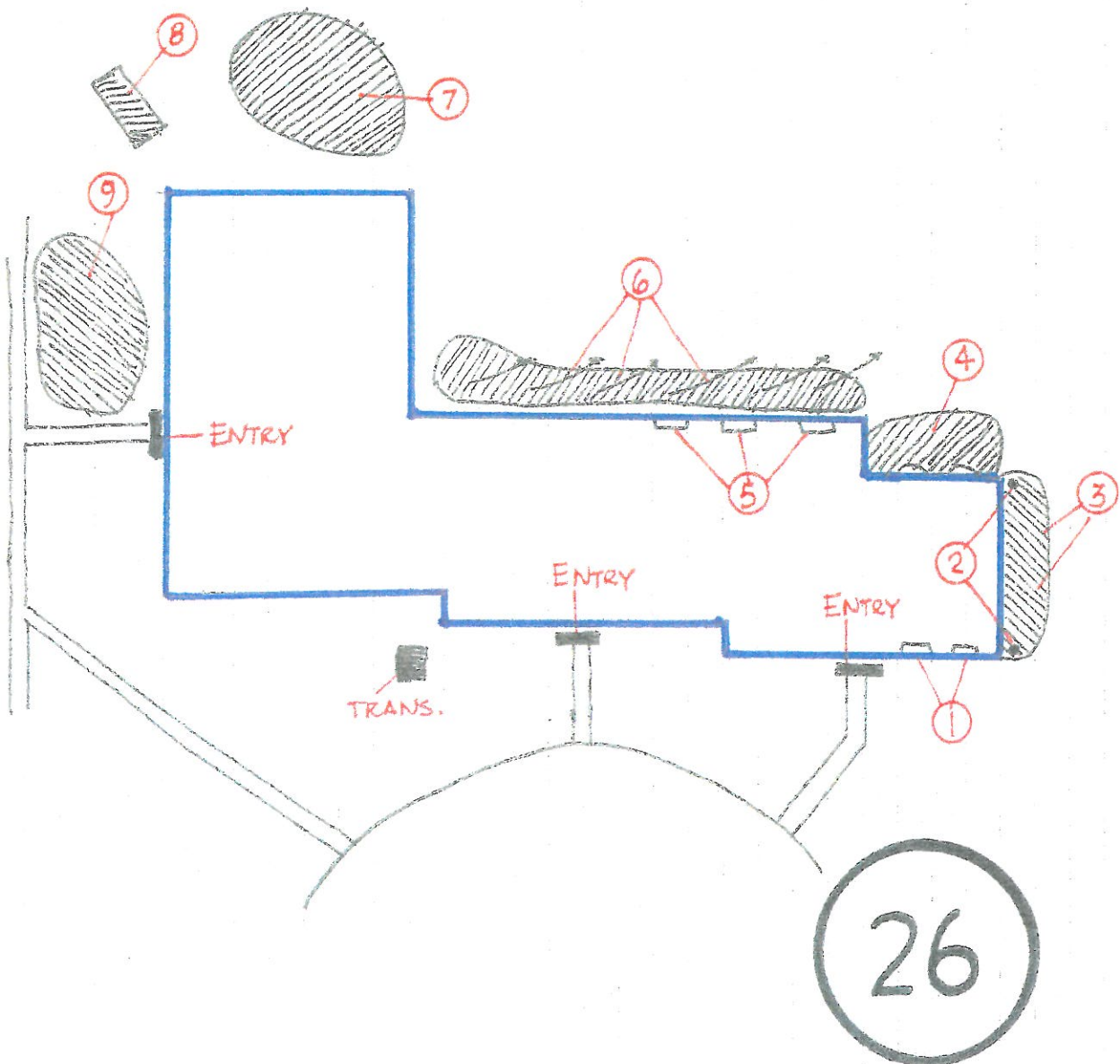
E-mail: _____

City, State and Zip Code: _____

Location: BLDG # 26

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.



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CONSULTING & CONTRACTING SERVICES

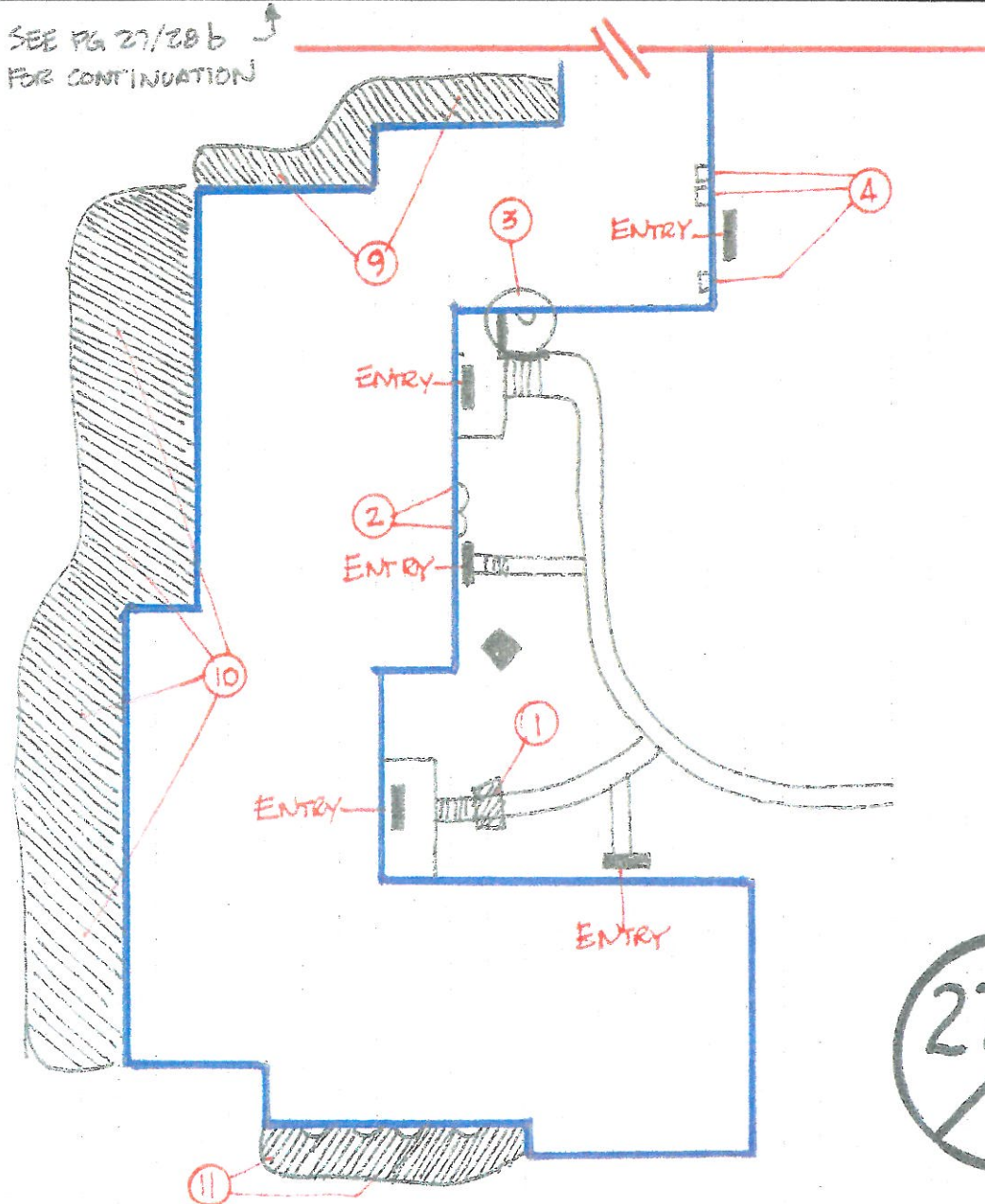
Date Prepared: _____

Proposal Submitted To: McLEAN GARDENS
 Street Address: _____
 City, State and Zip Code: _____

Phone/Fax: _____
 E-mail: _____
 Location: BLDG 27 & 28

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.

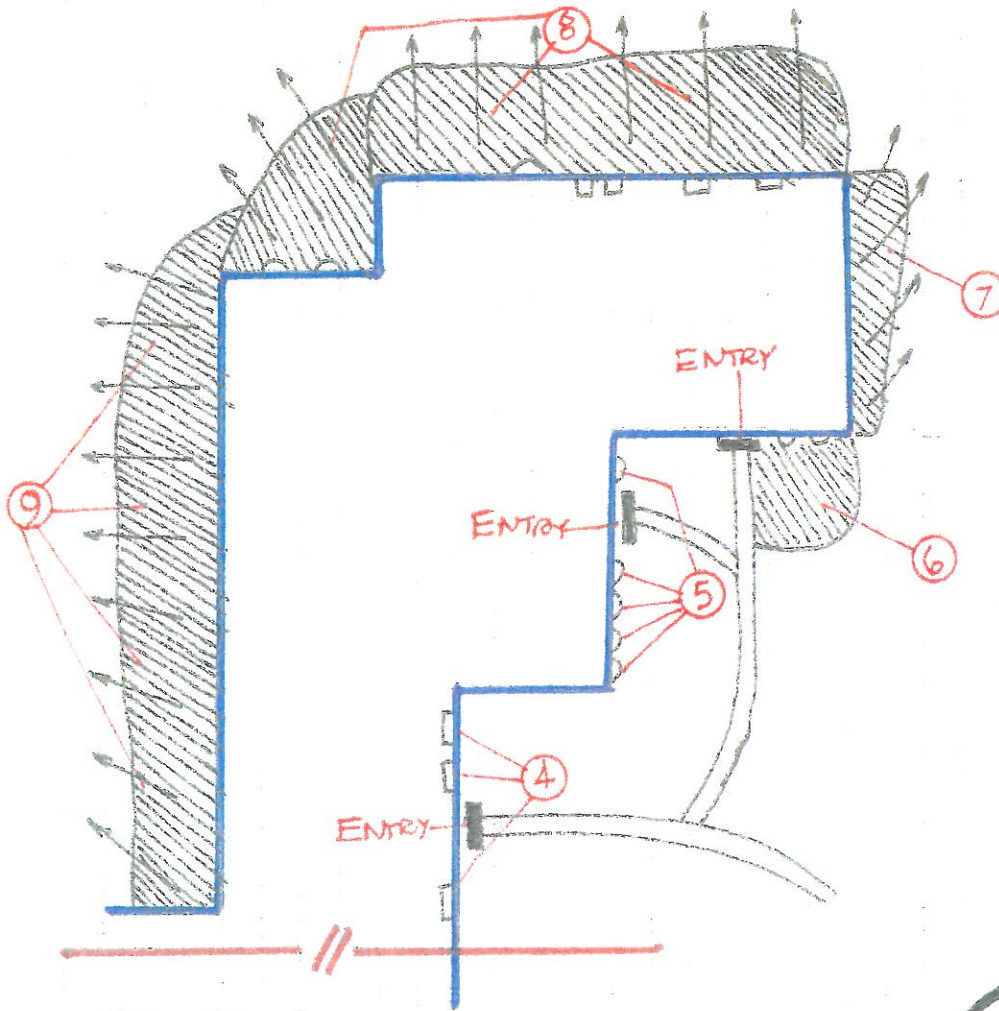
Date Prepared: _____

Proposal Submitted To: MCLEAN GARDENS
 Street Address: _____
 City, State and Zip Code: _____

Phone/Fax: _____
 E-mail: _____
 Location: BUDG 27 & 28

PLAN SKETCH

(Actual installation may vary.)



SEE 27/28a FOR CONTINUATION

27/28

b

Date Prepared: _____

Proposal Submitted To: MCLEAN GARDENS

Phone/Fax: _____

Street Address: _____

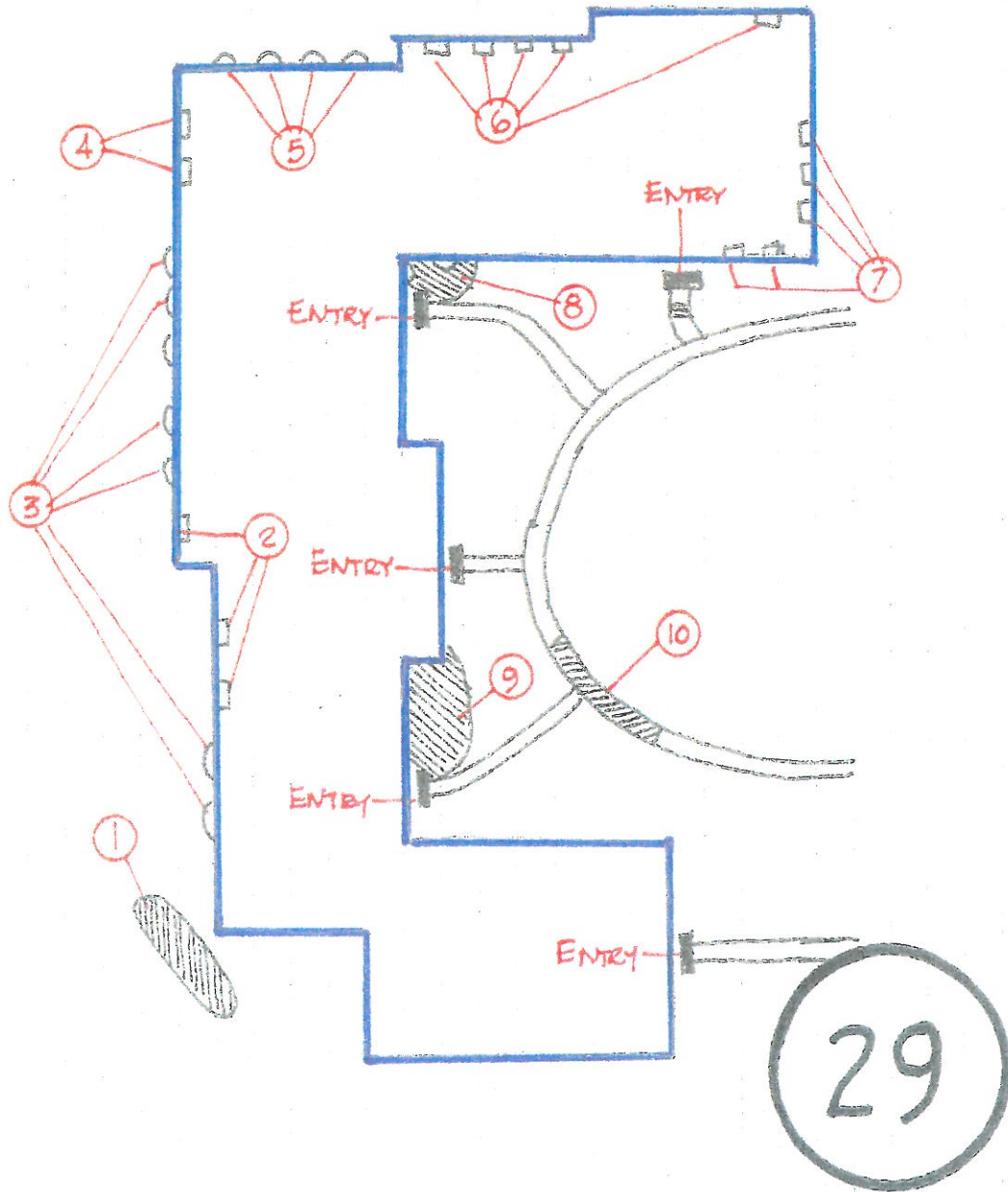
E-mail: _____

City, State and Zip Code: _____

Location: BLDG #29

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.

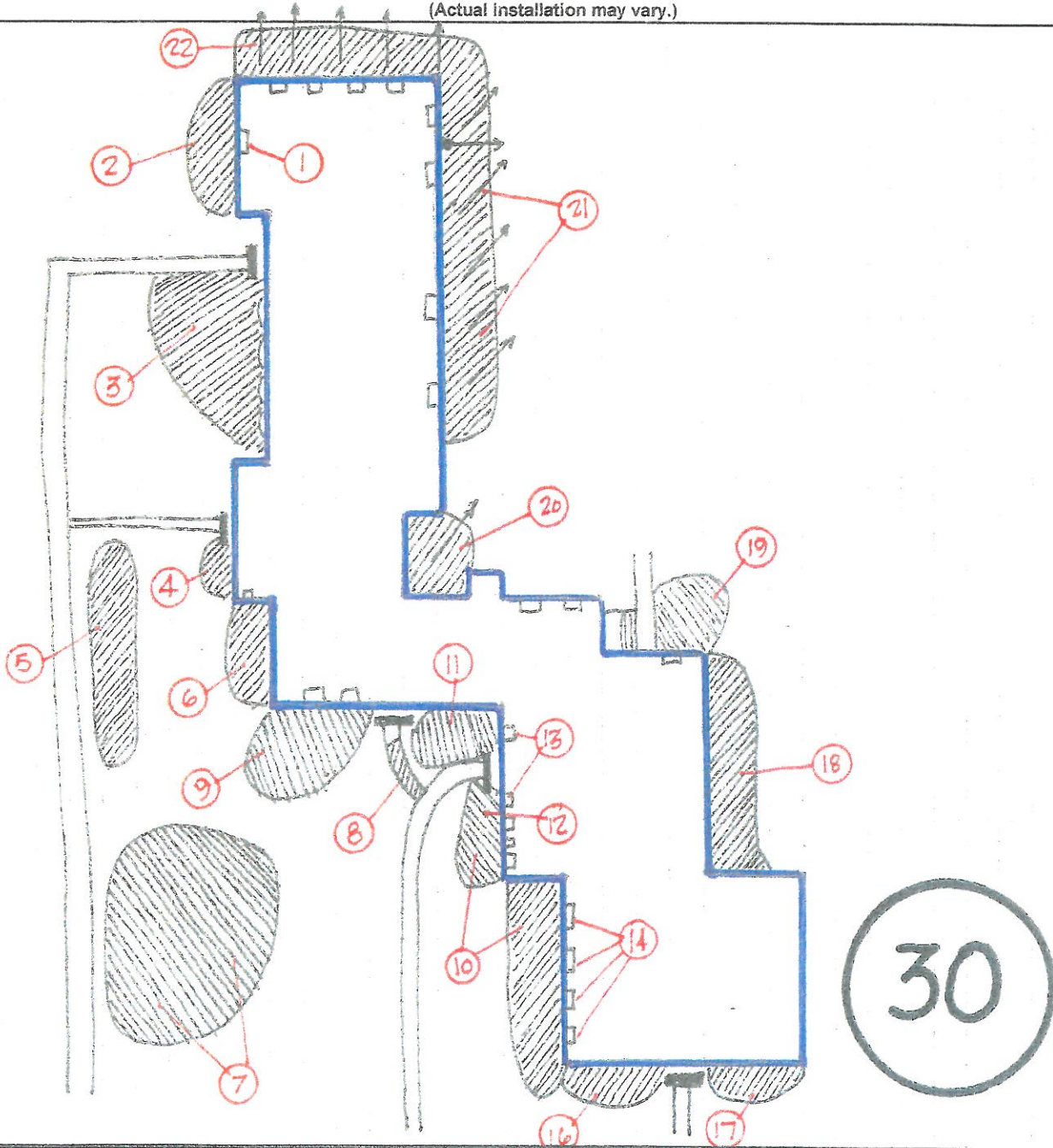
Date Prepared: _____

Proposal Submitted To: MCKEAN GARDENS
 Street Address: _____
 City, State and Zip Code: _____

Phone/Fax: _____
 E-mail: _____
 Location: BLDG #30

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.



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Fed. Tax ID No.: 57-1147748

Date Prepared: _____

Proposal Submitted To: MCLEAN GARDENS

Phone/Fax: _____

Street Address: _____

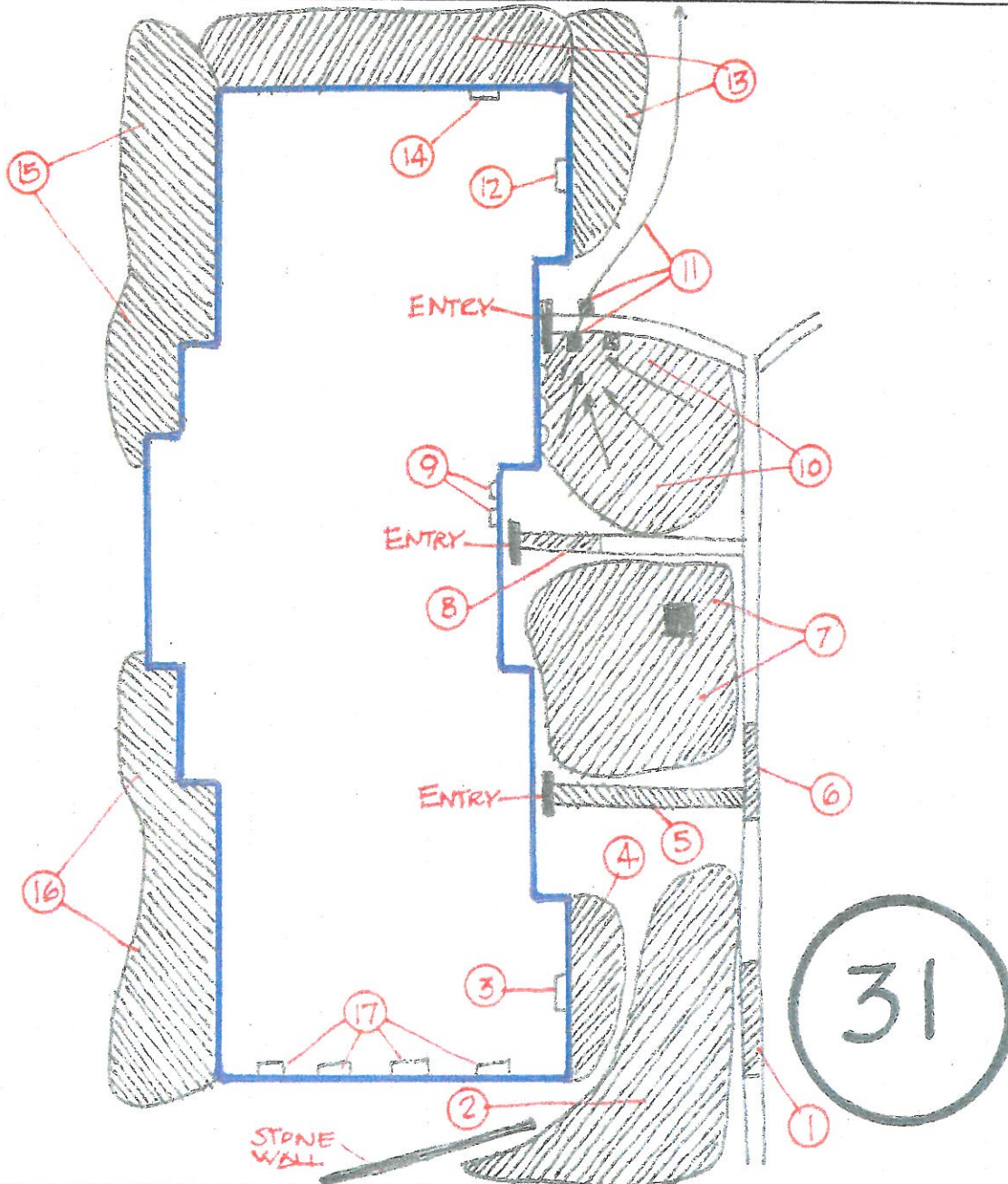
E-mail: _____

City, State and Zip Code: _____

Location: BLDG # 31

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.



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Fed. Tax ID No.: 57-1147748

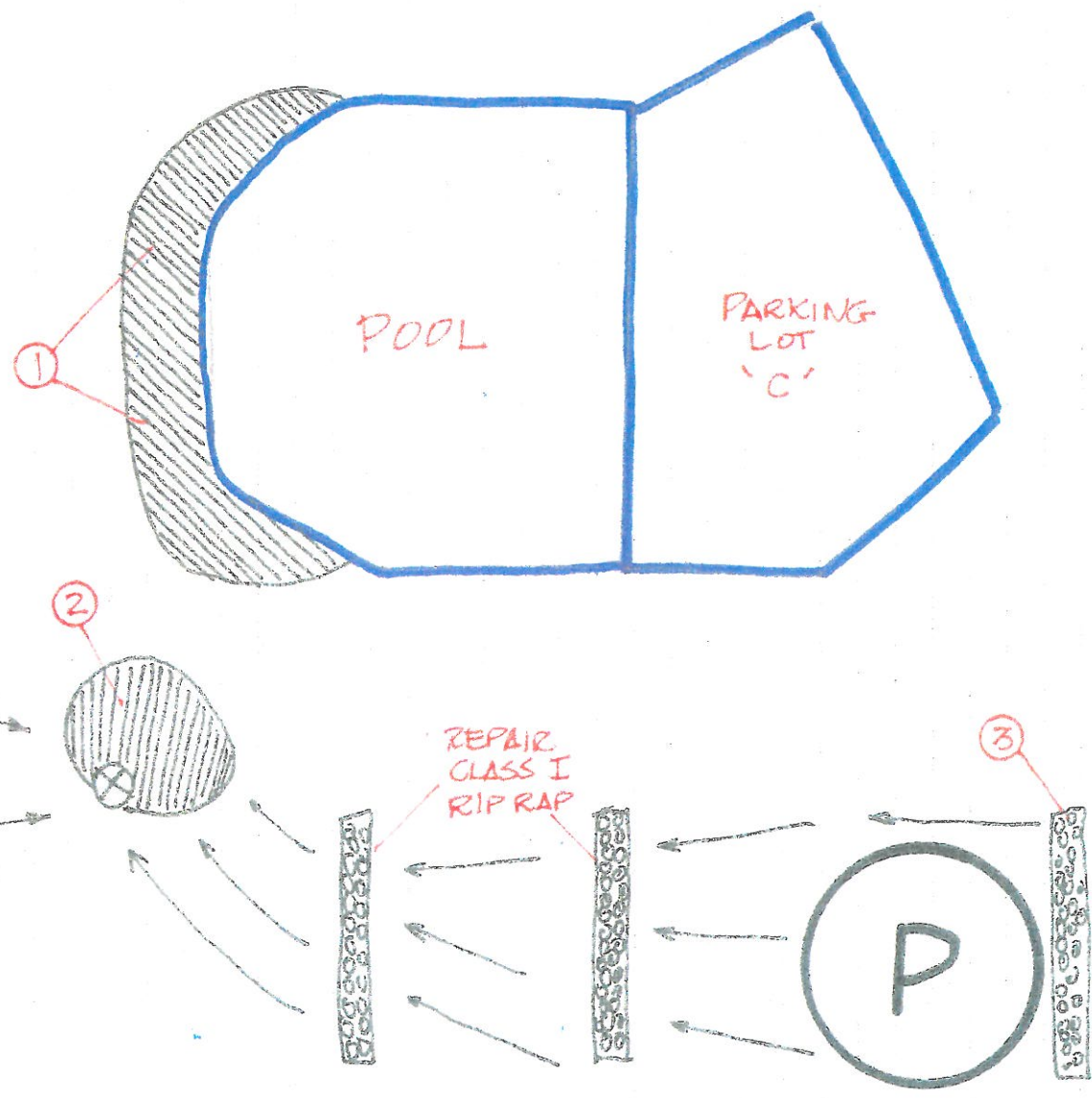
Date Prepared: _____

Proposal Submitted To: MCLEAN GARDENS
Street Address: _____
City, State and Zip Code: _____

Phone/Fax: _____
E-mail: _____
Location: POOL AREA

PLAN SKETCH

(Actual installation may vary.)



Extra soil excavated to remain on-site unless disposal arrangements have been made through DES.