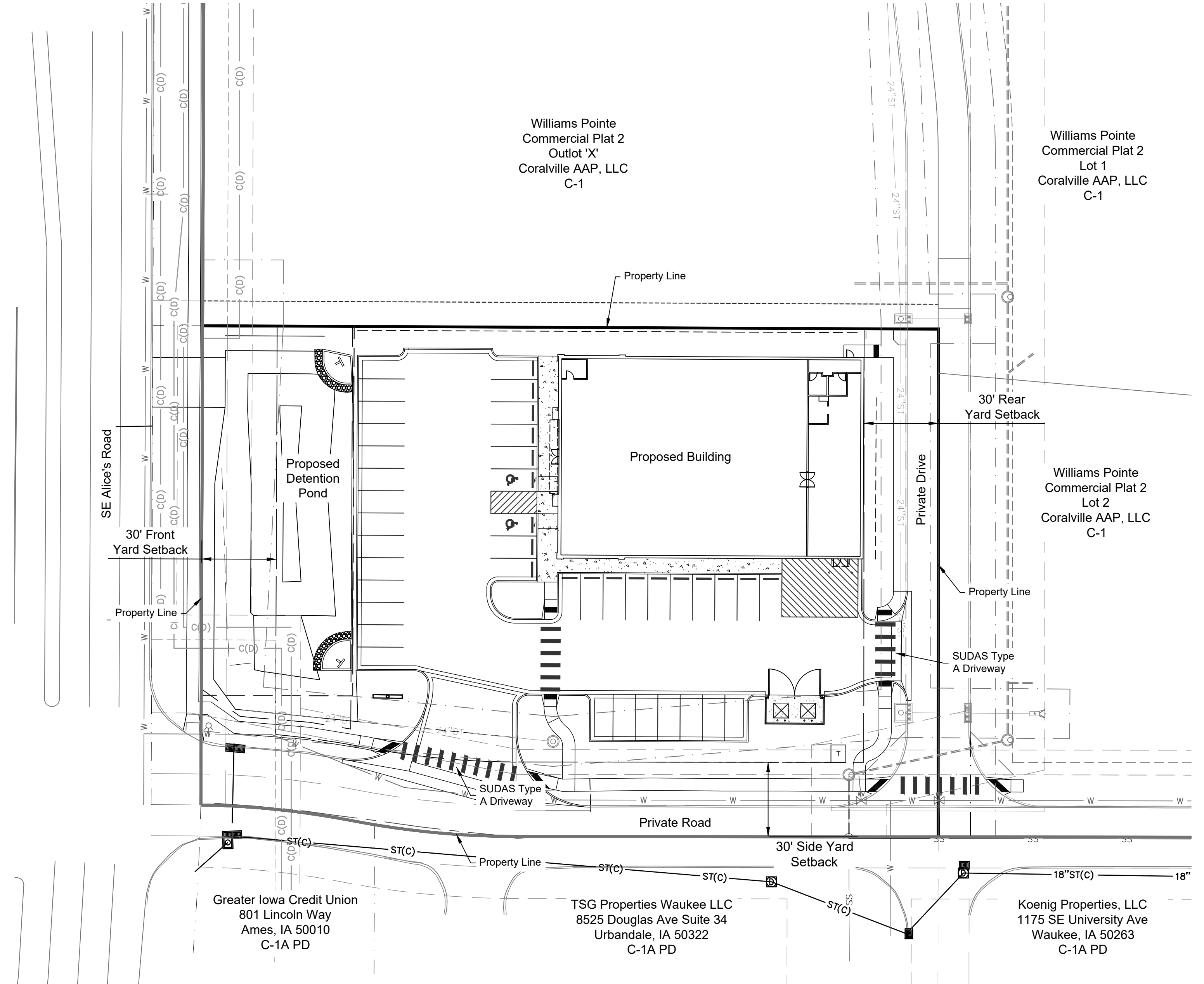


**SITE PLAN FOR DOLLAR TREE**  
1045 SE Alice's Road



**LEGAL DESCRIPTION:**  
Williams Pointe Commercial Plat 3 Lot 1, containing 1.38 acres

**UTILITIES NOTE**  
THE INFORMATION CONCERNING LOCATIONS OF UNDERGROUND UTILITIES SHOWN HEREON WHICH ARE NOT VISIBLE FROM THE SURFACE, HAS BEEN TAKEN FROM THE RECORDS AND FIELD LOCATIONS OF THE VARIOUS UTILITY COMPANIES AND HAS NOT BEEN FIELD VERIFIED BY THIS COMPANY. THESE LOCATIONS ARE NOT TO BE CONSTRUED AS ACCURATE OR EXACT.

**NOTE:**  
48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING COMPANIES FOR FIELD VERIFICATION OF UNDERGROUND UTILITIES.

**FLOODPLAIN NOTE:**

Sheet List Table	
Sheet Number	Sheet Title
C0.0	General Layout
C0.1	General Notes
C1.0	Existing Conditions and Demo Plan
C2.0	Site Plan
C3.0	Grading Plan
C4.0	Site Utility Plan
C5.0	Storm Plan and Profile
C5.1	Storm Plan and Profile
C6.0	Erosion and Sediment Control Plan
C7.0	Details
C7.1	Details
L01	Landscape Plan
L02	Irrigation Coverage Plan
L03	Lawn Specifications
L04	Plant Specifications
A5.0	Exterior Elevations and Building Section
E0.1	Electrical Site Lighting Plan
E5.1	Lighting Cutsheets
E5.2	Lighting Cutsheets
E5.3	Lighting Cutsheets

**UTILITIES**

- |  |   |
|--|---|
| <b>Electric</b><br>MidAmerican Energy Company<br>800-329-6261  | <b>Water</b><br>City of Waukee<br>Tim Royer<br>Assistant Public Works Director/Operations<br>515-978-7920<br>troyer@waukee.org          |
| <b>Natural Gas</b><br>City of Waukee<br>Tim Royer<br>Assistant Public Works Director/Operations<br>515-978-7920<br>troyer@waukee.org | <b>Stormwater</b><br>City of Waukee<br>Sara Kappos<br>Assistant Public Works Director/Engineering<br>515-978-7920<br>skappos@waukee.org |
| <b>Sewer</b><br>City of Waukee<br>Tim Royer<br>Assistant Public Works Director/Operations<br>515-978-7920<br>troyer@waukee.org       |   |

SITE DATA		
OPEN SPACE	REQUIRED	20%
	PROVIDED	31%
BUILDING COVERAGE	10,000 SF	(17%)
LANDSCAPE COVERAGE	18,812 SF	(31%)
PARKING/DRIVE/SIDEWALK COVERAGE	31,235 SF	(52%)
TOTAL IMPERVIOUS AREA	18,812 SF	(31%)
TOTAL AREA	60,047 SF	(100%)
REQUIRED PARKING	STANDARD	38
	ADA	2
	TOTAL	40
PARKING RATIO = 4 SPACES/1000 SF		
PROVIDED PARKING	STANDARD	38
	ADA	2
	TOTAL	40
PARKING RATIO = 4 SPACES/1000 SF		
BUILDING TYPE	COMMERCIAL	
NUMBER OF EMPLOYEES	4	
BUILDING HEIGHT	BUILDING	20'
	PARAPET	28'

ZONING INFORMATION	
ZONING	COMMUNITY AND HIGHWAY SERVICE COMMERCIAL DISTRICT
MINIMUM LOT AREA	NOT SPECIFIED
FRONT YARD SETBACK	30'-0"
SIDE YARD SETBACK	N/A
REAR YARD SETBACK	30'-0"

LEGEND			
	Existing Section Line		Proposed Right-of-Way
	Existing Right-of-Way Line		Proposed Property Line
	Existing Lot Line		Proposed Lot Line
	Existing Easement Line		Proposed Easement
	Existing Curb & Gutter		Proposed Curb & Gutter
	Existing Sidewalk		Proposed Sidewalk
	Existing Storm Sewer		Proposed Storm Sewer
	Existing Storm Structure		Proposed Storm Structure
	Existing Waterline		Proposed Fire Hydrant
	Existing Gas Main		Proposed Waterline
	Existing Sanitary Sewer		Proposed Sanitary Sewer
	Existing Sanitary Manhole		Proposed Sanitary Manhole
	Existing Contour Major		Proposed Contour Major
	Existing Contour Minor		Proposed Contour Minor
	Utility Easement		Future Curb and Gutter
	Sanitary Sewer Easement		Access Easement
	Overland Flowage Easement		Temporary Easement

**Consultant:**  
Renaissance Infrastructure Consulting, LLC  
Contact Person: Andy Gabbert  
8653 Penrose Lane  
Lenexa, KS 66218  
agabbert@ric-consult.com  
(913) 333-3880

**Prepared For:**  
USFP, LLC  
Contact Person: Mike Belew  
4706 Broadway, Suite 240  
Kansas City, MO 64112  
mbelew@usfpco.com  
www.usfpco.com  
(816) 645-8963



I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

MY LICENSE RENEWAL DATE IS \_\_\_\_\_ PAGES OR SHEETS COVERED BY THIS SEAL: \_\_\_\_\_

SITE PLAN  
 21-0176  
 DOLLAR TREE  
 1045 SE Alice's Road, Waukee, Dallas County, Iowa

General Layout

NO.	DATE	REVISION
3	01.11.24	3rd Submittal
2	12.04.23	2nd Submittal
1	11.07.23	1st Submittal

DRAWN BY: \_\_\_\_\_ CHECKED BY: \_\_\_\_\_

**Renaissance Infrastructure Consulting**  
816-800-0950  
www.ri-consult.com

Sheet  
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Hope Carlson  
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ADA ACCESSIBLE ROUTE NOTES

- 1. All Accessible route construction shall conform to the latest version of the ADA Standards for Accessible Design published by the Department of Justice and the Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way published by the United States Access Board.
2. Other than ramps and ramp runs, walking surfaces must have running slopes not steeper than 1:20.
3. The cross slope of walking surfaces shall not be steeper than 2%.
4. The minimum width for a linear segment of accessible route shall be 36 inches.
5. Where the accessible route makes a 180 degree turn around an element which is less than 48 inches wide, clear width shall be 42 inches minimum approaching the turn, 48 inches minimum at the turn and 42 inches leaving the turn.
6. An accessible route with a clear width less than 60 inches shall provide passing spaces at intervals of 200 feet maximum. Passing spaces shall be 60 inch by 60 inch minimum.
7. Ramp runs shall have a running slope not steeper than 1:12.
8. Ramp runs with a rise greater than 6 inches shall have handrails.
9. Ramp landings with a maximum slope of 1:48 shall be provided before and after ramp runs.
10. The maximum rise of a ramp run shall be 30 inches.
11. The maximum counter slope between the pavement and the curb at a curb ramp shall be 1:20.
12. Curb ramp landings with a maximum slope of 1:48 shall be provided at the top of curb ramps with a clear width of 60 inches.
13. Detectable warning surfaces complying with the latest ADA Standards shall be provided at pedestrian street crossings and refuge islands.
14. Passenger loading zones shall be provided adjacent to any ADA Accessible stall and have a 2% maximum slope in all directions.
15. Contractor to field verify existing site conditions and contact the engineer if field conditions do not match plan prior to construction.

LAYOUT & PAVING NOTES

- 1. All construction shall conform to the 2024 edition of SUDAS and 2023 edition of Waukee Standard Specifications for Public Improvements.
2. Contractor shall keep a full set of City of Waukee Standard Details onsite at all times.
3. The contractor shall check existing grades, dimensions, and inverts in the field and report any discrepancies to the architect/engineer prior to beginning work.
4. The contractor shall verify the exact location of all existing utilities, take care to protect utilities that are to remain, and repair contractor caused damage according to current local standards and at the contractor's expense. Coordinate all construction with the appropriate utility company.
5. The contractor shall comply with all local codes, obtain all permits, and pay all fees prior to beginning work.
6. Prior to installing, constructing, or performing any work in the public right of way or on the public storm sewer line (including concrete pavement or connecting private drainage systems to the storm sewer), contact City Public Works at 515.978.7920 for inspection of the work. Contact must be made at least 24 hours prior to start of the work.
7. Provide a smooth transition between existing pavement and new pavement. Field adjustment of final grades may be necessary. Adjust all utilities prior to installation of pavement.
8. The contractor shall protect all trees to remain, in accordance with the specifications. Do not operate or store heavy equipment, nor handle, nor store materials within the drip lines of trees or outside the limit of grading.
9. Concrete walks and pads shall have a broom finish. All concrete shall be 4,000 p.s.i. unless otherwise noted. Curb ramps, sidewalk slopes, and driveway ramps shall be constructed in accordance with all current local requirements. If applicable, the contractor shall request inspection of sidewalk and ramp forms prior to placement of concrete.
10. All damage to existing asphalt pavement to remain which results from new construction shall be replaced with like materials at contractor's expense.
11. Dimensions are to the back of curb, or edge of concrete, unless otherwise noted.
12. Maintain one set of as-built drawings on the job site for distribution to the engineer upon completion.
13. For all asphalt pavement, the contractor shall have no more than 30% recycled material in the base course and no recycled material in the surface course.

PAVEMENT MARKING AND SIGNAGE NOTES

- 1. Parking stall marking stripes shall be four inch (4") wide white stripes. Handicap stall marking shall be furnished at locations shown on plans.
2. Traffic control devices and pavement markings shall conform to the requirements of the "Manual of Uniform Traffic Control Devices."
3. Traffic control and pavement markings shall be painted with a white Sherwin Williams TM2125 HOTLINE Fast Dry or approved equal. The pavement marking shall be applied in accordance with manufacturers recommendations. Apply on a clean, dry surface and at a surface temperature of not less than 70°F and the ambient air temperature shall not be less than 60°F and rising. Two coats shall be applied.

WRITTEN SEQUENCING

- 1. Implement Pre-Construction Plan:
2. All temporary structural BMP's shown on the BMP plan must be in place before any site disturbance. Clearing necessary to place temporary structural BMP's is the minimum required for installation. Coordinate clearing necessary to place temporary structural BMP's with local weather forecast so that clearing and placement may be completed within a forecast dry period. Stabilize all disturbed areas after sediment controls are installed to meet GP#2 requirements. Temporary Barrier Fence shall be in Place, around areas not to be disturbed, prior to any construction activities.
3. Clear and Stabilize Work Areas:
Grade contractor areas and place all-weather surface on contractor areas.
4. Clearing and Grubbing:
After Phase I BMP's are installed, contractor may clear, grub, and demo required areas as necessary.

GRADING NOTES

- 1. All construction shall conform to the 2024 edition of SUDAS and 2023 edition of Waukee Standard Specifications for Public Improvements.
2. Spot Grades shown herein shall govern over finished grades.
3. The contractor shall provide evidence that his insurance meets the requirements of the Project.
4. All traffic control shall be in conformance with the Manual of Uniform Traffic Control Devices (MUTCD).
5. The contractor is responsible for the protection of all property corners and section corners. Any property corners and/or section corners disturbed or damaged by construction activities shall be reset by a Registered Land Surveyor licensed in the State of Iowa, at the contractor's expense.
6. The contractor shall be responsible for the restoration of the right-of-way and for damaged improvements such as curbs, driveways, sidewalks, streetlight and traffic signal junction boxes, traffic signal loop lead ins, signal poles, irrigation systems, etc. Damaged improvements shall be repaired in conformance with the latest City standards and to the City's satisfaction.
7. The contractor is responsible for providing erosion and sediment control BMPs to prevent sediment from reaching paved areas, storm sewer systems, drainage courses and adjacent properties. In the event the prevention measures are not effective, the contractor shall remove any debris, silt, or mud and restore the right-of-way, or adjacent properties to original or better condition.
8. The contractor shall sod all disturbed areas within the public street right-of-way unless otherwise noted on the plans or if specific written approval is granted by the City.
9. All public street sidewalk ramps constructed will be required to comply with the Americans with Disabilities Act (ADA).
10. Excavation for utility work in public street right-of-way requires a Right-of-Way Work Permit from the Public Works Department, in addition to all other permits.
11. All work shall be confined within easements and/or construction limits as shown on the plans.
12. Curb stakes and hubs shall be provided at all high points, low points, ADA ramp openings, and on each side of all curb inlets when setting string line.
13. All National Pollution Discharge Elimination System (NPDES) standards shall be met. Required to obtain GP#2 authorization from IDNR and City of Waukee COSESCO permit prior to grading on-site.
14. Public and Private utility facilities shall be moved or adjusted as necessary by the owners to fit the new construction unless otherwise noted on the plans. The Contractor is responsible for the cost of utility relocations unless otherwise indicated on the plans.

EARTHWORK NOTES:

- 1. CONTOURS AND ELEVATIONS: Existing and proposed contours are shown on plans at one foot (1') contour intervals, unless otherwise noted. Proposed contours and elevations shown represent approximate finish grade.
2. CLEARING AND GRUBBING: Prior to the start of grading and earthwork, the areas to be graded shall be stripped of all vegetation, organic matter, and topsoil, to a minimum depth of four inches (4") or as otherwise directed by the Geotechnical Engineer. Stripping materials shall not be incorporated into structural fills. Topsoil materials shall not be used in building and pavement areas.
3. TOPSOIL: Prior to the start of grading, the contractor shall strip all topsoil from areas to be graded and stockpile at a location on or adjacent to the site as directed by the owner. At completion of grading operations and related construction, the contractor will be responsible for redistribution of topsoil over all areas disturbed by the construction activities. Topsoil shall be placed to a minimum depth of eight inches (8") and in accordance with specifications for landscaping. Subgrade below turf areas shall have a minimum 6" depth of soil free of rock larger than 3".
4. SUBGRADE PREPARATION: Prior to placement of new fill material, the existing subgrade shall be proof rolled and approved under the direction of the Geotechnical Engineer or his representative.
5. proof rolling: Prior to the placement of new fill material, the existing subgrade shall be proof rolled and approved under the direction of the Geotechnical Engineer. Unsuitable areas identified by the proof rolling areas shall be undercut and replaced with controlled structural fill or treated with fly ash per the Geotechnical report.
6. EARTHWORK:
A. GEOTECHNICAL: All earthwork shall conform to the recommendations of the Geotechnical report.
B. SURFACE WATER: Surface water shall be intercepted and diverted during the placement of fill.
C. FILLS: All fills shall be considered controlled or structural fill and shall be free of vegetation, organic matter, topsoil, and debris. All fill required for project shall be provided by the Contractor. Material Shall be pre-approved by the Engineer prior to placement.
D. EXISTING SLOPES: Where fill material is to be placed on existing slopes greater than 5:1 (horizontal to vertical), existing slope shall be benched providing a minimum vertical face of twelve inches (12"). Fill material shall be placed and compacted in horizontal lifts not exceeding nine inched (9") (loose fit measurement), unless otherwise approved by the Geotechnical Engineer.
E. COMPACTION REQUIREMENTS: Earth fill material shall be placed and compacted to a minimum density of ninety five percent (95%) of the material's maximum dry density as determined by ASTM D698 (standard proctor compaction). The moisture content at the time of placement and compaction shall be within a range of -2% to 3% above the optimum moisture content as defined by the standard proctor compaction procedure. The moisture contents shall be maintained within this range until completion of the work. Where compaction of earth fill by a large roller is impractical or undesirable, the earth fill shall be hand compacted with small vibrating rollers or mechanical tampers.
7. TESTING AND INSPECTION: Testing and inspection services required to make tests required by the specifications and to observe the placement of fills and other work performed on this project shall be provided by a commercial testing laboratory (Geotechnical Engineer) selected by the owner. The cost of testing will be the owner's responsibility.
8. SODDING: All areas disturbed by earthwork operations, including the right-of-way, shall be sodded.

FIRE SAFETY

- 1. Approved fire apparatus access roads shall be provided as soon as construction commences. If paving is not installed prior to building construction commencing after footings are installed, an approved route around the exterior of the building to extend within 100-feet of all portions of the exterior walls shall be provided and comply with the requirements of Sections 503.2 of the IFC.

PLANS CHANGE

- 1. Any changes proposed to the drawings during construction shall be approved in writing from the City of Waukee Community Development Department. The contractor is responsible for any changes made during construction that have not been granted approval in writing from the Community Development Department.

SITE UTILITY NOTES

- 1. The contractor is specifically cautioned that the location and/or elevation of existing utilities as Shown on these plans is based on records of the various utility Companies, and where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The contractor must call the appropriate utility companies at least 48 hours before any excavation to request exact field location of utilities. It shall be the responsibility of the contractor to coordinate with and relocate and/or remove all existing utilities which conflict with the proposed improvements shown on the plans.
2. The construction of storm sewers on this project shall conform to the requirements of the 2024 edition of SUDAS and 2023 edition of Waukee Standard Specifications for Public Improvements.
3. The contractor shall field verify the exact location and elevation of the existing storm sewer locations and the existing elevations at locations where the proposed storm sewer collects or releases to existing ground. If discrepancies are encountered from the information shown on the plans, The contractor shall contact the design engineer. No pipes shall be laid until direction is received from the design engineer.
4. It will be the contractors responsibility to field adjust the top of all manholes and boxes as necessary to match the grade of the adjacent area. Tops of existing manholes shall be raised as necessary to be flush with proposed pavement elevations, and to be 6-inches above finished ground elevations in non-paved areas. No separate or additional compensation will be made to the contractor for making final adjustments to the manholes and boxes.
5. Inlet locations, horizontal pipe information and vertical pipe information is shown to the center of the structure. Deflection angles shown for storm sewer pipes are measured from the center of the curb inlets and manholes. The contractor shall adjust the horizontal location of the pipes to go to the face of the boxes. All roof drains shall be connected to storm sewer structures. Provide cleanouts on roof drain lines at 100' max. spacing and at all bend points. Do not connect roof drains directly to storm sewer pipes.
6. The contractor shall be responsible for furnishing and installing all fire and domestic water lines, meters, back flow devices, pits, valves and all other incidentals required for a complete operable fire protection and domestic water system, if not furnished or installed by the Board of Public Utilities. Coordinate with the Board of Public Utilities. All costs associated with the complete water system for the building shall be the responsibility of the contractor. All work shall conform to the requirements of the 2024 edition of SUDAS and 2023 edition of Waukee Standard Specifications for Public Improvements.
7. The contractor shall be responsible for furnishing and installing all sanitary sewer service lines from the building to the public line. The contractor shall refer to the architectural plans for specific locations and elevations of the service lines of the building connection. All work shall conform to the requirements of the 2024 edition of SUDAS and 2023 edition of Waukee Standard Specifications for Public Improvements.
8. The contractor is responsible for securing all permits, bonds and insurance required by the contract documents, Waukee, and all other governing agencies (including local, county, state and federal authorities) having jurisdiction over the work proposed by the construction documents. The cost for all permit bonds and insurance shall be the contractors responsibility and shall be included in the bid for the work.
9. By the use of these construction documents the contractor hereby agrees that he/she shall be solely responsible for the safety of the construction workers and the public. The contractor agrees to hold the engineer and owner harmless for any and all injuries, claims, losses or damages related to the project.
10. The contractor shall be responsible for furnishing all materials, tools and equipment and installation of electrical power, telephone and gas service from a point of connection from the public utility lines to the building structure. This will include all conduits, service lines, meters, concrete pads and all other incidentals required for a complete and operational system as required by the owner and the public utilities. Refer to building plans for exact tie-in locations of all utilities. Contractor shall verify connection points prior to installation of utility line.
11. All fill material is to be in place, compacted, and consolidated before installation of proposed utilities. On-site geotechnical engineer shall provide written confirmation that this requirement has been met and that utilities may proceed in the fill areas. All utilities are to be placed in trench conditions.
12. Contractor shall notify the utility authorities inspectors 48 hours before connecting to any existing line.
13. Storm sewer roof drains(st) shall be as follows (unless otherwise shown on plans).
-PVC SDR 35 per ASTM D3034, for pipes less than 12' deep.
-PVC SDR 26 per ASTM D3034, for pipes 12' to 20' deep.
Waterlines shall be as follows (unless otherwise shown on plans):
-for 8" and larger: PVC C900
-between 2" and 6": copper tube Type "K" per ANSI 816.22 or PVC C900
-For smaller than 2": copper tube Type "K" per ANSI 816.22
15. Fire line size is shown for reference only, fire protection engineer shall verify all sizes and fire flow demand prior to construction.
16. Minimum trench width shall be 2 feet.
17. Contractor shall maintain a minimum of 5' of cover on all waterlines. All water line joints are to be mechanical joints with thrust blocking as called out in specifications and construction plans. Water mains and service lines shall be constructed in accordance to the 2023 Waukee Standard Spec.
18. All waterlines shall be kept ten feet (10') apart (parallel) from sanitary sewer lines or manholes. Or when crossing, an 18" vertical clearance (outside edge of pipe to outside edge of pipe) of the waterline above the sewer line is required.
19. Trench Drain shall be ACO S200K or approved equal.
20. Trench Drain shall be installed in accordance with the manufacturer's installation instructions and recommendations.
21. In the event of a vertical conflict between waterlines, sanitary lines, storm lines and gas lines (existing and proposed), the sanitary line shall be ductile iron pipe with mechanical joints at least 10 feet on both sides of the crossing (or encased in concrete the same distance), the waterline shall have mechanical joints with appropriate thrust blocking as required to provide a minimum of 18" clearance. Meeting requirements ANSI A21.10 or ANSI 21.11 (AWWA C151)(Class 50).
22. All underground storm, sanitary, water and other utility lines shall be installed, inspected and approved before backfilling. Failure to have inspection approval prior to backfill will constitute rejection of work.
23. All necessary inspections and/or certifications required by codes and/or utility service companies shall be performed prior to announced building possession and the final connection of service. Contractor shall coordinate with all utility companies for installation requirements and specifications.
24. refer to building plans for site lighting electrical plan, irrigation, parking lot security system and associated conduit requirements. Coordinate with Owner that all required conduits are in place and tested prior to paving.
25. When a building utility Connection from site utilities leading up to the building cannot be made immediately, temporarily mark all such utility terminations.

GENERAL NOTES

- 1. All work in public easements and right of way and all erosion control work must comply with the 2024 edition of SUDAS and 2023 edition of Waukee Standard Specifications for Public Improvements.
2. The contractor shall provide evidence that their insurance meets the requirements of Waukee, Iowa.
3. All traffic control shall be in conformance with the Manual of Uniform Traffic Control Devices (MUTCD).
4. The contractor is responsible for the protection of all property corners and section corners. Any property corners and/or section corners disturbed or damaged by construction activities shall be reset by a Registered Land Surveyor licensed in the State of Iowa, at the contractor's expense.
5. The contractor shall be responsible for the restoration of the right-of-way and for damaged improvements such as curbs, driveways, sidewalks, street light and traffic signal junction boxes, traffic signal loop lead ins, signal poles, irrigation systems, etc. Damaged improvements shall be repaired in conformance with the latest City standards and to the City's satisfaction.
6. The contractor is responsible for providing erosion and sediment control BMPs to prevent sediment from reaching paved areas, storm sewer systems, drainage courses and adjacent properties. In the event the prevention measures are not effective, the contractor shall remove any debris, silt, or mud and restore the right-of-way, or adjacent properties to original or better condition.
7. The contractor shall remove existing trees and shrubbery within the right-of-way adjacent to future thoroughfare improvements.
8. The contractor shall sod all disturbed areas within the public street right-of-way unless otherwise noted on the plans or if specific written approval is granted by the City.
9. All public street sidewalk ramps constructed will be required to comply with the Americans with Disabilities Act (ADA) and Waukee, Iowa sidewalk details.
10. Excavation for utility work in public street right-of-way requires a Right-of-Way Work Permit from the Public Works Department, in addition to all other permits.
11. All work shall be confined within easements and/or construction limits as shown on the plans.
12. Curb stakes and hubs shall be provided at all high points, low points, ADA ramp openings, and on each side of all curb inlets when setting string line.
13. Any existing and/or temporary storm sewer pipes and box culverts to be abandoned in place shall be grouted using a slurry grout mixture meeting a 7-day compressive strength of 100-150 psi. The slurry grout mixture of fly ash, cement, fine aggregate, forming agents and water shall be approved by the City and shall possess adequate flow characteristics to fill all voids.
14. All existing utilities indicated on the drawings are according to the best information available to the engineer; however, all utilities actually existing may not be shown. The contractor shall be responsible for contacting all utility companies for an exact field location of each utility prior to any construction. All utilities, shown and un-shown, damaged through the negligence of the contractor shall be repaired or replaced by the contractor at his expense.
15. The contractor will be responsible for all damages to existing utilities, pavement, fences, structures, and other features not designated for removal. The contractor shall repair all damages at his expense.
16. By use of these construction documents the contractor hereby agrees that he shall be solely responsible for the safety of the construction workers and the public. The contractor agrees to hold the engineer and owner harmless for any and all injuries, claims, losses, or damages related to the project.
17. The contractor will be responsible for providing all signage, barricades, lighting, etc., as required for temporary traffic control during the construction of this project. Maintenance of the temporary traffic control devices will be the contractor's responsibility. All traffic control in conduction with construction in the right-of-way shall be in conformance with the City Traffic Control Requirements.
18. Geogrid, footings, or other elements of the retaining wall(s) cannot encroach into the right of way, public easements, or adjacent private property.
19. All building and life safety issues shall comply with the 2012 International Fire Code and local amendments as adopted by Waukee, Iowa
20. Contractor shall be responsible for obtaining all permits including land disturbance, right-of-way, hauling, etc., with Public Works prior to construction.
21. Contractor shall restore all disturbed right-of-way with sod upon project completion.
22. Prior to construction, contractor shall install pre-construction erosion control measures.
23. All signage is to be reviewed and approved under separate sign permit process.

EROSION AND SEDIMENT CONTROL NOTES

- 1. All work in public easements and right-of-way and all erosion and sediment control work must comply with the 2024 edition of SUDAS and 2023 edition of Waukee Standard Specifications for Public Improvements. If any of the general notes conflict with the Standard Specifications for Public Improvements, the Cities standards shall override.
2. The contractor shall provide all materials, tools, equipment, and labor as necessary to install and maintain adequate erosion and sediment control, keep the streets clean of mud and debris, and prevent soil from leaving the project site. The contractor's erosion and sediment control measures shall conform to the 2024 edition of SUDAS and 2023 edition of Waukee Standard Specifications for Public Improvements.
3. Erosion and sediment control plan modifications shall be required if the plan fails to substantially maintain erosion and off-site sedimentation.
4. The contractor shall be responsible for maintaining erosion and sediment and erosion control devices and removing sediment until a minimum of 70% of permanent vegetation has become stabilized and established. Erosion and sediment control devices shall remain in place until the 70% established vegetation is met, or the duration of the project, whichever is the later date. Exposed and eroded areas should be established in temporary vegetation if not built on within fourteen (14) days. This seeding should be done immediately following rough grading.
5. Install "J" Hooks on silt fence every 100 LF
6. Contractor to install all Phase I erosion and sediment control devices prior to construction.
7. Permanent vegetation should be established immediately upon completion of final grading on all areas where this is applicable.
8. Topsoil replacement shall be 8" thick.
9. Silt fence to be installed in accordance with 2024 edition of SUDAS and 2023 edition of Waukee Standard Specifications for Public Improvements.
10. Refer to IDNR Spill Guide for good housekeeping and spill measures.
11. Continuously remove all slurry or residue resulting from sawcutting/grinding operations with a well-maintained vacuum system and remove from the project limits. Ensure residue from grinding operations does not flow across lanes occupied by traffic or into gutters, storm sewers, ditches, or other drainage facilities.
12. Debris spilled onto the street will be picked up by the end of the work day and prior to a rain event.
13. The Contractor shall inspect disturbed areas of the construction site that have not been stabilized with a perennial, vegetative cover of sufficient density to preclude erosion at least once every seven (7) calendar days. Unless erosion is evident or other conditions warrant them, regular inspections are not required on areas that have been stabilized with a perennial, vegetative cover of sufficient density to preclude erosion.
14. The Contractor shall repair damage, clean out sediment, and add additional erosion and sediment control devices as needed, as soon as practicable, after inspection. If these changes at the construction site within 72 hours of the inspection is impracticable, the permittee shall document in the SWPPP why it is impracticable and indicate an estimated date by which the changes will be made.
15. Any storm water pollution prevention measures identified in the SWPPP shall be revised at the construction site as appropriate after the inspection and added to the SWPPP within seven (7) calendar days. The Contractor shall also inspect and assure that all sediment control devices are in working condition prior to any forecasted rainfall.

SITE PLAN

21-0176

DOLLAR TREE

1045 SE Alice's Road, Waukee, Dallas County, Iowa

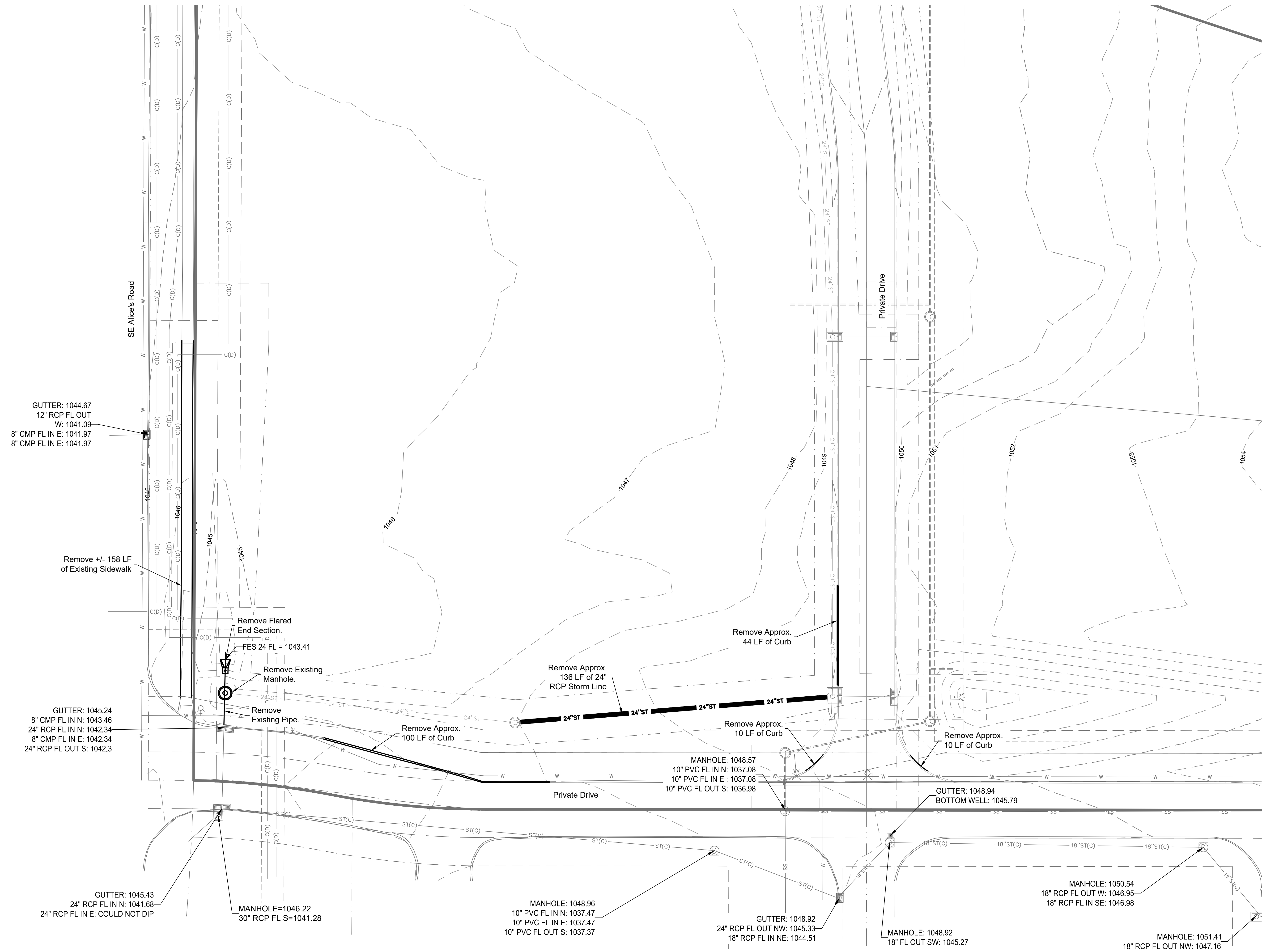
General Notes

Table with 3 columns: NO, DATE, REVISION. Contains 3 rows of revision data.

DRAWN BY CHECKED BY

Renaissance Infrastructure Consulting logo and contact information: 400 E 17TH STREET KANSAS CITY, MISSOURI 64108. Phone: 816.800.0950. Website: www.ric-consulting.com

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SITE PLAN  
 21-0176  
 DOLLAR TREE  
 1045 SE Alice's Road, Waukee, Dallas County, Iowa

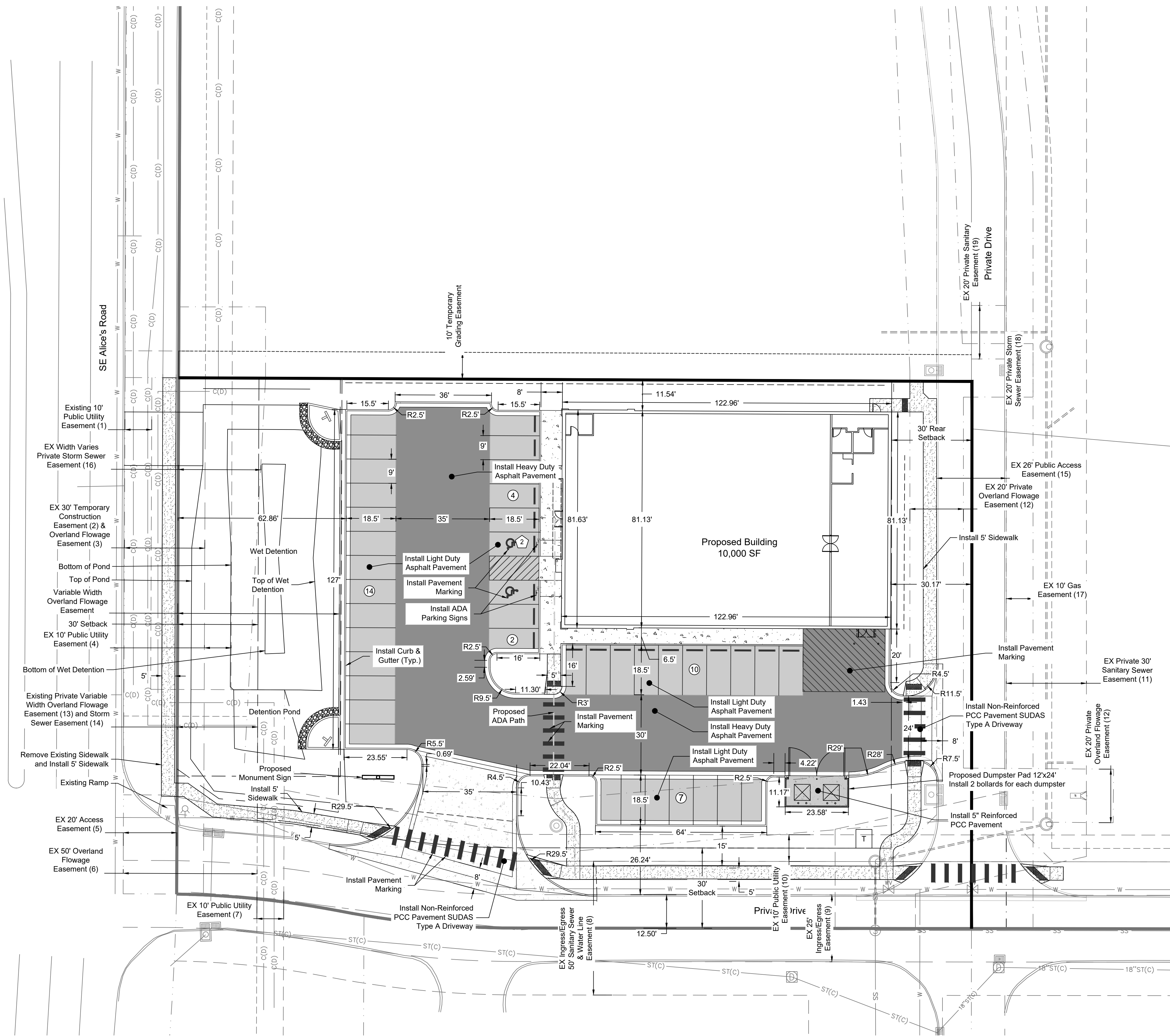
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NO.	DATE	REVISION
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2	12.01.23	2nd Submittal
1	11.07.23	1st Submittal

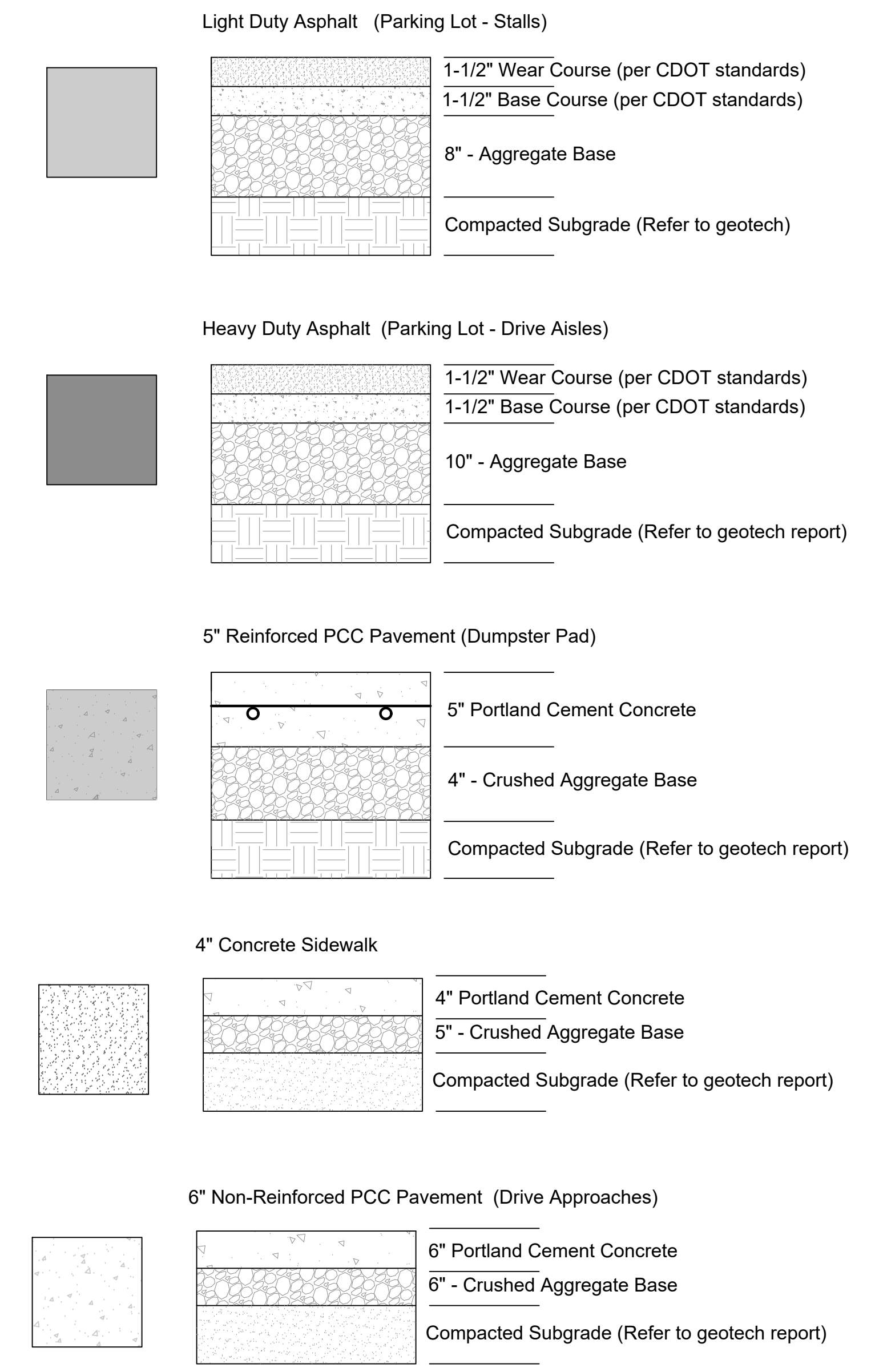
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 KANSAS CITY, MISSOURI 64108

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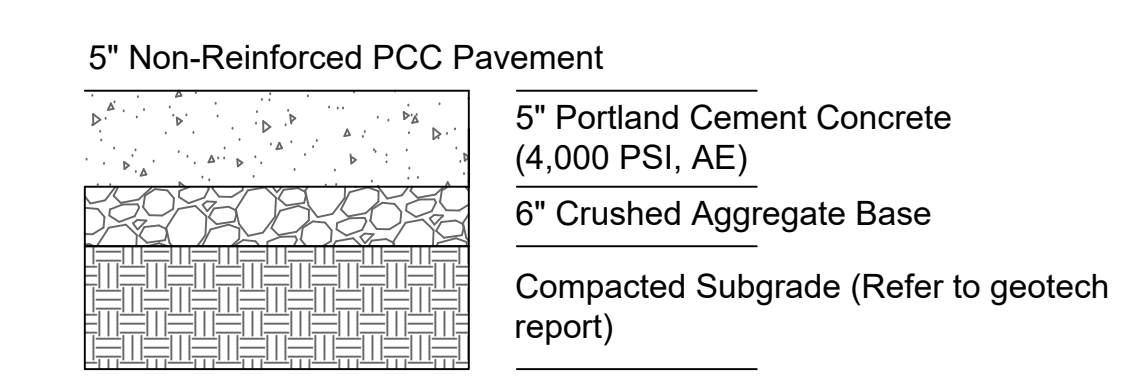


**PAVEMENT LEGEND**



**NOTE**  
 Pavement Sections are based on a Geotechnical Report dated 05/05/2023, Prepared by Kilo Engineering LLC, Kilo Project No. 23-1277

**PCC Pavement - Bid Alternate**



**Note:** PCC pavement sections (per geotechnical recommendations) provided as acceptable alternative to heavy and light duty asphaltic concrete pavement sections.

EASEMENT BOOK AND PAGE NUMBER		
EASEMENT NUMBER	BOOK	PAGE NUMBER
1	2006	5703-9
2	2006	5703
3	2004	16172
4	2017	4498
5	2017	3887
6	2006	5706-7
7	2006	5709
8	2006	5703
9	2015	5057
10	2022	23698
11	2022	23699
12	2023	13727
13	2006	5706
14	2006	5707
15	2023	13728
16	2023	13727
17	2023	11598
18	2023	13727
19	2023	11601

**Site Parking Table:**

Proposed Building Area:	10,000 sqft
Parking Required (4 Spaces/1000 SF):	40
Parking Provided (4 Spaces/1000 SF):	38 Stalls + 2 ADA Stalls

**Site Data Table**  
 Lot Area - 1.73 Acres  
 Building Area - 10,000 SF

**Parking Count Legend**

ADA Stall Count	⬡
Standard Stall Count	⊙



SITE PLAN  
 21-0176  
 DOLLAR TREE  
 1045 SE Alice's Road, Waukee, Dallas County, Iowa

Site Plan

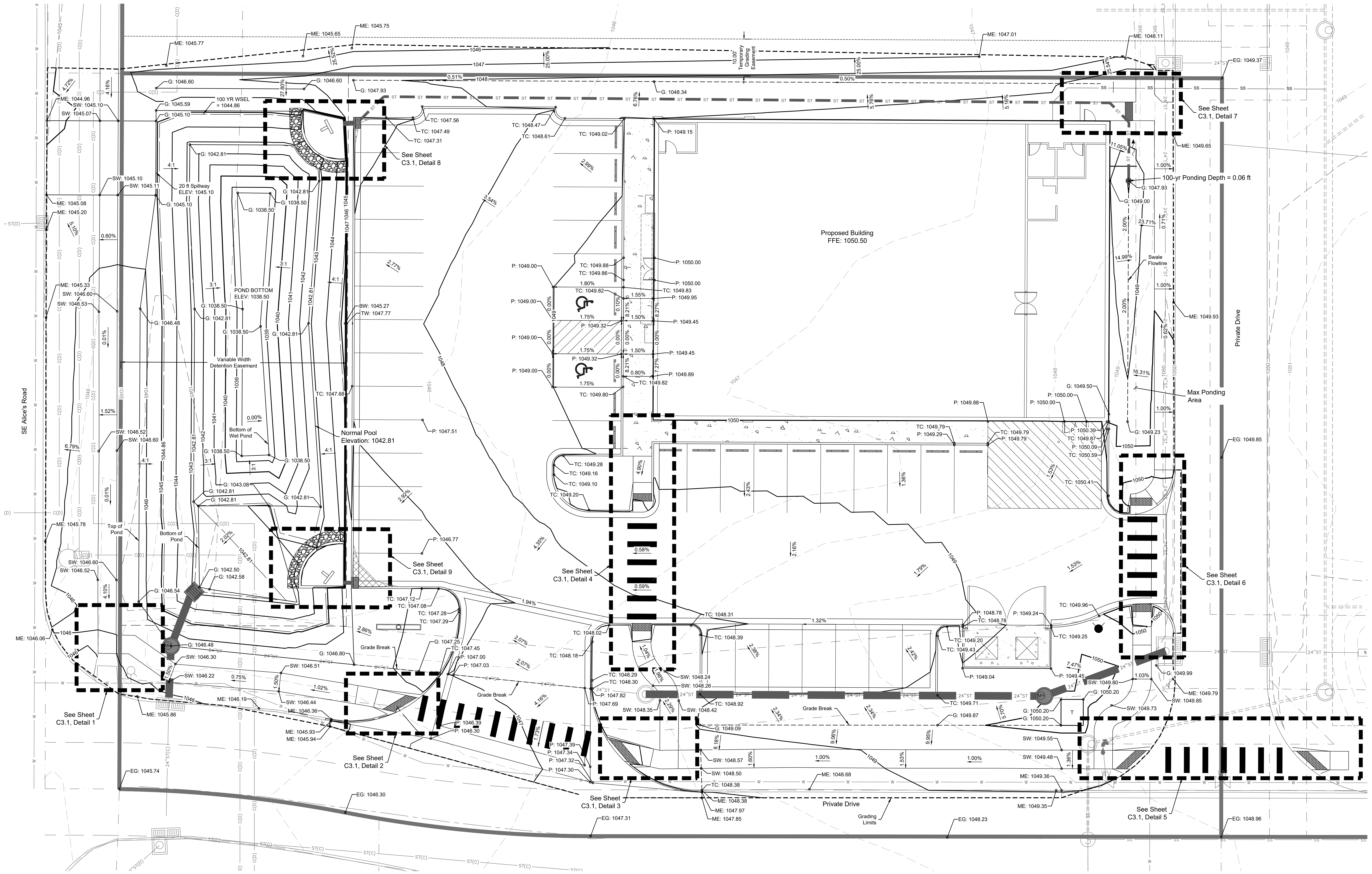
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2	12.01.23	2nd Submittal
1	11.07.23	1st Submittal

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SITE PLAN  
21-0176  
DOLLAR TREE  
1045 SE Alice's Road, Waukee, Dallas County, Iowa

Grading Plan

NO.	DATE	REVISION
3	01.11.24	3rd Submittal
2	12.01.23	2nd Submittal
1	11.07.23	1st Submittal

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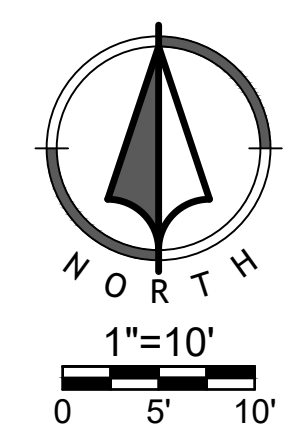
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LEGEND

- TC: Top of Curb
- P: Pavement
- EG: Existing Grade
- TS: Top of Structure
- FL: Flowline of Pipe
- G: Ground
- (HP) High Point
- (LP) Low Point
- TW: Top of Wall
- BW: Bottom of Wall
- SW: Side Walk
- ME: Match Existing

LEGEND

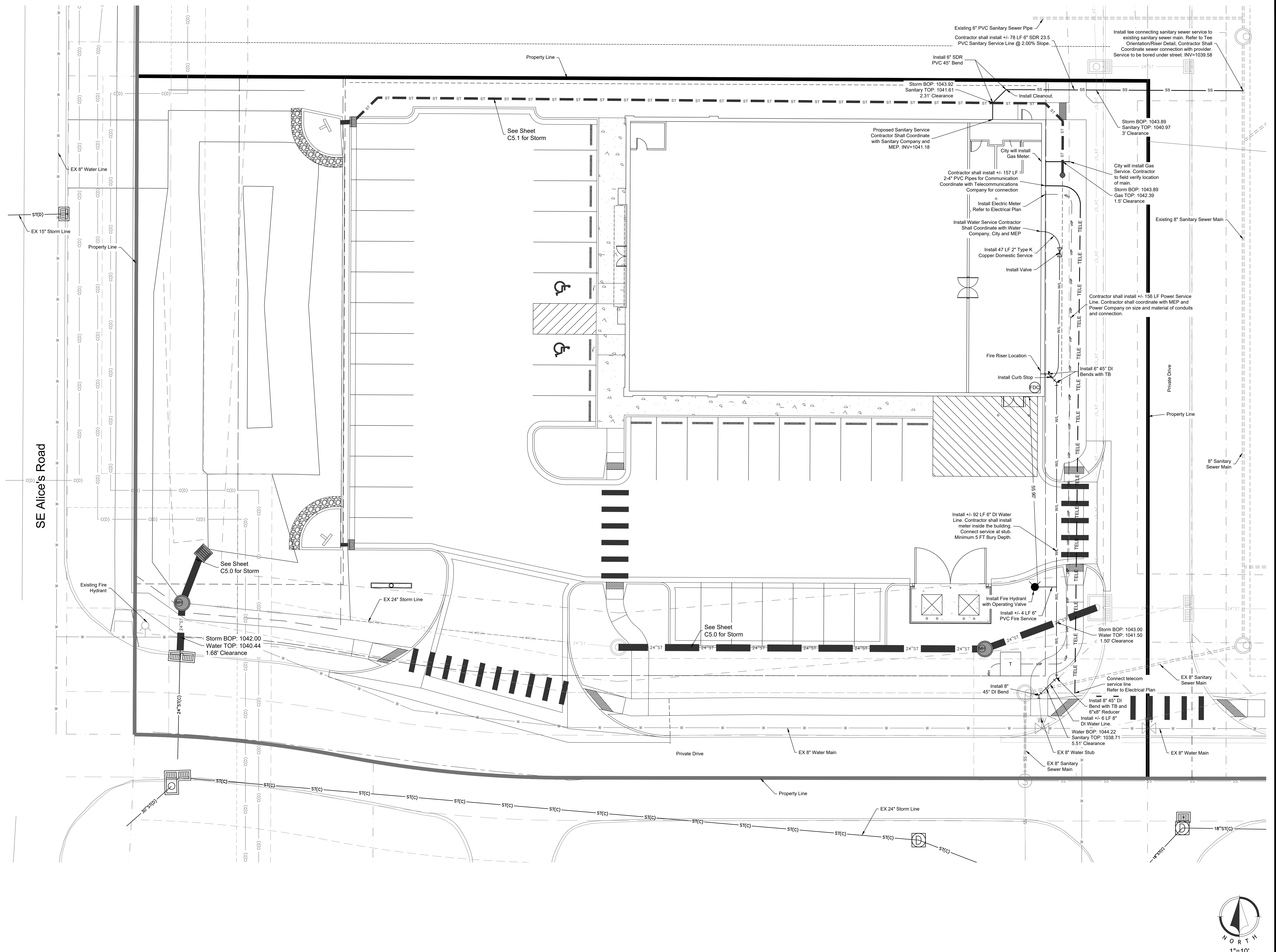
- - - Existing Major Contour
- - - Existing Minor Contour
- - - Proposed Major Contour
- - - Proposed Minor Contour
- Spill Curb
- ~ ~ ~ Overflow Path



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SITE PLAN

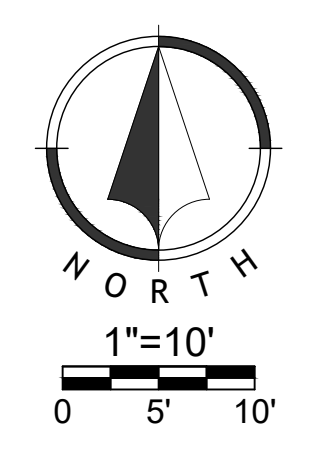
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 DOLLAR TREE  
 1045 SE Alice's Road, Waukee, Dallas County, Iowa

Site Utility Plan

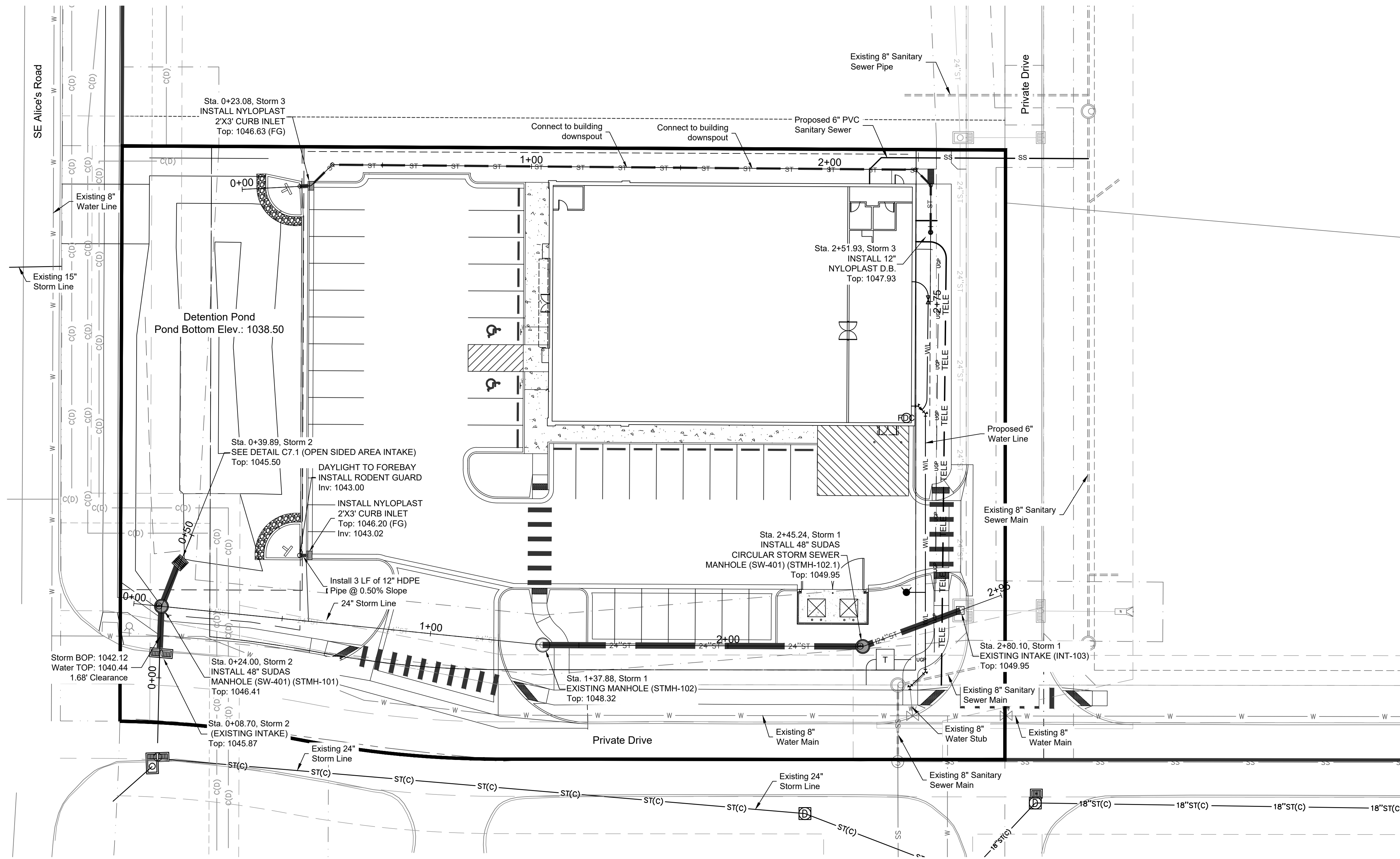
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2	12.04.23	2nd Submittal
1	11.07.23	1st Submittal

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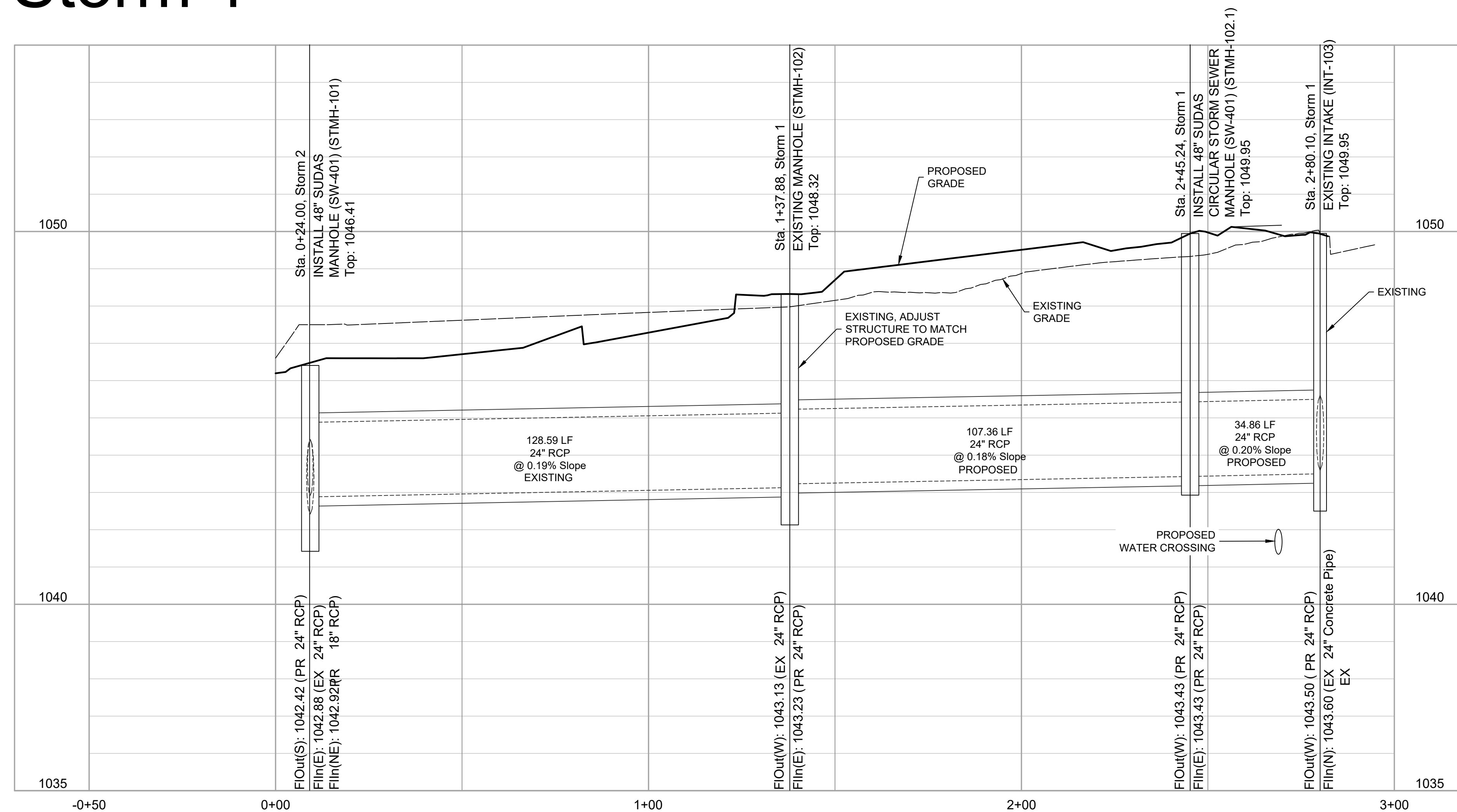
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 Kansas City, Missouri 64108  
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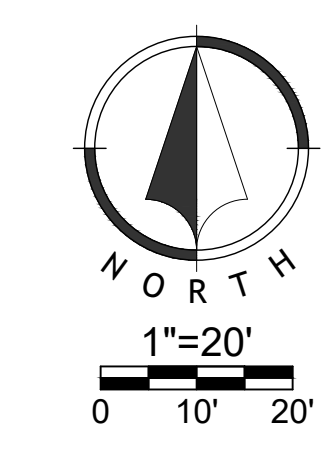
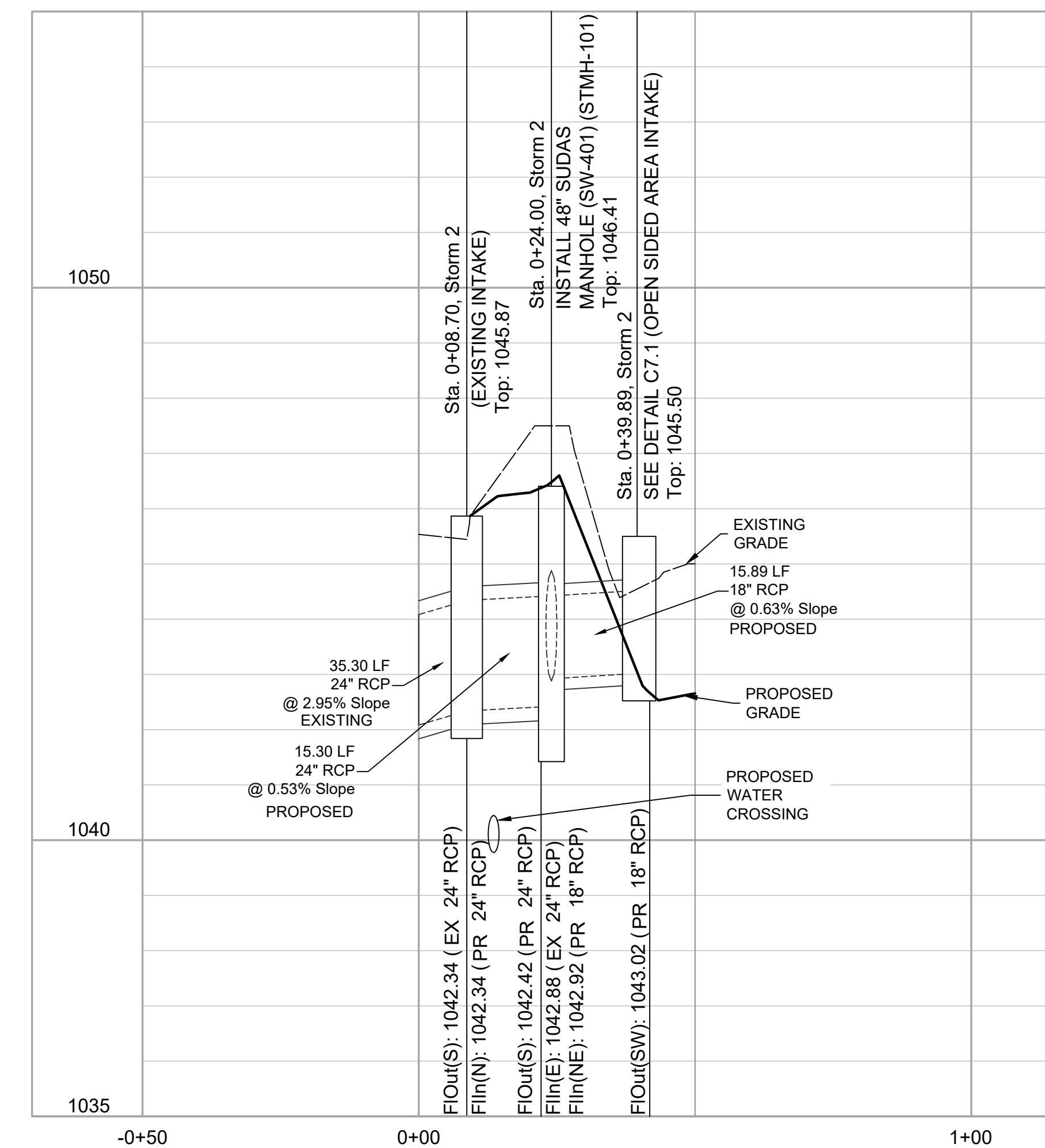
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# Storm 1



# Storm 2



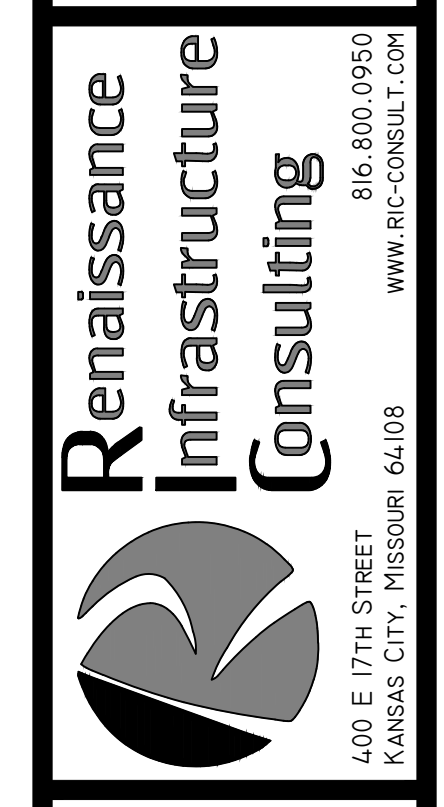
SITE PLAN

21-0176  
DOLLAR TREE  
1045 SE Alice's Road, Waukee, Dallas County, Iowa

Storm Plan And Profile

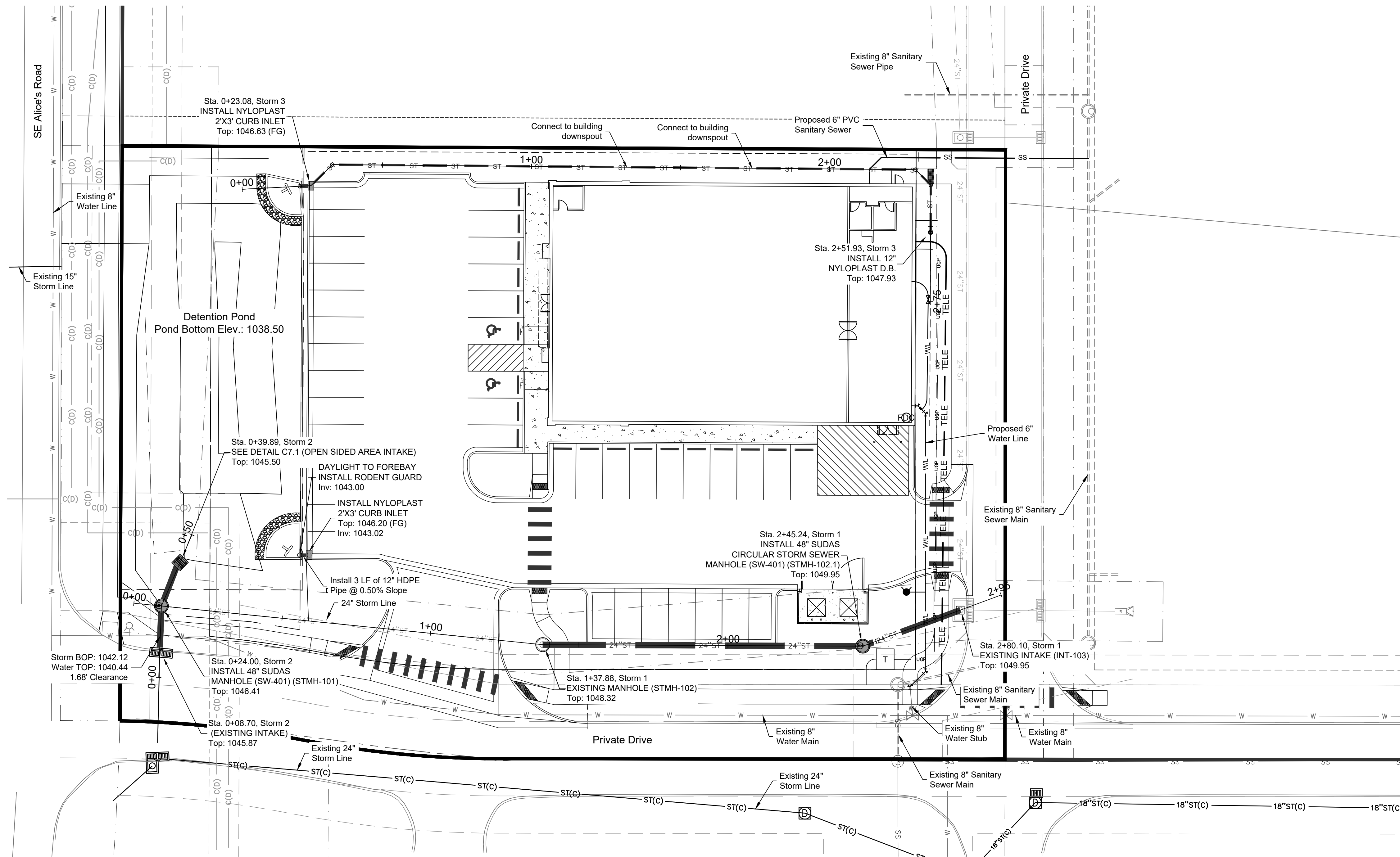
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2	12.01.23	2nd Submittal
1	11.07.23	1st Submittal

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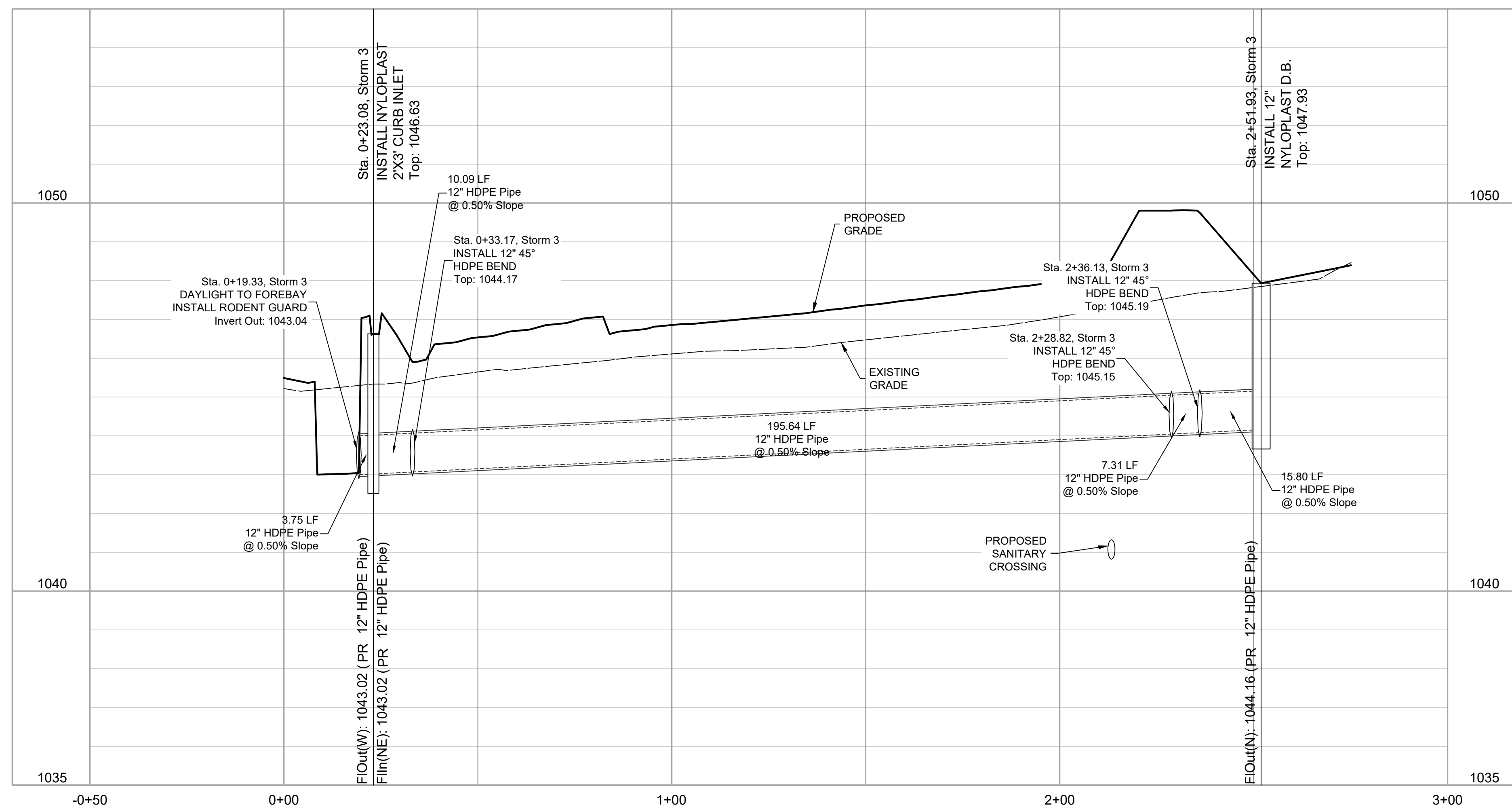


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# Storm 3



SITE PLAN

21-0176  
DOLLAR TREE  
1045 SE Alice's Road, Waukee, Dallas County, Iowa

Storm Plan And Profile

NO.	DATE	REVISION
3	01.11.24	3rd Submittal
2	12.01.23	2nd Submittal
1	11.07.23	1st Submittal

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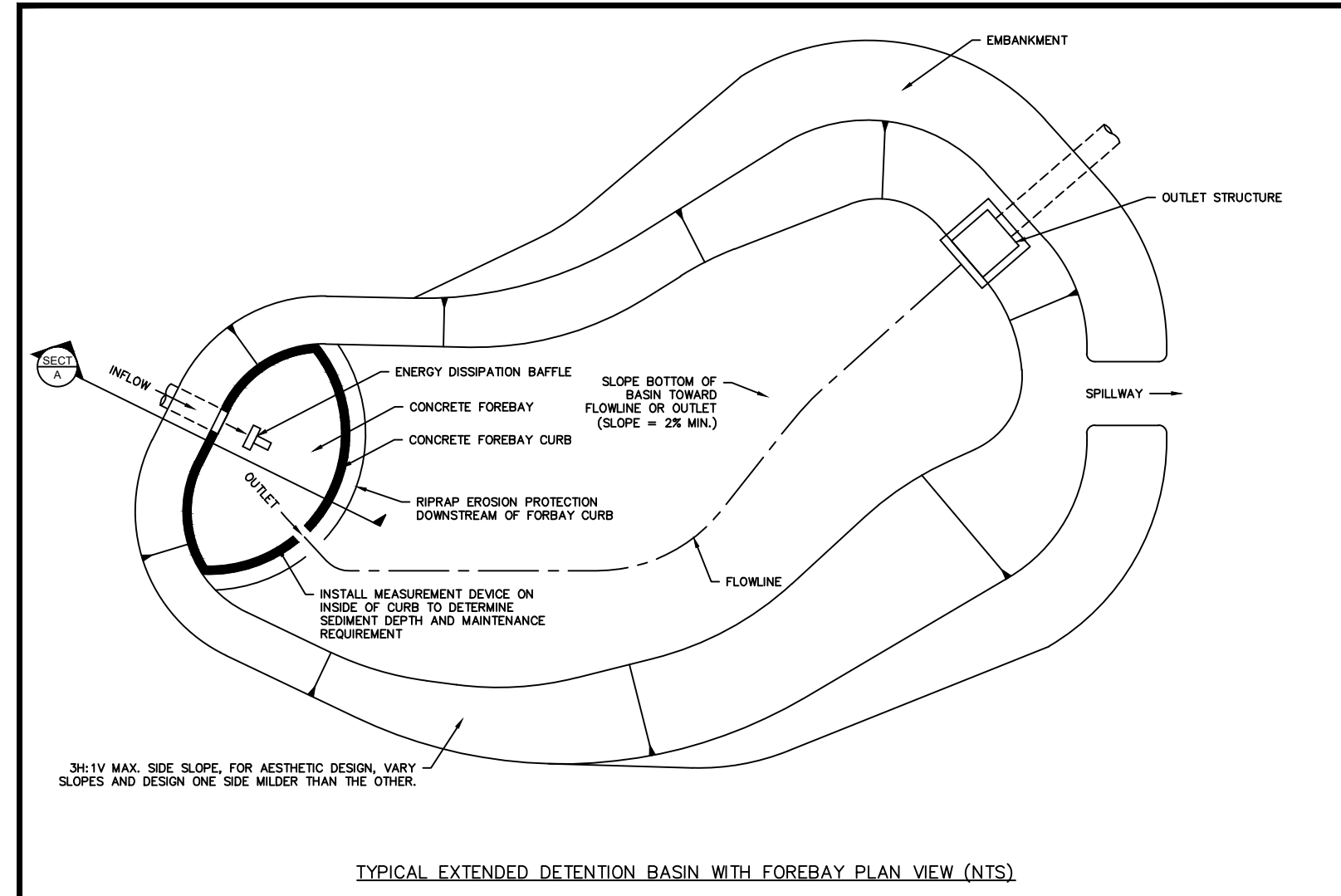
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KANSAS CITY, MISSOURI 64108

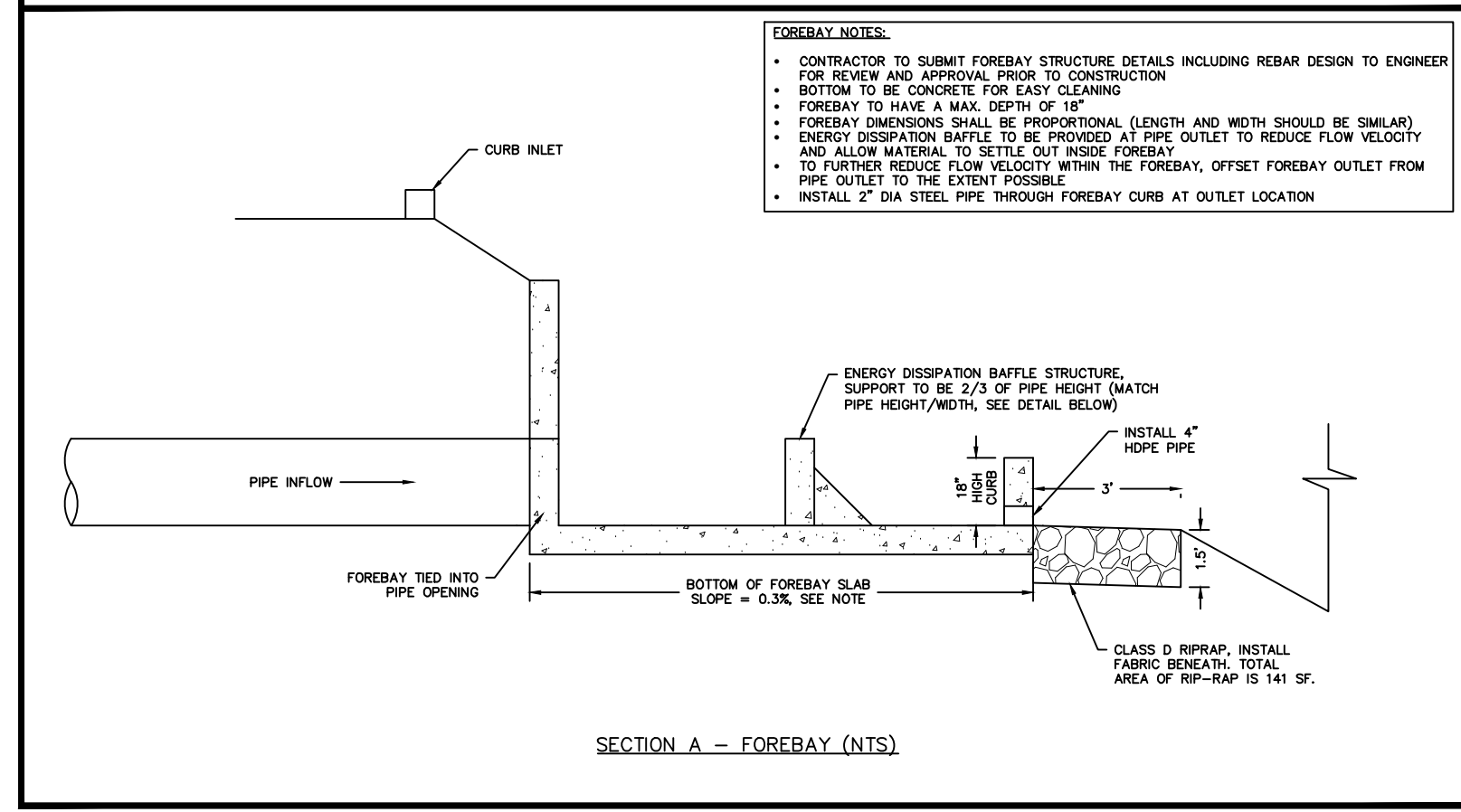
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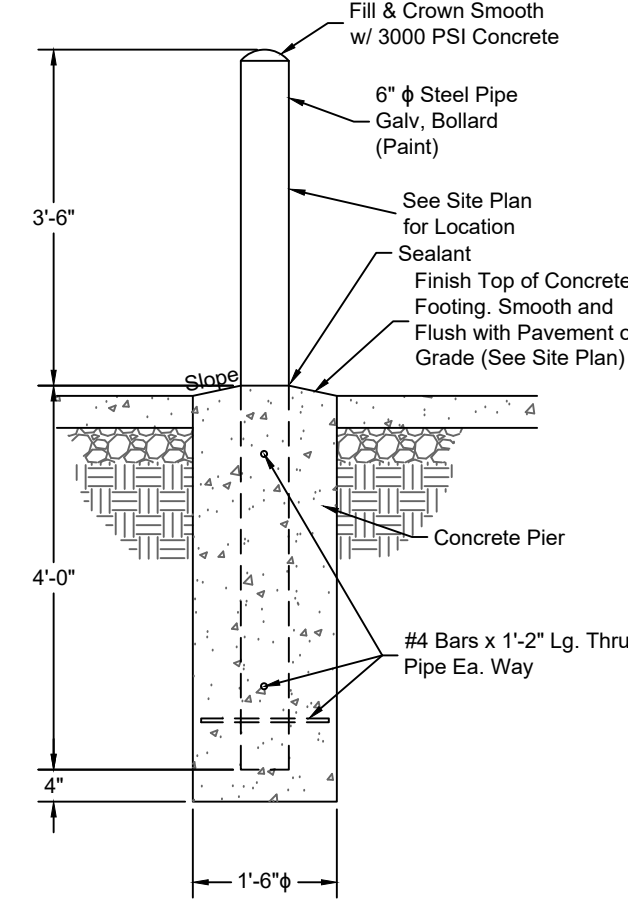


TYPICAL EXTENDED DETENTION BASIN WITH FOREBAY PLAN VIEW (NTS)

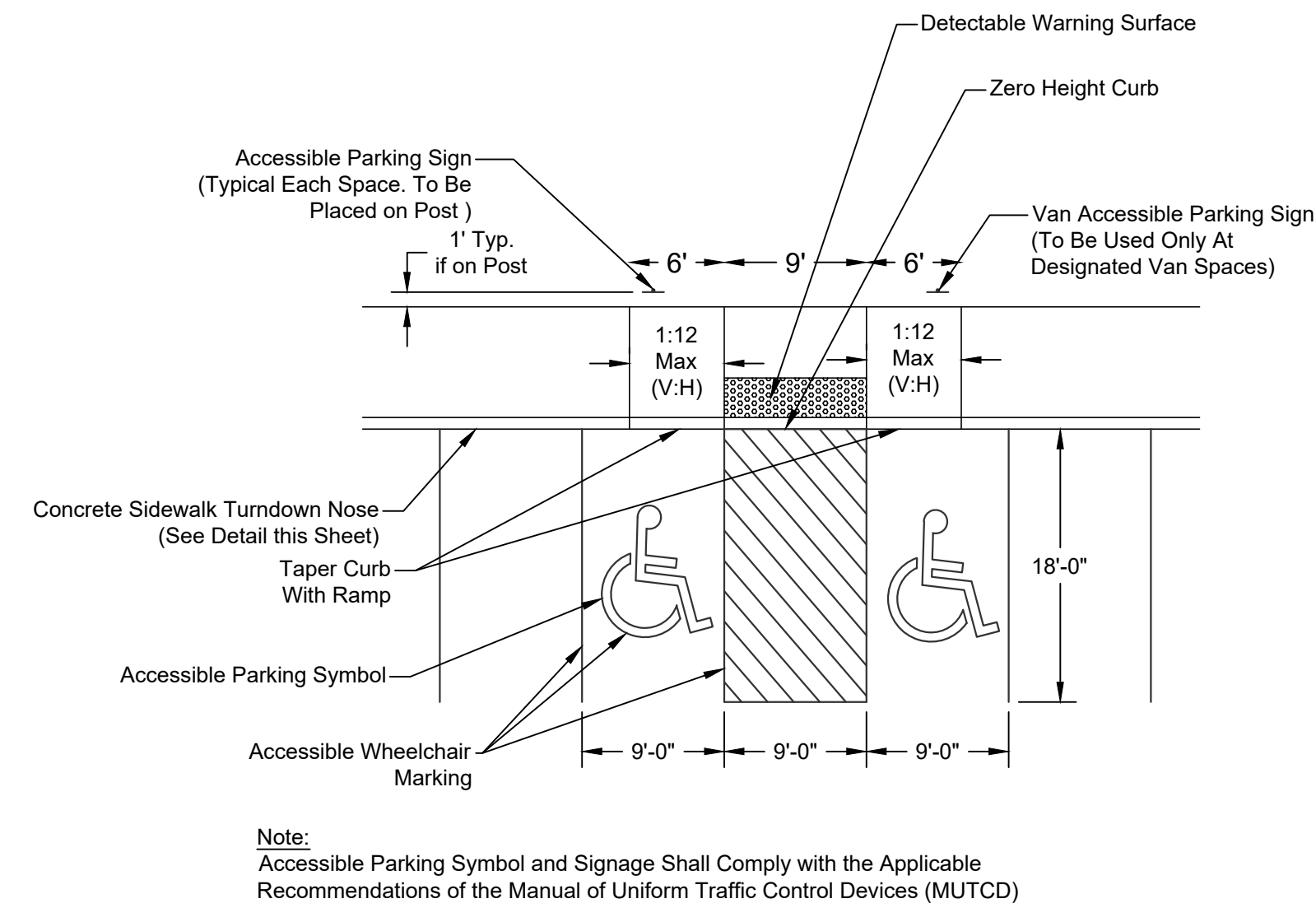


SECTION A - FOREBAY (NTS)

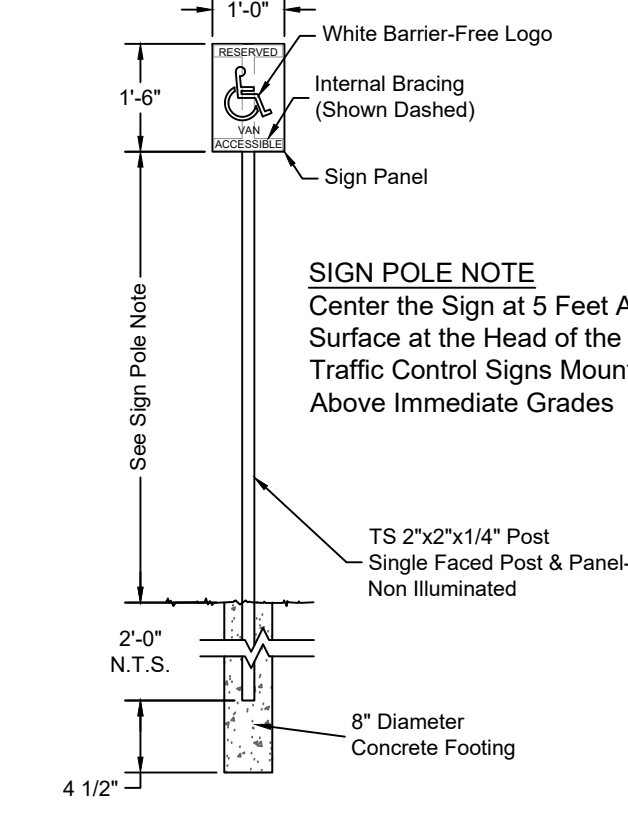
- FOREBAY NOTES:**
- CONTRACTOR TO VERIFY FOREBAY DIMENSIONS INCLUDING REBAR DESIGN TO ENGINEER AND TO BE APPROVED PRIOR TO CONSTRUCTION
  - FOREBAY TO HAVE A MAX DEPTH OF 18\"/>



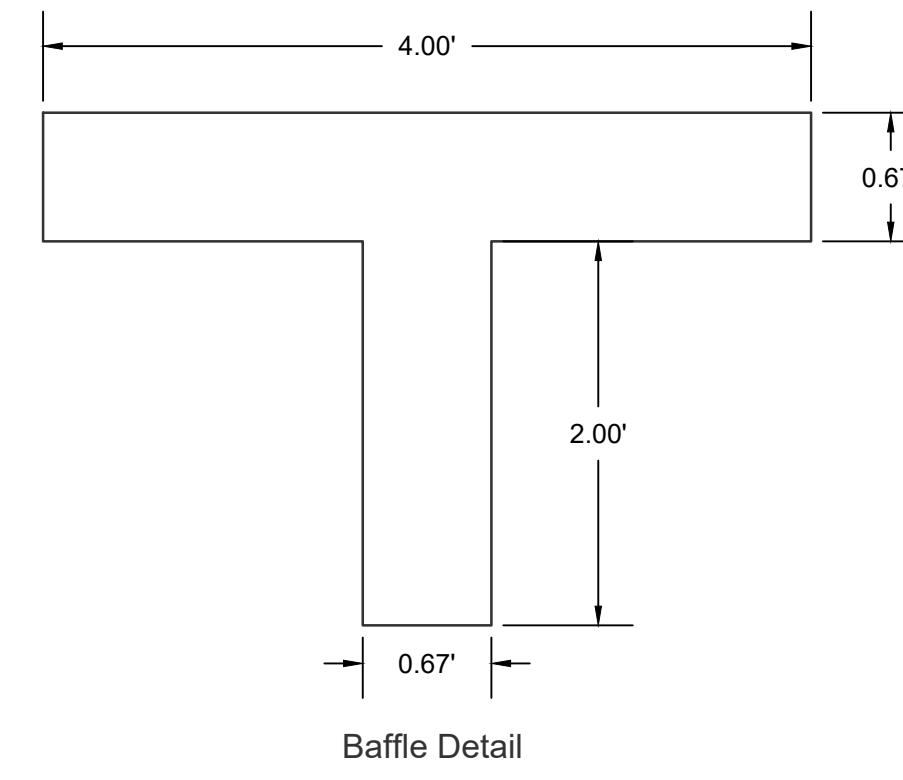
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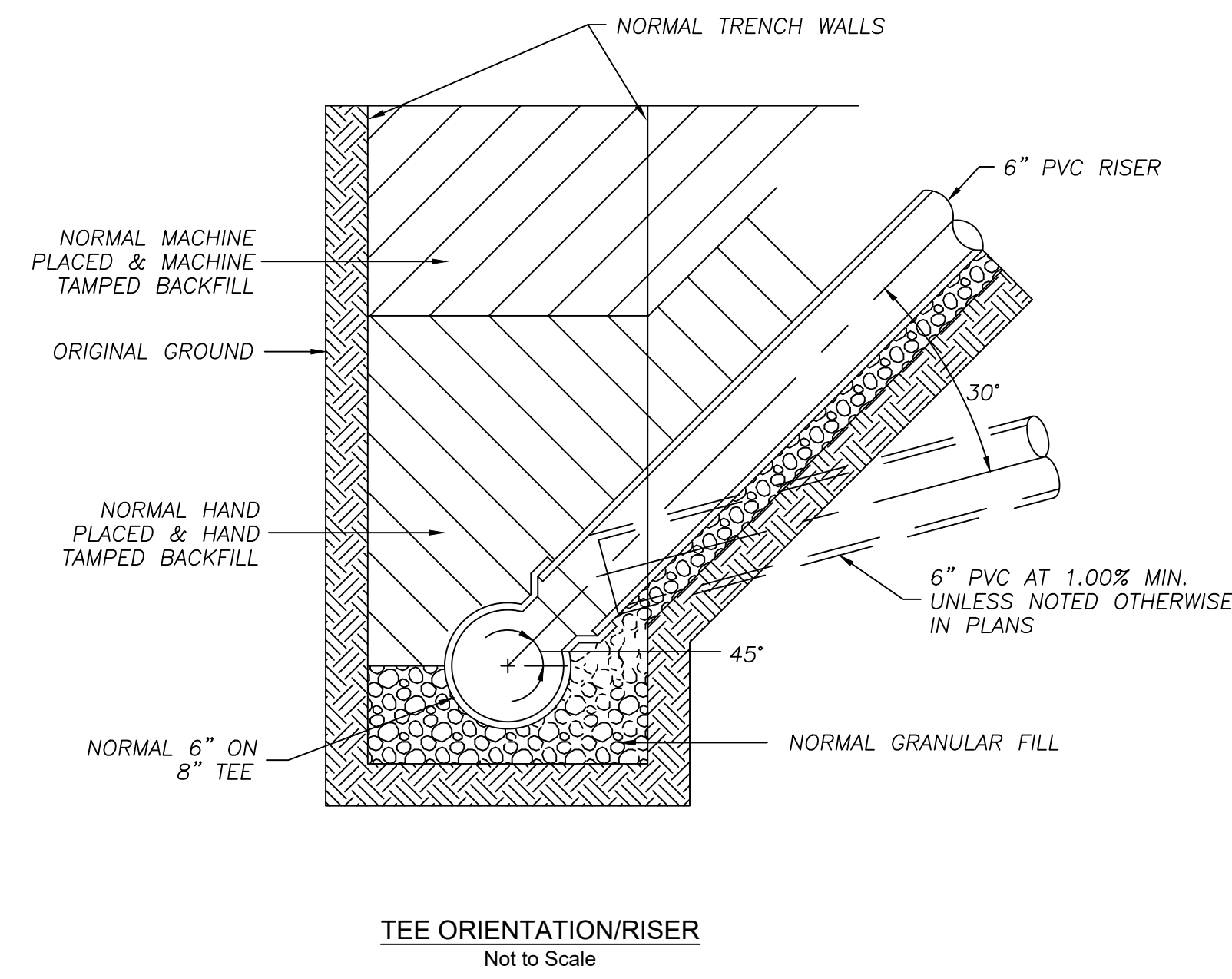
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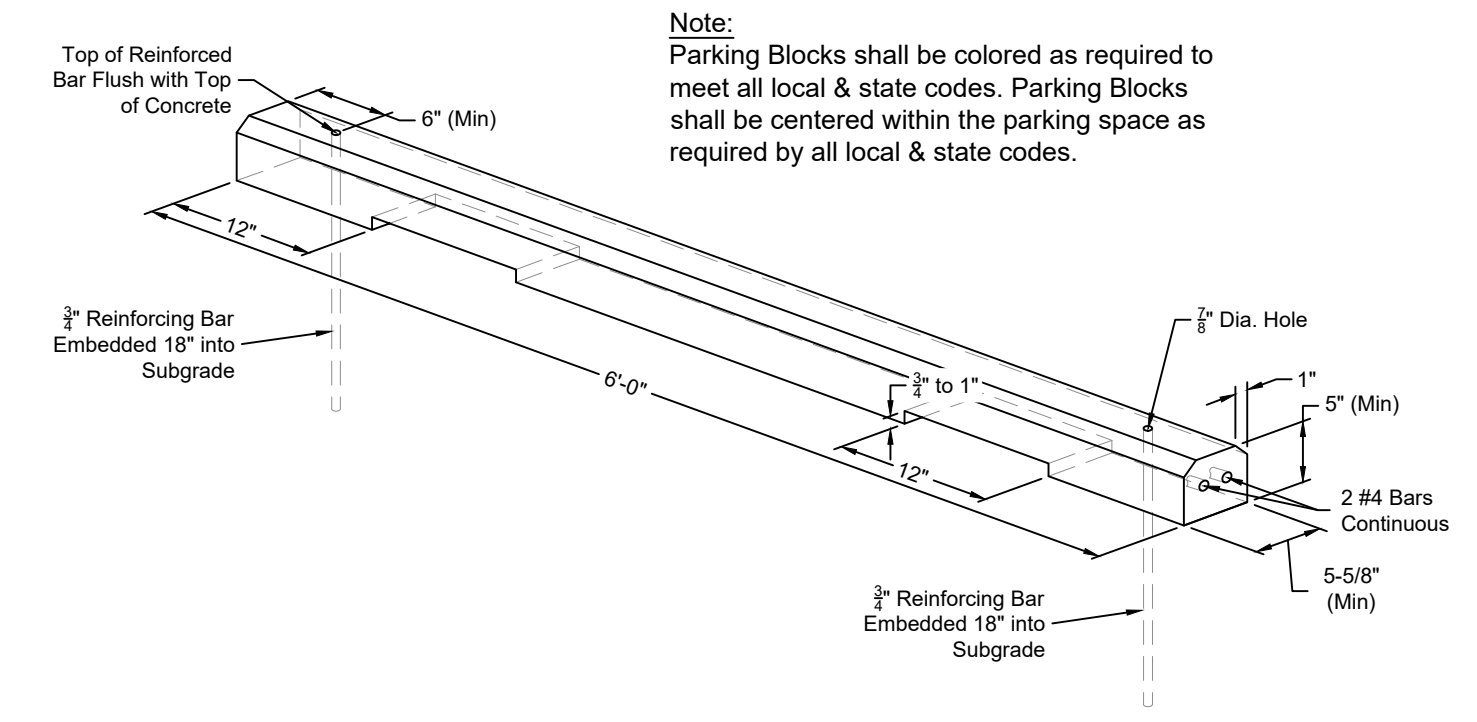
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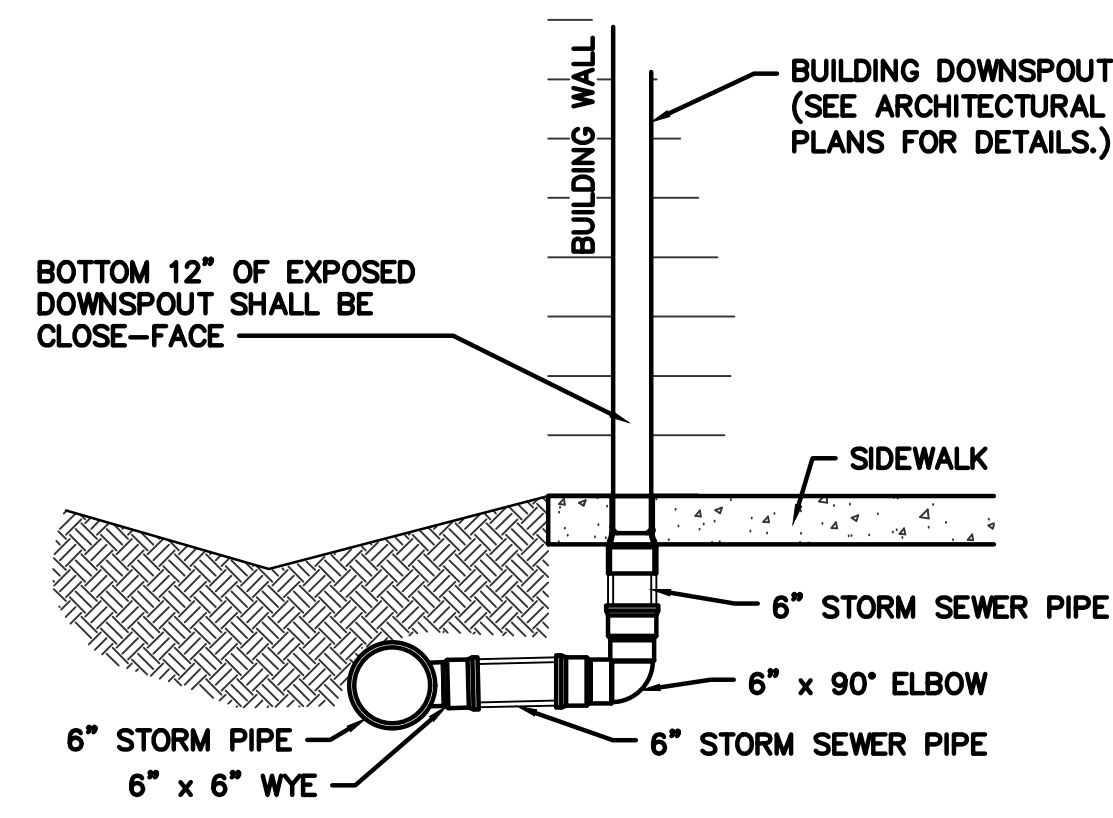
Baffle Detail



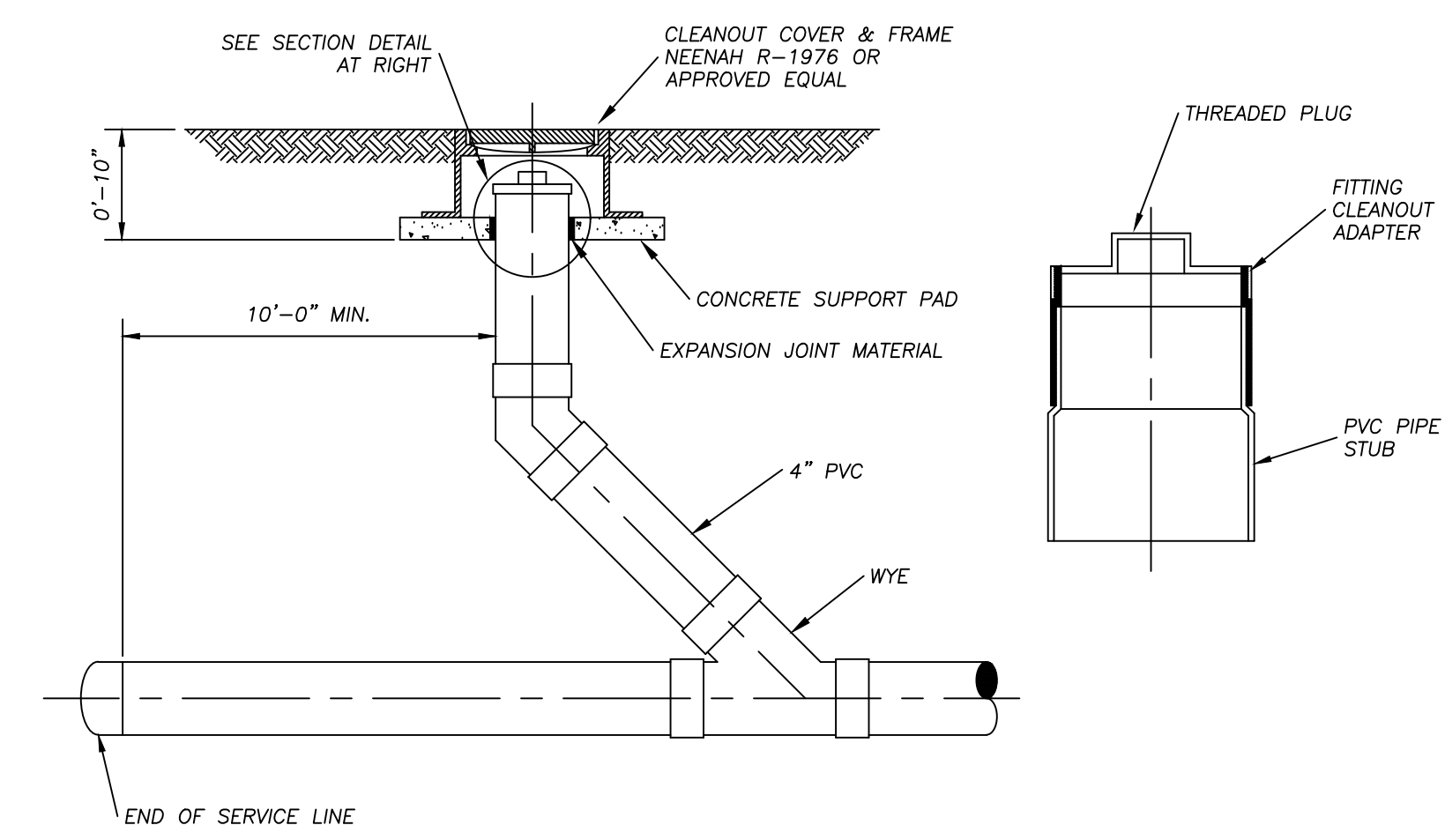
TEE ORIENTATION/RISER  
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CONCRETE PARKING BLOCK DETAIL  
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DOWNSPOUT CONNECTION DETAIL  
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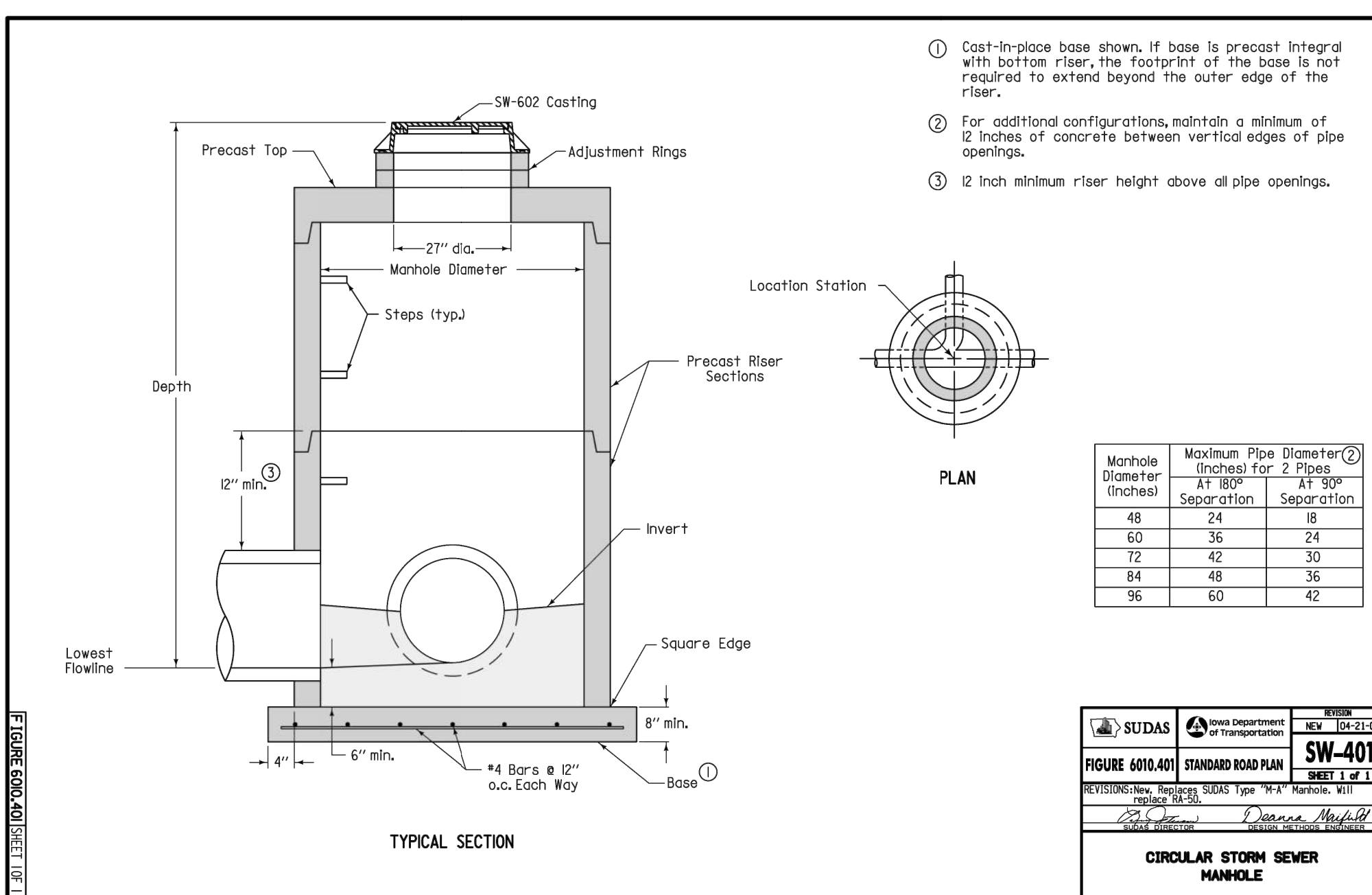
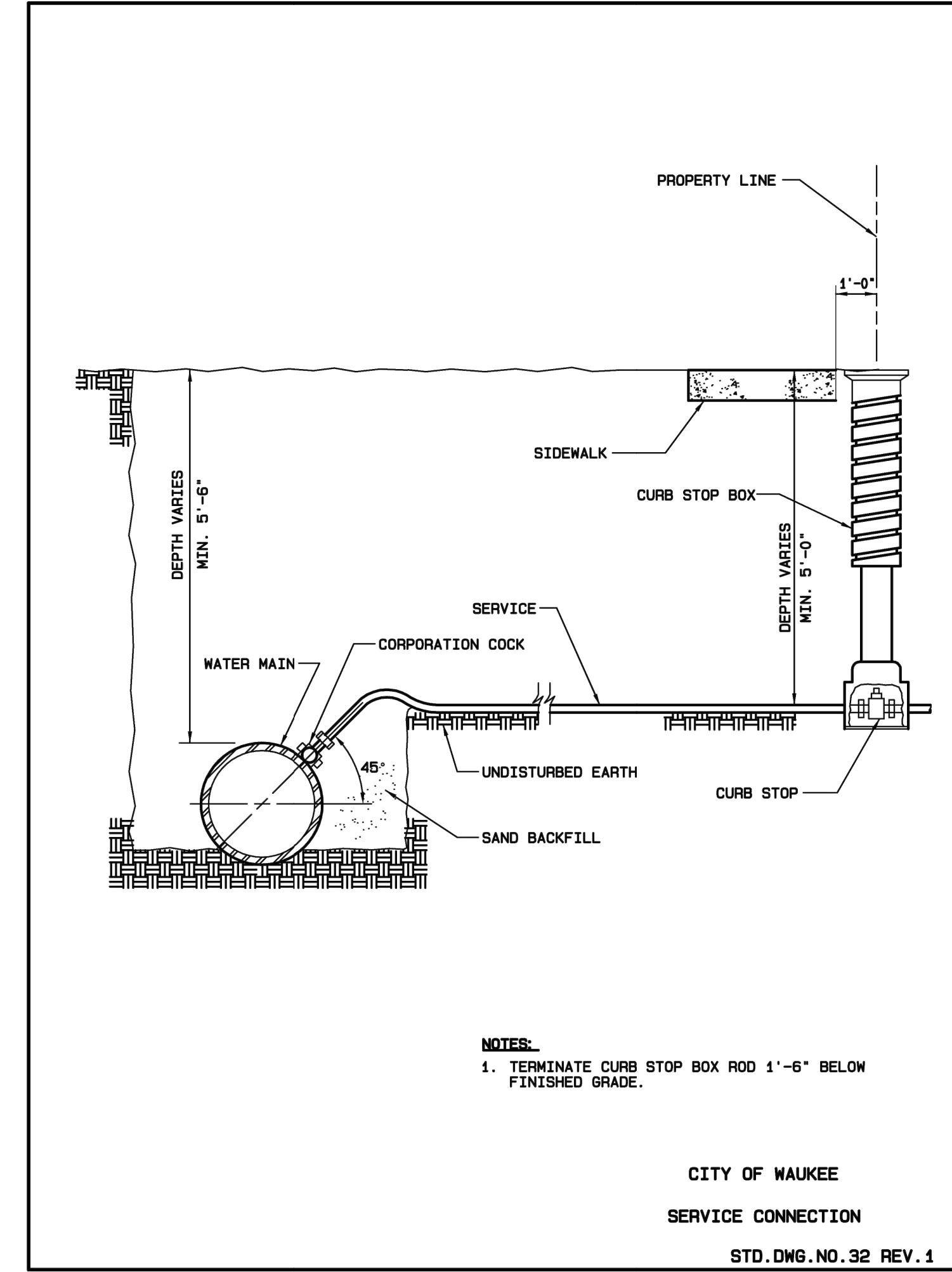
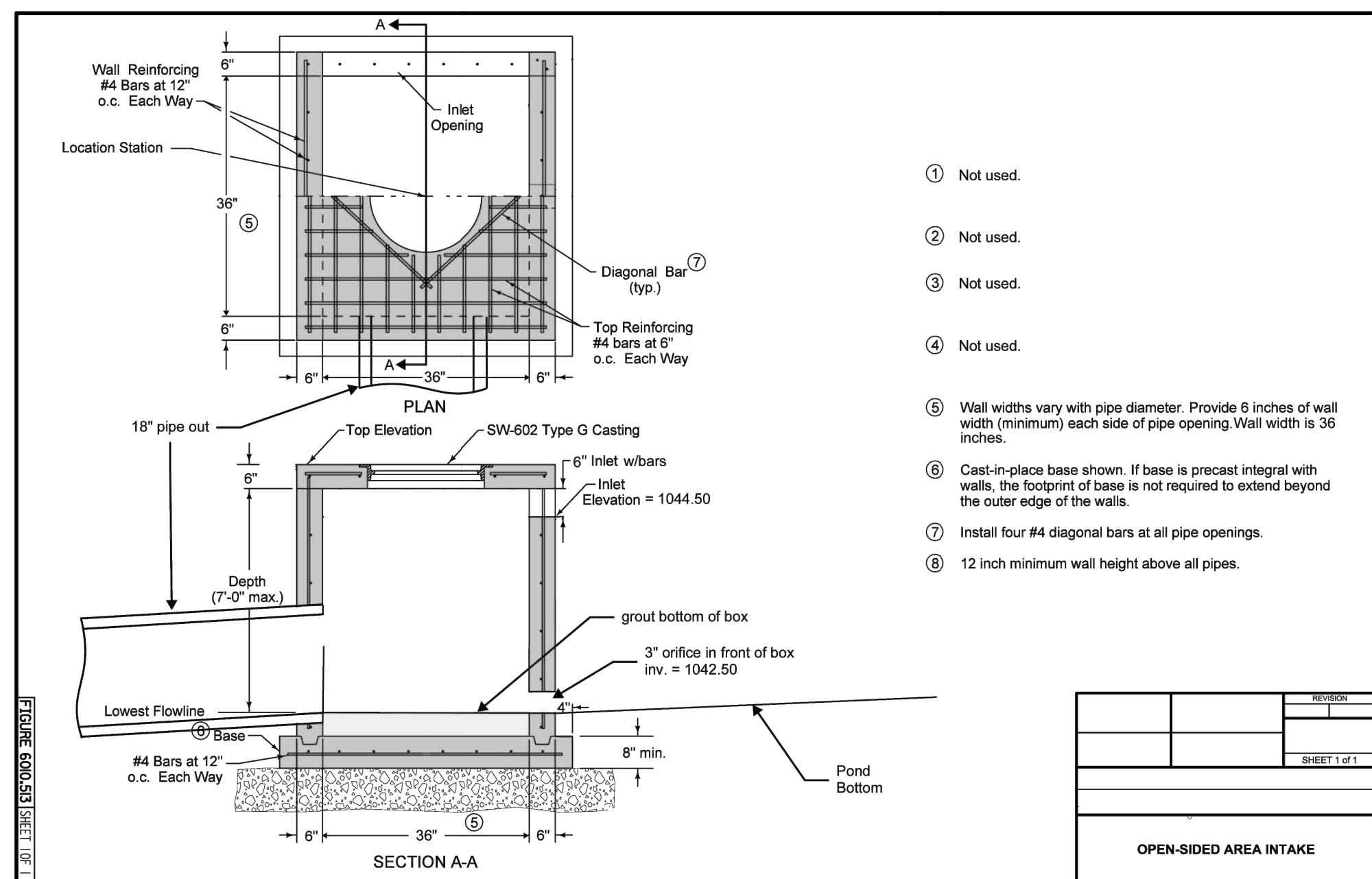
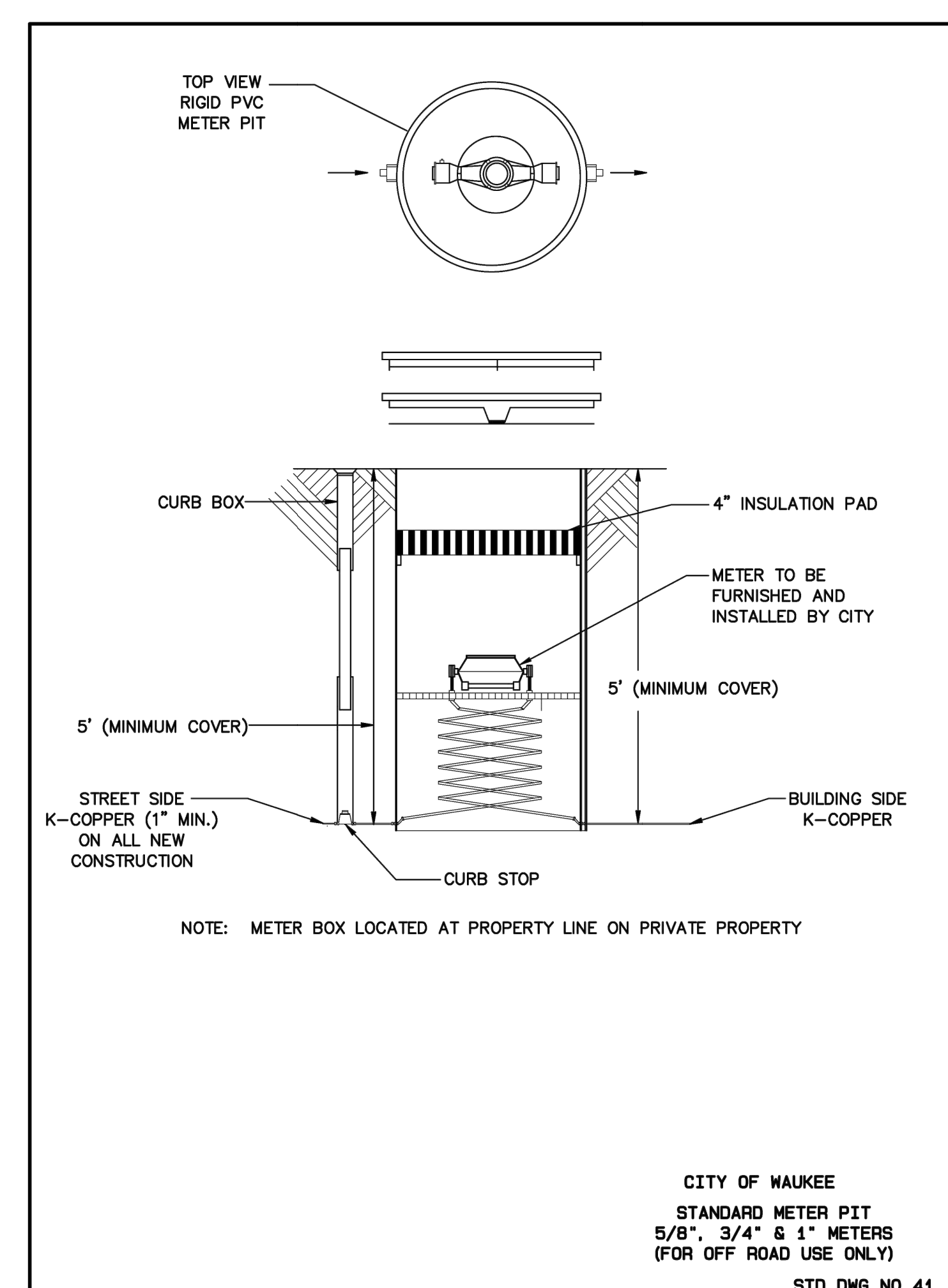
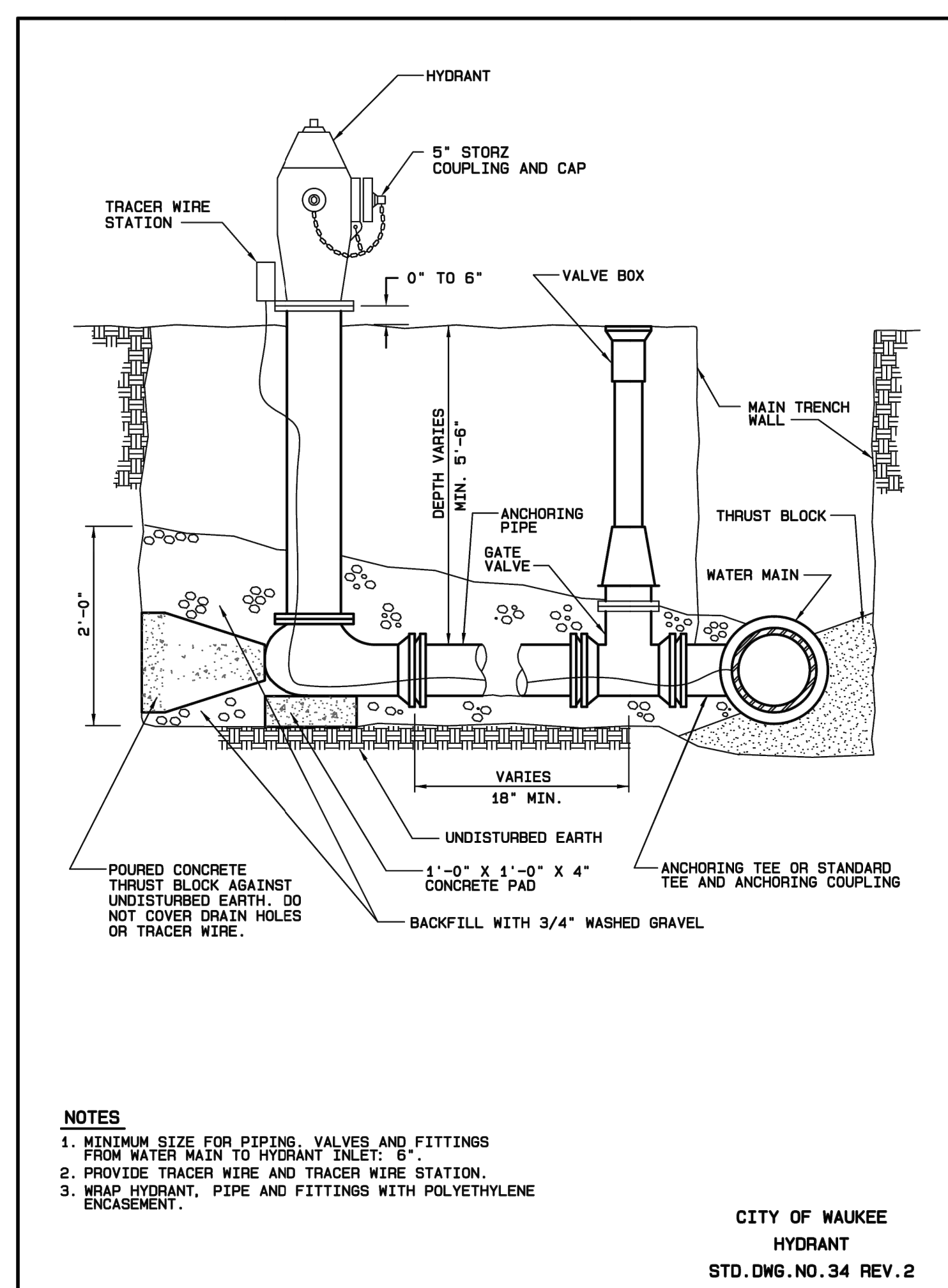
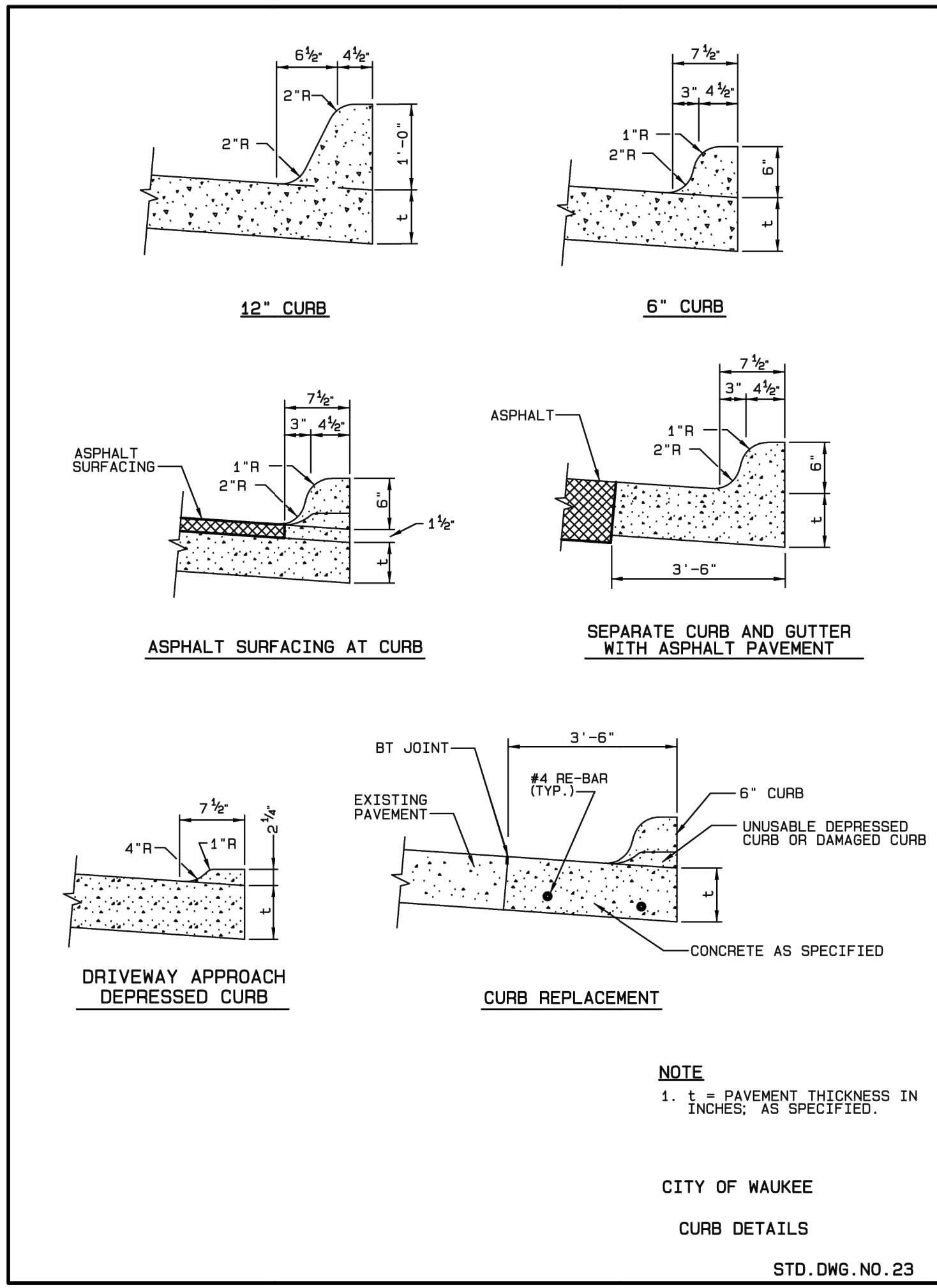
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NO.	DATE	REVISION
3	01.11.24	3rd Submittal
2	12.01.23	2nd Submittal
1	11.07.23	1st Submittal

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KANSAS CITY, MISSOURI 64105











SECTION 9020 - PLANT MATERIAL AND PLANTING

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Plant Material and Planting
B. Tree Drainage Wells
C. Warranty for Plant Material

1.02 DESCRIPTION OF WORK

- A. Furnishing, preparing, and installing plant material.
B. Constructing tree drainage wells.
C. Maintaining and replacing plants for completed planting work.

1.03 SUBMITTALS

- Comply with Division 1 - General Provisions and Covenants, as well as the following:
A. Submit copy of current certification that the Supplier is an Iowa Department of Agriculture and Land Stewardship Certified Nursery Dealer or Grower prior to starting work.
B. Prior to final acceptance, submit written maintenance instructions recommending procedures for maintenance of all plant material types, including watering, insect and disease control, fertilizing, pruning, tree protection, and staking.
C. When requested, provide certification stating container-grown material has been grown in the container for no less than 1 year.
D. Provide a sample of the proposed mulch for approval by the Engineer.
E. When requested, submit a schedule of unit prices for each size and variety of tree, shrub, and ground cover plant specified in the contract documents.

1.04 SUBSTITUTIONS

- Comply with Division 1 - General Provisions and Covenants, as well as the following:
Where evidence is submitted that a specified plant cannot be obtained, substitution may be made upon approval of the Engineer.

1.05 DELIVERY, STORAGE, AND HANDLING

- Comply with Division 1 - General Provisions and Covenants, as well as the following:
A. Protect plant root systems during transportation and storage, as necessary, with wet straw, moss, or other suitable material that will ensure root systems are maintained in a moist, healthy condition.
B. Protect all plants with a tarpaulin when being transported in an open vehicle.
C. When approved by the Engineer, temporary storage of plants on the project site may be allowed. When temporary on-site storage is not approved, provide such facilities and location at no additional cost to the Contracting Authority.
D. During temporary storage, heel-in plants and maintain them by providing moist straw, moss, or other suitable material to protect root systems; watering; and protecting from excessive sun, wind, and inclement weather conditions.

1.06 SCHEDULING AND CONFLICTS

- Comply with Division 1 - General Provisions and Covenants, as well as the following: Comply with the optimum planting dates specified in Section 9030, 3.01.

1.07 SPECIAL REQUIREMENTS

None.

1.08 MEASUREMENT AND PAYMENT

- A. Plants, By Count:
1. Measurement: Each tree, shrub, or ground cover plant accepted in place will be counted.
2. Payment: Payment will be at the unit price for each tree, shrub, or ground cover plant. Payment will be made in increments according to the following schedule:
a. 70% of unit price at acceptance.
b. 30% of unit price at end of 1 year establishment period, upon installation of replacements.
3. Includes: Unit price includes, but is not limited to, delivery; excavation; installation; watering; placing backfill material; mulching; tree protection; staking or guying; pre-emergent herbicide, if specified; maintenance during the establishment period; and replacements.
B. Plants, By Count, With Warranty:
1. Measurement: Each tree, shrub, or ground cover plant accepted in place will be counted.
2. Payment: Payment will be at the unit price for each tree, shrub, or ground cover plant. Payment will be made in increments according to the following schedule:
a. 70% of unit price at acceptance.
b. 15% of unit price at end of 1-year establishment period, upon installation of replacements.
c. 15% of unit price at end of 2-year warranty period, upon installation of replacements.
3. Includes: Unit price includes, but is not limited to, delivery; excavation; installation; watering; placing backfill material; mulching; tree protection; staking or guying; pre-emergent herbicide, if specified; maintenance during the establishment and warranty periods; and replacements.
A. Plants, Lump Sum:
1. Measurement: Lump sum item; no measurement will be made.
2. Payment: Payment will be at the lump sum price for plants. Payment will be made in increments according to the following schedule:
a. 70% of lump sum price at acceptance.
b. 30% of lump sum price at end of 1 year establishment period, upon installation of replacements.
3. Includes: Unit price includes, but is not limited to, delivery; excavation; installation; watering; placing backfill material; mulching; tree protection; staking or guying; pre-emergent herbicide, if specified; maintenance during the establishment and warranty periods; and replacements.
B. Plants, Lump Sum, With Warranty:
1. Measurement: Lump sum item; no measurement will be made.
2. Payment: Payment will be at the lump sum price for plants. Payment will be made in increments according to the following schedule:
a. 70% of lump sum price at acceptance.
b. 15% of lump sum price at end of 1 year establishment period, upon installation of replacements.
c. 15% of lump sum price at end of 2 year warranty period, upon installation of replacements.
3. Includes: Unit price includes, but is not limited to, delivery; excavation; installation; watering; placing backfill material; mulching; tree protection; staking or guying; pre-emergent herbicide, if specified; maintenance during the establishment and warranty periods; and replacements.
C. Tree Drainage Wells:
1. Measurement: Each tree drainage well will be counted.
2. Payment: Payment will be at the unit price for each tree drainage well.
3. Includes: Unit price includes, but is not limited to, excavation, furnishing and placing rock, engineering fabric, and placing backfill material.

PART 2 - PRODUCTS

2.01 PLANT MATERIALS

- A. General:
1. Ensure plant material meets the minimum requirements of size and grade as stated in the latest edition of American Standard for Nursery Stock, ANSI Z60.1.
2. Provide all plants true to name and tagged legibly as to name according to nursery standards of practice as recommended by the American Nursery and Landscape Association. Plant names indicated comply with the latest edition of "Standardized Plant Names" as adopted by the American Joint Committee of Horticultural Nomenclature.
3. Plants larger than those specified in the plant list with corresponding root system may be used upon approval of the Engineer.
4. Match plants planted in rows in form and size, unless otherwise specified in the contract documents.
B. Plant Material Quality:
1. Provide nursery plants suitable to and grown in the same USDA Plant Hardiness Zone as the project location.
2. One-sided branching plants from tightly planted nursery rows will be rejected.
3. Provide healthy specimens without objectionable deformities, voids, and open spaces, with well-developed branch and root systems. Ensure specimens are true to height, shape, and character of growth of the species or varieties. Provide plants showing appearance of good health and vigor.
4. Provide plants free of the following:
a. Harmful insects, insect eggs, borers, and all forms of infestation
b. Plant diseases and moldy or dried roots
c. Damage to trunk, bark, branches, leaders, root systems, or cut-leaders
d. Defects, disfiguring knots, sunscald injuries, and frost cracks
e. Rodent damage to bark and buds
5. Plants with broken or cut back terminal leaders or with circling roots may be rejected.
C. Balled and Burlapped Plants:
1. Provide firm, moist, unbroken root balls of the specified size.
2. Broken or loose root balls will be rejected.
3. No manufactured or artificially produced or mudded-in root balls will be accepted.
4. A container grown plant, in lieu of a balled and burlapped root ball, will be accepted provided it meets the specified size, species, complies with American Standard for Nursery Stock, ANSI Z60.1, and meets criteria for container grown plants.
D. Container Grown Plants:

- 1. Grow plants in sufficiently sized container for a minimum of 1 year, with a root system developed to hold its soil together, firm, whole, and moist when taken from the container.
2. No loose root systems in the container, root-bound, or circling of the root system will be accepted (ANSI Z60.1).
3. Containers with holes, shaping, or made of fabric as a means of preventing root growth from reaching the sides of the container, or pruning, or training roots to grow laterally rather than encircling the container are acceptable (ANSI Z60.1).
E. Bare Root Plants:
1. Only use where specified in the contract documents or as approved by Engineer.
2. Ensure plants have substantially all of the root system intact, with clean cuts on roots. Root system is to be packed in moisture-retaining material and bagged to protect the root system from drying out.
3. Prior to planting, properly prune and sweat according to the nursery source instructions.
4. Ensure plants are dormant or breaking bud if sweated at the time of planting.
5. Do not plant later than May 15.

2.02 MULCH

- Provide hardwood or softwood mulch complying with the following:
A. Shredded bark and shredded wood mixture containing no more than 50% wood chips.
B. Produced by a mechanical debarker and chipping machine.
C. Reasonably free from leaves, twigs, dust, toxic substances, and any other foreign material.
D. Not in an excessively wet or decomposed condition.

2.03 BACKFILL MATERIAL

- A. Retain backfill material for plantings from soil excavated from the planting pit.
B. Ensure backfill material is loose, friable, and free of clods, sod, vegetation, and rocks 2 inches in diameter or larger. Do not use frozen or muddy soil as backfill material.

2.04 STAKING MATERIAL

- A. Stakes: Comply with Iowa DOT Article 4154.09. Minimum length of 6 feet.
B. Trunk Support Strapping:
1. Breathable, flexible strap material or arborite or other material approved by the Engineer.
2. Provide strapping material of adequate length to prevent restriction of trunk, branches, or stems and contact of staking or guying wire with tree trunk.
C. Wire: Provide minimum 17 gauge, rust inhibitive wire to resist breaking during high winds and natural weathering conditions.
D. Manufactured Staking System: Upon approval of the Engineer, manufactured staking systems may be used in lieu of stakes, wire, and trunk support strapping.

2.05 GUYING MATERIAL

- A. Earth Anchors:
1. Steel auger type with looped end; minimum 3/4 inch diameter, 36 inch long anchor shank, with 5 inch minimum diameter anchor disk.
2. Driven style earth anchors with a minimum 1,000 pound capacity in normal soils.
B. Trunk Support Strapping: Comply with Section 9030, 2.04, B.
C. Cable: 1/8 inch galvanized wire rope or equivalent cable with a minimum 1,500 pound capacity. Provide cable with ends clean and unfrayed.
D. Cable Clamps: Match size and strength of cable. Provide two for each end of cable.
E. Flagging Material: Brightly colored, minimum 12 square inches.

2.06 TREE PROTECTION

- Install a correctly fitted mesh (corrugated or vinyl plastic) or corrugated or crepe paper, specifically manufactured for tree trunk protection, having qualities to resist insect infestation and to allow free air flow to trunk tissues, or similar material approved by the Engineer.

2.07 WATER

- Provide water and watering equipment such as hoses, tanks, reels, bags or bladders, mobile equipment, nozzles, and sprinklers for the purpose of regular watering activities during the establishment period. Provide water free of substances harmful to plant growth. No fertilizers, pesticides, or growth regulators will be used in the water.

2.08 TREE DRAINAGE WELLS

- A. Porous Backfill Material: Comply with Iowa DOT Section 4131.
B. Engineering Fabric: Comply with Iowa DOT Article 4196.01.

2.09 HERBICIDE

- Provide a granular pre-emergent herbicide as approved by the Engineer.

PART 3 - EXECUTION

3.01 ALLOWABLE PLANTING DATES

- Install plant material during the following times:
A. Evergreen Plants: September 1 to September 30 and March 1 to April 30, but not after candles exceed 1 inch.
B. Deciduous Plants (Balled and Burlapped and Container): October 1 to November 30 and March 1 to May 15.
C. Deciduous Plants (Bare Root): In the spring prior to May 15.
D. Weather Restrictions: Planting may be conducted under unseasonable conditions, except in weather below 32°F or above 90°F. No variance from plant warranty or other requirements will be given for plants installed outside the specified periods.

3.02 PREPARATION

- A. Provide notice to the Engineer 3 days prior to planting.
B. All plants will be inspected by the Engineer prior to planting. Plants may be inspected and approved at the location by the Engineer for compliance with the specifications for quality, size, and variety. Such approval does not waive the right to reject any plant material after it has been delivered to the site and/or installed.
C. Provide barriers or fencing as approved by Engineer to protect the public from injury when planting installation is within the right-of-way.

3.03 LOCATION OF PLANTS

- A. Mark the location of all plants with flags or lath according to the contract documents. Mark trees individually. Stake the outline of bedded plants or shrub groups for the quantity on the plans without marking individual plants. The Engineer will approve the locations marked prior to excavation of planting pits.
B. Make field adjustments in plant locations where underground or overhead obstruction is encountered, or where changes have been made as approved by the Engineer.

3.04 EXCAVATION OF PLANTING PIT

- A. Excavate the plant pit, centered at the location marks, cylindrical in shape with a diameter 3 times larger than ball or root condition, and flat bottom. Excavate plant pit to a depth to match the nursery grade of the root flare for all balled and container root systems with well-draining soils. Do not over excavate the pit for container or balled and burlapped plants. Excavate plant pit to a depth 6 inches deeper for bare-rooted systems.
B. Scarily sides of excavated pit.
C. If specified, following excavation of planting pit for all trees, fill the pit full of water; allow to stand (without adding water) for an 18 hour period to determine porosity of the soil.
D. If the soils are too impervious, provide a tree drainage well per Figure 9030.103 or plant 2 to 3 inches above the surrounding grade, per Figure 9030.101, as directed by the Engineer.

3.05 TREE DRAINAGE WELLS

- Install drainage wells when specified in the contract documents or when directed by the Engineer due to the presence of impervious soils.
A. Locate the drainage well at the edge of the excavated planting pit.
B. Auger an 8 inch to 12 inch diameter hole to existing pervious soil or to a maximum depth of 10 feet. If pervious soil is encountered, extend hole a minimum of 12 inches into the pervious layer.
C. Fill the excavated hole with porous backfill material and cover the aggregate with engineering fabric.
D. Following completion of drainage well, fill the pit full of water; allow to stand for an 18 hour period to verify sufficient drainage exists. The Engineer will determine if the drainage is sufficient.

3.06 PLANTING

- A. Bare Root Plants:
1. Remove all ties, ribbons, wrap, and other items except plant identification from the branch system.
2. Remove all root packing and prune broken roots to sound wood with clean cuts.
3. Build a firm cone-shaped mound of soil in the middle of the planting pit.
4. Place the plant centered, upright, plumb, and with desired orientation in the planting pit, with the root flare matching existing grade.
5. Spread and arrange roots in their natural position laterally away from the central trunk to prevent kinking or circling. Do not fold, crimp, or mat roots together.
6. Carefully place backfill material in layers, filling all voids and avoiding injury to the root system until two thirds of the planting pit is complete; fill the pit with water and allow the soil to settle.
7. Continue placing backfill material up to grade level. Water in the tree. Allow water to completely soak into soil.
B. Balled and Burlapped and Container Plants:
1. Ensure root systems are moist at the time of planting.
2. Remove all ties and wrap from branch system, except plant identification.
3. Container Plants:
a. Remove plant root system carefully from container prior to planting without disturbance to root systems.

- b. Inspect root system and cut any circled (girdled) roots.
c. Place plants centered, upright, plumb, and with desired orientation in planting pit with the root flare matching existing grade.
4. Balled and Burlapped Plants:
a. Place plants centered, upright, plumb, and with desired orientation in planting pit with the root flare at or slightly above existing grade or 2 to 3 inches above grade if in compacted clay or poorly drained soils.
b. After plant placement, cut and remove the top 1/2 of the wire, burlap, and twine from root ball.
5. Carefully place and lightly tamp a small amount of backfill material around the root ball base to stabilize the root ball.
6. Place loose excavated soil 2/3 of the depth of the planting pit. Water in the tree. Allow water to completely soak into soil.
7. Continue placing backfill material up to grade level. Lightly tamp but do not compact the soil around the plant. Water in a second time.
8. If specified, rototill soil in a 4 foot radius around the planting pit to break up compacted soil.
C. Planting on Slopes:
1. Place the top of the root flare at or slightly above the finished grade at the center of the planting pit.
2. For all plants planted on significant slope, form a saucer or a dam or shoulder on the downhill side to catch and hold water and to discourage erosion.

3.07 WATERING

- A. Water each plant immediately after planting.
B. Water plants a minimum of 10 to 15 gallons per plant per week when less than 1 inch of precipitation is received in the immediate vicinity. Apply sufficient water to soak the plant's root zone. Follow this watering procedure throughout the establishment period.

3.08 MULCHING

- A. Dig edges of mulched areas to ensure the top of the mulch at the edge of the planting area matches the existing ground surface.
B. Place mulch 3 inches deep in the planting saucer within 2 calendar days of planting.
C. Mulch an area around tree trunks and shrub branch lines a minimum of 6 inches larger than the tree canopy.
D. Provide a continuous mulch area around plant groupings.
E. Following mulch placement, pull mulch back 6 inches from the base of all trees and shrubs to allow air circulation.

3.09 TREE PROTECTION

- A. When specified in the contract documents, or when directed by the Engineer, protect the trunk of deciduous trees in the fall of the year in which the tree is planted.
B. Inspect the trunk for injuries and evidence of insect infestation prior to wrapping.
C. Protect trunk from the ground line to the height of the first branch. If plant has multiple stems, cover each stem separately.
D. Remove tree protection by April 1 of the next spring.

3.10 STAKING AND GUYING

- A. General:
1. Maintain all plants in an upright and plumb condition.
2. Complete staking or guying by the end of the day in which they were installed for all single stem plants over 1 inch diameter.
3. Do not stake clump form plants and plants in paved pedestrian areas unless approved by the Engineer.
B. Staking:
1. Provide two stakes for each tree for trees 2 1/2 inches in diameter and smaller. Place one of the stakes on the southwest side of the tree, or as directed by the Engineer, and place the second stake directly opposite the first.
2. Provide three stakes for each tree for trees 2 1/2 to 4 inches in diameter. Locate one stake on the southwest side of the tree with remaining stakes equally spaced around the tree.
3. Locate stakes uniformly from the trunk of the tree at a distance equal to 1/4 to 1/3 of the height of the tree, or 2 feet minimum. Place stakes outside of the planting pit and within the mulch area.
4. Set posts vertically into unexcavated soil at a minimum 2 foot depth or until firm, providing a required post height above grade.
5. Attach wire with trunk protection to trunk at a minimum of 4 feet above grade or between one half and two thirds distance from finished grade to the top of the tree with slight slack in wire to allow for tree movement.
6. Secure wire to stakes at 6 inches from the top of the stake; mark all wire with flagging material.
7. Install manufactured staking system according to manufacturer's published recommendations.

3.10 STAKING AND GUYING (Continued)

- A. Guying:
1. Provide three earth anchors and cables for evergreen trees 10 feet and taller and deciduous trees over 4 inches in diameter. Locate one anchor on the southwest side of the tree with remaining anchors equally spaced.
2. Locate the anchor a distance from the trunk equal to 1/3 of the tree height.
3. Attach the cable with a trunk protector to the trunk between 1/3 and 1/2 of the tree height, or near the lowest main branches for deciduous trees.
4. Screw an auger style anchor into unexcavated soil until only the looped top is exposed. Install driven style anchors a minimum of 2 1/2 feet into the soil.
5. Secure cable to anchor with slight slack in cable; mark all anchor cables with flagging material.
6. Install manufactured staking system according to the manufacturer's published recommendations.
B. Remove: Remove all staking and anchoring materials from all plants at the end of the 1 year establishment period and remove from site.

3.11 PRUNING

- A. General:
1. Provide proper and sharp pruning tools to provide a clean cut without injuring the branch collar.
2. Prune in such a manner as to retain the natural shape of the plant. Do not prune the terminal leader of a plant. Leave no prostrate stubs, and prune to the closest outward growing bud.
3. Plant materials incorrectly pruned will be rejected.
B. Deciduous Trees:
1. Prune broken, damaged, or otherwise defective branches. Remove all branches that may not develop properly. Also, eliminate narrow crotches or competing leaders.
2. Prune to develop an upright leader that will promote the symmetry of the tree. Prune flowering or specimen trees to develop their natural form.
3. Prune all trees in Class A sidewalks or other paved pedestrian areas to provide a 7 foot height clearance, unless otherwise directed by the Engineer.
C. Evergreen Trees and Shrubs: Remove dead and broken branches.
D. Deciduous Shrubs: Remove dead or irregular branches. Prune to develop their natural form.

3.12 CLEAN UP

- A. Perform cleaning during installation and upon completion of work.
B. Remove all excess materials, trimmings, branches, soils, debris, and equipment from the site.
C. Repair any damage resulting from planting operations.
D. Clean all paved areas with a broom.
E. Remove all tags and labels from plants following acceptance by the Engineer.

3.13 ESTABLISHMENT AND WARRANTY PERIODS AND ACCEPTANCE

- A. Establishment Period: The plant establishment period is 1 year after the installation is accepted by the Engineer. A plant inspection will be made by the Engineer prior to the expiration of the establishment period.
B. Warranty Period: If a plant warranty is specified in the contract documents, the 1 year warranty period begins immediately after the expiration of the 1 year establishment period. Inspection of plants will be made by Engineer at the end of the 1 year establishment period and again prior to the expiration of the warranty period.
C. Maintenance: Care for all plants during the establishment or warranty period as required to keep plants in a live, healthy growing condition.
1. Prune plants to maintain a desirable shape and to remove any dead or broken limbs.
2. Remove weeds and grasses from planting beds and mulch areas. Apply a pre-emergent herbicide to control weed growth when directed by the Engineer.
3. Water as required to enhance early root growth and maintain a moist soil.
4. Adjust stakes and ties to maintain plant in an upright and plumb condition.
5. Re-set settled plants to proper grades and position. Restore planting saucer and mulch; add backfill material and mulch as may be required.
6. Apply appropriate insecticides and fungicides necessary to maintain plants free of insects and disease.
D. Plant Condition: Ensure all plants are in a live, healthy, and growing condition both at the date of acceptance of the installation by the Engineer, at the end of the plant establishment period, and at the end of the warranty period.
E. Replacement: Replace all plants not found to be in a live, healthy, and growing condition during inspection at the 1 year establishment period and again at the warranty period (if specified) at no additional cost to the Contracting Authority.
1. Upon notice from Engineer, remove rejected plants from the site and replace with plant material of the same species and size as originally specified. Install replacement plants complying with the contract documents.
2. Plants damaged due to fire or flooding beyond the contractors control or ice storms, hail, tornadoes, or acts of vandalism do not require replacement.

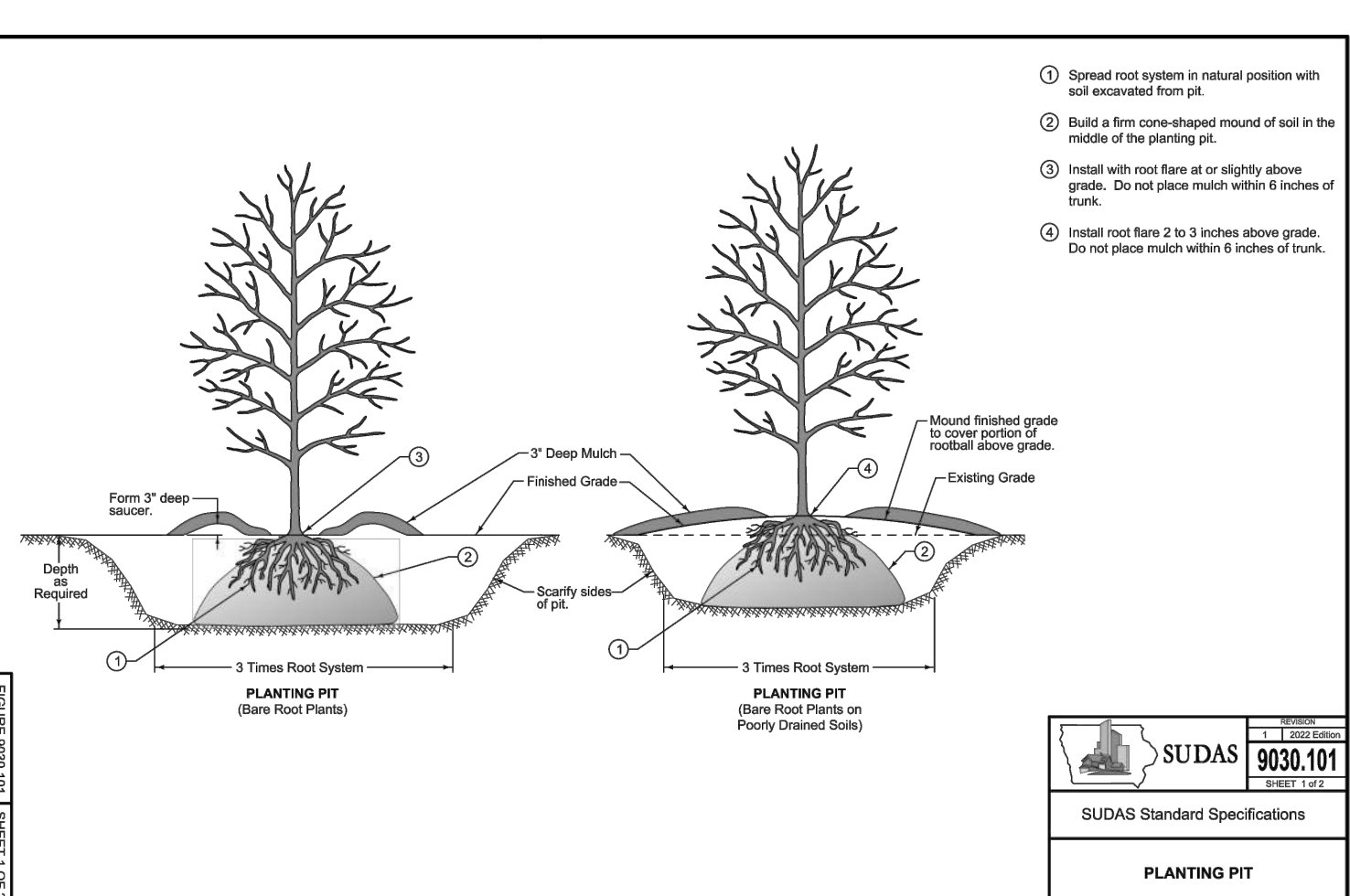
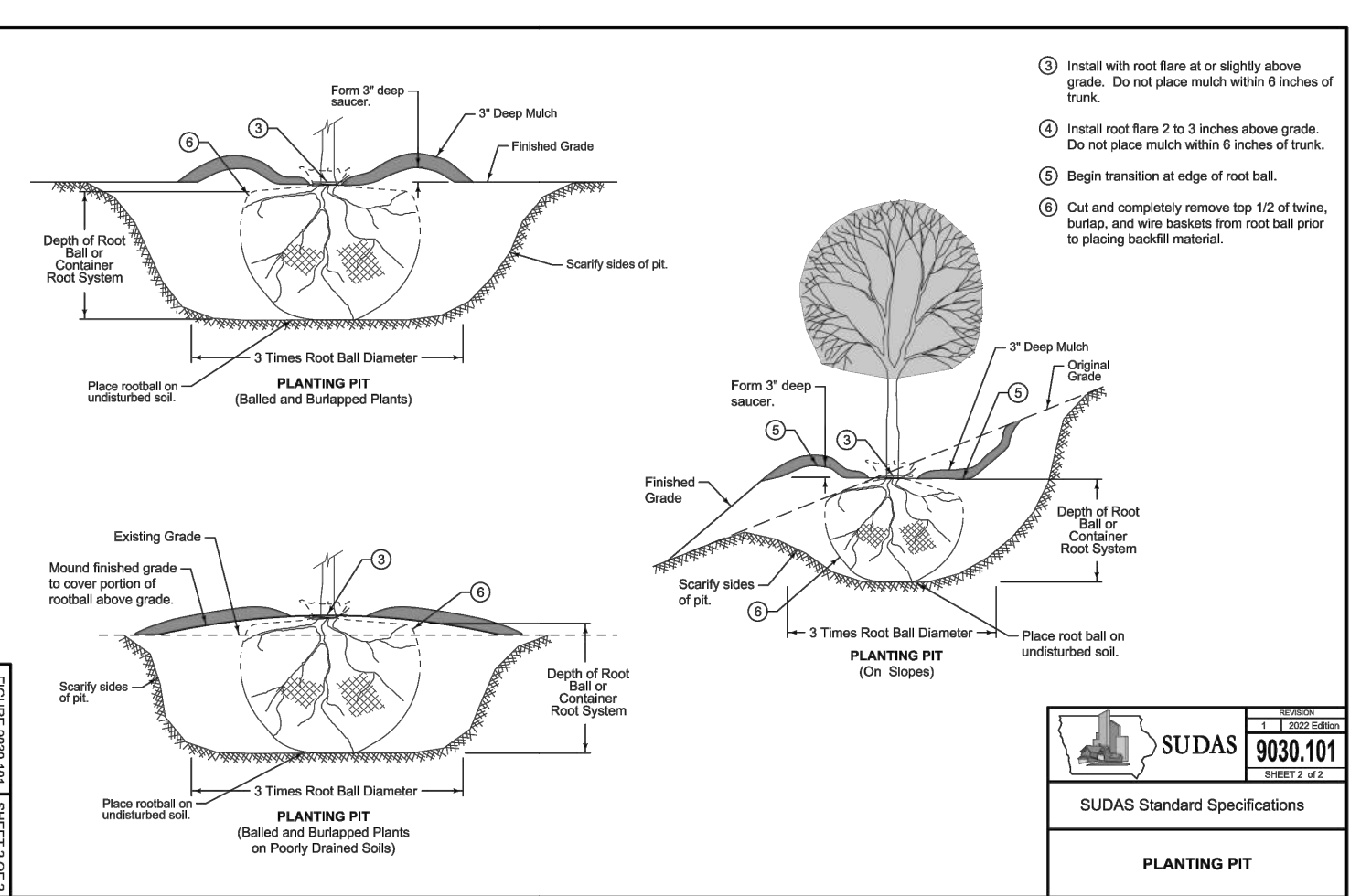
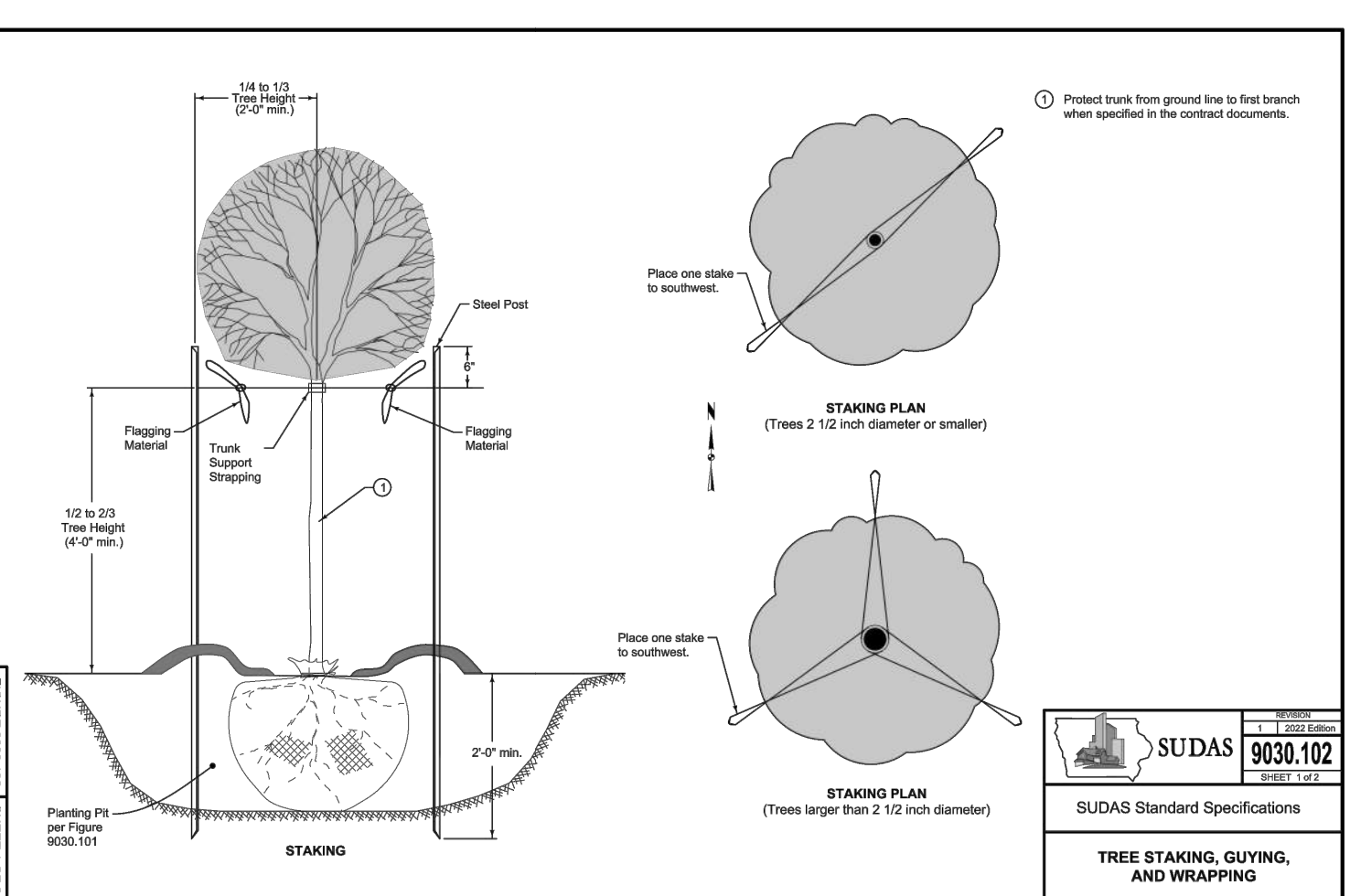
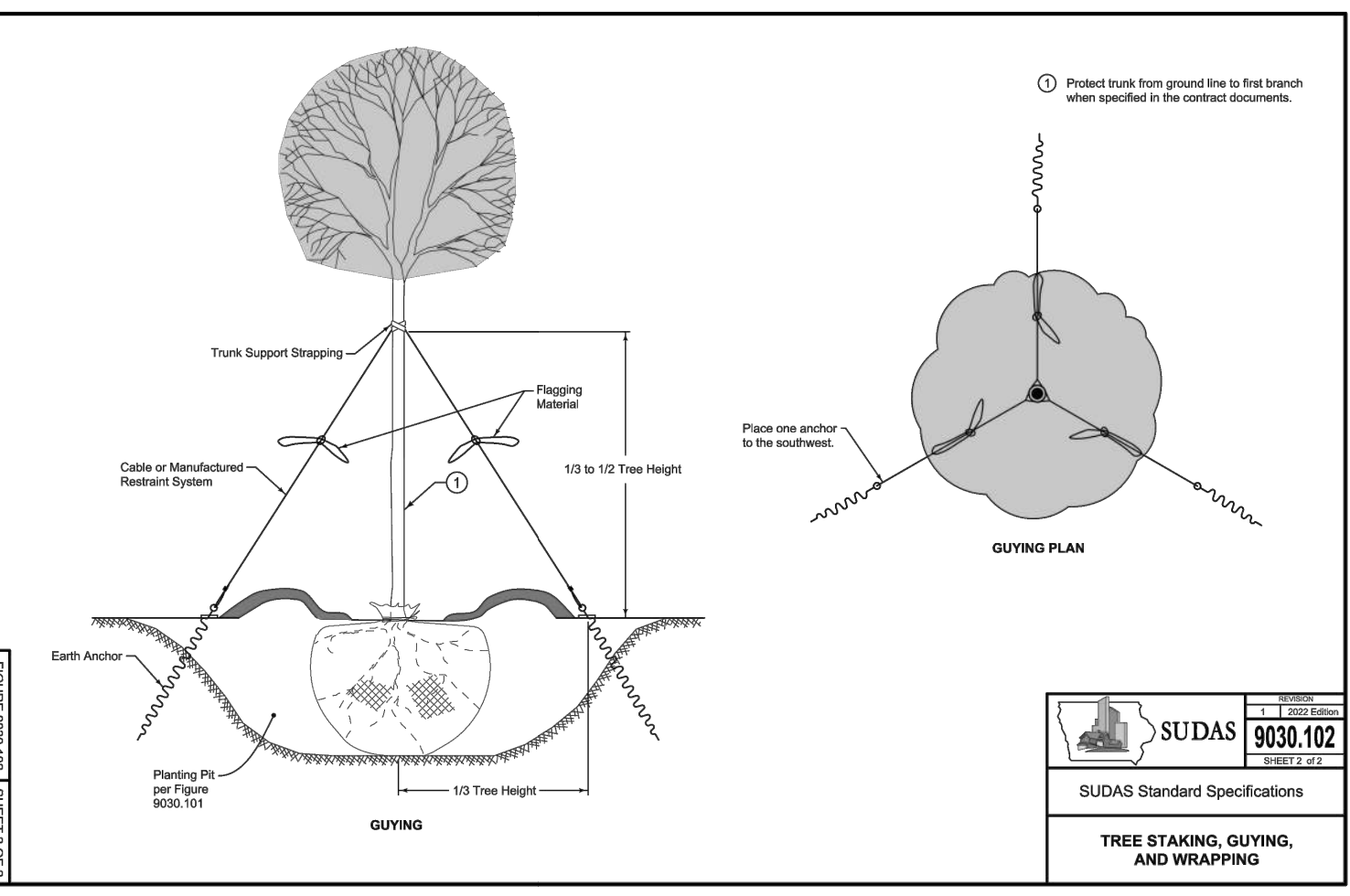
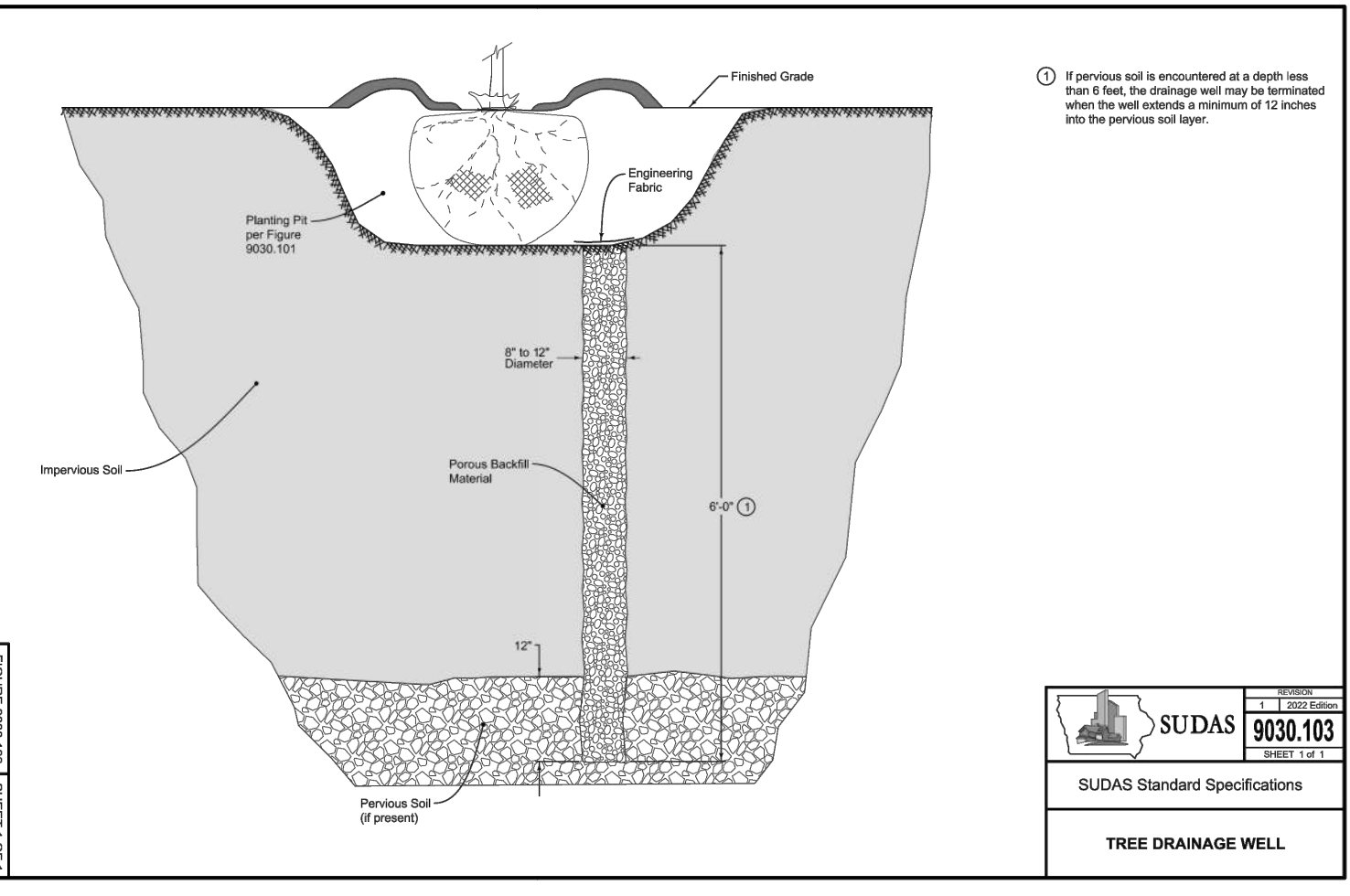


Table with 3 columns: NO., DATE, REVISION.

DRAWN BY: AF, CHECKED BY: AL

Renaissance Infrastructure Consulting logo and contact information: 132 ZABIE AVE. NE, WAUKEGE, IA 50485 66603, 913.317.9500, WWW.RENINFRA.COM



15225 Broadmoor Street  
Overland Park, KS 66223  
hd Architecture, LLC

9/12/2023  
Architect - Gregory D. Highberger  
License - STATE - NUMBER

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**CIVIL CONSULTANT**  
Renaissance Infrastructure Consulting  
8653 Penrose Ln  
Lenexa, KS, 66219  
913-317-9500

**STRUCTURAL CONSULTANT**  
Apex Engineers, Inc  
1625 Locust St  
Kansas City, MO 64108  
816-421-3222

**MEP CONSULTANT**  
5BYS Engineers, LLC  
1100 Main Street, Floor 4  
Kansas City, MO 64105  
(913) 689-9449

A New Retail Location For:

PLANNING

North of 1145 SE Alice's Rd  
Waukee, IA 50263

Date: 10/19/2023  
Job Number: 20-003.xx  
Drawn By: JS  
Checked By: GH  
Type: 3A-L-4

Revisions	Number	Date	Description
1	12.21.23		2nd Planning Comments

**A5.0**  
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EXTERIOR ELEVATIONS & BUILDING SECTION

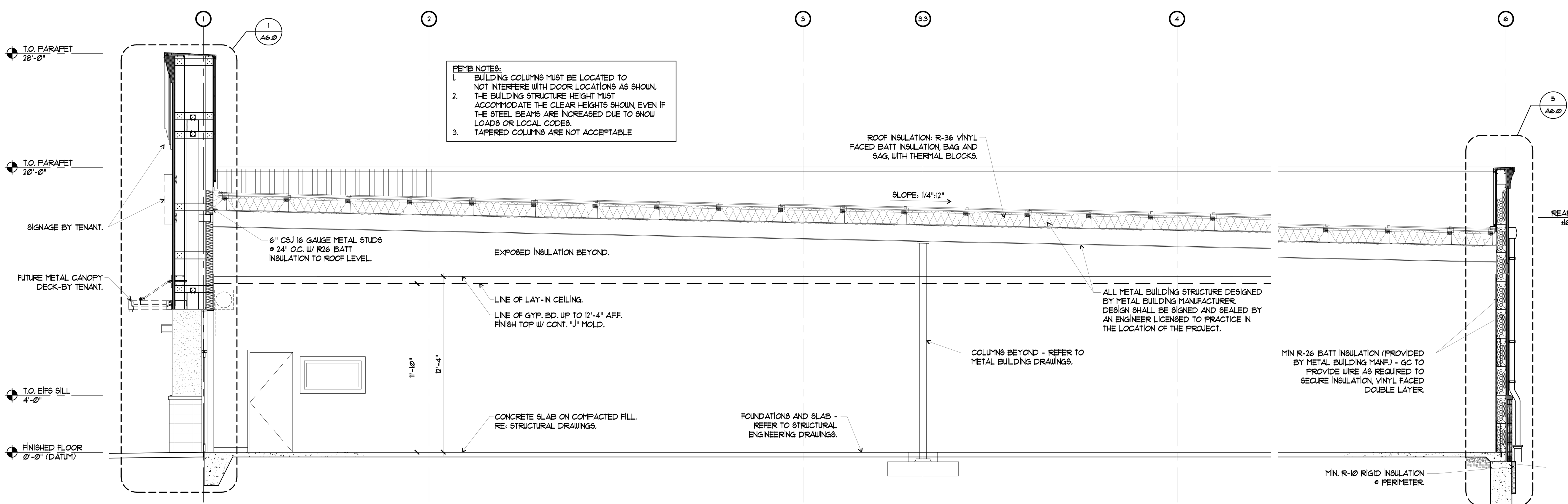
### ELEVATION LEGEND

KEYNOTE	HATCH	DESCRIPTION	COLOR
SP-RB	[Hatch]	SPLIT FACED CMU VENEER - RUNNING BOND	SHERWIN WILLIAMS - 'VIRTUAL TAUPE' - SW7039
SP-SB	[Hatch]	SPLIT FACED CMU VENEER - STACKED BOND	SHERWIN WILLIAMS - 'VIRTUAL TAUPE' - SW7039
EFS-1	[Hatch]	EIFS - COLOR 1 (FINISH - PRODUCT STO 310)	STO 'SANDSTONE' 93860 (NA10-0052)
EFS-2	[Hatch]	EIFS - COLOR 2 (FINISH - PRODUCT STO 310)	STO 'SMOKED PUTTY' 93240 (NA10-0053)
EFS-3	[Hatch]	EIFS - ACCENT COLOR (FINISH - PRODUCT STOUT 1300)	STO SW 'ENVY' SW6925 (NA10-0054)
BRK-1	[Hatch]	THIN BRICK	GLEN-GERY ROME GREY SMOOTH OR EQ
STN-1	[Hatch]	CULTURED STONE	COUNTRY LEDGESTONE - ASHFALL OR EQ
RE-1	[Hatch]	3"-24 GAUGE DOUBLE LOK GALVALUME METAL ROOF SYSTEM	SOLAR WHITE
SLL	[Hatch]	3 3/8" x 3 5/8" EIFS SILL W/ BEVEL - SEE DETAIL 1A2.3	STO 'SMOKED PUTTY' 93240 (NA10-0053)
PC-1	[Hatch]	24 GAUGE KYMAR COATED METAL COPING (PROVIDED BY METAL BUILDING MANF.)	SHERWIN WILLIAMS 'ENVY' SW6925 LVR 18%
DNS	[Hatch]	GALVANIZED METAL DOWNSPOUT (SIZED & PROVIDED BY METAL BUILDING MANF.)	MBCI SIGNATURE 200 - 'LIGHT STONE'
DECK	[Hatch]	3'-0" METAL DECK CANOPY - HANGER ROD SUPPORTED W/ 8" FASCIA - SUPPLIED & INSTALLED BY SIGN VENDOR - CONTRACTOR TO PROVIDE & INSTALL WALL BOLTS (SEE A6.0)	SHERWIN WILLIAMS 'ENVY' SW6925 LVR 18%
SCNC	[Hatch]	LSI LED PATRIOT WALL SCONCE @ 8'-8" A.F.F. (SEE ELECTRICAL)	BRZ - 'BRONZE'
WLPK	[Hatch]	LED EXTERIOR WALL PAK LIGHT @ 12'-0" F.F.F. (SEE ELECTRICAL)	
D&F	[Hatch]	STEEL DOOR & HOLLOW METAL FRAME	SHERWIN WILLIAMS 'BALANCED BEIGE' SW7037
XX		STOREFRONT TYPE (REFER TO SHEET A2.0)	<b>PAINTING NOTES:</b> (1) COAT OF S-W LOXON BLOCK SURFACER A24W200 (OR EQUAL), (DUMPSTER) (2) COATS OF S-W CONFLX XL ELASTOMERIC HIGH BUILD ENCLOSURE COATING, AS-400 SERIES (OR EQUAL)
XXX		DOOR NUMBER (REFER TO SHEET A2.0)	METAL - (2) COATS OF S-W METALTEX ACRYLIC SEMI-GLOSS (B42 SERIES) <b>LINTELS -</b> PAINT STOREFRONT LINTELS PER 'METAL' NOTE ABOVE WITH SHERWIN WILLIAMS 'BALANCED BEIGE' SW7037 AFTER PRIMING WITH (1) COAT OF S-W PRO INDUSTRIAL PRO-CRYL UNIVERSAL PRIMER (B66-310 SERIES)

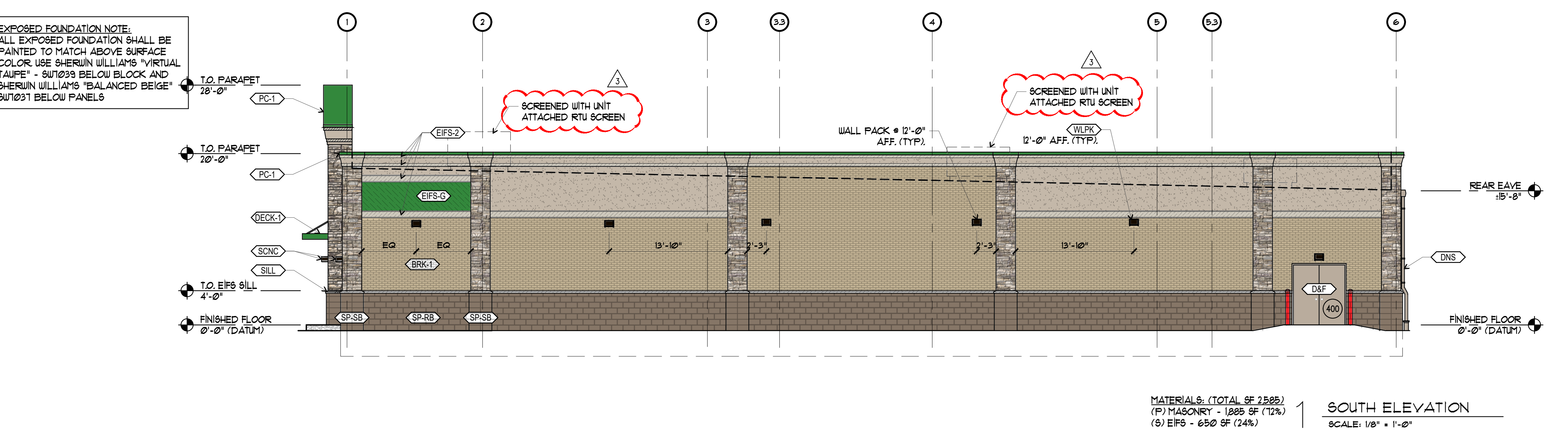
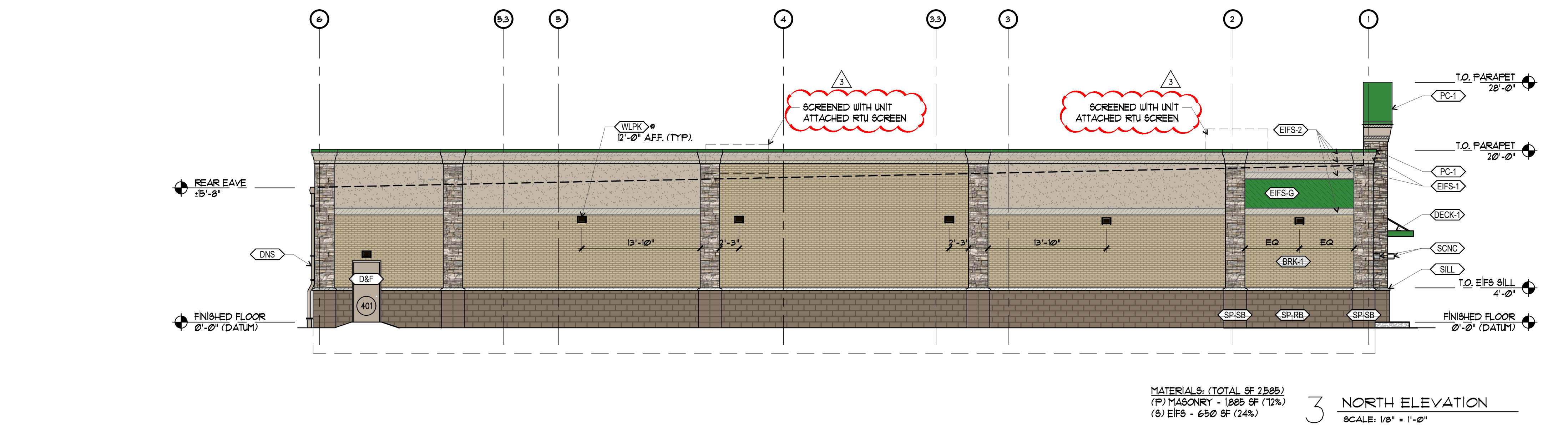
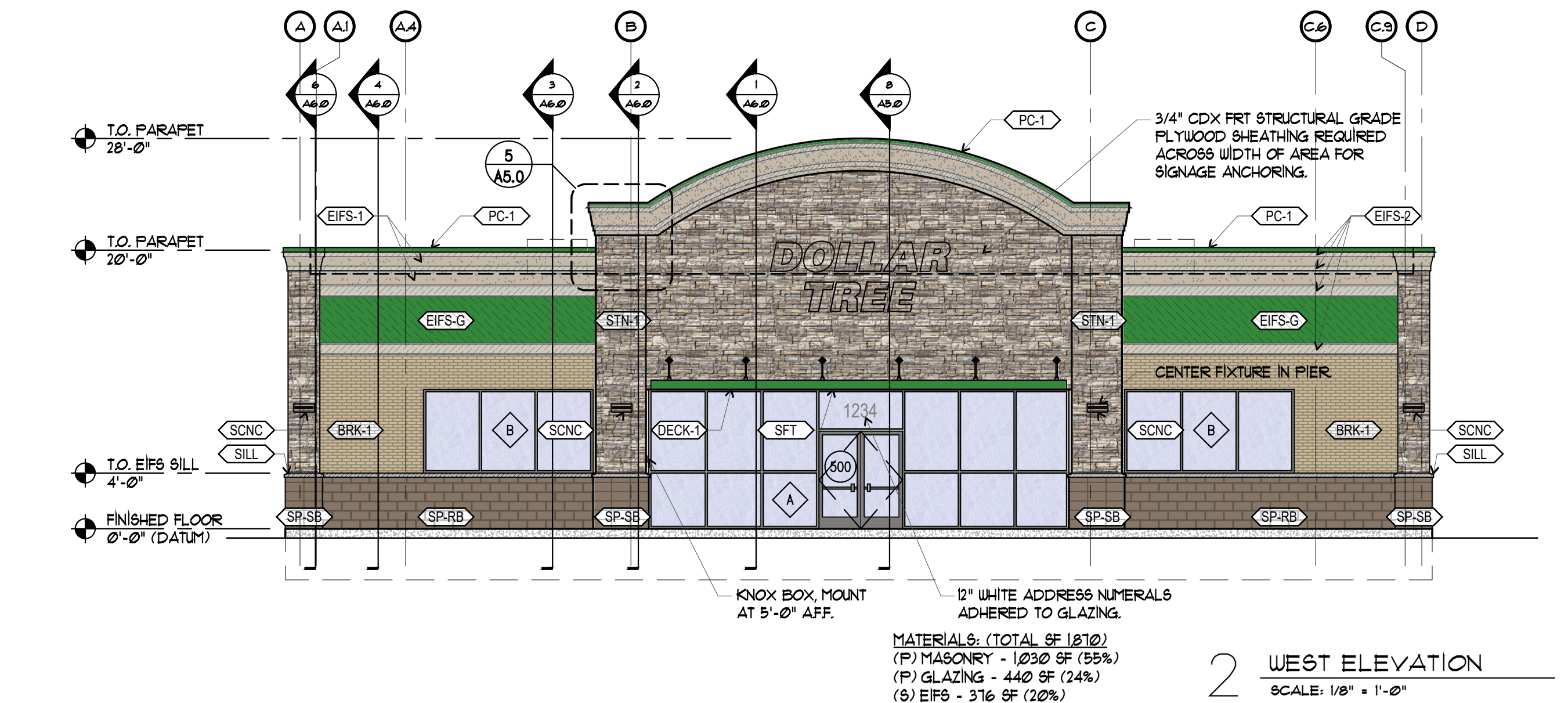
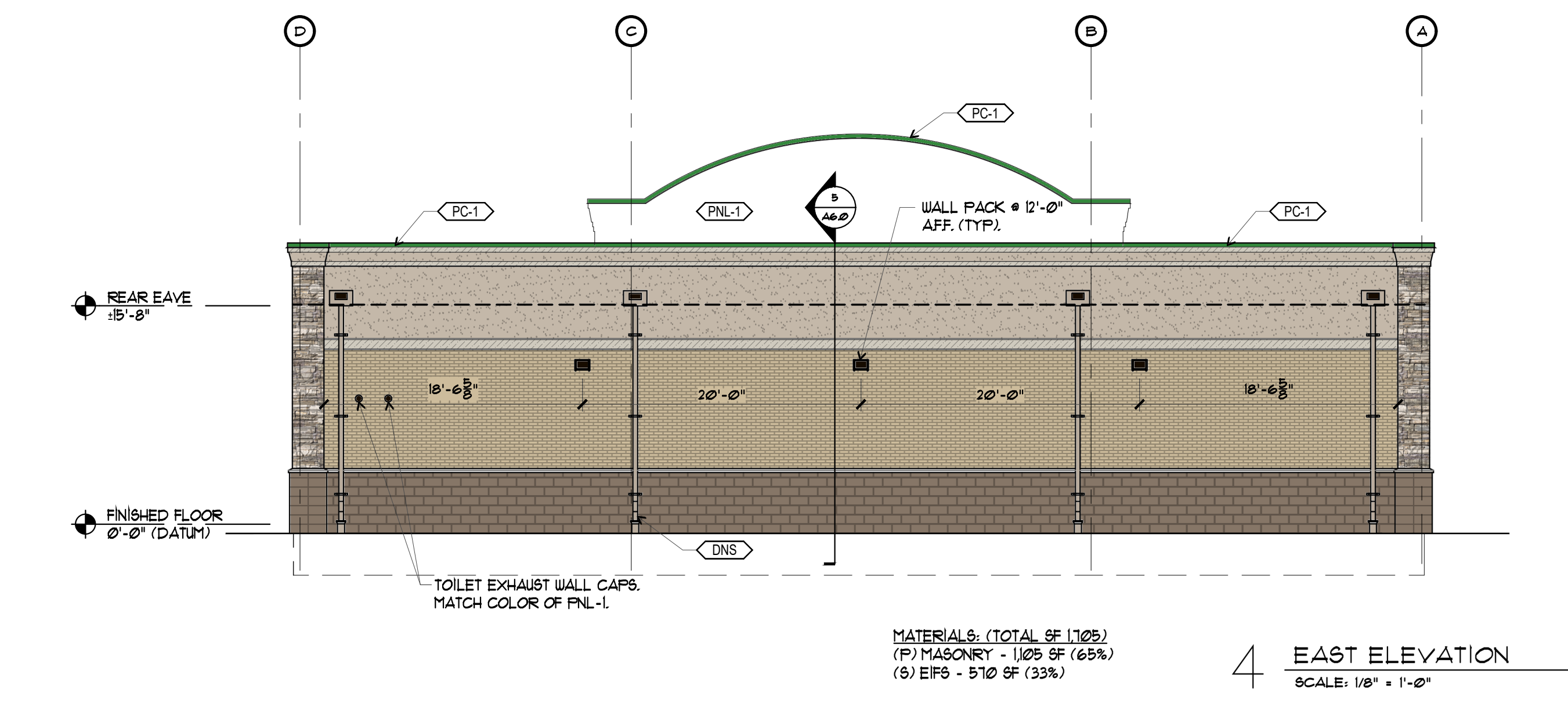
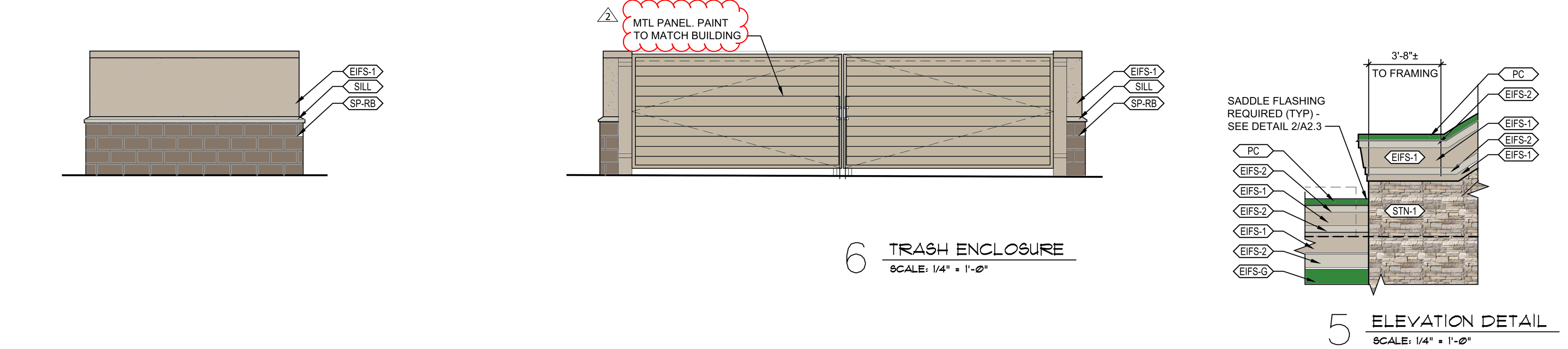
**GENERAL NOTES:**

- METAL PANELS, SOFFITS, GUTTERS, AND DOWNSPOUTS ARE TO BE MBCI OR EQUAL. SUBSTITUTED COLORS ARE TO MATCH PROTOTYPE STANDARDS.
- ALL EXPOSED FOUNDATION SHALL BE PAINTED TO MATCH ABOVE SURFACE COLOR. USE SHERWIN WILLIAMS - 'VIRTUAL TAUPE' - SW7039 BELOW BLOCK & SHERWIN WILLIAMS 'BALANCED BEIGE' SW7037 BELOW METAL PANELS.

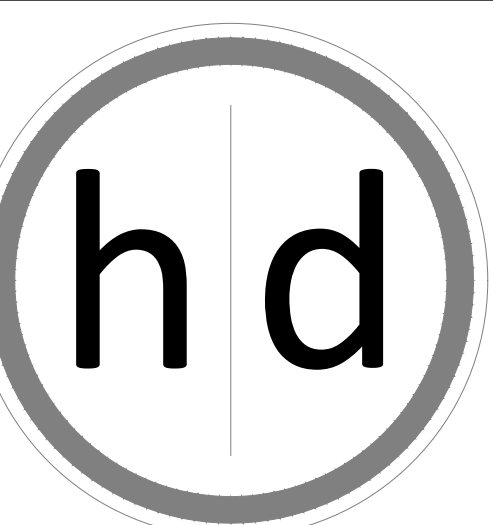
**MATERIALS TOTAL: 8,145 SF**  
(P) MASONRY - 5,305 SF (65%)  
(P) GLASS - 440 SF (5%)  
(S) EIFS - 2,440 SF (29%)



**8 BUILDING SECTION**  
SCALE: 1/4" = 1'-0"



**EXPOSED FOUNDATION NOTE:**  
ALL EXPOSED FOUNDATION SHALL BE PAINTED TO MATCH ABOVE SURFACE COLOR. USE SHERWIN WILLIAMS 'VIRTUAL TAUPE' - SW7039 BELOW BLOCK AND SHERWIN WILLIAMS 'BALANCED BEIGE' SW7037 BELOW PANELS.



15225 Broadmoor Street  
Overland Park, KS 66223  
hd Architecture, LLC

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LICENSE # P28858  
BROCK CENTILARE, LICENSED ENGINEER

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**CIVIL CONSULTANT**

Renaissance Infrastructure Consulting  
8653 Penrose Ln  
Lenexa, KS, 66219  
913-317-9500

**STRUCTURAL CONSULTANT**

Apex Engineers, Inc  
1625 Locust St  
Kansas City, MO 64108  
816-421-3222

**MEP CONSULTANT**

SBY5 Engineers, LLC  
1100 Main Street, Floor 4  
Kansas City, MO 64105  
(913) 689-9449

**ELECTRICAL PLAN NOTES:**

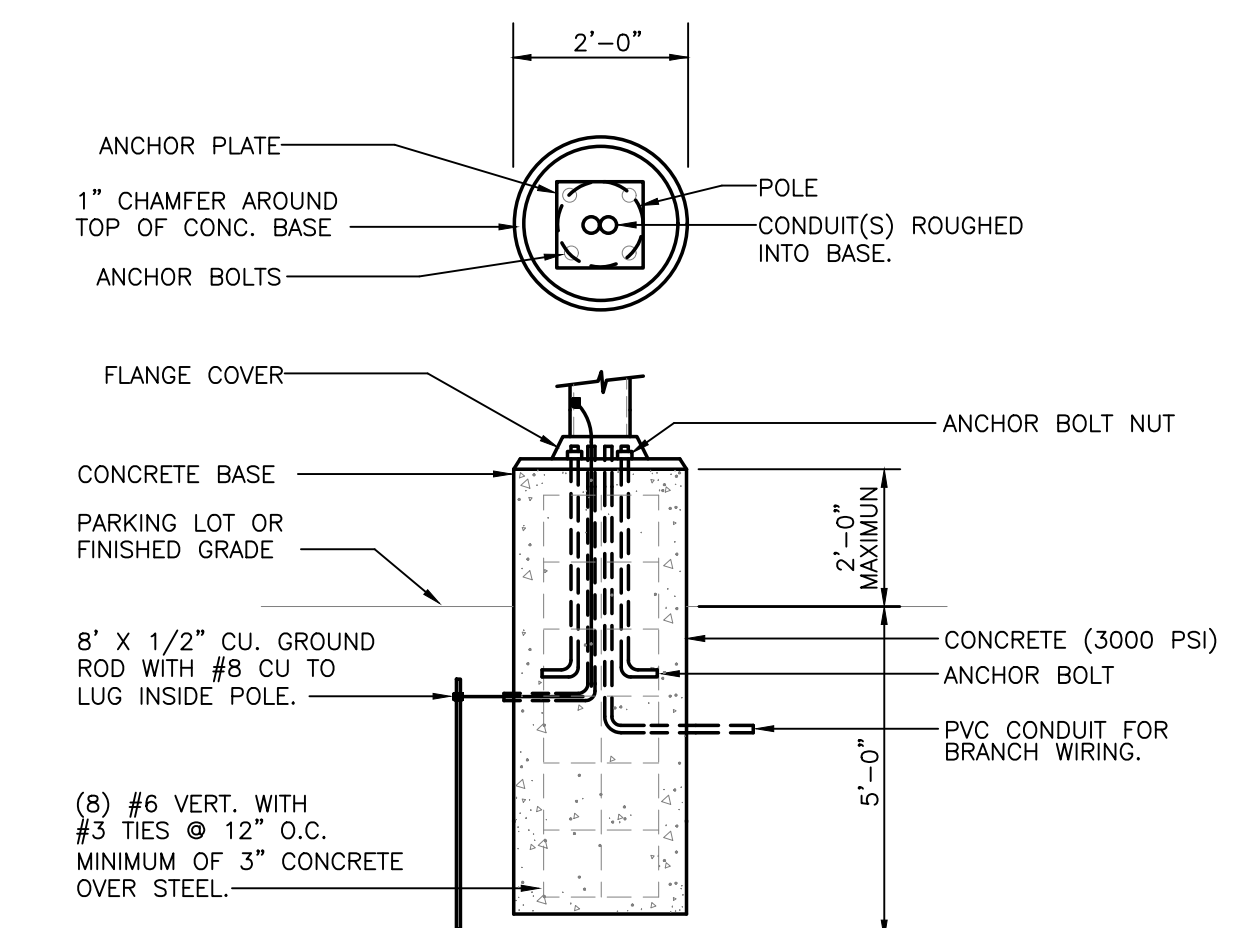
- ROUTE CIRCUIT FROM PANEL VIA TERMINAL STRIP ENCLOSURE. REFERENCE PANELBOARD SCHEDULES ON SHEET E5.0 FOR ADDITIONAL INFORMATION. REFERENCE TERMINAL STRIP ENCLOSURE DETAIL ON SHEET E1.0 DETAIL 2 FOR MORE INFORMATION.
- CONTRACTOR SHALL PROVIDE A WEATHERPROOF JUNCTION BOX FOR FUTURE PYLON SIGN. MOUNT TO SIGN PEDESTAL OR POLE. CONTRACTOR SHALL RUN (3) #8 WIRE IN 1" CONDUIT UNDERGROUND TO PYLON SIGN LOCATION. PYLON SIGN CIRCUIT SHALL BE CIRCUITED VIA TERMINAL STRIP ENCLOSURE. PROVIDE ADDITIONAL 12'-0" FEET OF CONDUCTORS COILED UP ABOVE ELECTRICAL PANEL AT CEILING FOR FUTURE USE. LAND THE CIRCUIT IN THE PANEL AND PROVIDE CONNECTION TO THE PYLON BY GC'S ELECTRICIAN.
- POLE MOUNTED LIGHT FIXTURE. LSI SLM-LED-24L-SIL-FT-40-70CRI 24,000 LUMEN PACKAGE, 4000K COLOR TEMPERATURE, 189 WATTS. PROVIDE WITH 20" STEEL SQUARE POLE. PROVIDE AND INSTALL POLE PER LIGHT FIXTURE MANUFACTURER RECOMMENDATIONS. REFER TO LIGHT POLE BASE ON THIS SHEET DETAIL 2. CONFIRM FINISH COLOR WITH ARCHITECT PRIOR TO ORDERING.
- PHOTOMETRIC CALCULATIONS PER BASIS OF DESIGN. ALTERNATE LIGHT FIXTURES OR CHANGES IN MOUNTING HEIGHTS WILL REQUIRE RECALCULATION.

**ELECTRICAL GENERAL NOTES:**

- REFERENCE SHEET E3.0 FOR ELECTRICAL GENERAL NOTES.

**ELECTRICAL "VANILLA BOX" GENERAL NOTES:**

- REFERENCE SHEET E3.0 FOR ELECTRICAL "VANILLA BOX" GENERAL NOTES.



**2 LIGHT POLE BASE DETAIL**  
NO SCALE

Symbol	Label	QTY	Manufacturer	Catalog	LED SOURCE	LUMEN OUTPUT	LLF	Input Power
□	SL1	1	LSI INDUSTRIES, INC.	SLM-LED-18L-SIL-FT-40-70CRI-IL	YES	12,045	0.9	135
□	WP	7	H.E. WILLIAMS	WPCS-L44-840-BZ	YES	4,454	0.9	42
□	WP2	1	H.E. WILLIAMS	VWMV-L17-740-TL-XXX-SDGL-DIM	YES	1,758	0.9	16
□	WS1	4	LSI INDUSTRIES	XPWS3-WT-LED-28-350-NW-UE	YES	2,873	0.9	33.5
□	WS2	4	LSI INDUSTRIES	XPWS3-FT-LED-28-350-NW-UE	YES	2,919	0.9	34

**4 Calculation Summary**

Description	Symbol	Units	Avg	Max	Min
Parking Lot (less Bldg.)	+	Fc	2.0	9.8	0.0

**1 ELECTRICAL SITE PLAN**  
SCALE: 1" = 10'-0"

**5BY5 ENGINEERS**  
1100 Main Street, 4th Floor  
Kansas City, MO 64105  
913-689-9449  
contact@5by5eng.com  
5by5eng.com

A New Retail Location for:

**DOLLAR TREE**

WAUKEE IA

**Slice Medium Outdoor LED Area Light**

PHOTOMETRICS (CONT.)

**SLM-LED-30L-SIL-FT-40-70CRI**

**Luminaire Data**

Type FT Distribution  
Description 4000 Kelvin, 70 CRI  
Delivered Lumens 2021  
Watts 215  
Efficiency 94  
IES Type Type II - Short  
BAC Rating 84-101-04

**Zone Lumens Summary**

Zone	Lumens	% Luminaire
Low (0-30°)	4204	9%
Medium (30-60°)	16,316	59%
High (60-90°)	10,881	38%
Very High (90-180°)	0	0%
Uplight (180-360°)	0	0%
<b>Total Flux</b>	<b>31,821</b>	<b>100%</b>

**ISO Footcandle**

**Polar Curve**

2' Mounting Height / 2' Grid Spacing  
0.5 FC 1 FC 2 FC 3 FC 4 FC 5 FC

Vertical Plane Horizontal Plane

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**Slice Medium Outdoor LED Area Light**

PHOTOMETRICS (CONT.)

**SLM-LED-30L-SIL-5W-40-70CRI**

**Luminaire Data**

Type FT Distribution  
Description 4000 Kelvin, 70 CRI  
Delivered Lumens 31,627  
Watts 342  
Efficiency 92  
IES Type Type II - Very Short  
BAC Rating 85-101-03

**Zone Lumens Summary**

Zone	Lumens	% Luminaire
Low (0-30°)	3,429	11%
Medium (30-60°)	14,244	44%
High (60-90°)	15,213	48%
Very High (90-180°)	1,031	3%
Uplight (180-360°)	0	0%
<b>Total Flux</b>	<b>32,019</b>	<b>100%</b>

**ISO Footcandle**

**Polar Curve**

2' Mounting Height / 2' Grid Spacing  
0.5 FC 1 FC 2 FC 3 FC 4 FC 5 FC

Vertical Plane Horizontal Plane

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**Slice Medium Outdoor LED Area Light**

PHOTOMETRICS (CONT.)

**SLM-LED-30L-SIL-3-40-70CRI**

**Luminaire Data**

Type FT Distribution  
Description 4000 Kelvin, 70 CRI  
Delivered Lumens 21,909  
Watts 235  
Efficiency 93  
IES Type Type II - Short  
BAC Rating 84-101-04

**Zone Lumens Summary**

Zone	Lumens	% Luminaire
Low (0-30°)	5,261	10%
Medium (30-60°)	10,581	47%
High (60-90°)	6,290	29%
Very High (90-180°)	381	1%
Uplight (180-360°)	0	0%
<b>Total Flux</b>	<b>32,513</b>	<b>100%</b>

**ISO Footcandle**

**Polar Curve**

2' Mounting Height / 2' Grid Spacing  
0.5 FC 1 FC 2 FC 3 FC 4 FC 5 FC

Vertical Plane Horizontal Plane

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**Slice Medium Outdoor LED Area Light**

PHOTOMETRICS (CONT.)

**SLM-LED-30L-SIL-FT-40-70CRI**

**Luminaire Data**

Type FT Distribution  
Description 4000 Kelvin, 70 CRI  
Delivered Lumens 21,909  
Watts 235  
Efficiency 93  
IES Type Type II - Short  
BAC Rating 84-101-04

**Zone Lumens Summary**

Zone	Lumens	% Luminaire
Low (0-30°)	7,441	20%
Medium (30-60°)	13,335	59%
High (60-90°)	5,244	19%
Very High (90-180°)	694	7%
Uplight (180-360°)	0	0%
<b>Total Flux</b>	<b>36,714</b>	<b>100%</b>

**ISO Footcandle**

**Polar Curve**

2' Mounting Height / 2' Grid Spacing  
0.5 FC 1 FC 2 FC 3 FC 4 FC 5 FC

Vertical Plane Horizontal Plane

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**Slice Medium Outdoor LED Area Light**

PHOTOMETRICS (CONT.)

**SLM-LED-30L-SIL-3-40-70CRI**

**Luminaire Data**

Type FT Distribution  
Description 4000 Kelvin, 70 CRI  
Delivered Lumens 32,320  
Watts 342  
Efficiency 94  
IES Type Type II - Short  
BAC Rating 85-101-03

**Zone Lumens Summary**

Zone	Lumens	% Luminaire
Low (0-30°)	3,521	10%
Medium (30-60°)	10,581	32%
High (60-90°)	18,218	57%
Very High (90-180°)	0	0%
Uplight (180-360°)	0	0%
<b>Total Flux</b>	<b>32,320</b>	<b>100%</b>

**ISO Footcandle**

**Polar Curve**

2' Mounting Height / 2' Grid Spacing  
0.5 FC 1 FC 2 FC 3 FC 4 FC 5 FC

Vertical Plane Horizontal Plane

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**Slice Medium Outdoor LED Area Light**

PHOTOMETRICS (CONT.)

**SLM-LED-30L-SIL-FT-40-70CRI**

**Luminaire Data**

Type FT Distribution  
Description 4000 Kelvin, 70 CRI  
Delivered Lumens 21,909  
Watts 235  
Efficiency 93  
IES Type Type II - Short  
BAC Rating 84-101-04

**Zone Lumens Summary**

Zone	Lumens	% Luminaire
Low (0-30°)	5,261	10%
Medium (30-60°)	10,581	47%
High (60-90°)	6,290	29%
Very High (90-180°)	381	1%
Uplight (180-360°)	0	0%
<b>Total Flux</b>	<b>32,513</b>	<b>100%</b>

**ISO Footcandle**

**Polar Curve**

2' Mounting Height / 2' Grid Spacing  
0.5 FC 1 FC 2 FC 3 FC 4 FC 5 FC

Vertical Plane Horizontal Plane

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**Slice Medium Outdoor LED Area Light**

PERFORMANCE (CONT.)

**DELIVERED LUMENS\***

Lumen Package	Distribution	CRI	3000K CCT			4000K CCT			5000K CCT			Wattage
			Delivered Lumens	Efficacy	RIIC Rating	Delivered Lumens	Efficacy	RIIC Rating	Delivered Lumens	Efficacy	RIIC Rating	
2	5	95-101-04	4933	114	85-101-04	5202	119	85-101-04	5135	119	85-101-04	436
3	5	95-101-04	5055	117	85-101-04	5348	123	85-101-04	5229	122	85-101-04	436
4	5	95-101-04	5644	135	85-101-04	5209	123	85-101-04	5299	123	85-101-04	436
5W	70	5047	139	85-101-04	5364	123	85-101-04	5371	123	85-101-04	436	
70	FT	5384	117	85-101-04	5366	123	85-101-04	5384	122	85-101-04	436	
FA	4894	132	85-101-04	5384	138	85-101-04	5381	137	85-101-04	436		
AM	5345	127	85-101-04	5384	123	85-101-04	5384	122	85-101-04	436		
IC/RC	5047	138	85-101-04	5369	123	85-101-04	5369	123	85-101-04	436		

**ELECTRICAL DATA (AMPS) - 3000K/4000K/5000K**

Lumens	32W	30W	24W	27W	34W	40W
9L	0.52	0.38	0.26	0.22	0.18	0.13
12L	0.71	0.41	0.35	0.31	0.24	0.38
18L	1.15	0.65	0.56	0.68	0.59	0.28
24L	1.54	0.77	0.67	0.58	0.66	0.34
30L	1.78	1.02	0.89	0.77	0.61	0.44
42L	2.02	1.53	1.33	1.13	0.90	0.65
60L	2.36	1.76	1.53	1.12	1.06	0.76
90L	3.65	2.38	2.02	1.57	1.36	0.91

**DELIVERED LUMENS\***

Lumen Package	Distribution	Delivered Lumens	Efficacy	Phosphor Converted Amber (Peak Efficiency)		Wattage
				Delivered Lumens	RIIC Rating	
2	5	548	86	82-101-02		
3	5	578	82	82-101-02		
5W	547	91	82-101-02			
FA	564	87	82-101-02			
AM	565	81	82-101-02			
IC/RC	567	81	82-101-02			
2	7	710	82	82-101-02		
3	7	738	76	82-101-02		
5W	736	89	82-101-02			
AM	749	77	82-101-02			
FA	728	75	82-101-02			
IC/RC	727	74	82-101-02			
1	6	692	71	82-101-02		
5W	672	65	82-101-02			
FA	657	68	82-101-02			
AM	645	78	82-101-02			
IC/RC	647	65	82-101-02			
2	7	1095	69	82-101-02		
3	7	1075	54	82-101-02		
5W	1049	63	82-101-02			
FA	1007	60	82-101-02			
AM	1020	64	82-101-02			

**ELECTRICAL DATA - Phosphor Converted Amber (AMPS)\***

Lumens	12W	20W	24W	27W	34W	40W
9L	0.62	0.36	0.31	0.27	0.21	0.15
12L	0.85	0.50	0.43	0.38	0.30	0.22
18L	1.15	0.65	0.56	0.68	0.59	0.28
24L	1.47	0.85	0.75	0.64	0.51	0.37

**RECOMMENDED LUMEN MAINTENANCE (0-25%)**

Ambient	Initial	25W	50W	75W	100W
9L - 9L	100%	92%	92%	92%	92%
12L - 12L	100%	92%	92%	92%	92%
18L - 18L	100%	92%	92%	92%	92%

**RECOMMENDED LUMEN MAINTENANCE (40%)**

Ambient	Initial	25W	50W	75W	100W
9L - 9L	100%	97%	92%	88%	84%
12L - 12L	100%	94%	87%	83%	78%

**RECOMMENDED LUMEN MAINTENANCE (50%)**

Ambient	Initial	25W	50W	75W	100W
9L - 9L	100%	95%	91%	87%	83%

**RECOMMENDED LUMEN MAINTENANCE (60%)**

Ambient	Initial	25W	50W	75W	100W
9L - 9L	100%	95%	91%	87%	83%

**ELECTRICAL DATA - Phosphor Converted Amber (AMPS)\***

Lumens	12W	20W	24W	27W	34W	40W
9L	0.62	0.36	0.31	0.27	0.21	0.15
12L	0.85	0.50	0.43	0.38	0.30	0.22
18L	1.15	0.65	0.56	0.68	0.59	0.28
24L	1.47	0.85	0.75	0.64	0.51	0.37

**RECOMMENDED LUMEN MAINTENANCE (60%)**

Ambient	Initial	25W	50W	75W	100W
9L - 9L	100%	95%	91%	87%	83%

**ELECTRICAL DATA (AMPS) - 3000K/4000K/5000K**

Lumens	32W	30W	24W	27W	34W	40W
9L	0.52	0.38	0.26	0.22	0.18	0.13
12L	0.71	0.41	0.35	0.31	0.24	0.38
18L	1.15	0.65	0.56	0.68	0.59	0.28
24L	1.54	0.77	0.67	0.58	0.66	0.34
30L	1.78	1.02	0.89	0.77	0.61	0.44
42L	2.02	1.53	1.33	1.13	0.90	0.65
60L	2.36	1.76	1.53	1.12	1.06	0.76
90L	3.65	2.38	2.02	1.57	1.36	0.91

**RECOMMENDED LUMEN MAINTENANCE (0-25%)**

Ambient	Initial	25W	50W	75W	100W
9L - 9L	100%	92%	92%	92%	92%
12L - 12L	100%	92%	92%	92%	92%
18L - 18L	100%	92%	92%	92%	92%

**RECOMMENDED LUMEN MAINTENANCE (40%)**

Ambient	Initial	25W	50W	75W	100W
9L - 9L	100%	97%	92%	88%	84%
12L - 12L	100%	94%	87%	83%	78%

**RECOMMENDED LUMEN MAINTENANCE (50%)**

Ambient	Initial	25W	50W	75W	100W
9L - 9L	100%	95%	91%	87%	83%

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Ambient	Initial	25W	50W	75W	100W
9L - 9L	100%	95%	91%	87%	83%

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9L	0.62	0.36	0.31	0.27	0.21	0.15
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18L	1.15	0.65	0.56	0.68	0.59	0.28
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**RECOMMENDED LUMEN MAINTENANCE (60%)**

Ambient	Initial	25W	50W	75W	100W
9L - 9L	100%	95%	91%	87%	83%

**ELECTRICAL DATA (AMPS) - 3000K/4000K/5000K**

Lumens	32W	30W	24W	27W	34W	40W
9L	0.52	0.38	0.26	0.22	0.18	0.13
12L	0.71	0.41	0.35	0.31	0.24	0.38
18L	1.15	0.65	0.56	0.68	0.59	0.28
24L	1.54	0.77	0.67	0.58	0.66	0.34
30L	1.78	1.02	0.89	0.77	0.61	0.44
42L	2.02	1.53	1.33	1.13	0.90	0.65
60L	2.36	1.76	1.53	1.12	1	

**USPC-SSS-4012-20'-4" SQR - .125"**  
Square Straight Steel Pole



<b>PROJECT</b>		<b>DATE</b>	
<b>QUANTITY</b>		<b>TYPE</b>	
		<b>NOTE</b>	

**ORDERING EXAMPLE || USPC-SSS-4012-20'-4" SQR .125"-SC76-02-Options**

**TENON FINISH COLOR ADDITIONAL OPTIONS - CONSULT FACTORY FOR PRICING**

<p>SC76 - 2.99" x 3.5" Tenon</p> <p>01 - BLACK RAL 9011 02 - DARK GREY RAL 7043 03 - WHITE RAL 9003 04 - METALLIC SILVER RAL 9006 05 - MATTE SILVER RAL 9006 06 - BRONZE RAL 8018 07 - CUSTOM RAL</p>	<p>01 - BLACK RAL 9011 02 - DARK GREY RAL 7043 03 - WHITE RAL 9003 04 - METALLIC SILVER RAL 9006 05 - MATTE SILVER RAL 9006 06 - BRONZE RAL 8018 07 - CUSTOM RAL</p>	<p>SBA - Single Barrier Arm DBA - Double Barrier Arm GCFCI - GCFCI Box LS - 1.5mm (1/16") Leveling Shim (Enter Quantity) LS - 3mm (1/8") Leveling Shim (Enter Quantity)</p>	<p>01 - BLACK RAL 9011 02 - DARK GREY RAL 7043 03 - WHITE RAL 9003 04 - METALLIC SILVER RAL 9006 05 - MATTE SILVER RAL 9006 06 - BRONZE RAL 8018 07 - CUSTOM RAL</p>
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**INSPIRED BY NATURE FINISHES**

SWD - OAK FINISH  
SWDZ - WALNUT FINISH  
SWD5 - PINE FINISH  
DF - FIDUCIALS FIN FINISH  
CW - CUSTOM WOOD FINISH  
NW - NATURAL WALNUT FINISH  
SLD - CONCRETE FINISH  
SLDZ - SCOTTISH FINISH  
SLD5 - STONE FINISH  
SLD8 - CORTEN FINISH

There is an additional cost for these finishes.

This product is made from a composite material. The grain pattern is a result of the manufacturing process. The grain pattern may vary slightly from the actual wood grain. The grain pattern is not intended to replicate the exact grain pattern of any particular wood species. The grain pattern is a result of the manufacturing process. The grain pattern may vary slightly from the actual wood grain. The grain pattern is not intended to replicate the exact grain pattern of any particular wood species.

This product is made from a composite material. The grain pattern is a result of the manufacturing process. The grain pattern may vary slightly from the actual wood grain. The grain pattern is not intended to replicate the exact grain pattern of any particular wood species. The grain pattern is a result of the manufacturing process. The grain pattern may vary slightly from the actual wood grain. The grain pattern is not intended to replicate the exact grain pattern of any particular wood species.

**More Custom Finishes Available Upon Request**  
Consult factory for pricing and lead times.

Oak	Cherry	Beech	Carbon
Walnut	Chestnut	Bamboo	Galvanized
Pine	Mahogany	Birch	Steel

Example: Inspired by Nature Finish

**Anchor Bolt Installation for Poles**

**What's Included Per Pole**

- x4 Anchor bolts
- x4 Anchor bolt templates
- x4 Leveling shims

**Preferred Pole Installation**

A level concrete base is poured and finished flush. This provides a uniform load displacement pad for the forces created by wind and luminaire weight.

**Using Leveling Bolts Option A**

After establishing a level platform the space between the original concrete and the pole base should be filled with concrete and finished flush. This provides a uniform load displacement pad for the forces created by wind and luminaire weight.

**Using Leveling Bolts Option B**

After establishing a level platform the space between the original concrete and the pole base should be filled with concrete and finished flush. This provides a uniform load displacement pad for the forces created by wind and luminaire weight.

**Slice Medium Outdoor LED Area Light**

**CONTROLS**

**Integral Bluetooth™ Motion and PhotoCell Sensor (MSBTxL)**

Slim low profile sensor provides multi-level control based on motion and/or daylight. Sensor controls 0-10 VDC LED drivers and is IP66 rated for cold and wet locations (-40°F to 167°F). Two unique PIR lenses are available and used based on fixture mounting height. All control parameters are adjustable via an iOS or Android App capable of storing and transmitting sensor profiles.

Click here to learn more details about MSBTxL

**AirLink Blue (ALBSCx)**

Wireless Bluetooth Mesh Outdoor Lighting Control System that provides energy savings, code compliance and enhanced safety/security for parking lots and parking garages. Three key components: Bluetooth wireless radio/sensor controller, Time Keeper and an iOS App. Capable of grouping multiple fixtures and sensors as well as scheduling time-based events by zone. Radio/Sensor Controller is factory integrated into Area/ Site, Wall Mounted, Parking Garage and Canopy luminaires.

Click here to learn more details about AirLink Blue

**Standard Programming**

On Event	Off Event	On Light Level	Dim Light Level	Daylight Harvesting	Delay to Off	Sensitivity
Motion	No Motion	100%	N/A	On/ Auto Calibration	20 minutes	High
Motion	No Motion	N/A	N/A	N/A	30 seconds	Auto

**Operation**

On Event	Description
Trigger	Trigger that activates lights to turn on; either automatic via motion detected or manually activated via push of button.
Off Event	Trigger that activates lights to turn off; either automatic via no motion detected or manually activated via push of button.
On Light Level	The light level that the fixtures will turn on when ON EVENT occurs.
Dim Light Level	The light level that the fixtures will dim down to when no motion is detected.
Delay to Dim	The amount of time after which motion is detected that the fixtures will be triggered to dim down. This sequence is optional, and sensor can be programmed to only trigger the fixture to turn off by entering 100% in this field.
Delay to Off	The amount of time after which motion is detected that the fixtures will be triggered to turn off. If delay to dim is part of the programmed functionality, this is the amount of time after which no motion is detected after the fixture has already dimmed down.
Sensitivity	The sensitivity can be set to high, medium, low, or auto when applicable. High will detect smaller, simple motions. Low will only detect larger more complex motions. Auto temperature calibration adjusts the IR sensitivity as ambient temperature rises to increase detection of foot movement through the field of view.

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Page 10/11 Rev. 10/06/23 SPEC-T10-B-1122

**USPC-SSS-4012-20'-4" SQR - .125"**  
Square Straight Steel Pole

**Physical Data**

- Pole Height: 20'
- Pole Size: 4" x 4"
- Thickness: 0.125"
- Weight: 136 lbs

**Anchor Bolt**

D x L x C x T  
1/4" x 24" x 4" x 6"

**Bolt Projection**

2"

**Mounting Base**

9.84" Square  
6.57" Center  
0.87" x 1.97"

**Die-Cast Base Cover**

**Wind Load Map**

Maximum EPA  
MPH 90 100 110 120 130  
EPA 25.8 20.4 18.5 15.4 12.5

85 mph  
90 mph  
100 mph  
110 mph  
120 mph  
130 mph  
140 mph  
150 mph  
Special Wind Region

**Slice Medium Outdoor LED Area Light**

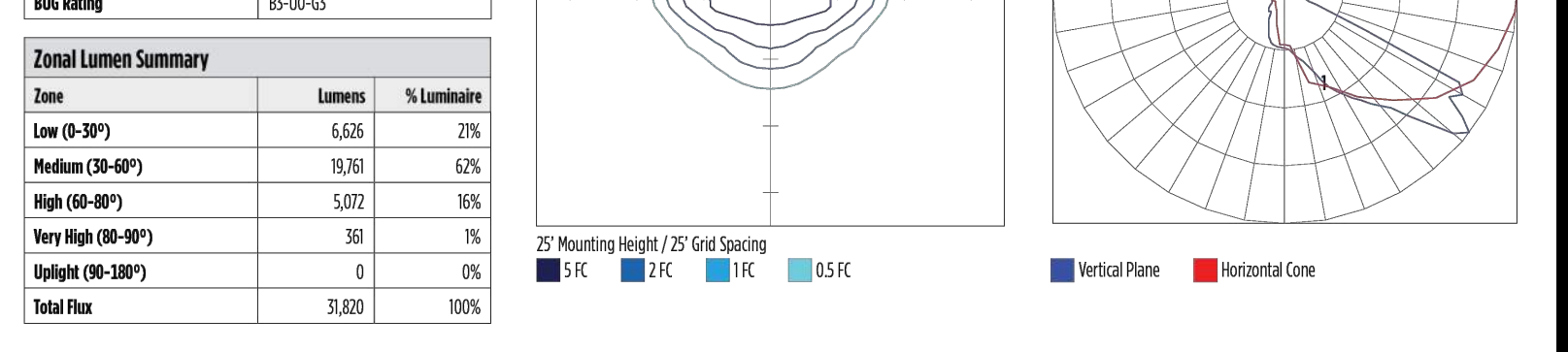
**PHOTOMETRICS (CONT.)**

**SLM-LED-SOL-SIL-AM-40-70CRI**

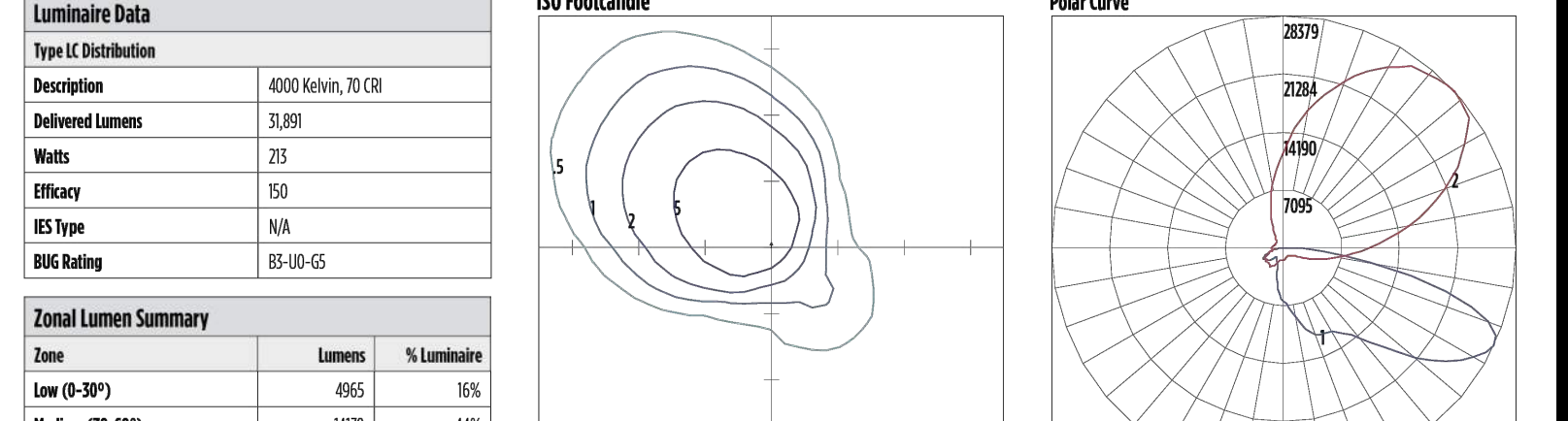
Luminaire Data	
Type IFC Distribution	4000 Kelvin, 70 CRI
Description	3,600
Delivered Lumens	3,600
Watts	215
Efficacy	165
IES Type	Type B - Non-Street
IES Rating	B1-05-02

**Zonal Lumens Summary**

Zone	Lumens	% Luminaire
Low (0-50')	4,830	25%
Medium (50-80')	19,310	62%
High (80-100')	5,070	15%
Very High (100-150')	0	0%
Uplight (150-200')	0	0%
<b>Total Flux</b>	<b>31,210</b>	<b>100%</b>



**SLM-LED-SOL-SIL-LC-40-70CRI**



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Page 8/11 Rev. 10/06/23 SPEC-T10-B-1122

**Slice Medium Outdoor LED Area Light**

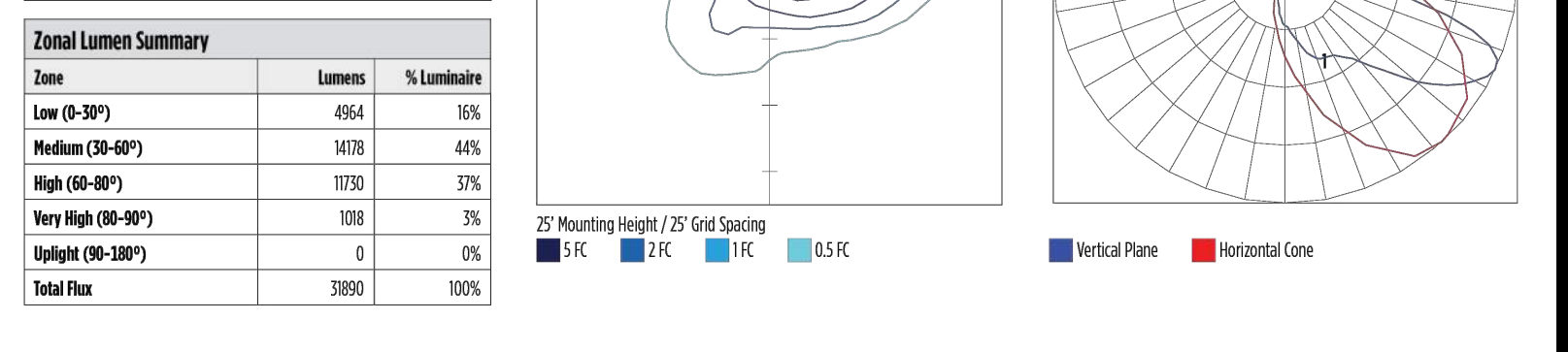
**PHOTOMETRICS (CONT.)**

**SLM-LED-SOL-SIL-RC-40-70CRI**

Luminaire Data	
Type IFC Distribution	4000 Kelvin, 70 CRI
Description	3,600
Delivered Lumens	3,600
Watts	215
Efficacy	165
IES Type	NA
IES Rating	B1-05-05

**Zonal Lumens Summary**

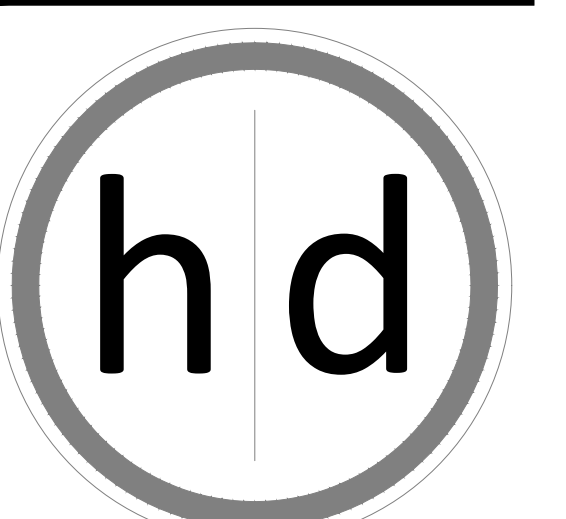
Zone	Lumens	% Luminaire
Low (0-50')	4,830	15%
Medium (50-80')	19,310	65%
High (80-100')	1,770	5%
Very High (100-150')	100	3%
Uplight (150-200')	0	0%
<b>Total Flux</b>	<b>26,010</b>	<b>100%</b>



**PRODUCT DIMENSIONS**

**Luminaire EPA Chart**

tilt Degree	0°	15°	30°	45°
Single	0.5	1.2	2.1	2.6
D100°	1.1	1.5	2.1	2.6
D90°	0.9	1.8	2.5	3.1
T10°	1.2	2.5	2.9	3.6
T120°	1.5	3.0	4.4	5.4
D90°	1.2	2.5	2.9	3.6



15225 Broadmoor Street  
Overland Park, KS 66223  
hjd@architecture.com

**NOT FOR CONSTRUCTION**

LICENSE #: P28558  
BROCK CENTILARE, LICENSED ENGINEER

The record copy of this drawing is on file at the offices of hjd Architecture, LLC, 15225 Broadmoor Street, Overland Park, Kansas. This electronic document is released for the purposes of reference, coordination, and/or facility management. This electronic document of modifications thereof shall not be used for construction.

**CIVIL CONSULTANT**

Renaissance Infrastructure Consulting  
8653 Penrose Ln  
Lenexa, KS, 66219  
913-317-9500

**STRUCTURAL CONSULTANT**

Apex Engineers, Inc  
1625 Locust St  
Kansas City, MO 64108  
816-421-3222

**MEP CONSULTANT**

SBY5 Engineers, LLC  
1100 Main Street, Floor 4  
Kansas City, MO 64105  
(913) 658-9449

A New Retail Location for:

**DOLLAR TREE**

WAUKEE IA

Date: 06/09/2021  
Job Number: 20-002.14  
Drawn By: JMW  
Checked By: GH

Revisions	Number	Date	Description

**5BY5 ENGINEERS**

1100 Main Street, 4th Floor  
Kansas City, MO 64105  
913-689-9449  
contact@5by5eng.com  
5by5eng.com



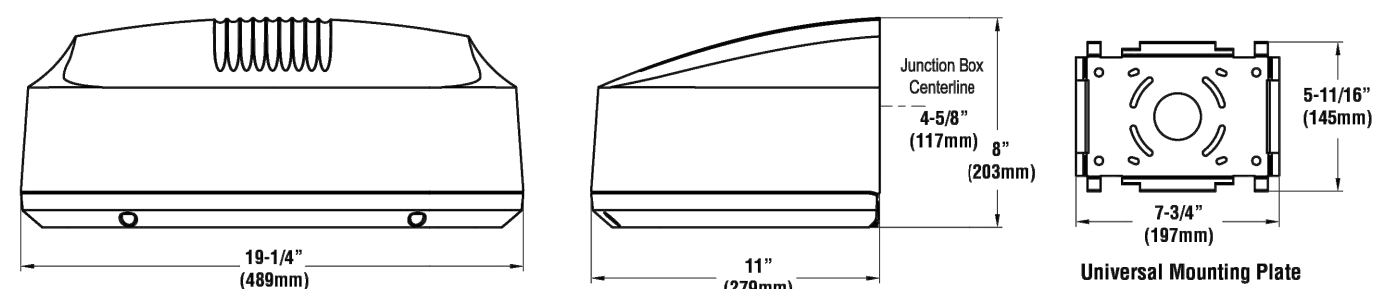
# Patriot Wall Sconce

### PERFORMANCE

DELIVERED LUMENS		CRI	4000 CCT			5000K CCT			Wattage
LEDs - Drive Current	Distribution		Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
38-30mA	FT	70	238	86	B-10-G	305	90	B-10-G	14
	WT		332	86	B-10-G	397	88	B-10-G	
	WW		324	90	B-10-G	360	93	B-10-G	
FT	329		89	B-10-G	370	85	B-10-G		
WT	365		79	B-10-G	338	87	B-10-G		
WW	339		81	B-10-G	384	87	B-10-G		
38-40mA	FT	70	483	88	B-10-G	594	93	B-10-G	44
	WT		478	87	B-10-G	585	93	B-10-G	
	WW		488	89	B-10-G	589	95	B-10-G	
FT	575		80	B-10-G	659	86	B-10-G		
WT	538		78	B-10-G	644	85	B-10-G		
WW	579		81	B-10-G	675	88	B-10-G		

Output	120V	200V	240V	277V	347V	480V
38-30mA	0.3	0.6	0.6	0.6	0.6	0.6
38-40mA	0.6	0.6	0.5	0.3	0.6	0.8
48-40mA	0.0	0.5	0.3	0.3	0.3	0.5

### PRODUCT DIMENSIONS



# Patriot Wall Sconce (XPWS3)

### Outdoor Wall Sconce



OVERVIEW	
Lumen Package	3,000 - 4,000
Wattage Range	34 - 72
Efficacy Range (LPW)	79 - 95
Weight lbs (kg)	30 (13.6)

### QUICK LINKS

- Ordering Guide
- Performance
- Photometrics
- Dimensions

### FEATURES & SPECIFICATIONS

- Construction**
  - One-piece die-cast aluminum housing is smoothly contoured rectangular shape.
  - Mounting hardware is stainless steel or electro-zinc plated.
  - Housing and optical unit are sealed with extruded silicone gasket; supply conductors with molded EPDM bushing.
  - Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
  - Shipping weight: 30 lbs in carton.
- Optical System**
  - Clear tempered optical-grade flat glass lens sealed to the aluminum optic housing creates an IP65 rated optical assembly.
  - Pressure stabilizing breather allows sun-light protection while preventing cycling from building up internal pressures and vacuums that can stress optical unit seals.
  - Three distribution choices: Wide Throw (WT), Forward Throw (FT) and Wall Wash (WW).
  - Zero uplight.
  - Available in 5000K and 4000K color temperatures per ANSI C78.377.
  - Minimum CRI of 70.
- Electrical**
  - Driver is fully encased in gassing material for IP65 moisture and complies with IEC and FCC standards. Driver can be easily accessed.
  - Drivers feature integral sensor which reduces drive current, when ambient temperatures exceed rated temperature.
  - Available with universal voltage power supply 120-277VAC (50/60Hz input) or 347-480VAC.
  - Operating temperature: -40°C to +50°C (-40°F to +122°F).
  - Two-stage surge protection (including separate surge protection built into electronic driver) meets IEEE C62.41.2-2002, Location Category C.
  - Prewired leads extended out the back of the unit through a rubber grommet eliminating the need to open the fixture to make wiring connections.
  - Optional integral emergency battery-back-up options are available. BB option operates in 0°C to 60°C ambient temperature and CWBB operates in -20°C to 60°C ambient temperature. When primary AC power failure occurs, both options operate to LEDs for minimum of 90 minutes.
- Installation**
  - Galvanized-steel universal wall mounting plate easily mounts directly to 4" octagonal or square junction box.
  - EPDM gasket is supplied to be installed between mounting plate and junction box, sealing junction box from entrance of water.
  - Universal plate permits fixture to be mounted in uplighting (indoor only) or downlighting position.
  - XPRMA (for square) or XPMAR (for round) allows mounting to poles in angle and D380 configurations. Use LSI B3 drilling pattern.
- Warranty**
  - LSI Luminaires carry a 5-year limited warranty. Refer to <https://www.lsi.com/resources/terms-conditions/warranty/> for more information.
- Listings**
  - Listed to UL 1598 and UL 8750.
  - Meets Buy American Act requirements.
  - Suitable for wet locations (down position only).
  - IP65 rated luminaire
  - Optional Class 1 Division 2 (groups A, B, C & D) hazardous location rating is available (select HL option).
- Controls**
  - 0-10V dimming enabled with controls by others.



# Patriot Wall Sconce

### ORDERING GUIDE

TYPE/ORDER EXAMPLE:		XPWS3 FT LED 48 450 CW UE WHT BB							
Parts	Distribution	Technology	Output	Color Temp	Voltage	Finish	Controls	Options	Options
XPWS3 FT - Forward Throw Wall Sconce	WT - High Beam	LED	28-360 (310.8)	DW 4500K (41.7)	120-277V (120/277V)	BLK - Black BRZ - Bronze GMC - Gun Metal Gray MSV - Metallic PLP - Platinum Plus SVG - Silver Smoke WHF - White	0-10V (0-10V) or DALI (DALI) or BB - Battery Backup (90') PC128 - 128 Bulb-Type-Product® PC208 - 208 Bulb-Type-Product® PC237 - 237 Bulb-Type-Product® PC247 - 247 Bulb-Type-Product®	(Blank) - None BB - Battery Backup (90') HL - Class 1, Division 2 Hazardous Location Rating (UL 508) or UL848 XPRMA - Pole Mounting Adapter w/ Feature Back Plate for use with XPRMA® XPMAR - Pole Mounting Adapter w/ Feature Back Plate for use with XPMAR® XPMAS - Pole Mounting Adapter w/ Feature Back Plate for use with XPMAS®	

Accessory Ordering Information	
Description	Order Number
XPWS3 Polycarbonate Shield	24452
XPWS3 SR Box - Surface Mounting Box (Available in 3000 only)	599582K
FR20 - Single Fixing	FR207
FR27 - Single Fixing	FR277
FR38_LMD - Double Fixing	FR38LMD7
FR40 - Double Fixing	FR407
FR42 - Single Fixing	FR427

# WPCS LED Full Cutoff Wall Pack - Small



ORDERING INFO	DRIVER	LUMENS <sup>1</sup>	CRI	CCT	FINISH	OPTIONS <sup>2</sup>
WPCS	L30	3,000lm	8	80	40 4000K	BZ Bronze
L44	4,400lm	90 9000K				
L50	5,000lm					

- FEATURES**
  - Full cutoff wall luminaire places light where it's needed with minimal glare.
  - Energy-saving alternative to traditional HID fixtures.
  - Provides effective security lighting.
  - 12" - 20" mounting heights.
  - Optional energy-saving photocells and occupancy sensor available.
  - Includes easy hang wall mounting bracket with built-in level for simplified installation.
  - Maximize energy savings with efficacies as high as 102 lm/W.
- SPECIFICATIONS**
  - HOUSING** - Die cast aluminum enclosure. Non-vented stainless steel hardware.
  - THERMAL** - Integral heat sink. Operating temperature: -40°C to 50°C.
  - OPTICAL** - Full cutoff front frame. Type IV wide beam light distribution.
  - LENS** - Clear one-piece molded polycarbonate lens.
  - LED DRIVER** - 0-10V integral dimming driver.
  - ELECTRICAL** - 120-277V input range. 50/60Hz power factor >0.95. THD <20%. IEC standard surge protection. IFS - 140,000 hour @ 25°C.
  - FINISH** - Powder coated bronze powder coat over a chromate conversion coating.
  - INSTALLATION** - Surface mounts directly over a 4" recessed ceiling box.
  - LISTINGS** - CSA listed for wet locations. ANSI/UL 1598, 8750, IP65-rated LED components.
  - WARRANTY** - 5-year limited warranty, see [www.lsi.com/warranty](https://www.lsi.com/warranty).
- NOTES**
  - Lumen output based on 4000 CCT. Actual lumens may vary +/- 5% from target.
  - Fixtures ordered with factory-installed photocell or motion sensor controls are internally wired for switching under 100V dimming within the housing.
  - In addition to BB standard surge protection, test of 10kV.
  - ANSI C136-1:2001
  - 120-277V only, 50/60Hz.
  - 0-10V dimming operation: ambient operating temperature range 30°C to 50°C. L30 and L44 only.
  - Photocell and occupancy sensor, factory installed for use in retrofit applications. Bronze powder coat finish.
  - Prewired for 0-10V low voltage applications.

# WPCL LED Full Cutoff Wall Pack - Large

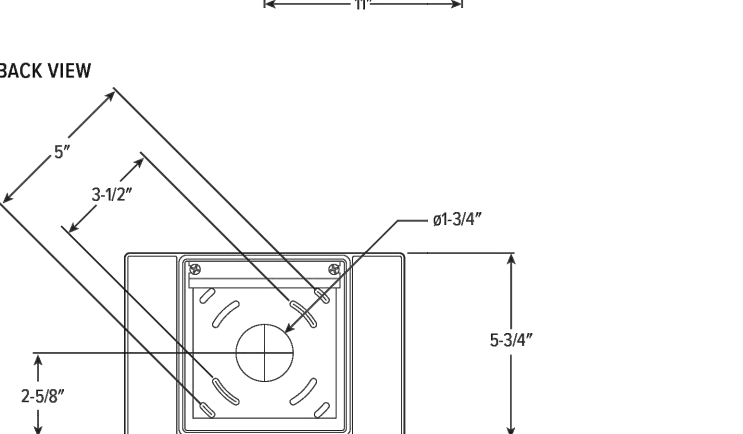
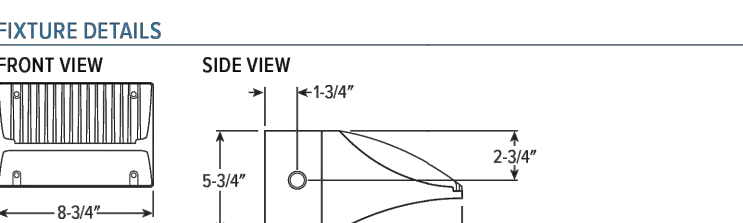
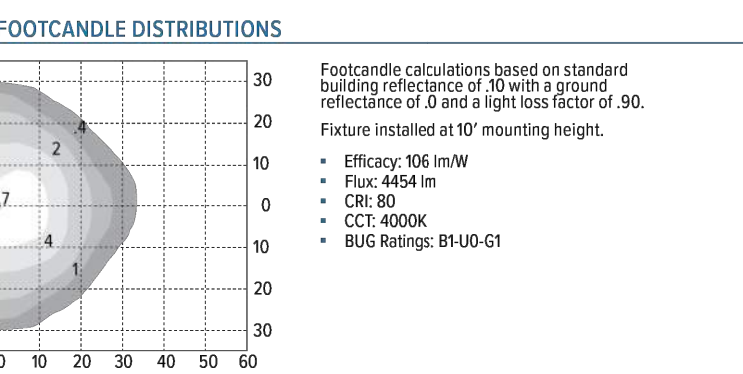


ORDERING INFO	DRIVER	LUMENS <sup>1</sup>	CRI	CCT	FINISH	OPTIONS <sup>2</sup>
WPCL	L32	9,200lm	8	80	40 4000K	BZ Bronze
L38	13,800lm	90 9000K				
L50	20,000lm					

- FEATURES**
  - Full cutoff wall luminaire places light where it's needed with minimal glare.
  - Energy-saving alternative to traditional HID fixtures.
  - Provides effective security lighting.
  - 18" - 30" mounting heights.
  - Optional energy-saving photocells and occupancy sensor available.
  - Includes easy hang wall mounting bracket with built-in level for simplified installation.
  - Maximize energy savings with efficacies as high as 102 lm/W.
- SPECIFICATIONS**
  - HOUSING** - Die cast aluminum enclosure. Non-vented stainless steel hardware.
  - THERMAL** - Integral heat sink. Operating temperature: -40°C to 50°C.
  - OPTICAL** - Full cutoff front frame. Type IV wide beam light distribution.
  - LENS** - Clear one-piece molded polycarbonate lens.
  - LED DRIVER** - 0-10V integral dimming driver.
  - ELECTRICAL** - 120-277V or 347-480V input range. 50/60Hz power factor >0.95. THD <20%. IEC standard surge protection. IFS - 140,000 hours @ 25°C.
  - FINISH** - Textured bronze powder coat over a chromate conversion coating.
  - INSTALLATION** - Surface mounts directly over a 4" recessed ceiling box.
  - LISTINGS** - CSA listed for wet locations. ANSI/UL 1598, 8750, IP65-rated LED components.
  - WARRANTY** - 5-year limited warranty, see [www.lsi.com/warranty](https://www.lsi.com/warranty).
- NOTES**
  - Lumen output based on 4000 CCT. Actual lumens may vary +/- 5% from target.
  - Fixtures ordered with factory-installed photocell or motion sensor controls are internally wired for switching under 100V dimming within the housing.
  - In addition to BB standard surge protection, test of 10kV.
  - ANSI C136-1:2001
  - 120-277V only, 50/60Hz.
  - 0-10V dimming operation: ambient operating temperature range 30°C to 50°C. L30 and L44 only.
  - Photocell and occupancy sensor, factory installed for use in retrofit applications. Bronze powder coat finish.
  - Prewired for 0-10V low voltage applications.

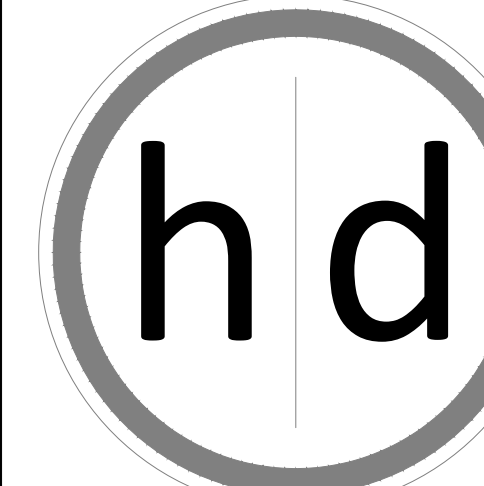
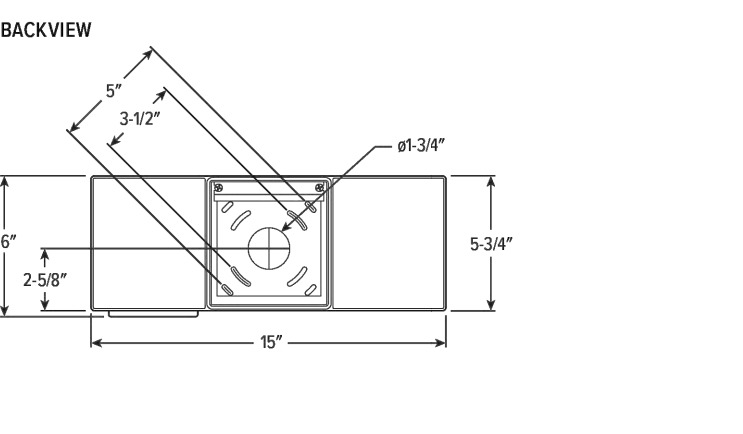
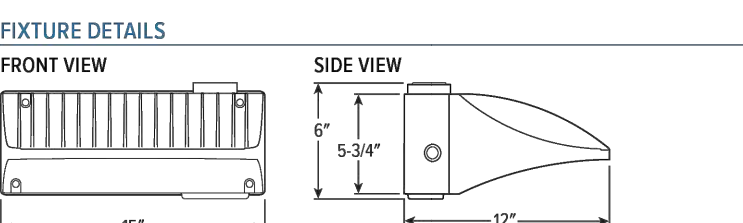
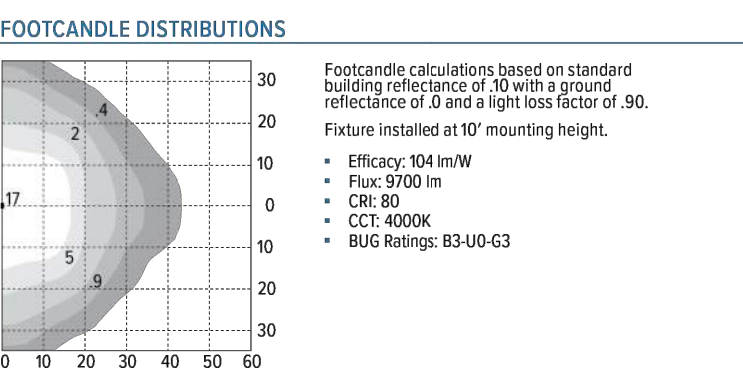
# WPCS LED Full Cutoff Wall Pack - Small

FIXTURE PERFORMANCE DATA			
COLOR TEMPERATURE	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
4000	3467	28	124
5000	3420	28	123
4000	4854	42	116
5000	4599	42	109
4000	5950	58	103
5000	5267	58	91



# WPCL LED Full Cutoff Wall Pack - Large

FIXTURE PERFORMANCE DATA			
COLOR TEMPERATURE	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
4000	9700	93	104
5000	9402	93	102
4000	14049	121	116
5000	14049	121	107
4000	20022	158	127
5000	20204	158	130



15225 Broadmoor Street  
 Overland Park, KS 66223  
 hjd@hdarchitecture.com

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### CIVIL CONSULTANT

Renaissance Infrastructure Consulting  
 9653 Penrose Ln  
 Lenexa, KS 66219  
 913-317-9500

### STRUCTURAL CONSULTANT

Apex Engineers, Inc.  
 1625 Locust St.  
 Kansas City, MO 64108  
 816-421-3222

### MEP CONSULTANT

SBY5 Engineers, LLC  
 1100 Main Street, Floor 4  
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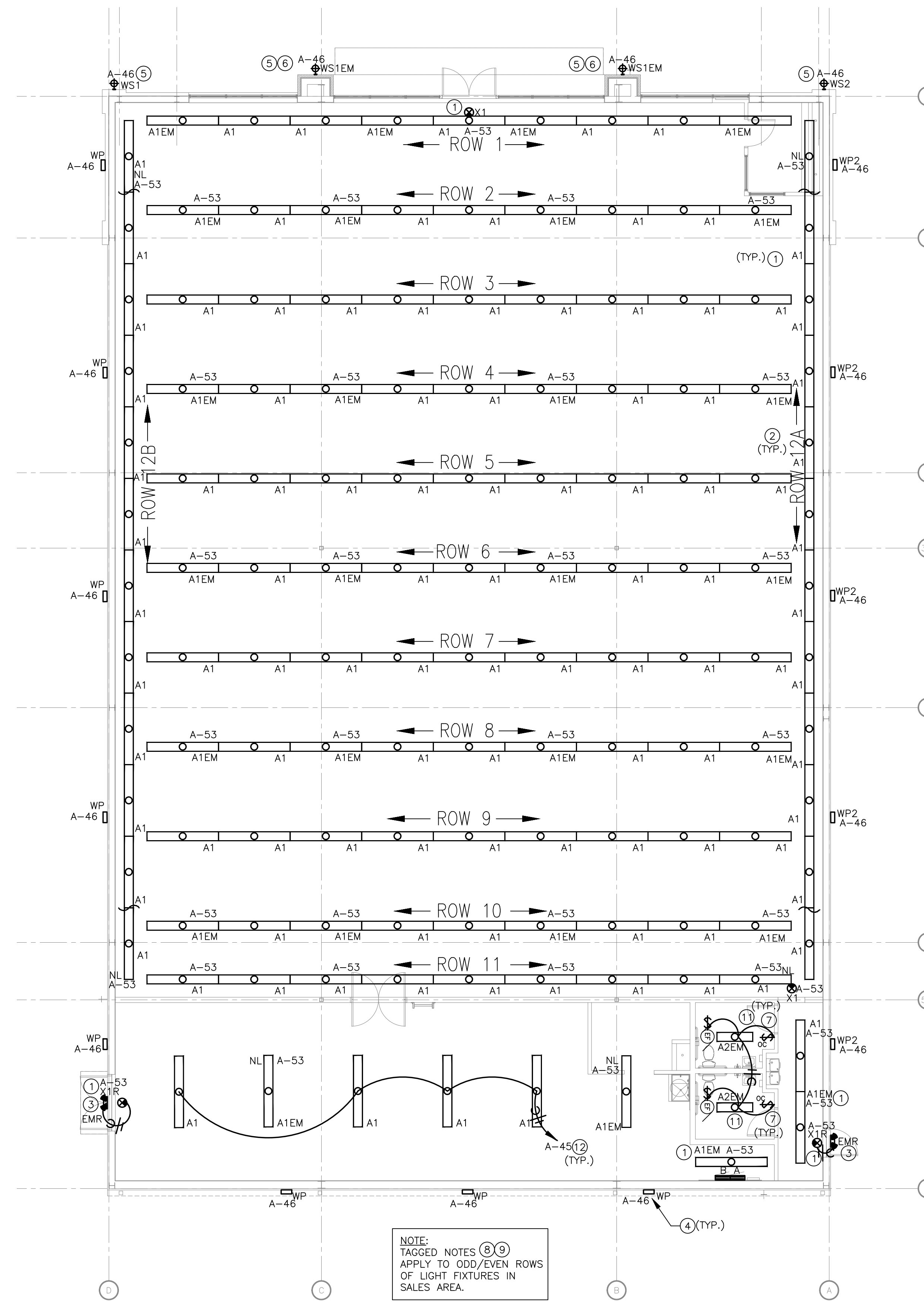
A New Retail Location for:

WAUKEE IA

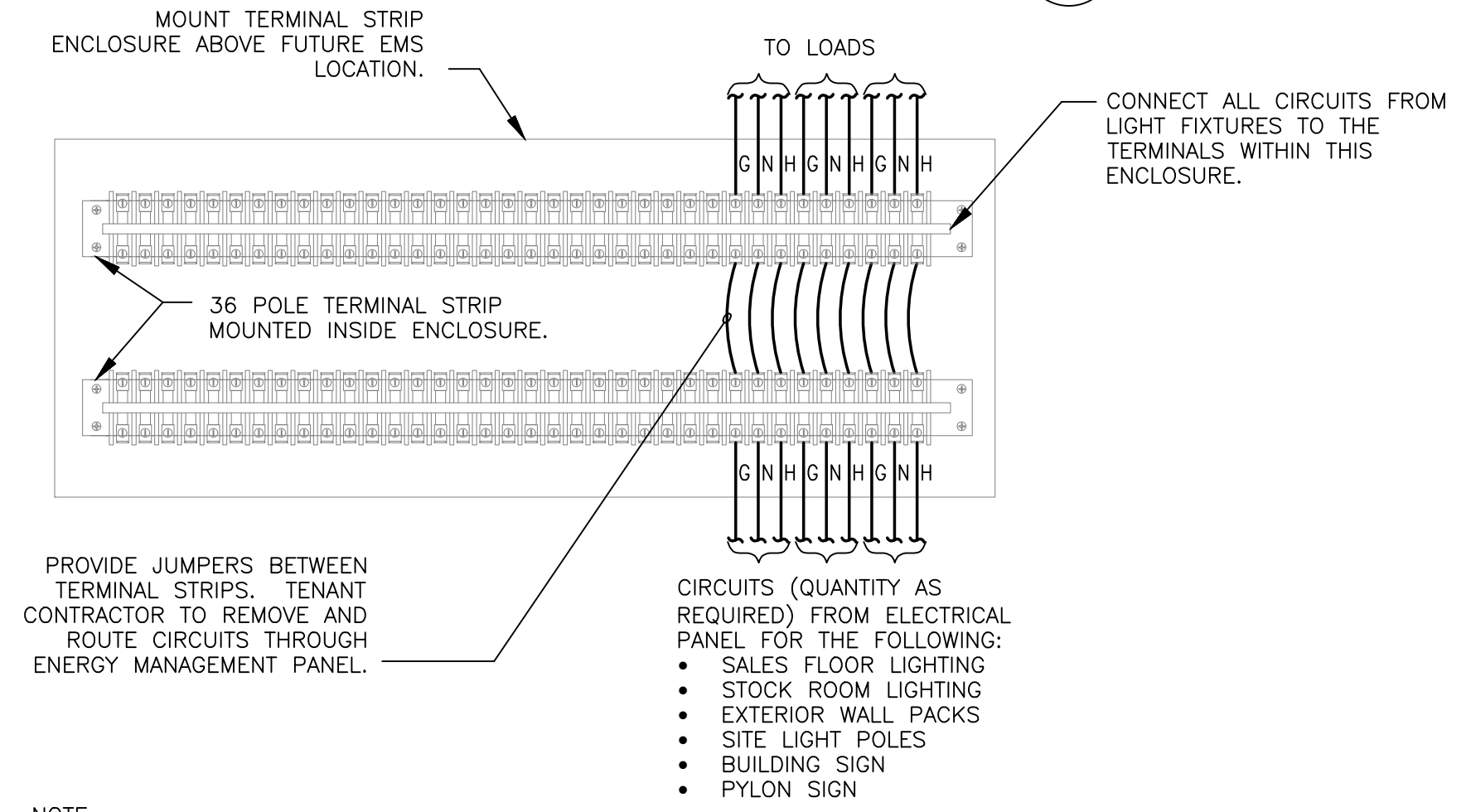
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Job Number	20-002-14
Drawn By	JMW
Checked By	GH

Revisions	Number	Date	Description

**5BY5 ENGINEERS**  
 1100 Main Street, 4th Floor  
 Kansas City, MO 64105  
 913-689-9449  
 contact@5by5eng.com  
 5by5eng.com



**1 ELECTRICAL LIGHTING PLAN**  
SCALE: 1/8" = 1'-0"



**NOTE:**

- DEDICATED CIRCUIT FOR EXIT SIGNS, NIGHT LIGHTS AND NIGHT LIGHTS WITH EMERGENCY BATTERY PACK SHALL BE CIRCUITED DIRECTLY TO ELECTRICAL PANEL AND NOT VIA TERMINAL STRIP ENCLOSURE.
- HOT LEG FOR EMERGENCY BATTERY BACKUP FOR INTERIOR AND EXTERIOR LIGHTING SHALL BE CIRCUITED DIRECTLY TO ELECTRICAL PANEL AND NOT VIA TERMINAL STRIP ENCLOSURE.

**2 TERMINAL STRIP ENCLOSURE DETAIL**  
NO SCALE

**ELECTRICAL LIGHTING PLAN NOTES:**

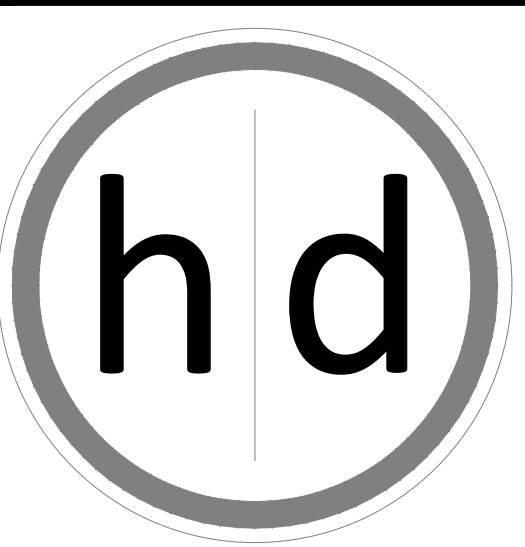
1. ALL EXIT SIGNS, NIGHT LIGHTS, AND NIGHT LIGHTS WITH EMERGENCY BATTERY BACKUP SHALL BE CIRCUITED TO DEDICATED CIRCUIT WITH BREAKER LOCK.
2. WIRE EMERGENCY BATTERY BALLAST TO HOT LEG, AHEAD OF ANY LOCAL SWITCHING, INCLUDING FUTURE ENERGY MANAGEMENT SYSTEM CONTRACTORS.
3. EXTERIOR EMERGENCY LIGHT (2 HEADS) MOUNTED CENTERED ABOVE DOOR AT 7'6". EXTERIOR EMERGENCY LIGHT SHALL BE CONNECTED TO EMERGENCY EXIT LIGHT HI-OUTPUT BATTERY BACKUP.
4. EXTERIOR LED WALLPACK. REFER TO ARCHITECTURAL PLANS FOR FINAL MOUNTING HEIGHT AND LOCATION.
5. EXTERIOR WALL SCONCE. REFER TO ARCHITECTURAL PLANS FOR FINAL MOUNTING HEIGHT AND LOCATION. STOREFRONT REQUIRED FOOTCANDLE LEVELS PER FAMILY DOLLAR ARE 10fc MINIMUM AT SURFACE LEVEL.
6. EXTERIOR LED LIGHT FIXTURE WITH EMERGENCY BATTERY. REFER TO ARCHITECTURAL PLANS FOR FINAL MOUNTING HEIGHT AND LOCATION.
7. PROVIDE OCCUPANCY SENSOR/SWITCH.
8. ONLY ODD NUMBERED ROW OF LIGHT FIXTURES SHALL BE ON THE SAME LIGHTING CIRCUIT(S) AND SHALL BE WIRED SUCH THAT THE CIRCUIT(S) CAN BE RE-WIRED THRU FUTURE ENERGY MANAGEMENT SYSTEM AT TIME OF FUTURE TENANT UPGIT. REFERENCE TERMINAL STRIP DETAIL ON THIS SHEET AND PANELBOARD SCHEDULE ON SHEET E4.0 FOR FURTHER INFORMATION.
9. ONLY EVEN NUMBERED ROW OF LIGHT FIXTURES SHALL BE ON THE SAME LIGHTING CIRCUIT(S) AND SHALL BE WIRED SUCH THAT THE CIRCUIT(S) CAN BE RE-WIRED THRU FUTURE ENERGY MANAGEMENT SYSTEM AT TIME OF FUTURE TENANT UPGIT. REFERENCE TERMINAL STRIP DETAIL ON THIS SHEET AND PANELBOARD SCHEDULE ON SHEET E4.0 FOR FURTHER INFORMATION.
10. NOT USED.
11. EXHAUST FAN AND RESTROOM LIGHT FIXTURE SHALL BE CONTROLLED BY WALL MOUNTED OCCUPANCY SENSOR.
12. ROUTE LIGHTING CIRCUIT THROUGH TERMINAL STRIP. REFERENCE DETAIL 2 ON THIS SHEET FOR FURTHER INFORMATION.

**ELECTRICAL GENERAL NOTES:**

- CONTRACTOR SHALL INSTALL ADDITIONAL WIRE TIE SUPPORTS FROM THE CEILING GRID TO THE STRUCTURE ABOVE FOR SUPPORT OF THE LIGHT FIXTURES CLIPPED ON THE GRID.
- CONTRACTOR SHALL PROVIDE AND INSTALL ALL LIGHT FIXTURES AND CONTROLS PER IECC 2012. COORDINATE WITH FINAL TENANT PACKAGE PRIOR TO INSTALL. LIGHTING CONTROLS SHALL BE PROVIDED BY TENANT. SHOULD BUILDING SHELL BE COMPLETED PRIOR TO TENANT INSTALLATION, TIMECLOCK AND PHOTOCELL SHALL BE REQUIRED PER IECC 2012. TIMECLOCK SHALL BE REMOVED ONCE TENANT'S CONTRACTOR HAS MADE LIGHT CIRCUIT CONNECTIONS TO EMS PANEL PER IECC REQUIREMENTS.
- REFERENCE SHEET E3.0 FOR ADDITIONAL ELECTRICAL GENERAL NOTES.

**ELECTRICAL "VANILLA BOX" GENERAL NOTES:**

- REFERENCE SHEET E3.0 FOR ELECTRICAL "VANILLA BOX" GENERAL NOTES.



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