

GOODE AVE TOWNHOMES - Civil Set



PROJECT TEAM

OWNER:
 BRED, INC.
 7300 W 110TH STREET, 7TH FLOOR
 OVERLAND PARK, KS 66210
 TEL: (816) 984-2723
 EMAIL: BPETERS@BRADSPED.COM
 CONTACT: BRAD PETERS

LANDSCAPE ARCHITECT:
 NSPJ ARCHITECTS, P.A.
 3515 W. 75TH ST., SUITE 201
 PRAIRIE VILLAGE, KS 66208
 TEL: (913) 831-1415
 FAX: (913) 831-1563
 EMAIL: KMARTINOVIC@NSPJARCH.COM
 CONTACT: KATIE MARTINOVIC

ARCHITECT:
 NSPJ ARCHITECTS, P.A.
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 PRAIRIE VILLAGE, KS 66208
 TEL: (913) 831-1415
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 EMAIL: THOMBURG@NSPJARCH.COM
 CONTACT: TIM HOMBURG, AIA

STRUCTURAL ENGINEER:
 KEYSTONE KC ENGINEERING, LLC
 1530 DUCK ROAD
 GRANDVIEW, MO
 TEL: (816) 287-1696
 EMAIL:
 CONTACT: ERIC STRACK

PROJECT INFORMATION

PROJECT ADDRESS:
 STREET ADDRESS: 1401 GOODE AVENUE
 CITY: GRANDVIEW
 COUNTY: JACKSON
 STATE: MISSOURI

ENERGY CODE SUMMARY:

TABLE R402.1.2 - INSULATION & FENESTRATION REQUIREMENTS
 PLANS SHALL CONFORM TO THE PROVISIONS OF THE 2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) AS AMENDED BY THE GOVERNING BODY OF THE CITY OF GRANDVIEW, MO.

BUILDING ELEMENT	MIN VALUE
CEILING	49
WALL - WOOD FRAME	20
FLOOR	19

BUILDING DATA:

DOUBLE UNIT TOWNHOMES:

1ST FLR :	652 SF
2ND FLR :	792 SF
TOTAL LIVING AREA:	1,444 SF
GARAGE:	284 SF

SINGLE UNIT HOMES:

1ST FLR :	506 SF
2ND FLR :	458 SF
3RD FLR :	320 SF
TOTAL LIVING AREA:	1,284 SF

PROJECT GENERAL NOTES

- A. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, REGULATIONS, CODES AND AMENDMENTS. NOTHING IN THE DRAWINGS OR SPECIFICATIONS SHALL BE CONSTRUED AS REQUIRING OR PERMITTING WORK CONTRARY TO THESE RULES, REGULATIONS, AND CODES.
- B. THE CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY, AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL.
- C. DO NOT SCALE DRAWINGS. REFER TO WRITTEN DIMENSIONS. IF DIMENSIONS APPEAR TO BE INSUFFICIENT OR CONTRADICTIONARY, THE CONTRACTOR SHALL REQUEST CLARIFICATION FROM THE ARCHITECT.
- D. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS BY TAKING FIELD MEASUREMENTS. PROPER FIT AND ATTACHMENTS OF ALL SPECIFIED ITEMS AND WORK IS REQUIRED.
- E. THE CONTRACTOR SHALL THOROUGHLY REVIEW THE DRAWINGS AND SPECIFICATIONS AND IMMEDIATELY REPORT ANY DISCREPANCIES TO THE ARCHITECT. HOWEVER, WHERE A CONFLICT BETWEEN THE DRAWINGS AND SPECIFICATIONS OCCURS, WHICHEVER IS OF GREATER VALUE AND/OR QUANTITY WILL TAKE PRECEDENT. A FAILURE TO COOPERATE BY A SIMPLE NOTICE TO THE ARCHITECT SHALL RELIEVE THE ARCHITECT FROM RESPONSIBILITY FOR ALL CONSEQUENCES. CHANGES MADE FROM THE PLANS WITHOUT THE CONSENT OF THE ARCHITECT ARE UNAUTHORIZED AND SHALL RELIEVE THE ARCHITECT OF RESPONSIBILITY FOR ALL CONSEQUENCES ARISING OUT OF SUCH CHANGES.
- F. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. CONTRACTOR AND EACH SUBCONTRACTOR SHALL INSTALL ALL THEIR MATERIALS IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS TO MEET PRODUCT WARRANTY REQUIREMENTS. THE ARCHITECT SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO PERFORM THE WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- G. THE CONTRACTOR AND EACH SUBCONTRACTOR AFFIRMATIVELY REPRESENTS THAT THEY ARE SKILLED AND EXPERIENCED IN THE PERFORMANCE OF WORK AS REQUIRED BY THIS PROJECT AND IN THE USE AND INTERPRETATION OF DRAWINGS AND SPECIFICATIONS SUCH AS THOSE INCLUDED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR AGREES THAT IT SHALL BE CONCLUSIVELY PRESUMED THAT THE CONTRACTOR HAS EXERCISED HIS AFOREMENTIONED SKILL AND EXPERIENCE AND HAS FOUND THE DRAWINGS AND SPECIFICATIONS SUFFICIENT AND FREE FROM AMBIGUITIES, ERRORS, DISCREPANCIES, AND OMISSIONS FOR THE PURPOSE OF DETERMINING ITS CONTRACT FOR THE PERFORMANCE OF THE WORK IN CONFORMITY WITH THE DRAWINGS, SPECIFICATIONS, AND ALL OTHER CONTRACT DOCUMENTS.
- H. THE CONTRACTOR AND EACH SUBCONTRACTOR SHALL EXAMINE AND BECOME FAMILIAR WITH ALL CONTRACT DOCUMENTS IN THEIR ENTIRETY AND ARE RESPONSIBLE FOR ALL WORK PERTAINING TO THEIR TRADE REGARDLESS OF DRAWING OR SECTION OF SPECIFICATIONS IT IS WRITTEN OR DEPICTED IN. ALL COSTS SUBMITTED AND WORK PERFORMED SHALL BE BASED ON THOROUGH KNOWLEDGE OF ALL WORK AND MATERIALS REQUIRED FOR A COMPLETE AND FUNCTIONING SYSTEM TO FULFILL THE INTENT OF THE CONTRACT DOCUMENTS WHETHER FULLY DEFINED BY THE DRAWINGS AND SPECIFICATIONS OR NOT. ANY DISCREPANCY AND/OR UNCERTAINTY SHOULD BE VERIFIED WITH THE ARCHITECT.
- I. IN NO CASE SHALL ANY CONTRACTOR PROCEED WITH WORK IN UNCERTAINTY.
- J. IF THE CONTRACTOR OR THE OWNER SELECTS OR SUBSTITUTES ANY ASSEMBLY, SYSTEM, PRODUCT, MATERIAL, OR DESIGN FOR THE PROJECT WITHOUT OR AGAINST THE ARCHITECT'S APPROVAL, THE ARCHITECT SHALL HAVE NO RESPONSIBILITY FOR THAT DECISION BY THE CONTRACTOR OR OWNER OR FOR THE PERFORMANCE OF SUCH ITEMS, AND THE ARCHITECT SHALL NOT BE REQUIRED TO ISSUE ANY OPINION OR CERTIFICATE WITH RESPECT TO SUCH ITEMS.
- K. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR COORDINATION OF WORK BETWEEN ALL TRADES AND WILL IDENTIFY ALL BLOCKING, SURFACE PREPARATION AND SIMILAR ITEMS THAT ARE NECESSARILY PROVIDED BY ONE TRADE TO FACILITATE THE WORK OF ANY OTHER. ALL TRADES WILL BE REQUIRED TO REPORT ANY DEFICIENCIES ON THE PROJECT WHICH WOULD LEAD TO AN INCOMPLETE OR POOR-QUALITY FINISHED PRODUCT.
- L. EACH TRADE SHALL EXAMINE ALL SUBSURFACES AND WORK OF OTHERS THAT AFFECT THEIR INDIVIDUAL SCOPE OF WORK. REPORT IN WRITING, TO THE GENERAL CONTRACTOR, WITH A COPY TO THE ARCHITECT, ANY CONDITIONS, EXCEPT FOR UNFORESEEN EXISTING CONDITIONS, WHICH MAY PROVE DETRIMENTAL TO THE WORK. FAILURE TO OBSERVE THIS INJUNCTION WILL CONSTITUTE A WAIVER TO ANY SUBSEQUENT CLAIMS TO THE CONTRARY AND MAKE THIS CONTRACTOR RESPONSIBLE FOR ANY CORRECTION ARCHITECT MAY REQUIRE. COMMENCEMENT OF WORK WILL BE CONSTRUED AS ACCEPTANCE OF ALL SUBSURFACES.
- M. CONTRACT DOCUMENTS DO NOT ILLUSTRATE EVERY CONDITION; WORK NOT EXPRESSLY DETAILED SHALL BE CONSTRUCTED SIMILAR TO PARTS THAT ARE DETAILED. WHERE DISCREPANCIES OCCUR, THEY SHALL BE REPORTED TO THE ARCHITECT FOR RESOLUTION BEFORE PROCEEDING WITH WORK. WHENEVER THE CONTRACT DOCUMENTS REASONABLY IMPLY MATERIALS OR INSTALLATION AS NECESSARY TO PRODUCE THE INTENDED RESULTS, BUT DO NOT FULLY DETAIL OR SPECIFY SUCH MATERIALS, THE CONTRACTOR SHALL PROVIDE THE MATERIALS AND LABOR REQUIRED FOR INSTALLATION NONETHELESS.
- N. CONTRACT DOCUMENTS ARE INTENDED TO CONVEY DESIGN INTENT ONLY. PROVIDE PRODUCTS COMPLETE WITH ACCESSORIES, TRIM, FINISH FASTENERS, AND OTHER ITEMS NEEDED FOR A COMPLETE INSTALLATION AND INDICATED USE AND EFFECT.
- O. DESIGN INTENT INCLUDES CONCEALING ALL PIPES, CONDUITS, DUCT LINES, ETC. ABOVE FINISHED SOFFIT/CEILING OR WITHIN WALLS AND CHASES, U.N.O.
- P. THESE NOTES ARE NOT INTENDED TO LIMIT THE RESPONSIBILITIES OF THE CONTRACTOR AS DEFINED ELSEWHERE IN THE CONTRACT DOCUMENTS.
- Q. DIMENSIONS NOTED AS "FIELD VERIFY" SHALL BE CHECKED AT THE SITE BY THE CONTRACTOR AND REVIEWED WITH THE ARCHITECT BEFORE INCORPORATING INTO THE WORK.
- R. PROVIDE ALL WORK INDICATED UNLESS SPECIFICALLY NOTED AS "NOT IN CONTRACT" (NIC), "FURNISHED BY OTHERS" (FBO) OR EXISTING.

Approved _____
 Owner's Representative

Approved _____
 Community Development Director,
 City of Grandview

Approved _____
 Public Works Department,
 City of Grandview

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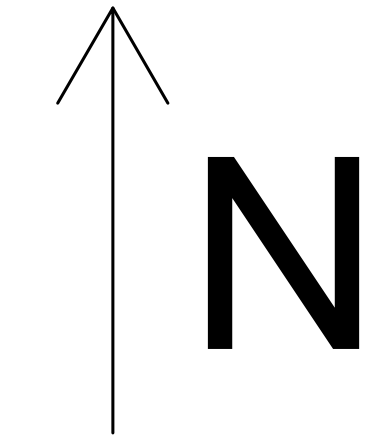
STRUCTURAL

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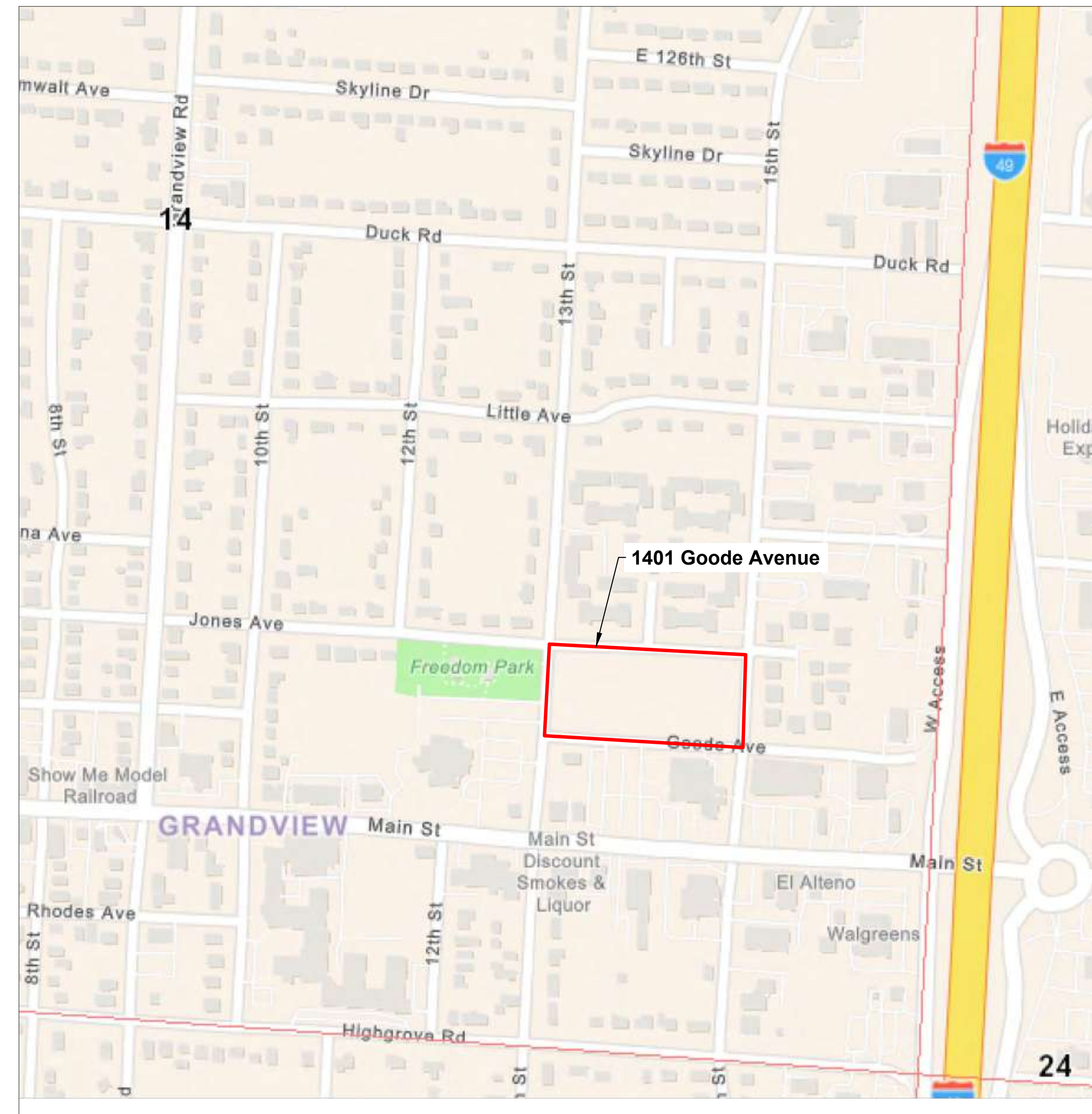
City Center Townhomes

Site Grading & Utility Plans



- Sheet List:
- 1 Cover Sheet
 - 2 Preliminary Plat
 - 2.1 Zoning Map
 - 3 General Notes
 - 4 Survey
 - 5 Grading Plan
 - 6 Buildings Plan
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SECTION 14
TOWNSHIP 47 NORTH
RANGE 33 WEST



1 VICINITY MAP
Not to Scale

UTILITIES:

Gas: SPIRE - 800-582-1234
Electric: Evergy - 888-471-5275
Water: Jackson County PWS #1 - 816-966-0550

Missouri One Call - 811
Call Before You Dig

Legal Description:
SHELTON SECOND ADD; LOTS 7 THRU 16 INCL

Owner:
1401 GOODE, LLC

Zone:
PD - PLANNED DISTRICT

Scope:
INFRASTRUCTURE AND GRADING PACKAGE

Size:
175,330 SF GROUND

Owner: 1401 Goode, LLC
Thomas Lee
17000 Elm Trail Drive
Eureka, MO 63025
314-565-1904

Engineer: Keystone KC Engineering, LLC
Eric Strack, PE
1530 Duck Road
Grandview, MO 64030
816-339-9788

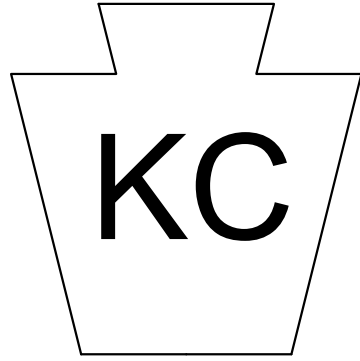
Surveyor: Boundary & Construction Surveying, INC.
Roger Backues, LS
821 NE Columbus Street, Suite 100
Lee's Summit, MO 64063
816-557-9798

FEMA Floodplain Administrator
913-573-5200

Approved _____
Owner's Representative

Approved _____
Community Development Director,
City of Grandview

Approved _____
Public Works Department,
City of Grandview



KEYSTONE KC
Engineering, LLC
1530 Duck Road
Grandview, MO
816-287-1696



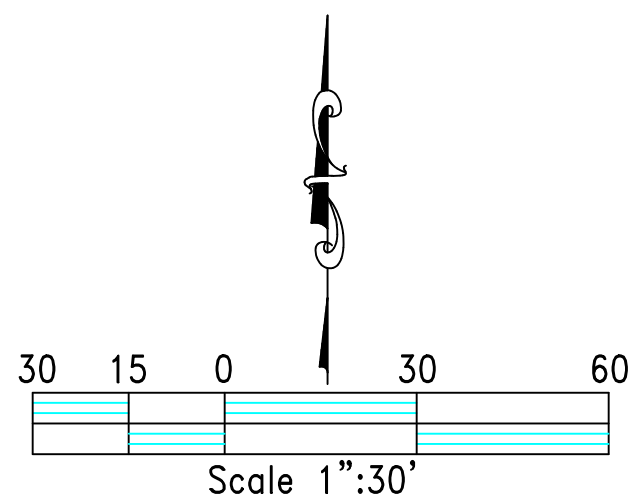
7/10/2024

SITE GRADING AND UTILITY PLANS
 1401 GOODE AVENUE
 GRANDVIEW, MISSOURI

REVISION LOG

CREATED	10/20/2023
REVISED	12/29/2023
REVISED	2/15/2024
REVISED	06/06/2024

DRAWING TITLE:
COVER SHEET
SHEET NO.



NOTES:

1. THE SUBJECT PROPERTY CONTAINS 172,239 SQUARE FEET OR 3.95 ACRES MORE OR LESS.
2. UTILITY INFORMATION SHOWN HERE ON IS BASED UPON THE FOLLOWING:
 - A. FIELD SURVEY METHODS FOR OBSERVABLE FACILITIES.
 - B. WATER MAPS PROVIDED BY CITY OF GRANDVIEW.
3. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A PROPER TITLE REPORT. EASEMENTS AND OTHER CONDITIONS MAY EXIST AND COULD BE DISCLOSED BY A PROPER TITLE REPORT, WHICH WAS NOT SUPPLIED BY THE CLIENT

BASIS OF BEARINGS:

BEARINGS SHOWN ARE GRID BEARINGS BASED ON MISSOURI STATE PLANE COORDINATE SYSTEM OF 1983, WEST ZONE.

FLOOD STATEMENT:

THE SUBJECT PROPERTY LIES IN AN AREA LABELED ZONE "X" (AREAS DETERMINED TO BE OUTSIDE OF THE 500-YEAR FLOOD PLAIN) AS DETERMINED BY THE FEMA FLOOD INSURANCE RATE MAP NUMBER 29095C0395G, WITH AN EFFECTIVE DATE OF JANUARY 20, 2017.

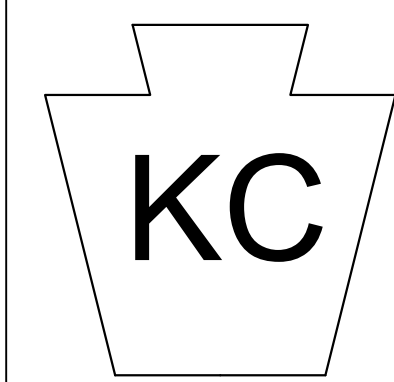
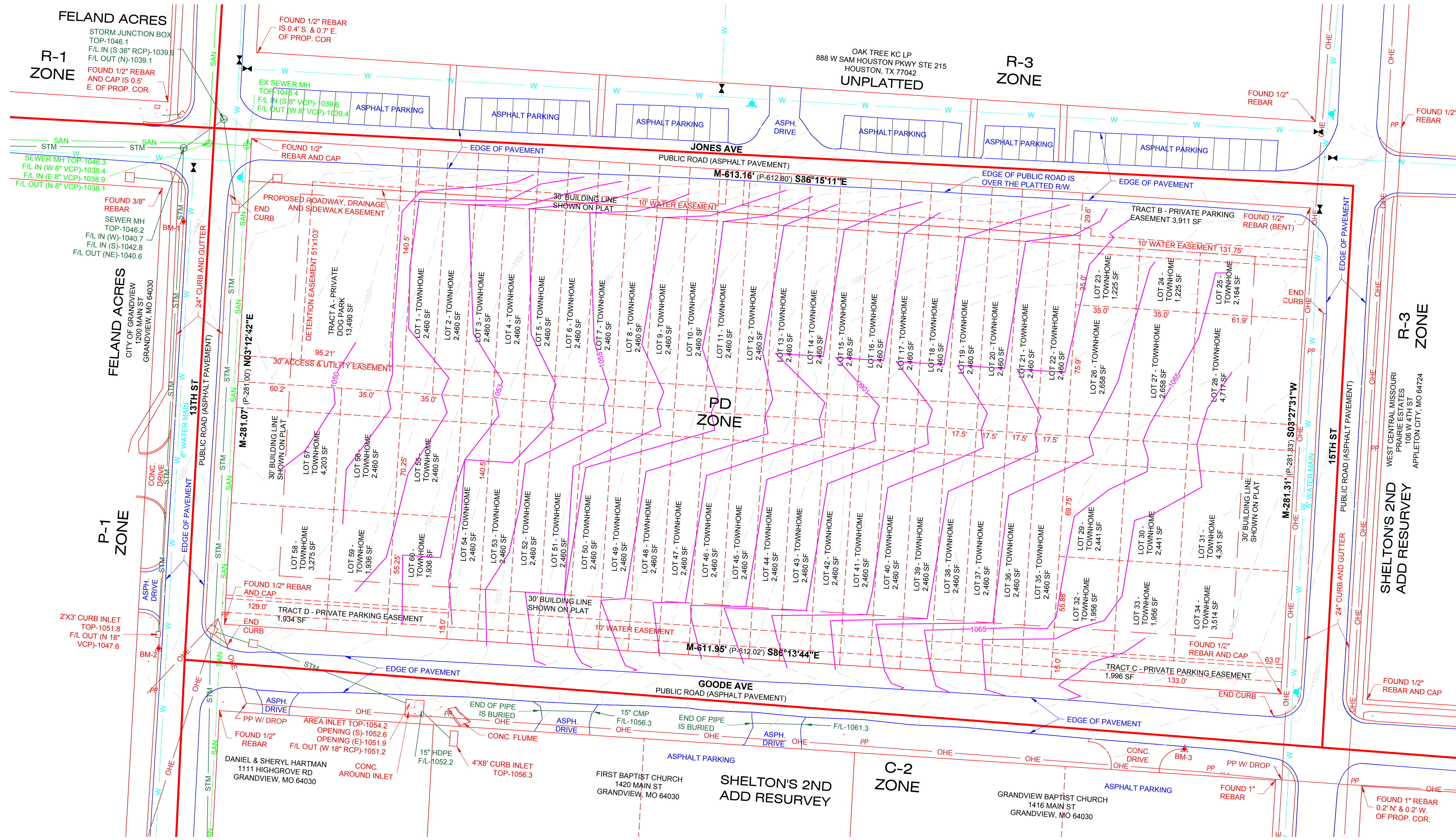
DEED DESCRIPTION:

LOTS 7 THROUGH 16, INCLUSIVE, RESURVEY OF SHELTON'S 2ND ADDITION, A SUBDIVISION IN GRANDVIEW, JACKSON COUNTY, MISSOURI.

LOT COVERAGE:

- | | |
|--------------------|---------------------|
| 1. LOT 1-22 - 41% | 8. LOT 32-33 - 28% |
| 2. LOT 23-24 - 45% | 9. LOT 34 - 16% |
| 3. LOT 25 - 25% | 10. LOT 35-54 - 41% |
| 4. LOT 26-27 - 21% | 11. LOT 55-56 - 22% |
| 5. LOT 28 - 12% | 12. LOT 57 - 13% |
| 6. LOT 29-30 - 22% | 13. LOT 58 - 17% |
| 7. LOT 31 - 13% | 14. LOT 59-60 - 28% |

PRELIMINARY PLAT
RE-PLAT OF SHELTON'S 2ND ADDITION- LOTS 7 THRU 16
 GRANDVIEW, JACKSON COUNTY, MISSOURI
 CLASS OF PROPERTY - URBAN



KEYSTONE KC
 Engineering, LLC
 1530 Duck Road
 Grandview, MO
 816-287-1696



6/10/2024

SITE GRADING AND UTILITY PLANS
1401 GOODE AVENUE
GRANDVIEW, MISSOURI

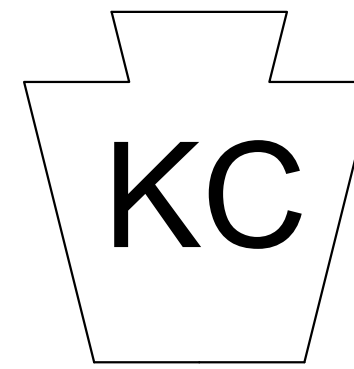
REVISION LOG

CREATED	10/20/2023
REVISED	12/29/2023
REVISED	2/15/2024
REVISED	06/06/2024

DRAWING TITLE
 PRELIMINARY
 PLAT
 SHEET NO.



1 ZONING PLAN
SCALE 1":30'



KEYSTONE KC
Engineering, LLC
1530 Duck Road
Grandview, MO
816-287-1696



6/10/2024

SITE GRADING AND UTILITY PLANS
1401 GOODE AVENUE
GRANDVIEW, MISSOURI

REVISION LOG
CREATED 10/20/2023
REVISED 12/29/2023
REVISED 2/15/2024
REVISED 06/06/2024

DRAWING TITLE
ZONING MAP

SHEET NO.
2.1

CONSTRUCTION NOTES:

1. All construction shall conform to the municipal code and Design and Construction Standards Manual in effect on the City's approval date shown on these plans and incorporated herein by reference.
2. All workmanship and materials regulated by the City shall be subject to the inspection and approval by City personnel.
3. All work shall be confined within the easements and/or construction limits as shown on the plans.
4. Driveways shall be removed and replaced to existing joints, unless otherwise noted.
5. The Contractor is responsible for providing erosion and sediment control BMPs (Best Management Practices) 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.
6. 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.
7. The Contractor needs to pull a public improvement permit for the sanitary, curb and sidewalk construction
8. The Contractor is responsible for verifying all utility locations. Contact Missouri One Call at 811 or missouri-811.org at least 2 full business days prior to excavation.
9. In order to obtain inspections, the permittee shall notify the public works department at least two (2) working days before start of construction, erosion and sediment-control measures are in place and stabilized, site clearing has been completed, rough grading has been completed, final grading has been completed, close of construction season, removal or substantial modification of any erosion and sediment-control measure or practice, and final landscaping.
10. A copy of permit must be available on site for inspection by authorized representatives of the City of Grandview.

General Construction Notes - Public Improvements & Work in the Public Street Right of Way

Utilities:

11. The information shown on these plans concerning the type and location of underground utilities is not guaranteed to be accurate or all inclusive. The Contractor is responsible for contacting all utility companies for field location of all underground utility lines prior to any excavation and for making his own verification as to the type and location of underground utilities as may be necessary to avoid damage thereto.
12. Any existing and/or temporary storm sewer pipes and box culverts to be abandoned in place shall be completely filled using flowable fill (low strength mixture) in accordance with MoDOT Standard Specifications Section 621.
13. 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 Developer is responsible for the cost of utility relocations unless otherwise indicated on the plans.

Acceptable Materials:

14. All reinforced concrete pipe shall be Class III, unless otherwise noted on the plans. All RCP (reinforced concrete pipe) shall use rubber gasket joints that conform to ASTM C-1628-06, except as noted in the Design and Construction Standards Manual.
15. All concrete used in this work shall meet the requirements of the Design and Construction Standards Manual. MoDOT Class B2 air entrained concrete shall be used in the Public Right-of-Way or in publicly maintained infrastructure throughout, unless otherwise noted.
16. Flowable fill (low strength) shall be used to backfill all excavations located under existing or proposed pavement areas (street, curb, and sidewalk) within the public right-of-way. The flowable fill shall be placed to the top of the subgrade.

Traffic Controls:

17. All traffic control devices shall be fabricated and installed in accordance with the M.U. T.C.D., N.C.H.R.P. 350, latest editions. This traffic control plan (T.C.P.) will cover a major portion of the work involved in this project. The contractor may develop his own T.C.P. upon submission and approval by the engineer before it can be implemented for this project.
18. The traffic control requirements shown on these plans are minimum requirements only and do not attempt to address in depth the variety of situations that may occur once construction has started. In no way do the requirements shown on these plans relieve the contractor of his responsibility for selecting the proper traffic control devices and implementation procedures that will assure the safety of motorists, pedestrians, and workers at all times. Any additional quantities of traffic control devices necessary to complete the contract or as ordered installed by the engineer shall be considered subsidiary to the contract Lump Sum bid price.

1 GENERAL NOTES

19. Any existing city owned signs, street lighting or traffic signal equipment removed by the Contractor for construction purposes shall be maintained or returned in accordance with the latest City of Grandview Standard Details revisions on record. The Standard Details for Permanent Signing, Street Lighting, or Traffic Signal are available on the City's web site.
20. Closure of any public street must be approved by the City prior to issuance of a permit. The Contractor must notify the City Engineer at least 3 business days prior to the street closure. The Contractor shall notify the City of the time and date of closure, length of closure, closure limits, and detour information.

Clearing/Grubbing:

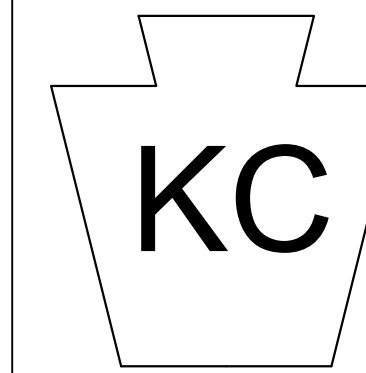
21. The Contractor is responsible for the protection of all property corners and section corners. Any property corner and/or section corner disturbed or damaged by construction activities shall be reset by a Registered Land Surveyor licensed in the State of Missouri, at the Contractor's expense, unless otherwise noted.
22. All trees approved for removal shall be marked "X". All trees and areas marked "Tree Protection Zone" or "No Disturbance," or any trees not marked at all, shall be left undisturbed throughout construction. All trees within the construction limits marked for protection shall be fenced with a protective barrier. Fencing shall be located at the drip line of the tree. Areas within the fencing shall be left entirely undisturbed; no storage of material, grading, parking, etc. Fencing shall be installed and inspected by the City Forester prior to any land disturbance and shall not be removed or relocated without approval.
23. All existing structures within the construction limits shall be removed, unless otherwise noted on the plans.
24. The contractor shall remove existing trees and shrubbery within the right-of-way adjacent to future thoroughfare improvements.
25. For work within 50 feet of the designated stream corridors or other sensitive areas, the contractor shall erect a visible temporary fence or other barrier that delineates the outer edge of the boundary. The barrier shall remain in place throughout construction and remain free of grading, retaining walls, or other alterations, unless otherwise approved. The barrier shall remain until the adjacent lots have been sodded.

Excavation and Grading:

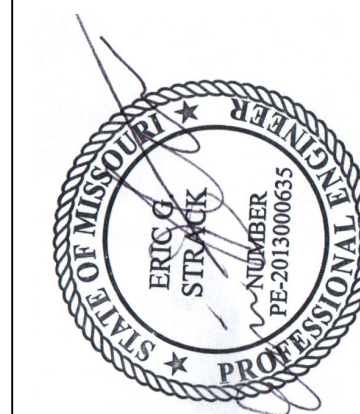
26. Where excavation is shown to be wasted on sites provided by the Contractor, these sites shall be approved by the City as to suitability, appearance and site location. Locations that, in the opinion of the City, will leave an unsightly appearance will not be approved.
27. All borrow to be obtained from areas provided by the Contractor shall be approved by the City, both as to suitability of material and site location. Contractor supplied borrow material shall be inorganic soil free of concrete rubble, asphalt, rock, shale, wood, vegetation and debris.
28. The Contractor shall remove and dispose of all unsuitable material from existing roadside ditches and other locations as noted or as directed by the City.
29. The Contractor shall be responsible for the restoration of right-of-way and for damaged improvements such as curbs, sidewalks, driveways, streetlight and traffic signal boxes, traffic signal loop lead-ins, signal poles, etc. Damaged improvements shall be repaired in conformance with the latest City standards and to the City's satisfaction at the Contractor's expense.
30. All manholes, catch basins, utility valves, and meter pits shall be adjusted or rebuilt to grade as required and set in concrete if in roadway for field adjustment.
31. The Contractor shall sod all disturbed areas within the public street right-of-way adjacent to developed property. The contractor shall sod or seed and mulch all disturbed areas adjacent to undeveloped properties.

Other:

32. Saw cuts for material removal shall be full depth.
33. All public street sidewalk ramps constructed will be required to comply with the Americans with Disabilities Act (ADA) sidewalk details.
34. 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 lines.
35. The Contractor shall notify all property owners a minimum 24 hours in advance of all work pertaining to their entrances.
36. The Contractor shall at no time leave equipment, materials or debris at locations that could obstruct intersection sight distance, impede pedestrian traffic, obstruct any existing capacity of storm sewer system, impede traffic, or cause flooding or erosion to residences.



KEYSTONE KC
Engineering, LLC
1530 Duck Raod
Grandview, MO
816-287-1696



6/10/2024

SITE GRADING AND UTILITY PLANS
1401 GOODE AVENUE
GRANDVIEW, MISSOURI

REVISION LOG

CREATED 10/20/2023

REVISED 12/29/2023

REVISED 2/15/2024

REVISED 06/06/2024

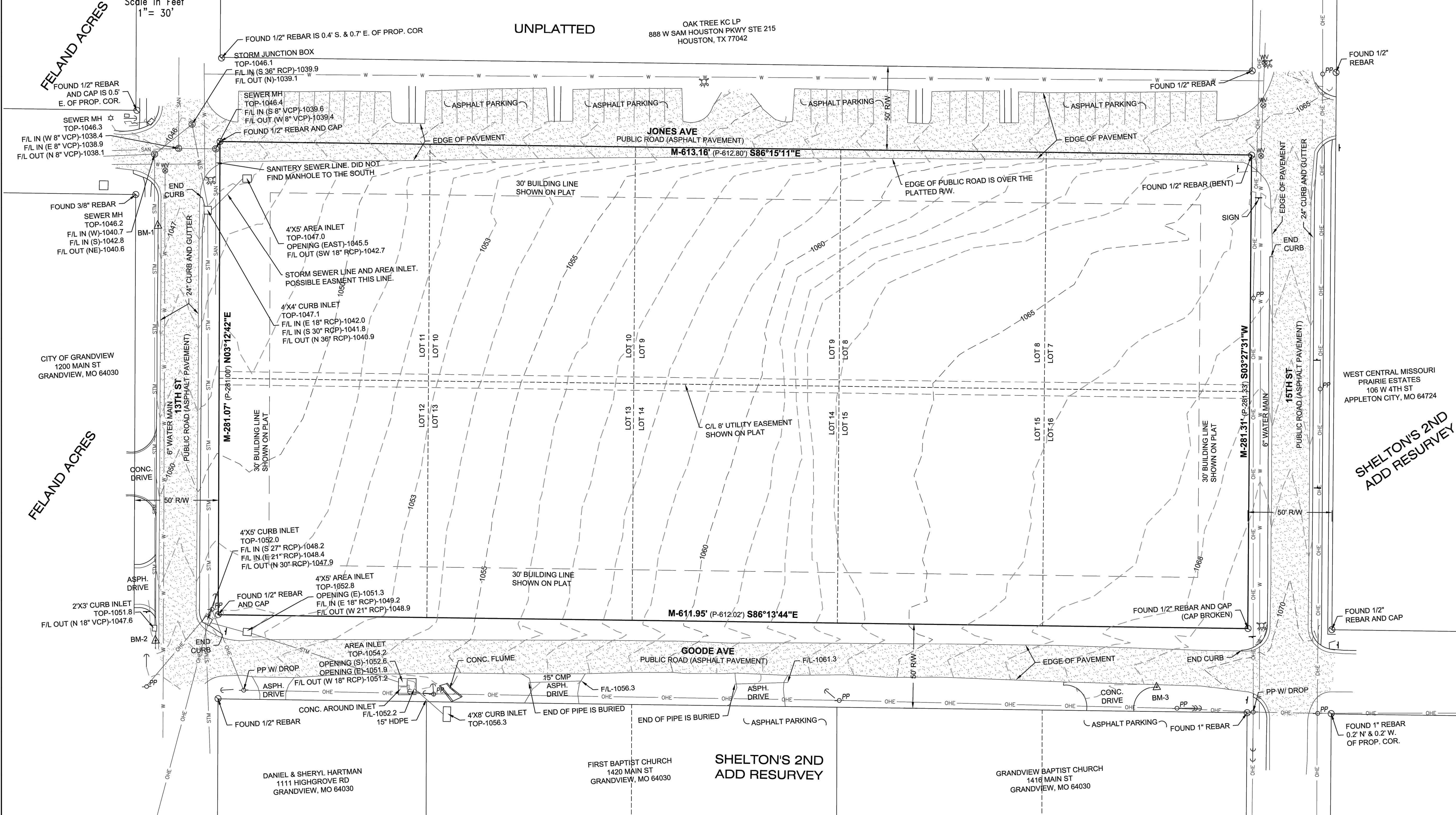
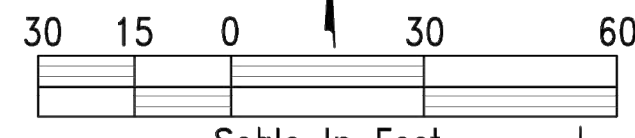
DRAWING TITLE:

GENERAL
NOTES

SHEET NO.

3

CERTIFICATE OF SURVEY
RESURVEY OF SHELTON'S 2ND ADDITION- LOTS 7 THRU 16
 GRANDVIEW, JACKSON COUNTY, MISSOURI
 CLASS OF PROPERTY - URBAN



NOTES:

- THE SUBJECT PROPERTY CONTAINS 172,239 SQUARE FEET OR 3.95 ACRES MORE OR LESS.
- UTILITY INFORMATION SHOWN HERE ON IS BASED UPON THE FOLLOWING:
 - FIELD SURVEY METHODS FOR OBSERVABLE FACILITIES.
 - WATER MAPS PROVIDED BY CITY OF GRANDVIEW
- THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A PROPER TITLE REPORT. EASEMENTS AND OTHER CONDITIONS MAY EXIST AND COULD BE DISCLOSED BY A PROPER TITLE REPORT, WHICH WAS NOT SUPPLIED BY THE CLIENT

BASIS OF BEARINGS:
 BEARINGS SHOWN ARE GRID BEARINGS BASED ON MISSOURI STATE PLANE COORDINATE SYSTEM OF 1983, WEST ZONE.

FLOOD STATEMENT:
 THE SUBJECT PROPERTY LIES IN AN AREA LABELED ZONE "X" (AREAS DETERMINED TO BE OUTSIDE OF THE 500-YEAR FLOOD PLAIN) AS DETERMINED BY THE FEMA FLOOD INSURANCE RATE MAP NUMBER 29095C0395G, WITH AN EFFECTIVE DATE OF JANUARY 20, 2017.

BENCHMARKS:

BM-1
 N: 991881.25
 E: 2780108.10
 ELEV: 1046.75
 DESCRIPTION: SET CHISELED "*" IN CURB ON WEST SIDE OF 13TH ST APPROX. 45' SOUTH OF C/L JONES RD

BM-2
 N: 991835.29
 E: 2780093.81
 ELEV: 1051.94
 DESCRIPTION: SET CHISELED "*" IN CURB ON WEST SIDE OF 13TH ST APPROX. 10' NORTH OF C/L GOODE AVE

BM-3
 N: 991576.45
 E: 2780686.56
 ELEV: 1069.96
 DESCRIPTION: SET CHISELED "*" IN CURB ON SOUTH SIDE OF GOODE AVE APPROX. 78' WEST OF C/L 15TH ST

DEED DESCRIPTION:
 LOTS 7 THROUGH 16, INCLUSIVE, RESURVEY OF SHELTON'S 2ND ADDITION, A SUBDIVISION IN GRANDVIEW, JACKSON COUNTY, MISSOURI.

SHELTON'S 2ND ADD RESURVEY

FELAND ACRES

FELAND ACRES

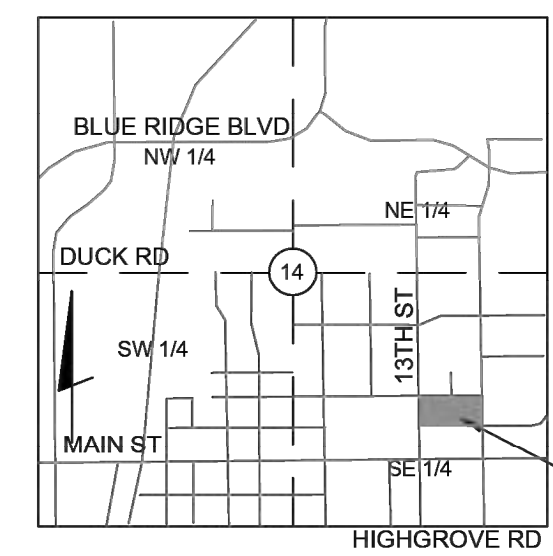
CITY OF GRANDVIEW
 1200 MAIN ST
 GRANDVIEW, MO 64030

WEST CENTRAL MISSOURI
 PRAIRIE ESTATES
 106 W 4TH ST
 APPLETON CITY, MO 64724

DANIEL & SHERYL HARTMAN
 1111 HIGHGROVE RD
 GRANDVIEW, MO 64030

FIRST BAPTIST CHURCH
 1420 MAIN ST
 GRANDVIEW, MO 64030

GRANDVIEW BAPTIST CHURCH
 1418 MAIN ST
 GRANDVIEW, MO 64030



LOCATION MAP
 SCALE=1"=2000'
 SECTION 14
 TOWNSHIP 47 RANGE 33

BEFORE YOU DIG - DRILL - BLAST

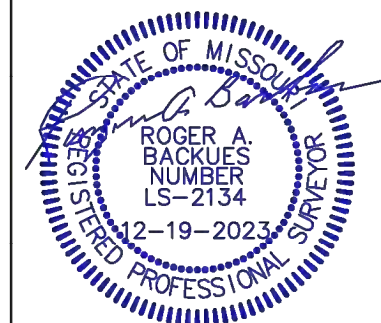
Call
 1-800-344-7483 (MISSOURI)
 1-800-344-7233 (KANSAS)

UTILITY NOTE:
 THE INFORMATION SHOWN ON THIS DRAWING CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES FOR FIELD LOCATION OF ALL UNDERGROUND UTILITY LINES PRIOR TO ANY EXCAVATION AND FOR MAKING HIS OWN VERIFICATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

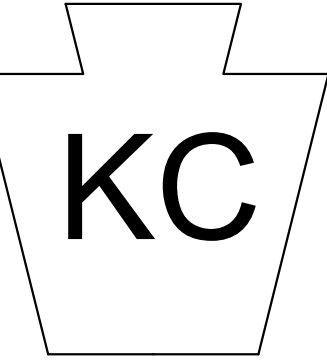
SYMBOL LEGEND

●	SET 1/2" REBAR AND CAP RLS-2134, MO.	⊙	POWER POLE
○	FOUND MONUMENT (AS NOTED)	☆	LIGHT POLE
R/W	RIGHT OF WAY	⊙	SEWER MANHOLE
P	PLATTED DISTANCE	—W—	WATER LINE
M	MEASURED DISTANCE	—SAN—	SANITARY SEWER LINE
W	WATER VALVE	—STM—	STORM SEWER LINE
⊙	FIRE HYDRANT	—OHE—	OVERHEAD ELECTRIC LINE
WM	WATER METER	■	CONCRETE
←	GUY WIRE	■	ASPHALT
F/L	FLOWLINE		
RCP	REINFORCED CONCRETE PIPE		
CMP	CORRUGATED METAL PIPE		
VCP	VITRIFIED CLAY PIPE		

BOUNDARY CERTIFICATION:
 I HEREBY DECLARE THAT AN ACTUAL PROPERTY BOUNDARY RE-SURVEY WAS MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT SURVEY MEETS OR EXCEEDS THE CURRENT MINIMUM STANDARDS FOR PROPERTY BOUNDARY SURVEYS TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION AND BELIEF.



CERTIFICATE OF SURVEY	
RESURVEY OF SHELTON'S 2ND ADDITION LOTS 7 THRU 16 GRANDVIEW, JACKSON COUNTY, MISSOURI	
DATE: DECEMBER 19, 2023	CLIENT:
1401 GOODE LLC 17000 ELM TRL EUREKA, MO 63025	821 NE COLUMBUS STREET SUITE 100, LEE'S SUMMIT, MO. 64063 PH.# 816/554-9798, FAX # 816/554-0337
PROJECT NO. 23-193	SHEET 1 OF 1
1401 GOODE AVE, GRANDVIEW, JACKSON COUNTY, MISSOURI	

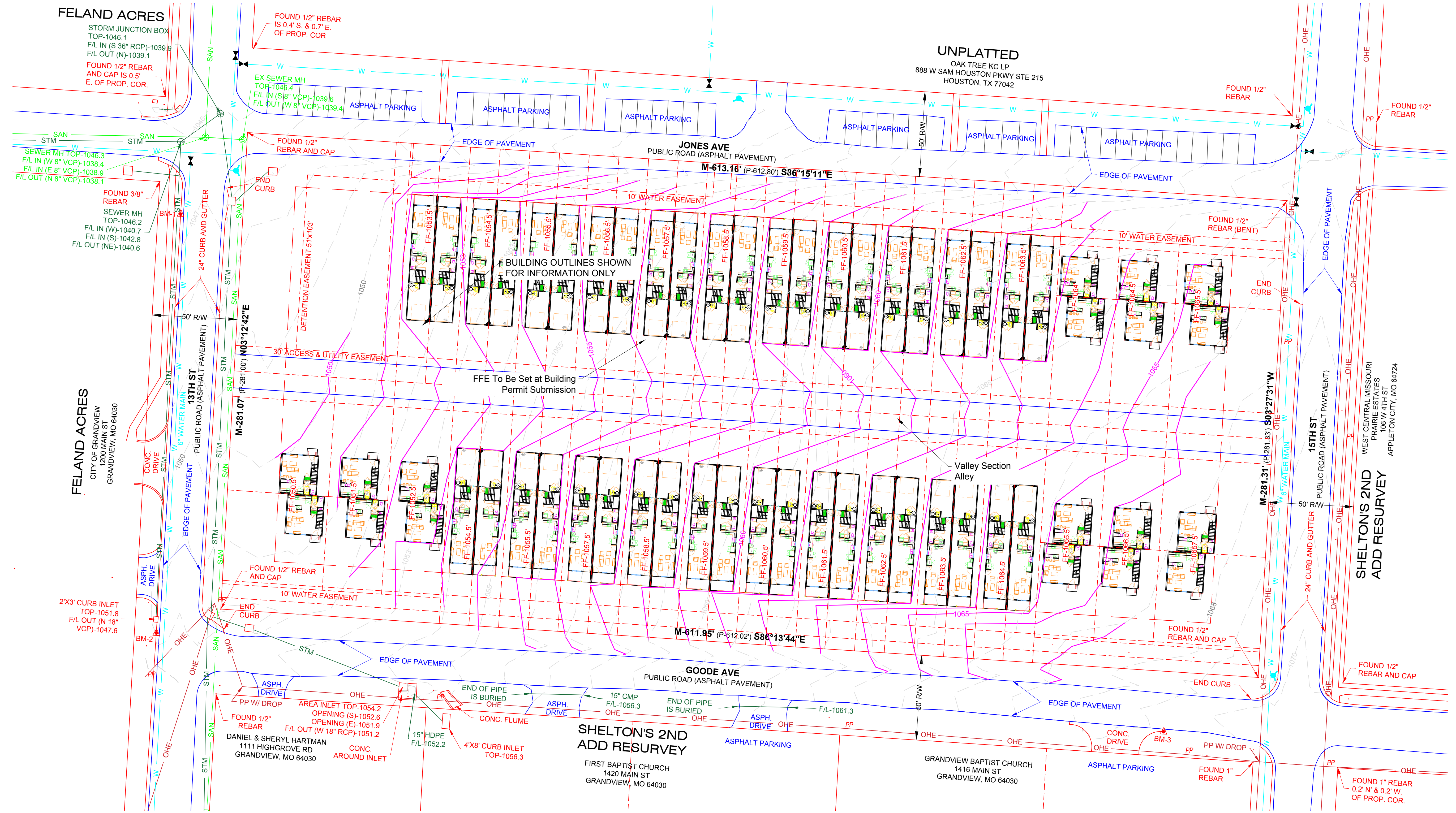


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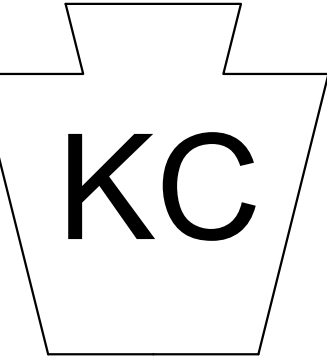
SITE GRADING AND UTILITY PLANS
1401 GOODE AVENUE
GRANDVIEW, MISSOURI



1 GRADING PLAN
SCALE 1":30'

REVISION LOG
CREATED 10/20/2023
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REVISED 06/06/2024

DRAWING TITLE:
GRADING
PLAN
SHEET NO.

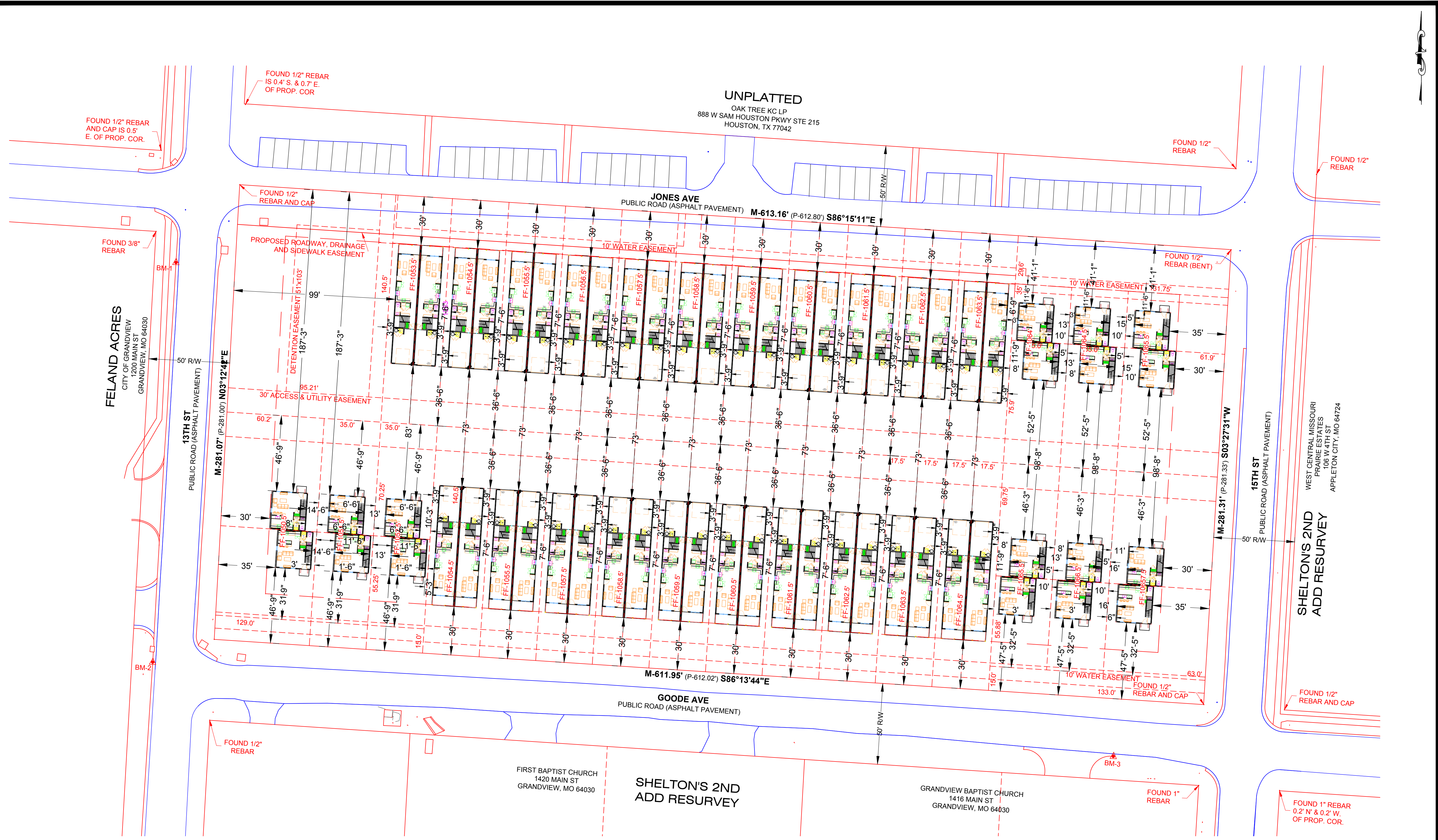


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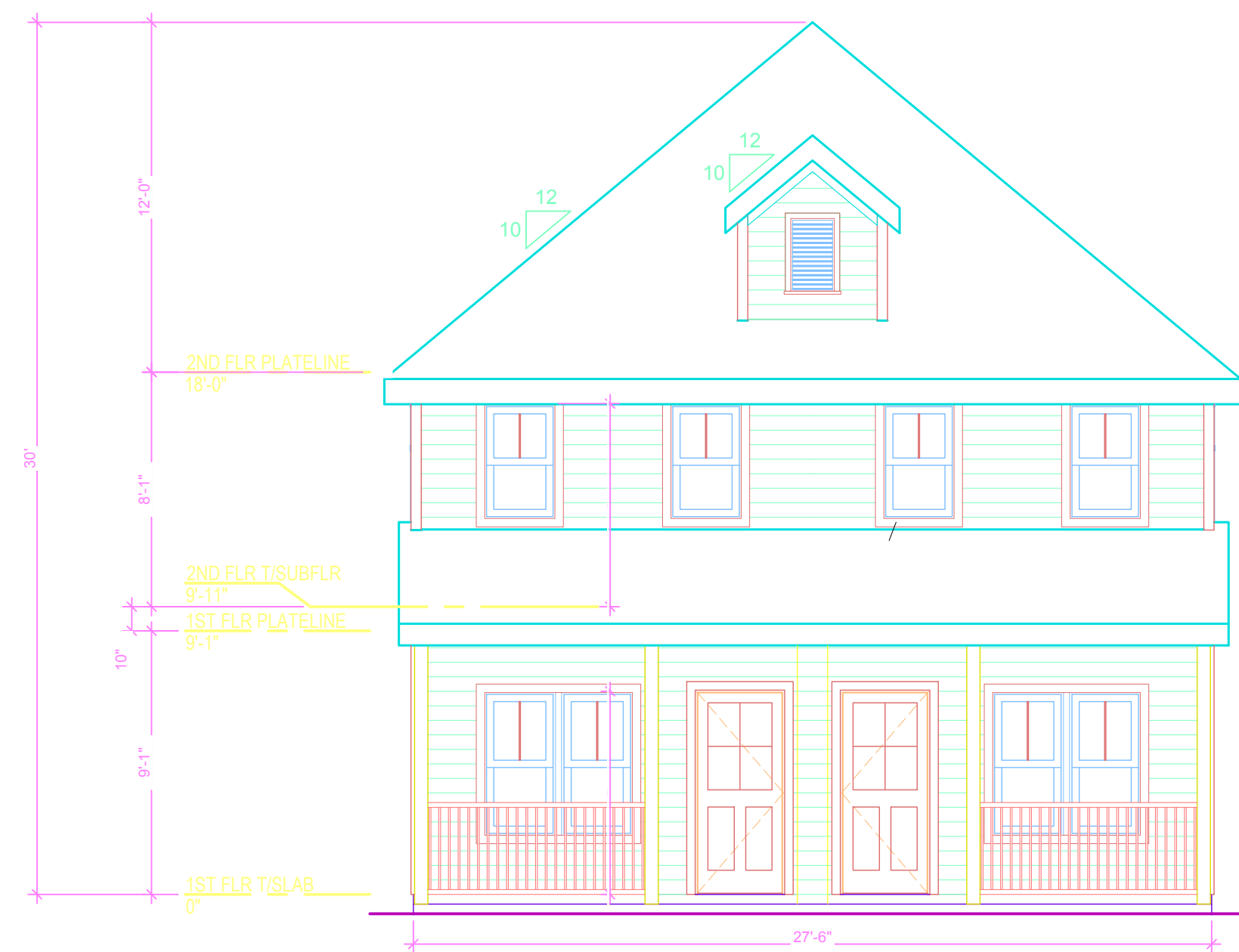


1 BUILDINGS PLAN
SCALE 1"=30'

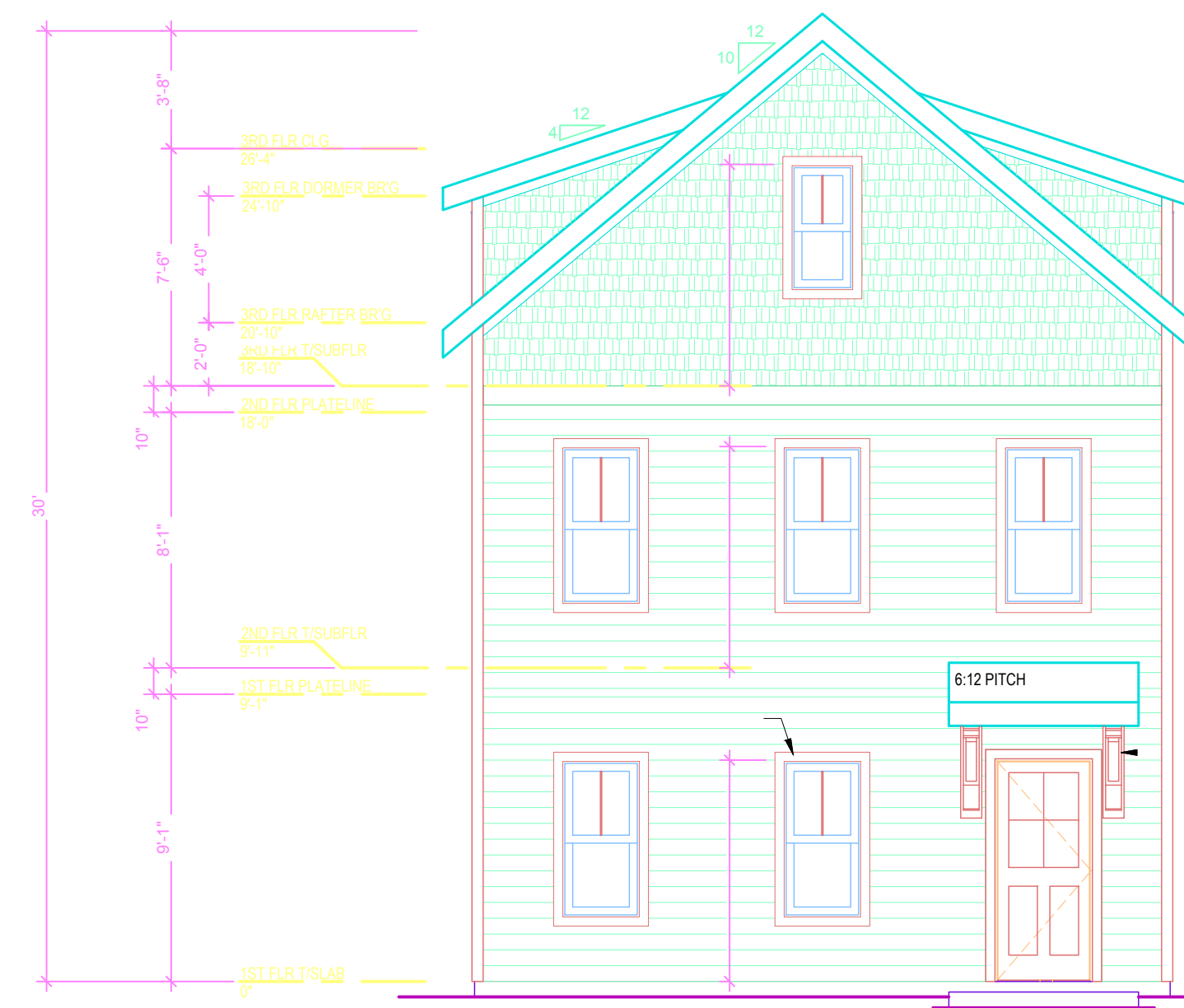
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REVISED 06/06/2024

DRAWING TITLE:
BUILDINGS
PLAN
SHEET NO.

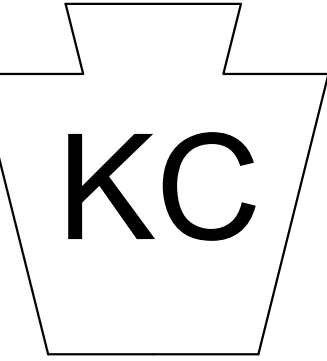
NOTE:
 Type of Construction - Type 5B.
 Building Exterior - LP SmartSide Siding.



1 DOUBLE UNIT ELEVATIONS
 SCALE 1":5'



2 SINGLE UNIT ELEVATIONS
 SCALE 1":5'



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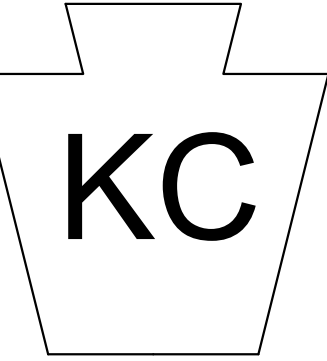


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SITE GRADING AND UTILITY PLANS
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DRAWING TITLE:
 BUILDING
 ELEVATIONS
 SHEET NO.

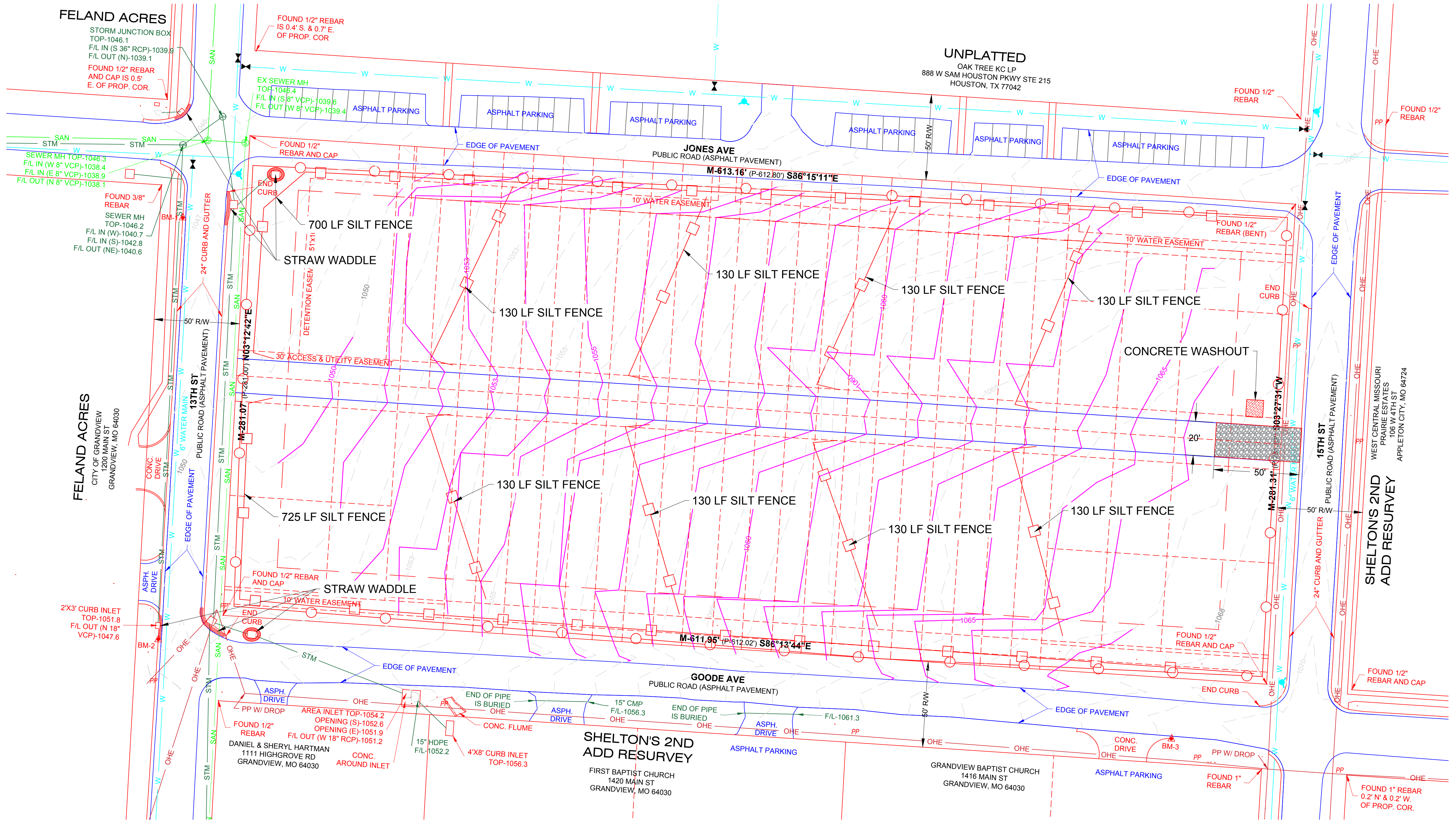


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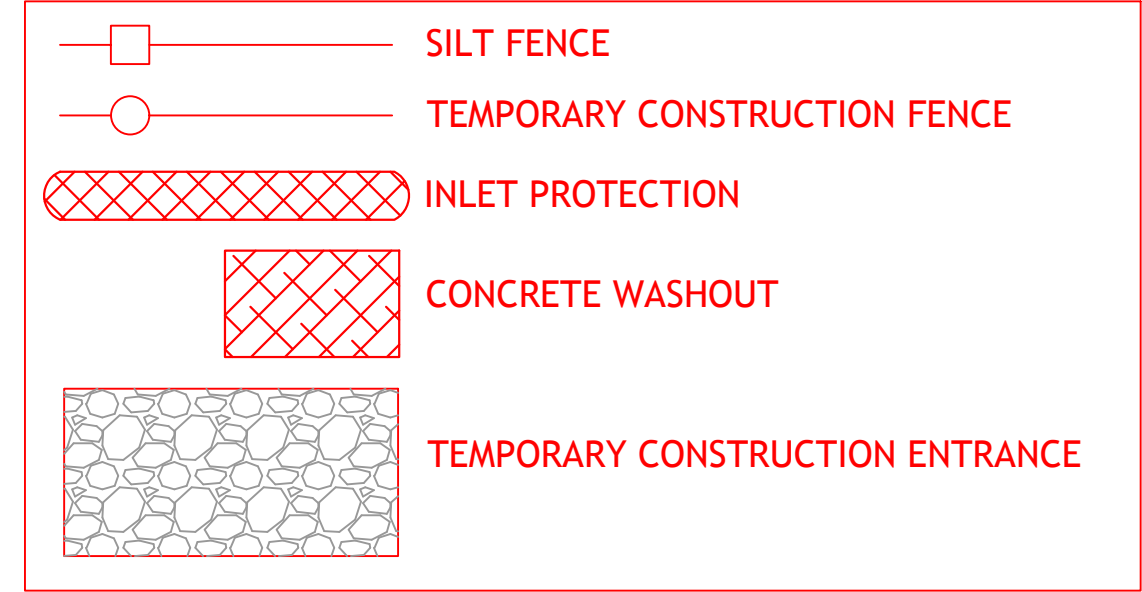


EROSION CONTROL PLAN
Total Area: 3.95 Acres

1 EROSION CONTROL PLAN
SCALE 1"=30'

- Stage 1 Project Start**
Install Silt Fence and Temporary Construction Entrance, Install Gravel For Temporary Construction Entrance
- Stage 2 Utility Construction**
Maintain Silt Fence and Straw Wattles Around Storm Inlets
- Stage 3 Utility Complete**
Grade and Install Gravel Road Base Maintain Silt Fence and Inlet Protection

NOTE:
1. EROSION CONTROL TO BE MAINTAINED THROUGHOUT CONSTRUCTION



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DRAWING TITLE:
EROSION CONTROL
SHEET NO.

THE FOLLOWING EROSION CONTROL MEASURES:

SILT FENCE: Please see the drawing detail appearing on this sheet.

MAINTAIN COVER BY PHASING THE WORK: To the extent possible, phase land disturbance activities to expose the minimum amount of earth necessary for the progress of the work. Do not disturb existing vegetation or pavements until immediately prior to grading or excavation of that section of the project. Within 7 days of cessation or interruption of land disturbance on any section of the project, establish cover by means of pavement, sod, seed with appropriate mulch, or temporary seed with appropriate mulch.

MINIMUM PROTECTION MEASURES FOR SITE:

- Follow pollution prevention and spill response rules listed below.
- Maintain cover by phasing the work (See phasing schedule elsewhere on the erosion control drawing).
- Divert clean runoff from upstream off-site property away from cleared ground as indicated on the erosion control drawing. Install a diversion ditch for down-drain protection as shown on the drawing.
- Comply with minimum slope protection measures shown on this drawing and in accordance to the chart illustrated.
- Install, inspect, maintain, (and remove when not needed) erosion control methods and materials. Install erosion control measures during periods of dry weather.
- Insure waterborne materials do not flow offsite.
- Inspect erosion control measures within 24 hours of rainfall of 1/2-inch or greater and at intervals not to exceed 14 days. Keep a written log of inspections and repairs.
- Install, inspect, maintain, the designated construction entry.
- During periods of significant concrete work, provide a sediment trap for concrete washout as shown on the drawing. Significant concrete work shall be whenever three or more loads are delivered to the site in a single day.
- Clean sediment traps when 1/3 full.

MINIMUM SLOPE PROTECTION MEASURES: Install and maintain erosion control measures required in the chart on the erosion control drawings.

- Mulching Method:** The required method to protect seed and soil from movement during germination period. Mulching method for steeper slopes may be substituted. Mulch not required for sod.
- Diversion Ditch:** Install a diversion ditch or dike, with appropriate down-drain protection, along the upstream extent of the slope as shown on the drawing. Install diversion and down-drain before clearing the slope.
- Silt Fence:** Install silt fence near the toe of the slope. Silt fence shall be installed on the contour with the ends adjusted slightly uphill. Bottom edge of the fabric shall be inserted six inches into the ground by slice trenching (See detail). Install silt fence before clearing the slope.
- Haul Road:** Limitation on placement of haul road. Where restricted, haul road shall have erosion resistant surface or armored side channel.

PROVISIONS FOR OPEN CUT TRENCHES: Where open cut trenches are cut through otherwise undisturbed areas, the following provisions apply:

- During backfill operations, install temporary 12-inch high berms to divert water flow from trench to adjacent undisturbed area.
- Within 7 days of excavation, restore trench surface and area used for temporary stockpile. Areas subject to concentrated flow of water shall be restored with sod, pavement, or stable rock surface. Other areas may be seeded and mulched, if permitted under other project specifications.

POLLUTION PREVENTION:

- Do not dispose of excess products or solid waste in sanitary or storm sewers nor bury on site. Inert waste (stone, brick, or broken concrete) may be buried at locations indicated on drawings or approved by Engineer.
- On-site disposal of fuels, oils, lubricants, solvents, or other hazardous materials will not be permitted under any circumstances.
- Maintain equipment in good order. Provide for proper containment, collection and disposal of materials in instances requiring on-site maintenance of equipment.
- Perform fueling, repair, and servicing of equipment a minimum of 50 feet from streams.
- Provide toilet facilities to control sanitary waste.
- Store on site only the quantity of materials and products necessary to complete the work.
- Store products in original containers. If original containers are not re-sealable, transfer containers shall be labeled clearly. Original material safety data sheets (MSDS) shall be maintained on site.

SPILL RESPONSE:

- Stop source of spill if safe to do so.
- Contain runoff from spill if safe to do so.
- Follow all MSDS recommendations relating to containment, cleanup, and requirements.

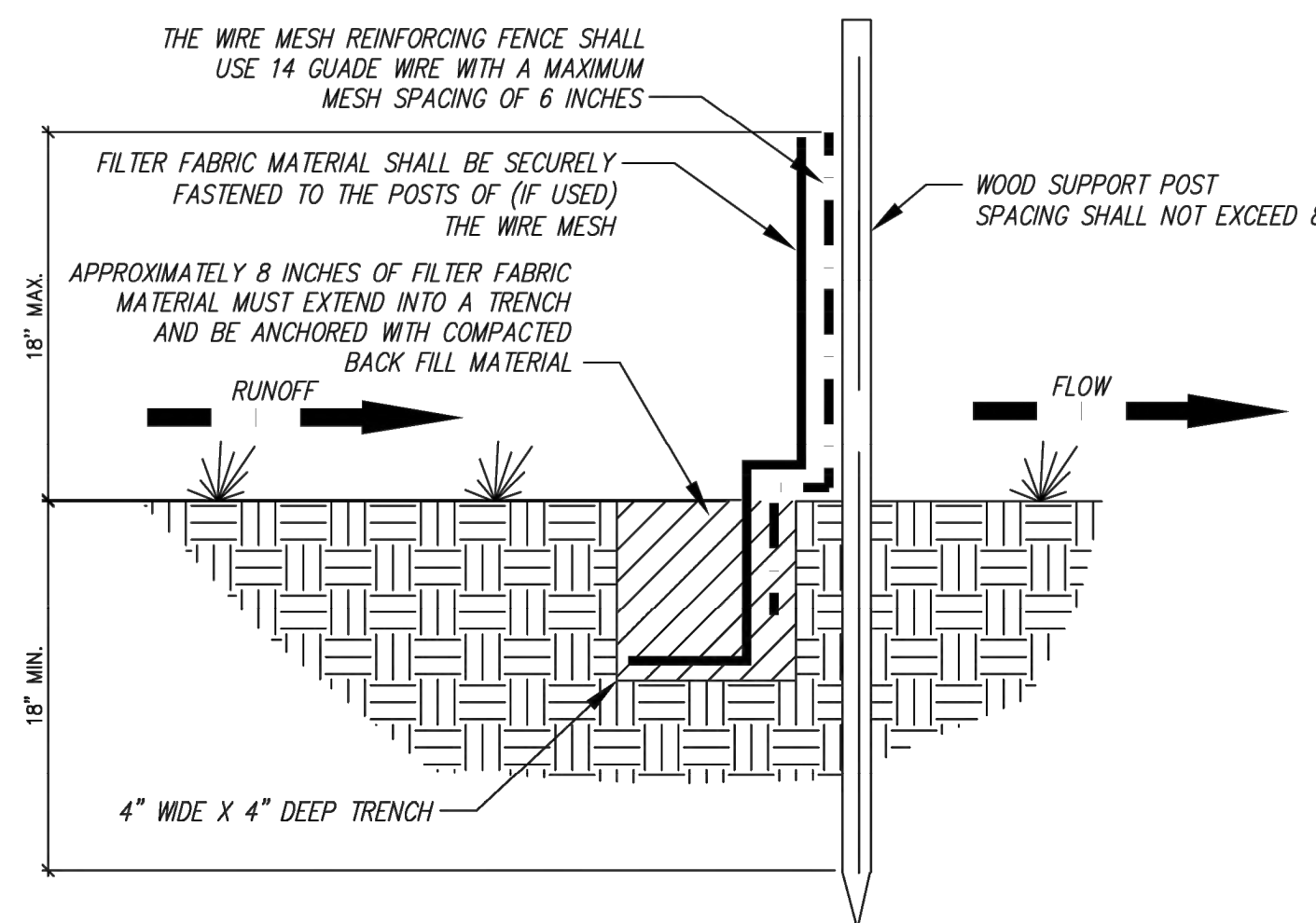
1 SILT FENCE

GENERAL NOTES:

- All work shall conform to the latest revision of the KCMO Erosion and Sediment Control Specifications.
- Apply temporary stabilization measures on all graded areas when work is to be interrupted or delayed for 14 calendar days or longer.
- 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. Utilities damaged through the negligence of the contractor to obtain the location of same shall be repaired or replaced by the contractor at his expense.
- It shall be the responsibility of the contractor to control downstream siltation and erosion, during all phases of construction, and to cooperate with the grading contractor (erosion control permittee) to assure compliance with all requirements. See Erosion Control Performance Requirements.
- Erosion control improvements shall be in place prior to any excavation.

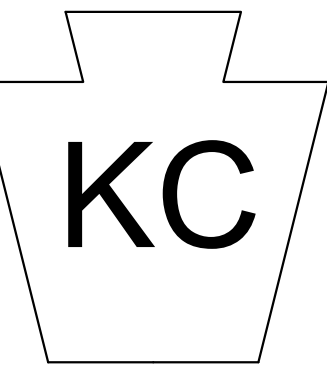
EROSION CONTROL PERFORMANCE REQUIREMENTS

- Storm water discharges shall not cause violations of the general criteria in the State of Missouri Water Quality Standards.
- Surface stabilization such as temporary seeding, permanent seeding, mulching, sodding, ground cover including vines and shrubs, riprap, and geotextile fabric is required if necessary to ensure that Requirement 1 is achieved. Mulches may be hay, straw, fibermats, netting, wood cellulose, corn or tobacco stalks, bark, ground or shredded corn cobs, wood chips, composted or appropriately prepared yard wastes, or other suitable material which are reasonably clean and free of noxious weeds and deleterious materials. Grasses used for temporary seeding shall be quick growing species (such as rye grass, Italian rye grass, or cereal grasses) suitable to the area and which will not compete with the grasses sown later for permanent cover.
- Runoff control measures such as temporary diversion dikes or berms, permanent diversion dikes or berms, right-of-way or perimeter diversion devices, retention and detention basins, sediment traps and barriers are required if necessary to ensure that Requirement 1 is achieved.
- Runoff conveyance measures such as grass-lined channels, riprap and paved channels, temporary slope drains, paved flumes or chutes are required if necessary to ensure that Requirement 1 is achieved. Slope drains may be constructed of pipe, fiber mats, rubble, Portland cement concrete bituminous concrete, plastic sheets, or other materials that will adequately control erosion.
- Inlet and outlet protection is required if necessary to ensure that Requirement 1 is achieved.



Erosion Control Fence

- SECTION VIEW**
- NOTES:
- THE SIZE OF THE DRAINAGE AREA SHOULD BE NO MORE THAN 1/4 ACRE PER 100 LINEAR FEET OF FENCE LENGTH.
 - THE MAXIMUM SLOPE LENGTH ABOVE THE FENCE SHOULD BE LESS THAN 100 FEET.
 - NO DITCH OR DRAINAGEWAY WITH AN AREA GREATER THAN 2 ACRES SHALL BE ENCLOSED ABOVE A SILT FENCE.
 - NO SILT FENCE SHALL BE CONSTRUCTED IN A LIVE STREAM OR DRAINAGEWAY WITH EXPECTED FLOWS GREATER THAN 1 CFS.
 - THE FILTER FABRIC SHALL HAVE A MINIMUM FILTERING EFFICIENCY OF 75%, A MINIMUM TENSILE STRENGTH OF 30 LBS. PER LINEAR INCH AND A FLOW RATE OF 0.3 GALLONS PER SQUARE FOOT PER MINUTE. THE FILTER FABRIC SHALL ALSO HAVE ULTRAVIOLET RAY INHIBITORS TO ASSURE A LIFE USE EXPECTANCY OF 6 MONTHS AT 0 TO 100 DEGREES FAHRENHEIT.
 - THE FILTER FABRIC SHALL BE 18 INCHES OR LESS IN HEIGHT, WITH JOINTS AT EVERY POST AVOIDING OVERLAP IF POSSIBLE (6" MIN. OVERLAP IF NECESSARY) AND POSTS SPACED EVERY 8 FEET WITH WIRE MESH SUPPORT OR 6 FEET WITHOUT SUPPORT, MAKING SURE THAT A MIN. OF 8" OF FABRIC IS BURIED IN THE 4" X 4" TRENCH.
 - THE SILT FENCE SHALL BE INSPECTED AFTER EVERY RAINFALL TO DETERMINE IF ANY PART OF THE FENCE NEEDS TO BE REPAIRED OR REPLACED. IF IT IS DETERMINED THAT THE FENCE NEEDS ANY REPAIR OR REPLACEMENT THIS SHALL BE DONE IMMEDIATELY.
 - SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH RAINFALL OR BEFORE THEY ACCUMULATE TO 1/2 OF THE FENCE HEIGHT.



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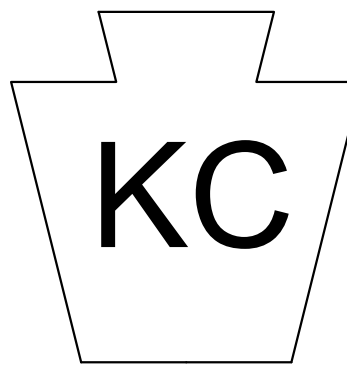
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SITE GRADING AND UTILITY PLANS
1401 GOODE AVENUE
GRANDVIEW, MISSOURI

REVISION LOG

CREATED	10/20/2023
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DRAWING TITLE:
EROSION
CONTROL NOTES
SHEET NO.

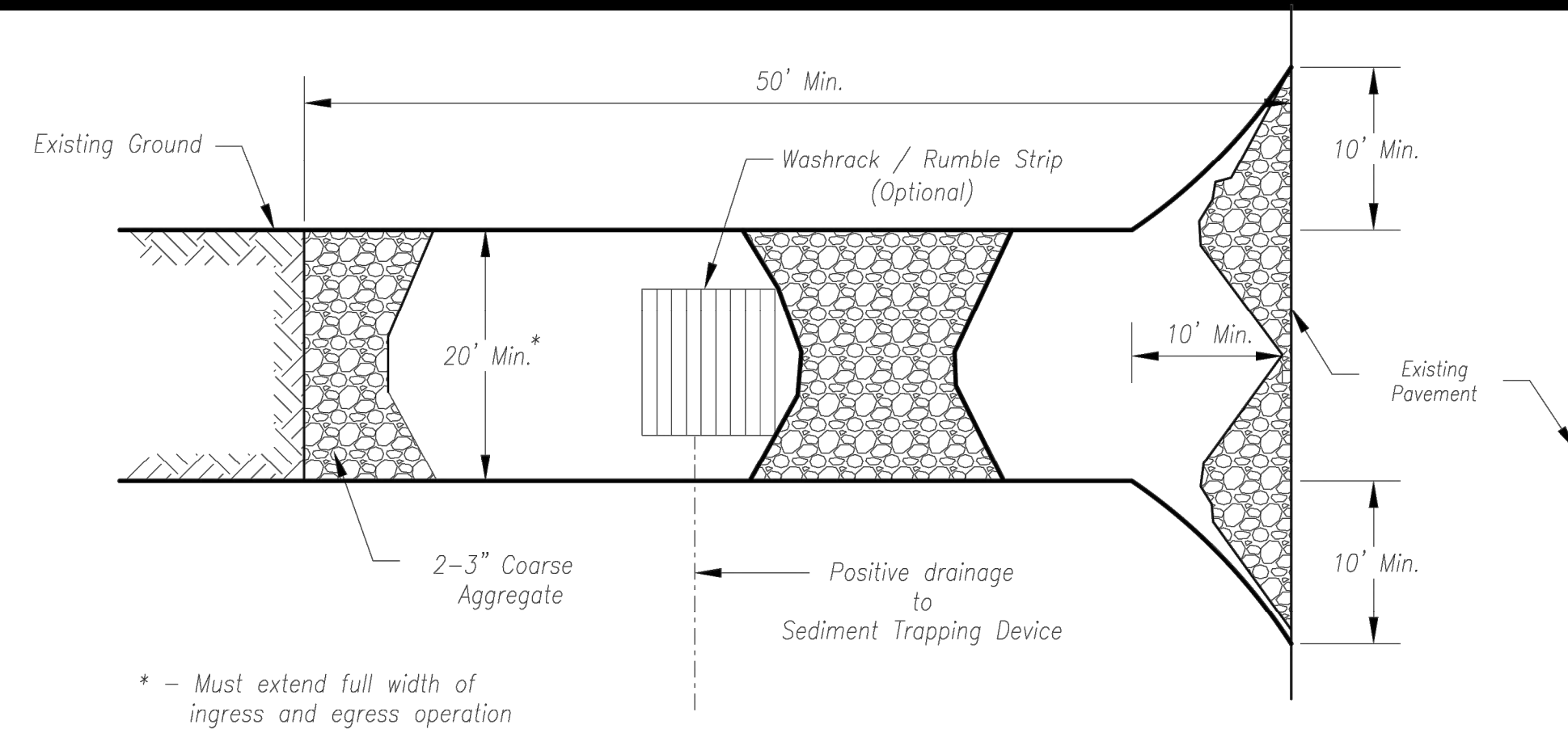


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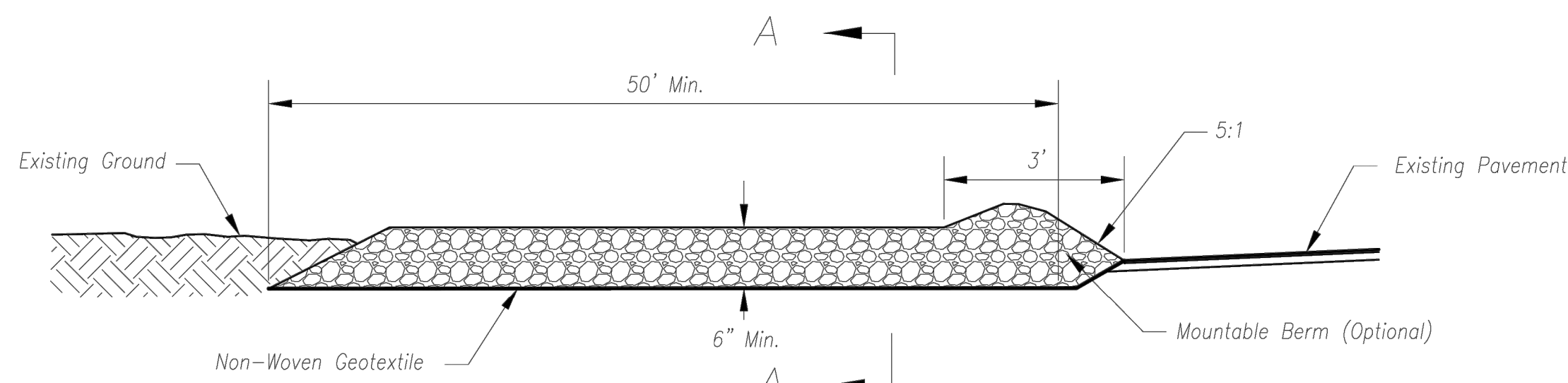


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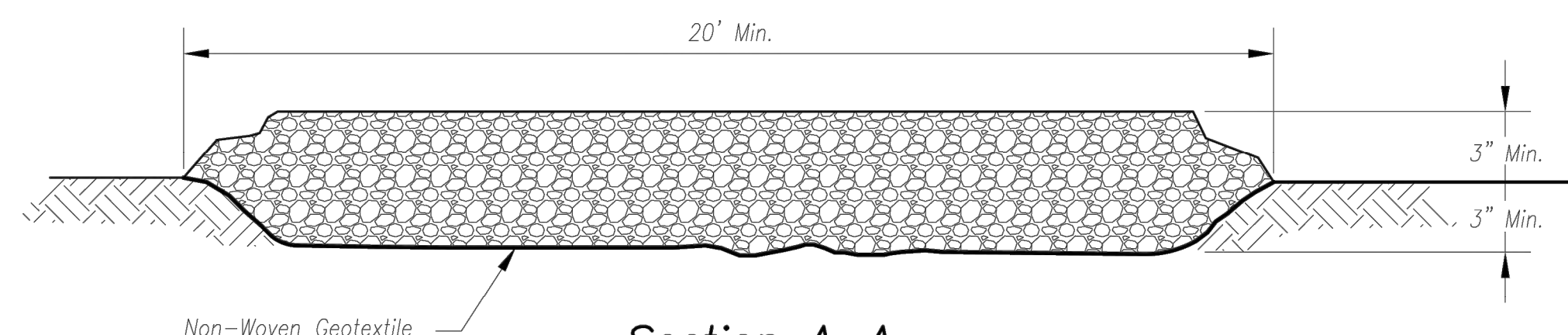
SITE GRADING AND UTILITY PLANS
1401 GOODE AVENUE
GRANDVIEW, MISSOURI



Plan View
Not to Scale



Side Elevation
Not to Scale



Section A-A
Not to Scale

Notes for Construction Entrance:

1. Avoid locating on steep slopes, at curves on public roads, or downhill of disturbed area.
2. Remove all vegetation and other unsuitable material from the foundation area, grade, and crown for positive drainage.
3. If slope towards the public road exceeds 2%, construct a 6- to 8-inch high ridge with 3H:1V side slopes across the foundation approximately 15 feet from the edge of the public road to divert runoff from it.
4. Install pipe under the entrance if needed to maintain drainage ditches along public roads.
5. Place stone to dimensions and grade as shown on plans. Leave surface sloped for drainage.
6. Divert all surface runoff and drainage from the entrance to a sediment control device.
7. If conditions warrant, place geotextile fabric on the graded foundation to improve stability.

Maintenance for Construction Entrance:

1. Reshape entrance as needed to maintain function and integrity of installation. Top dress with clean aggregate as needed.

CONSTRUCTION ENTRANCE

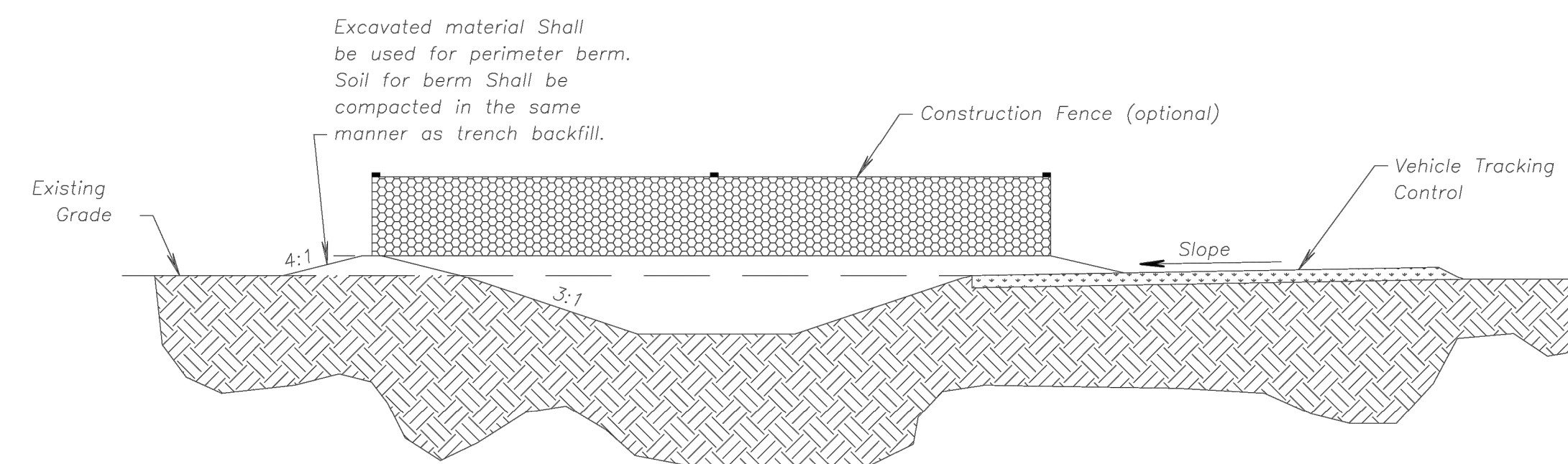
1 TEMPORARY CONSTRUCTION ENTRANCE
SCALE NTS

Notes for Concrete Washout:

1. Concrete washout areas shall be installed prior to any concrete placement on site.
2. Concrete washout area shall include a flat subsurface pit sized relative to the amount of concrete to be placed on site. The slopes leading out of the subsurface pit shall be 3:1. The vehicle tracking pad shall be sloped towards the concrete washout area.
3. Vehicle tracking control is required at the access point to all concrete washout areas.
4. Signs shall be placed at the construction site entrance, washout area and elsewhere as necessary to clearly indicate the location(s) of the concrete washout area(s) to operators of concrete truck and pump rigs.
5. A one-piece impervious liner may be required along the bottom and sides of the subsurface pit in sandy or gravelly soils.

Maintenance for Concrete Washout:

1. Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
2. Concrete washout areas shall be enlarged as necessary to maintain capacity for wasted concrete.
3. Concrete washout water, wasted pieces of concrete and all other debris in the subsurface pit shall be transported from the job site in a water-tight container and disposed of properly.
4. Concrete washout areas shall remain in place until all concrete for the project is placed.
5. When concrete washout areas are removed, excavations shall be filled with suitable compacted backfill and topsoil, any disturbed areas associated with the installation, maintenance, and/or removal of the concrete washout areas shall be stabilized.



CONCRETE WASHOUT

AMERICAN PUBLIC WORKS ASSOCIATION
Kansas City Metro Chapter
APWA
AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY
METRO CHAPTER

CONSTRUCTION ENTRANCE
AND CONCRETE WASHOUT

STANDARD DRAWING
NUMBER ESC-01

ADOPTED
12/24/2016

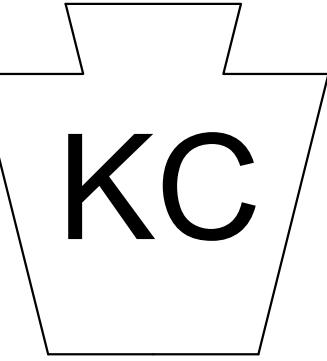
Construction Entrance modified from 2015 Overland Park Standard Details for Erosion and Sediment Control; Concrete Washout modified from 2009 City of Great Bend Standard Drawings.

REVISION LOG

CREATED	10/20/2023
REVISED	12/29/2023
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DRAWING TITLE:
CONSTRUCTION
ENTRANCE
SHEET NO.

10

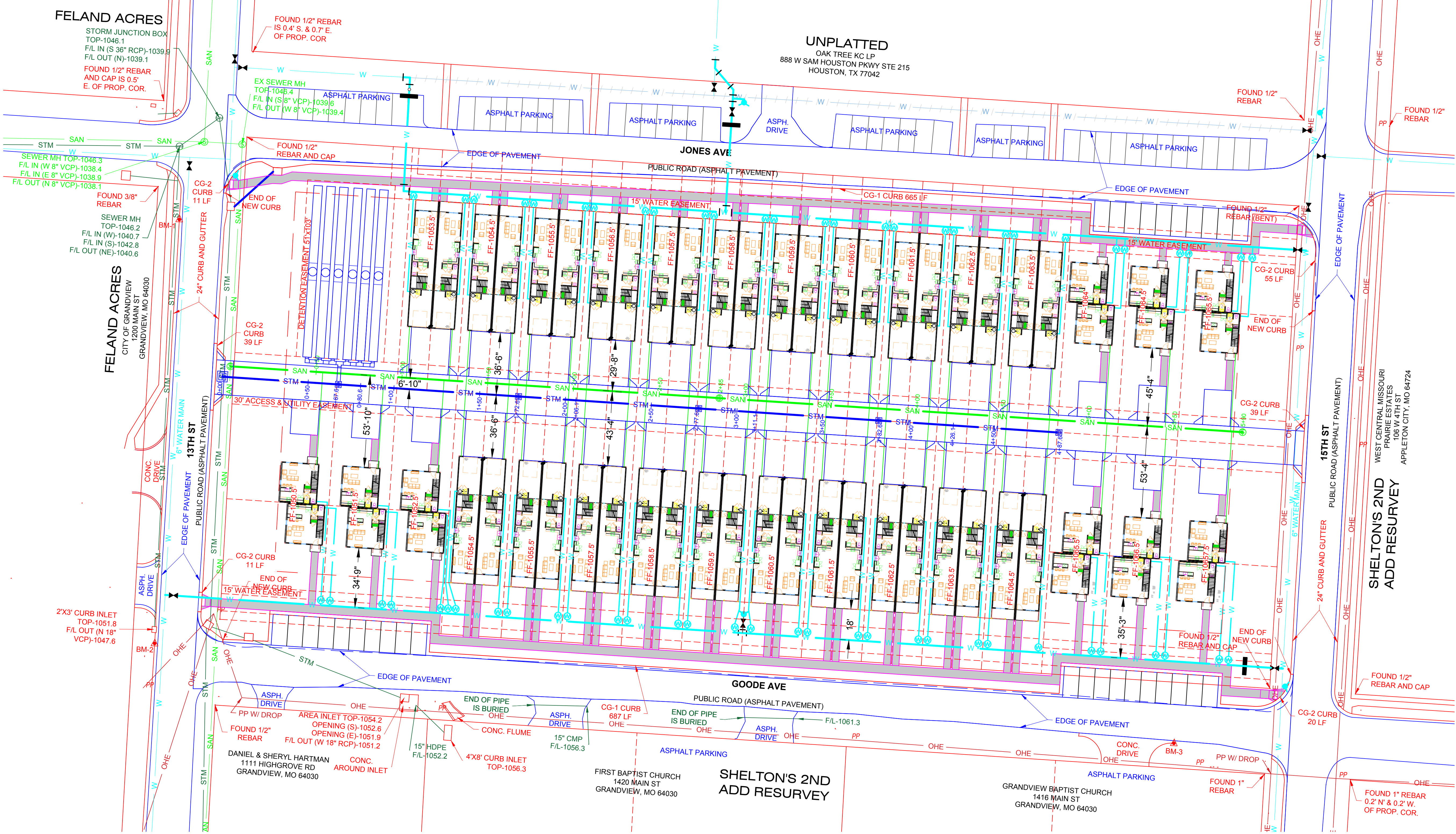


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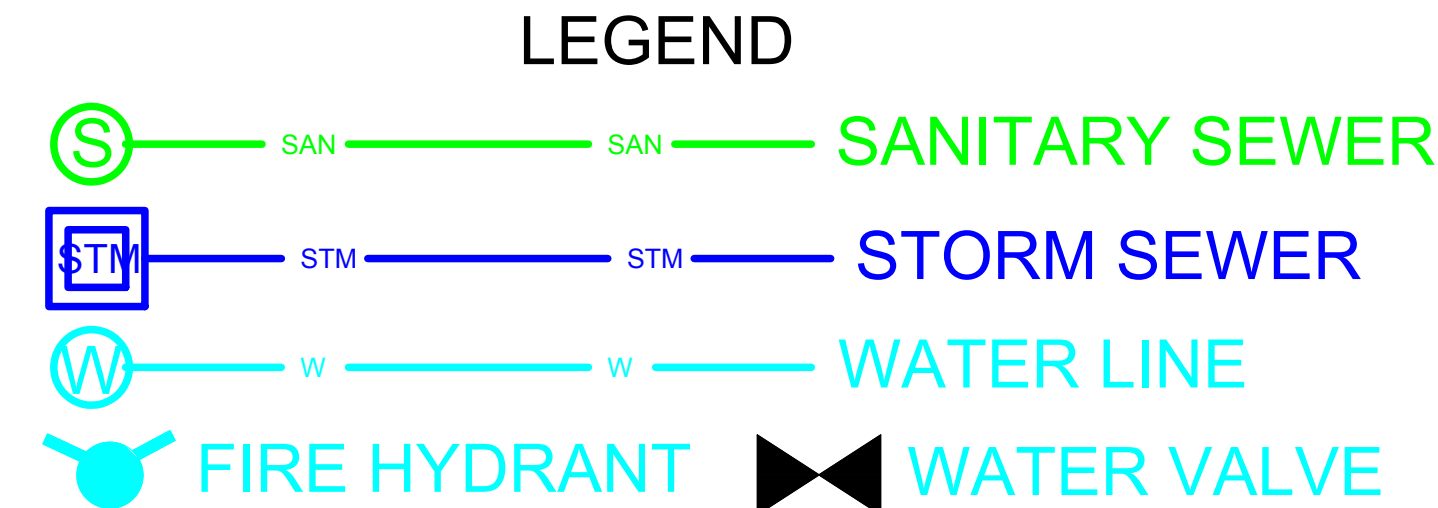


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SITE GRADING AND UTILITY PLANS
1401 GOODE AVENUE
GRANDVIEW, MISSOURI



1 UTILITY PLAN
SCALE 1"=30'

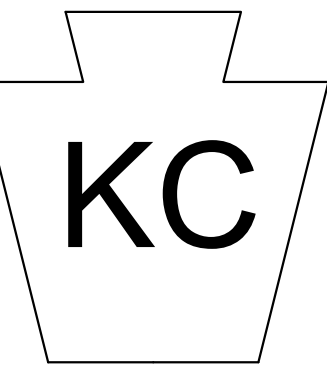


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DRAWING TITLE
UTILITY PLAN
SHEET NO.

11

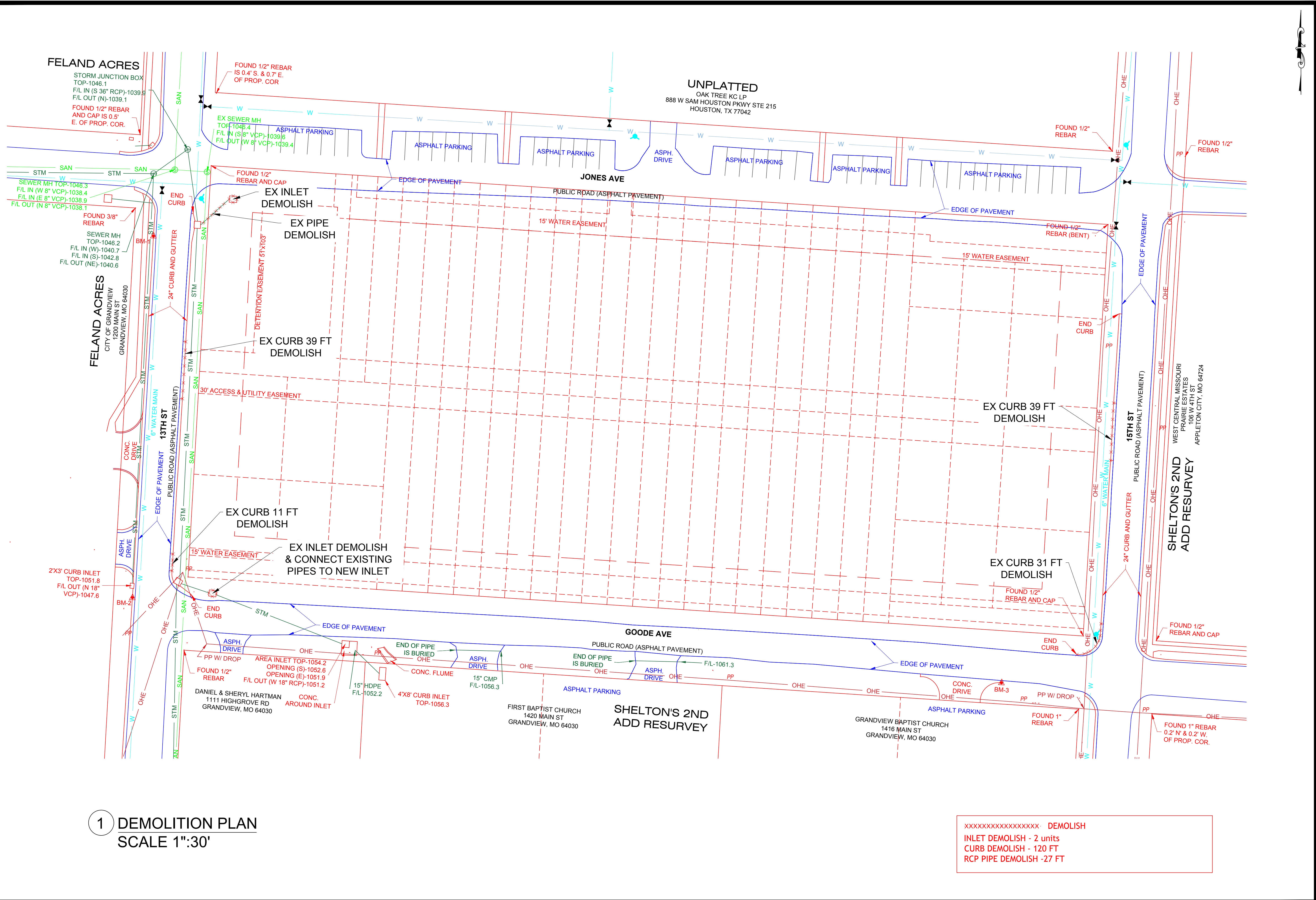


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GRANDVIEW, MISSOURI

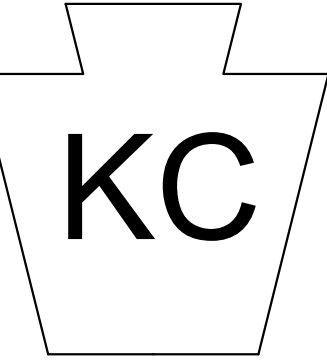


1 DEMOLITION PLAN
SCALE 1"=30'

XXXXXXXXXXXXXXXXX- DEMOLISH
INLET DEMOLISH - 2 units
CURB DEMOLISH - 120 FT
RCP PIPE DEMOLISH - 27 FT

REVISION LOG
CREATED 10/20/2023
REVISED 12/29/2023
REVISED 2/15/2024
REVISED 06/06/2024

DRAWING TITLE
DEMOLITION PLAN
SHEET NO.

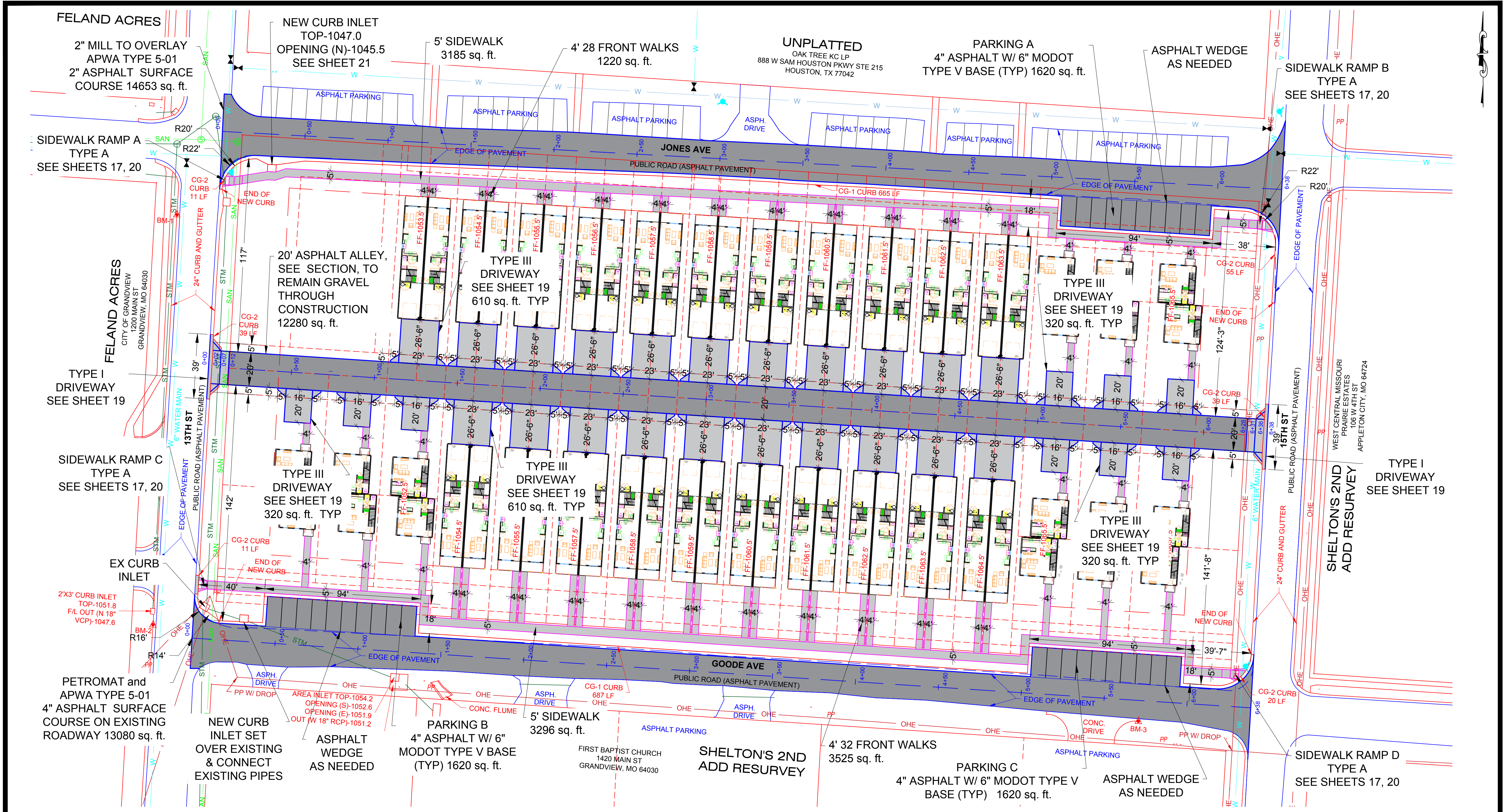


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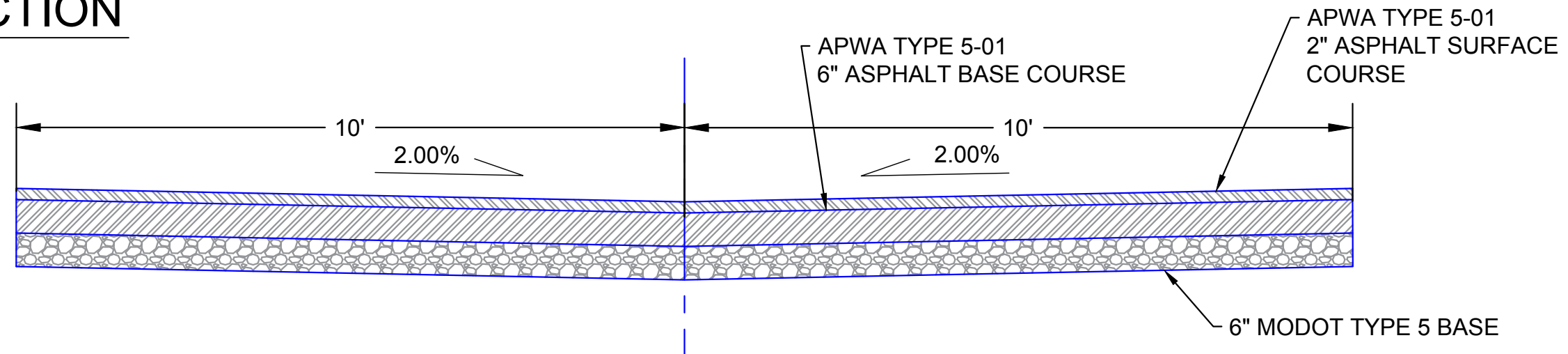
SITE GRADING AND UTILITY PLANS
1401 GOODE AVENUE
GRANDVIEW, MISSOURI



1 PAVEMENT PLAN
SCALE 1":30'

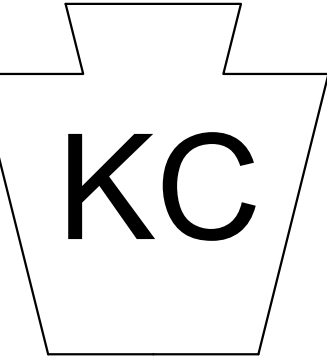
NOTE:
ON STREET PARKING ALONG GOODE AVE
AND JONES AVE ARE PRIVATE. IT'S THE
RESPONSIBILITY OF THE HOA.

2 ALLEY SECTION
Scale 1":2'



REVISION LOG
CREATED 10/20/2023
REVISED 12/29/2023
REVISED 2/15/2024
REVISED 06/06/2024

DRAWING TITLE
PAVEMENT
PLAN
SHEET NO.

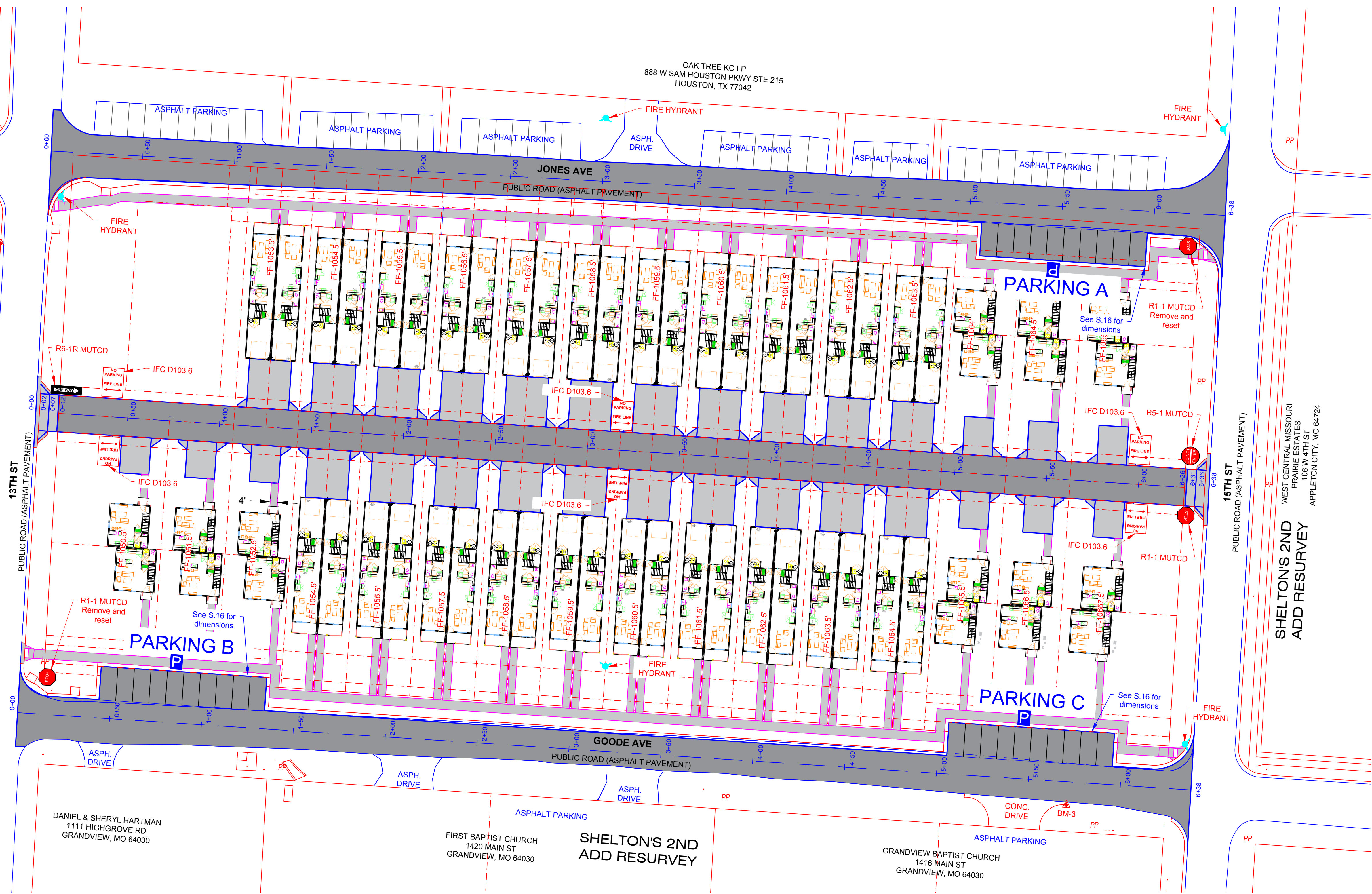


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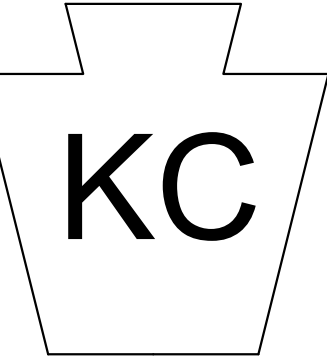
SITE GRADING AND UTILITY PLANS
1401 GOODE AVENUE
GRANDVIEW, MISSOURI



1 TRAFFIC PLAN
SCALE 1"=30'

REVISION LOG
CREATED 10/20/2023
REVISED 12/29/2023
REVISED 2/15/2024
REVISED 06/06/2024

DRAWING TITLE
TRAFFIC PLAN
SHEET NO.

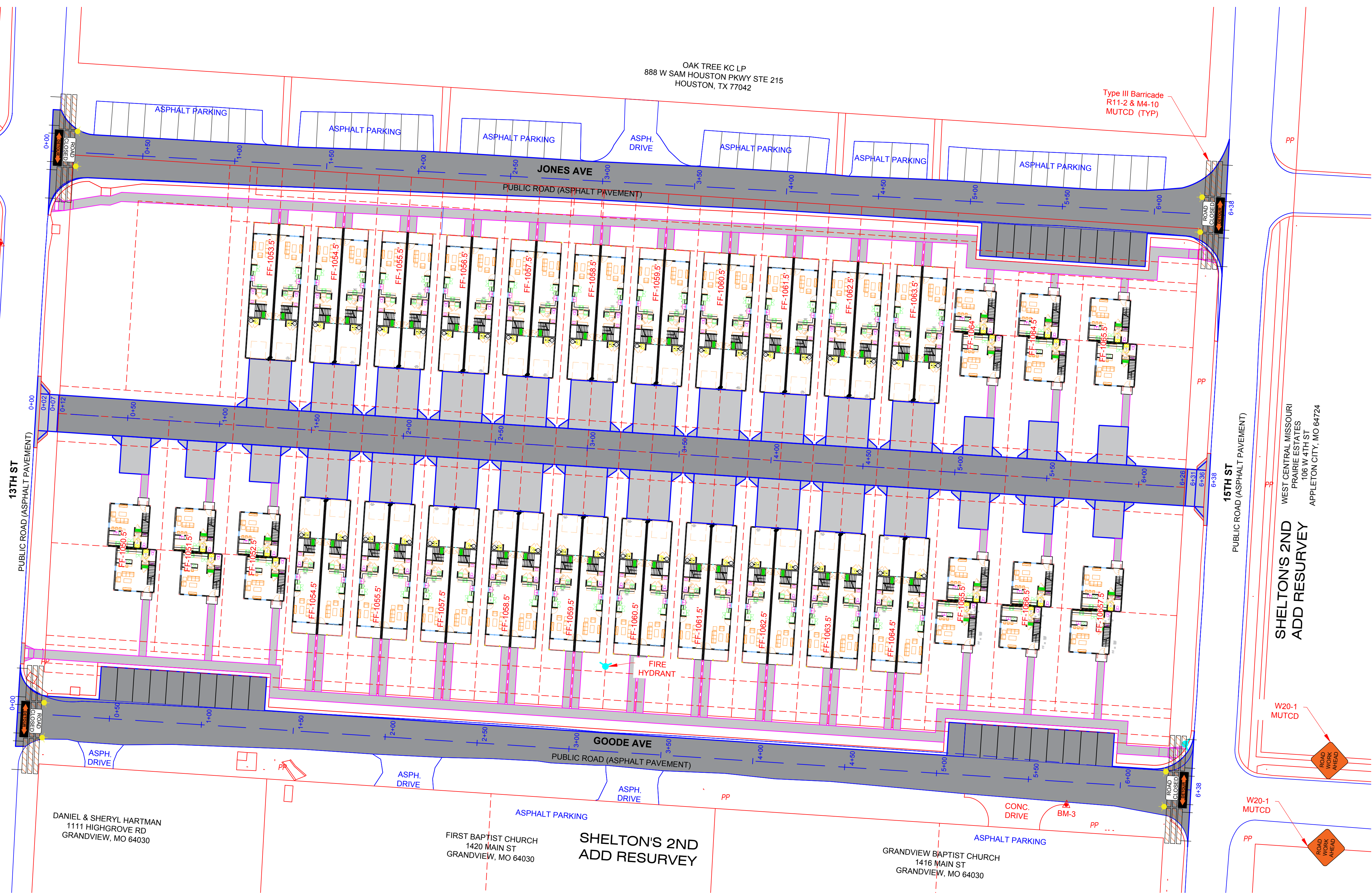


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SITE GRADING AND UTILITY PLANS
1401 GOODE AVENUE
GRANDVIEW, MISSOURI

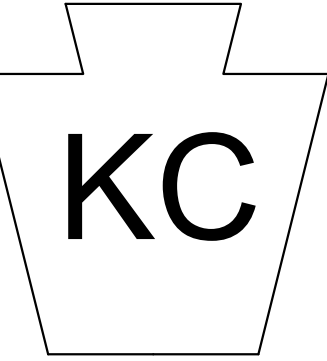


1 TRAFFIC MAINTENANCE PLAN
SCALE 1"=30'

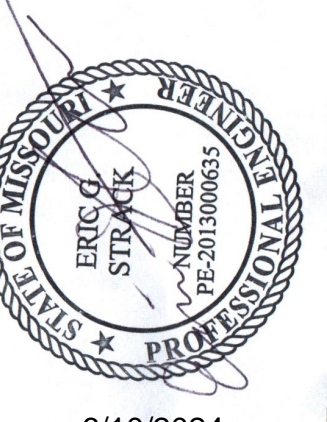
- NOTE:**
1. Good Ave closure - access to church parking lots from Main St.
 2. Jones Ave closure - no access to Oak Tree Square apartments for 24 hours.
 3. Goode Ave and Jones Ave cannot be closed at the same time.
 4. Water street closures will be provided by contractor.

REVISION LOG
CREATED 10/20/2023
REVISED 12/29/2023
REVISED 2/15/2024
REVISED 06/06/2024

DRAWING TITLE
TRAFFIC
MAINTENANCE PLAN
SHEET NO.



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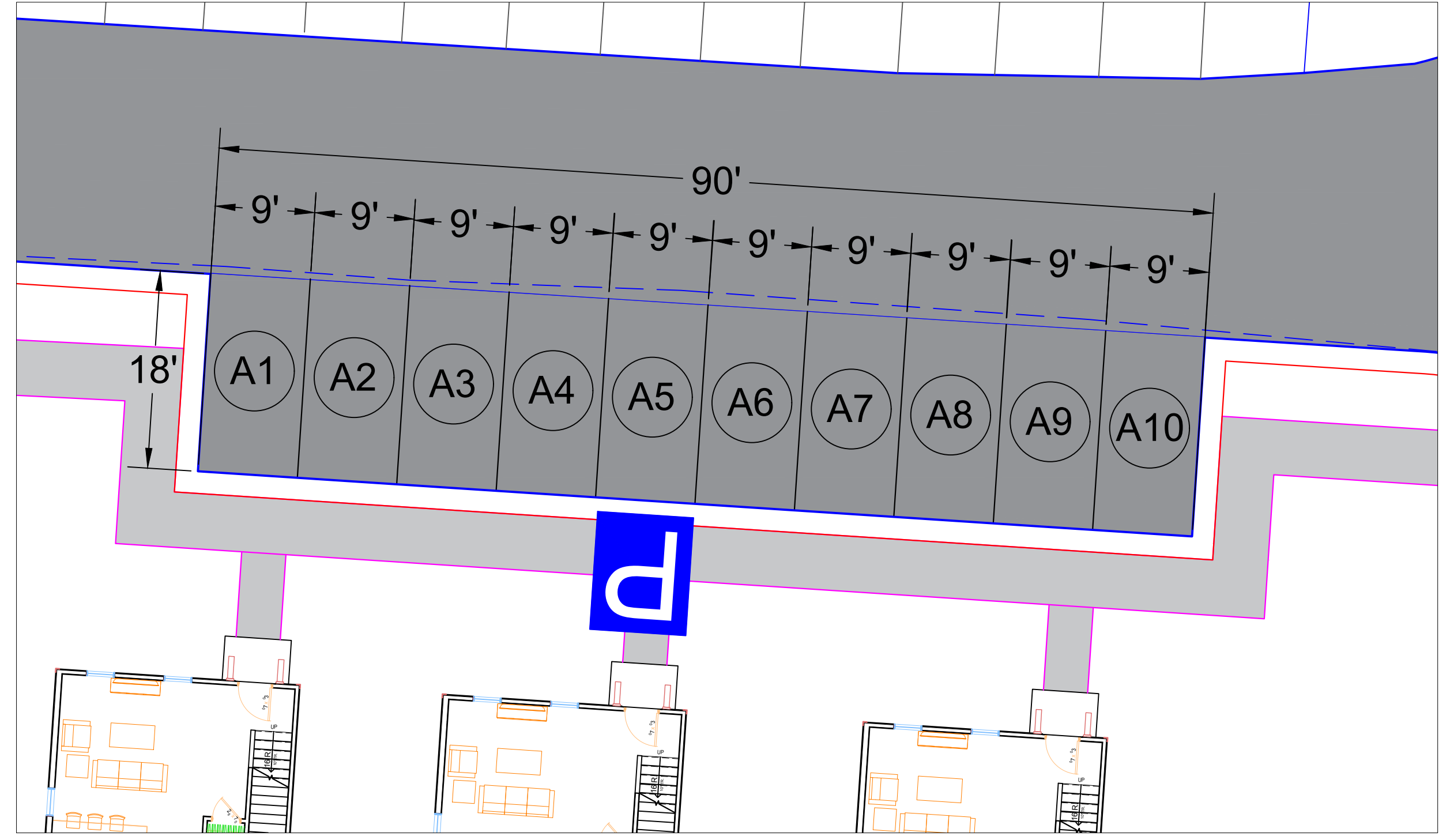


6/10/2024

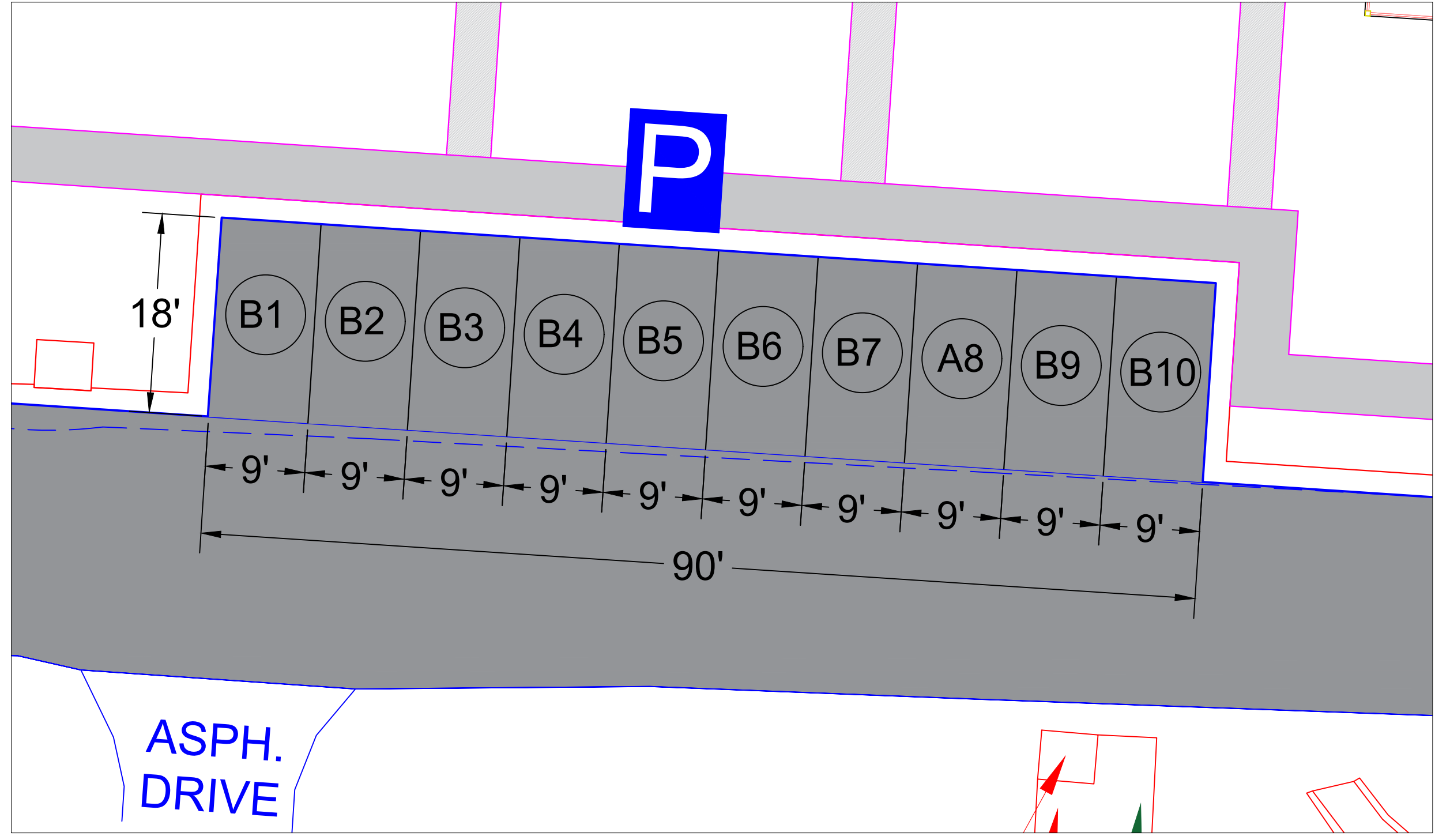
SITE GRADING AND UTILITY PLANS
1401 GOODE AVENUE
GRANDVIEW, MISSOURI

REVISION LOG
CREATED 10/20/2023
REVISED 12/29/2023
REVISED 2/15/2024
REVISED 06/06/2024

DRAWING TITLE
PARKING
PLAN
SHEET NO.



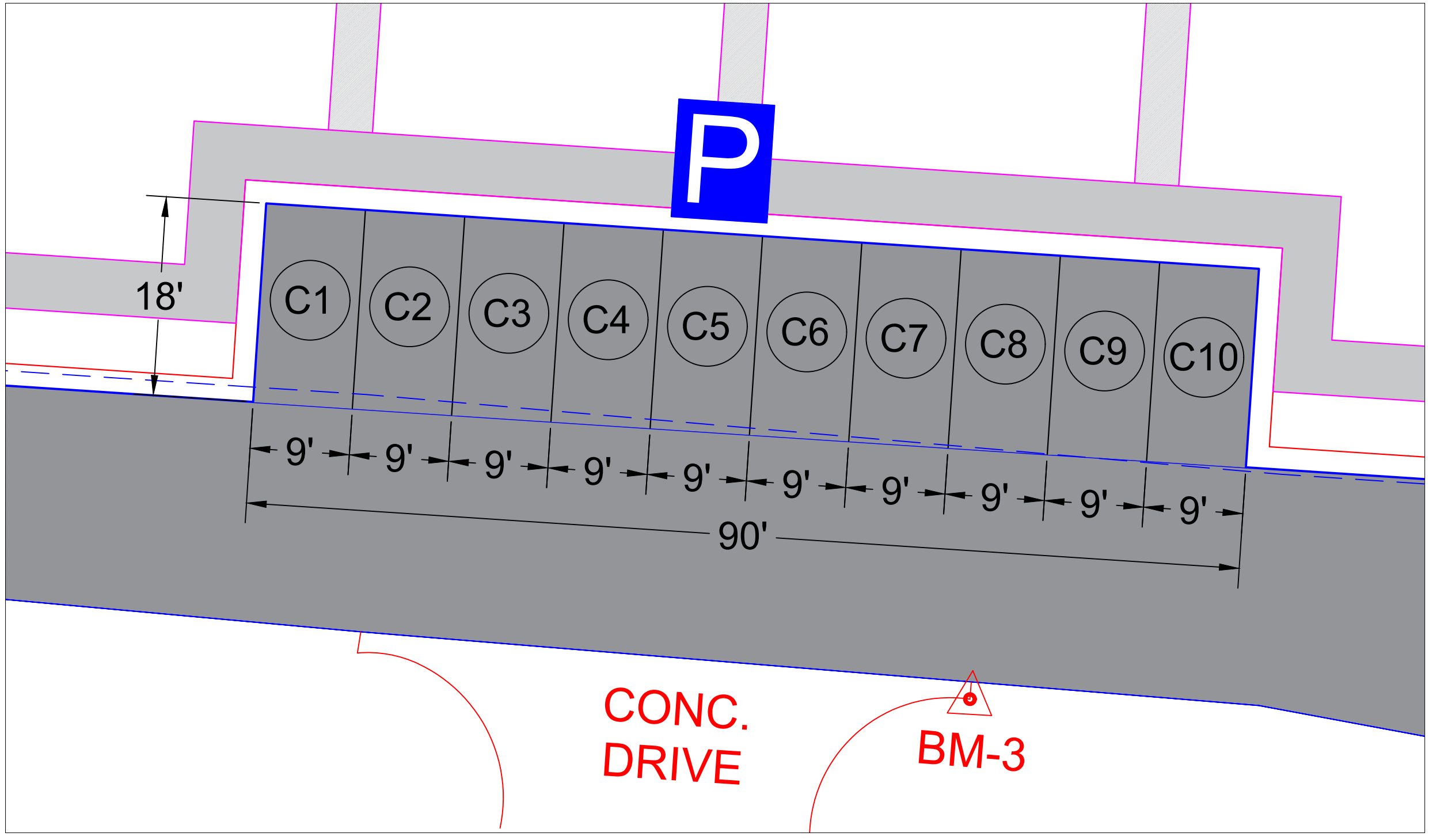
① PARKING A
SCALE 1":10'



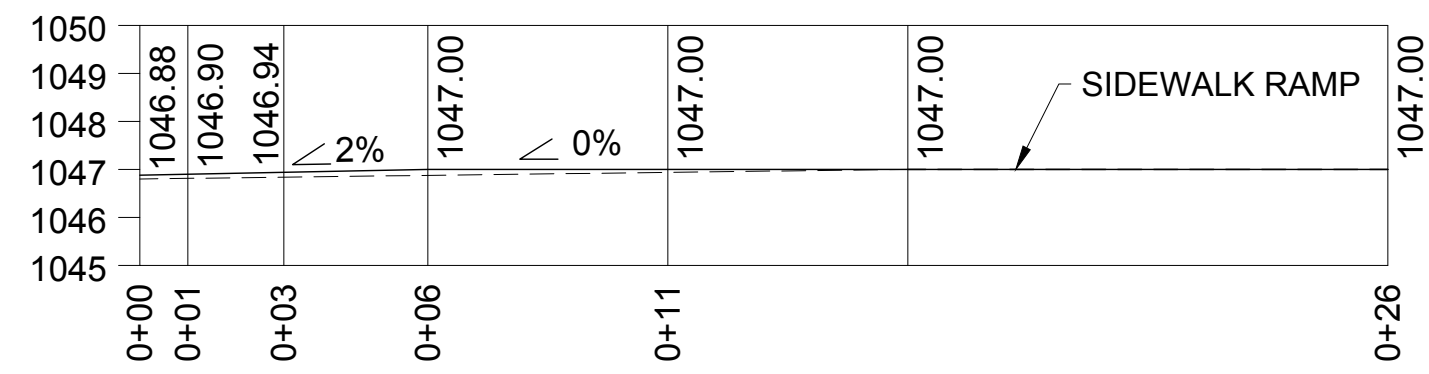
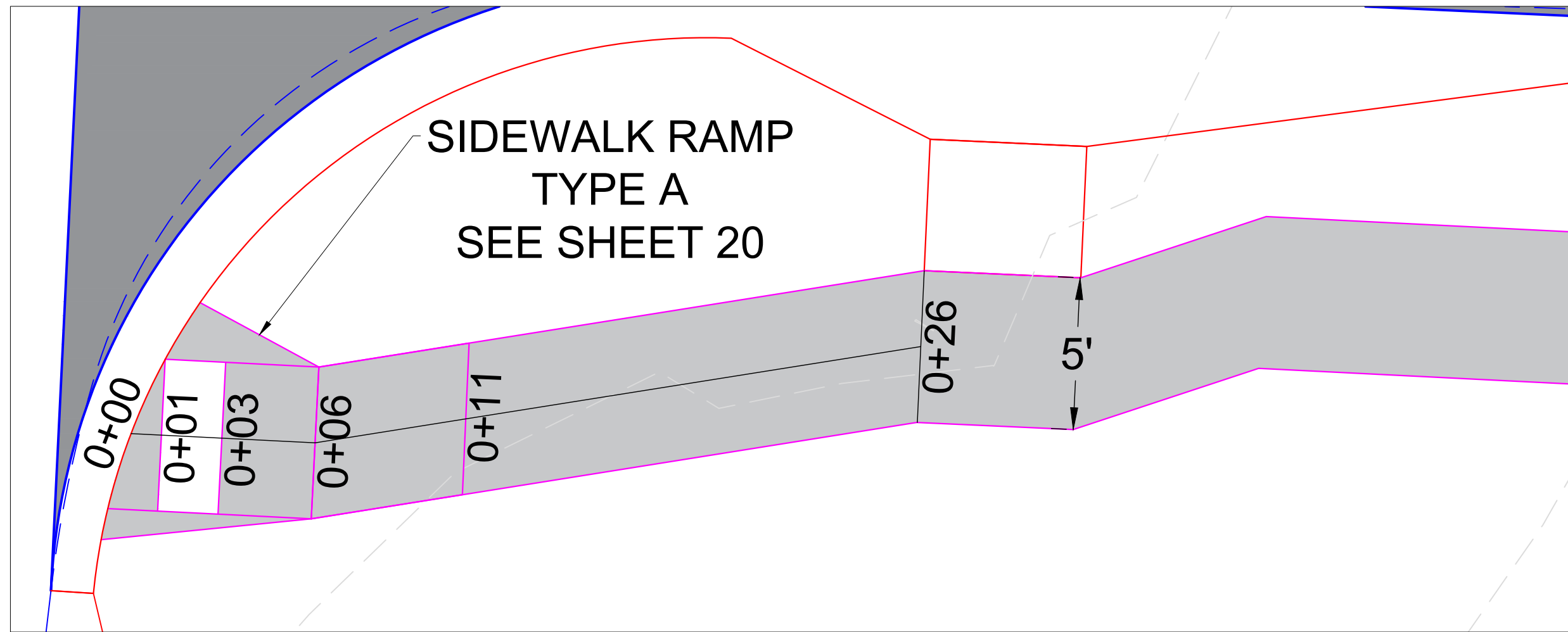
② PARKING B
SCALE 1":10'

NOTE:

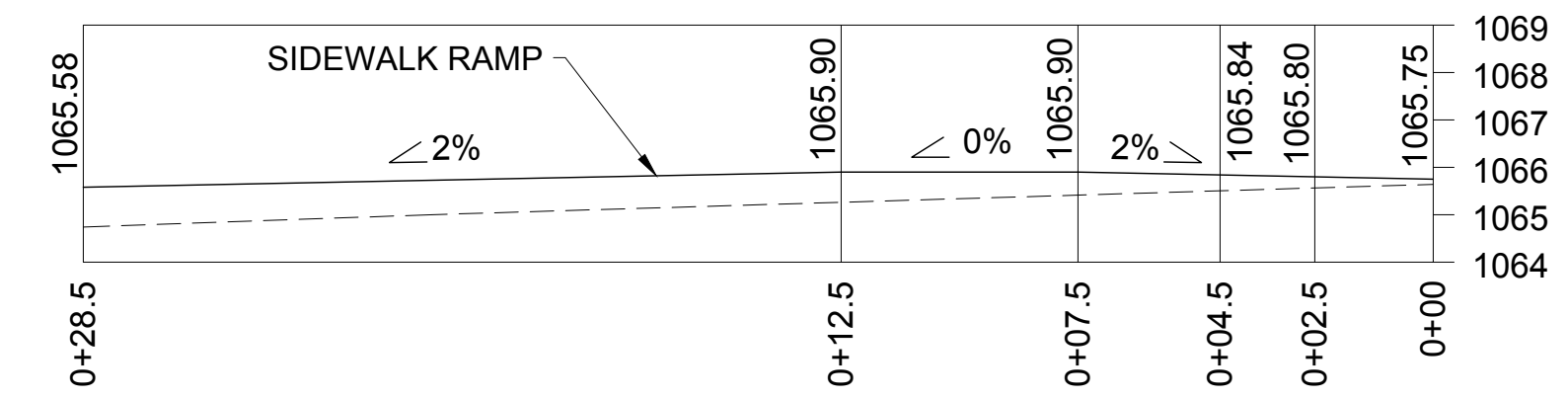
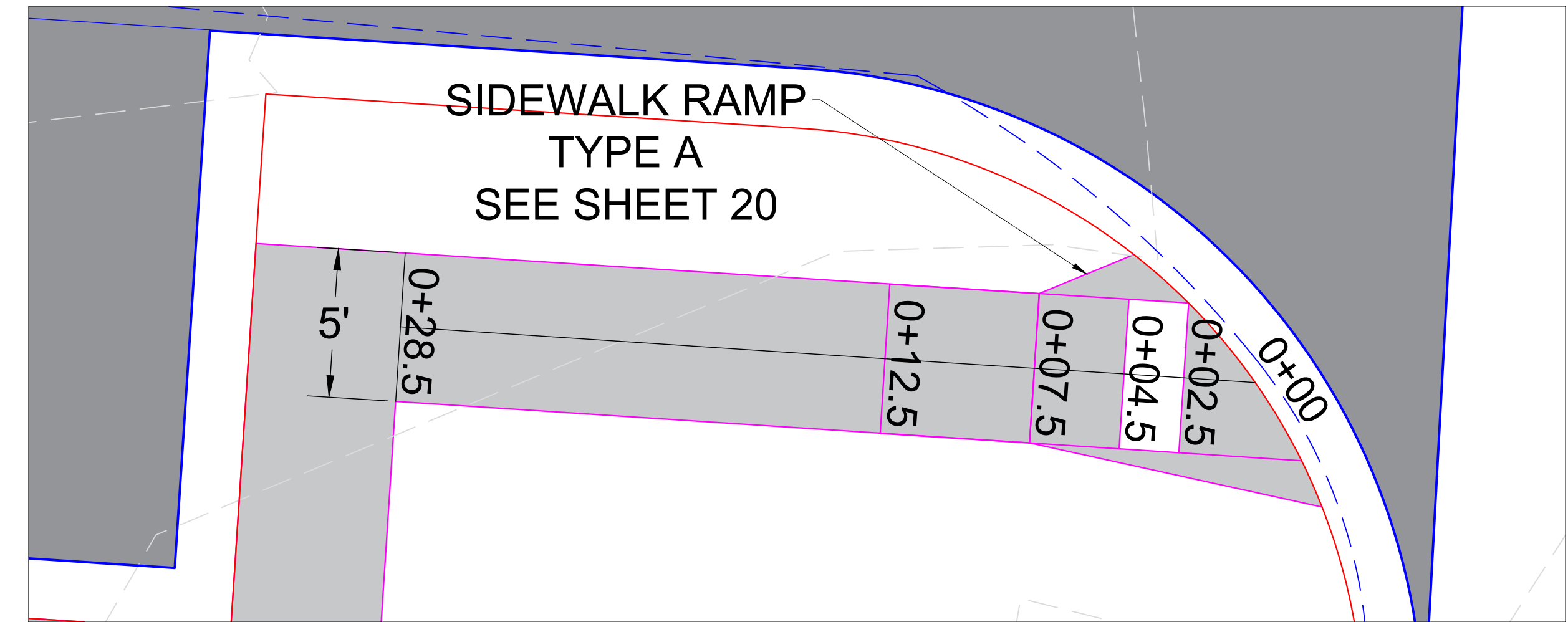
- ON STREET PARKING ALONG GOODE AVE AND JONES AVE ARE PRIVATE. IT'S THE RESPONSIBILITY OF THE HOA.
- TOTAL NUMBER OF PARKING SPACES - 30
EACH PARKING SPACE SIZE - 162 sq.ft.
EACH PARKING BLOCK SIZE - 1620 sq.ft.
TOTAL PARKING SPACE - 4860 sq.ft.



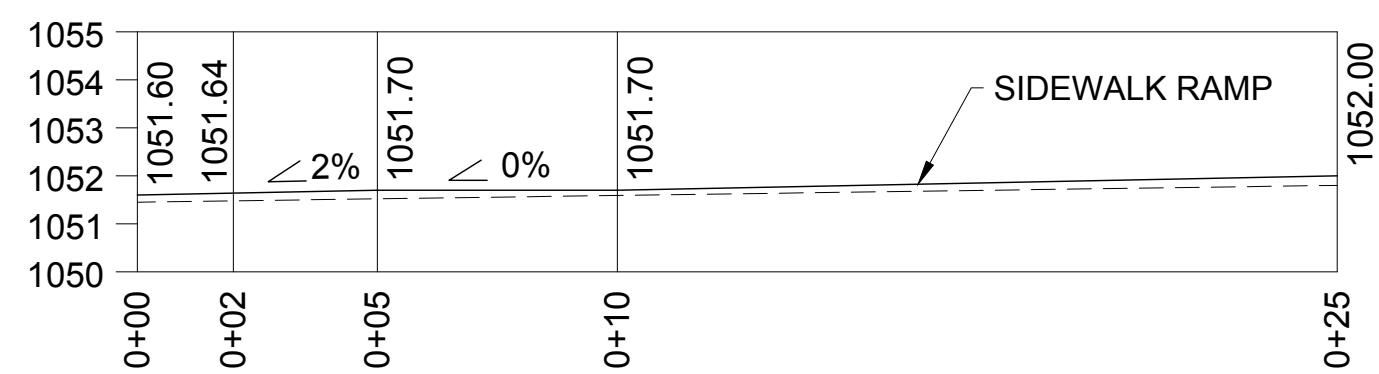
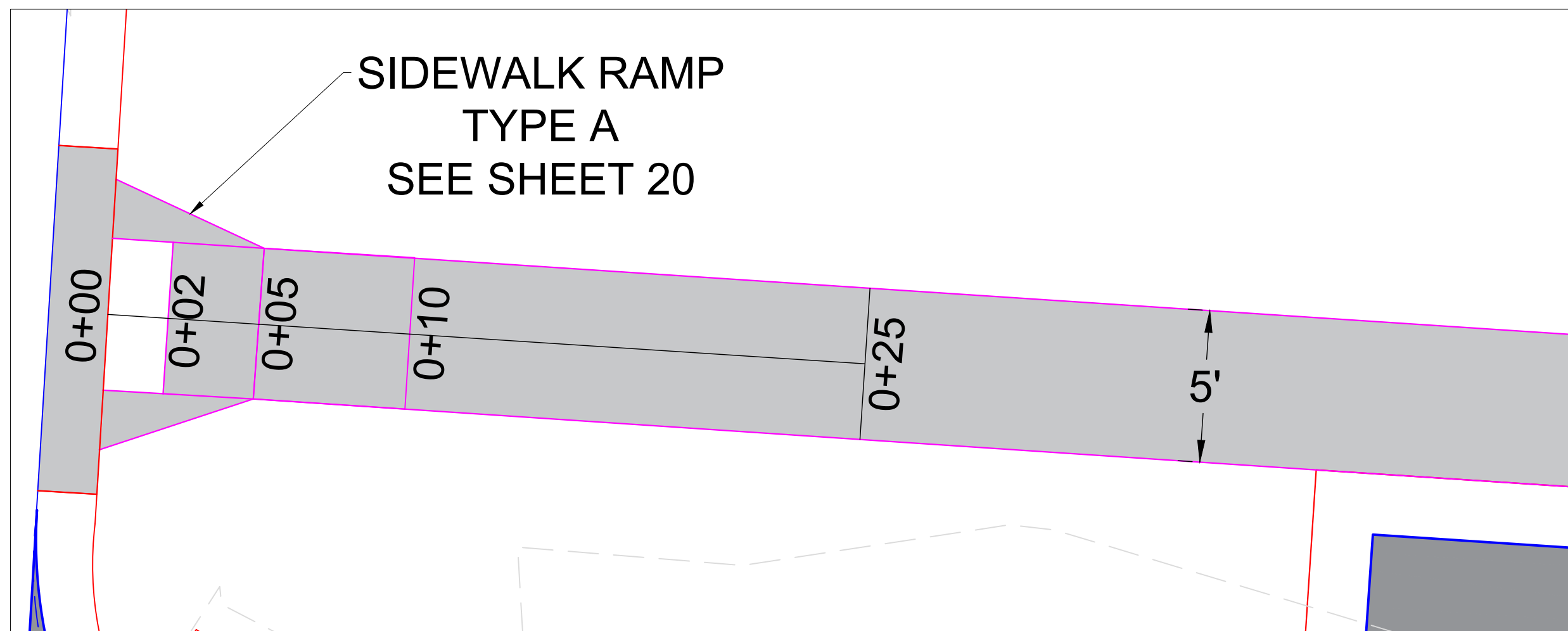
③ PARKING C
SCALE 1":10'



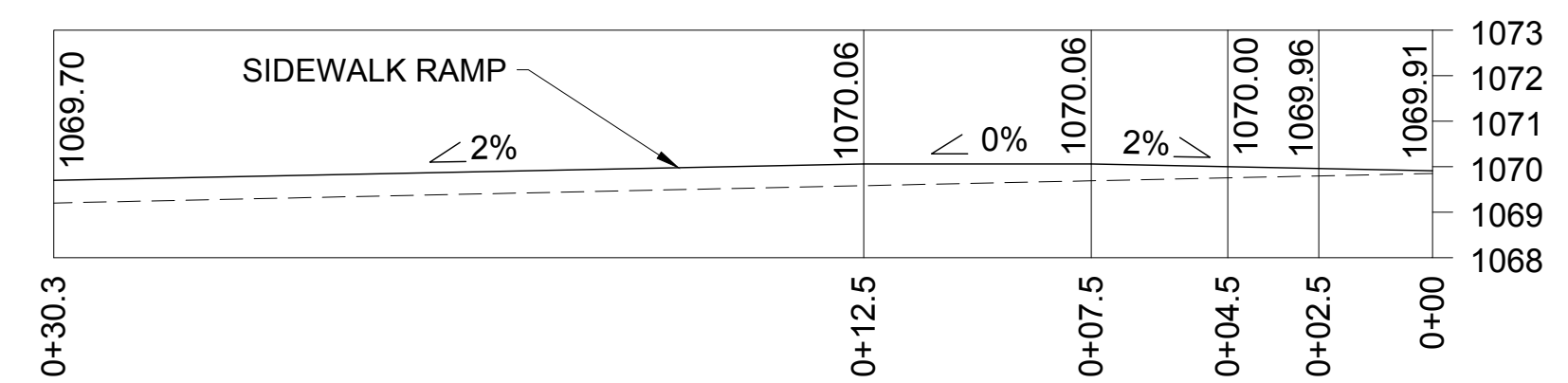
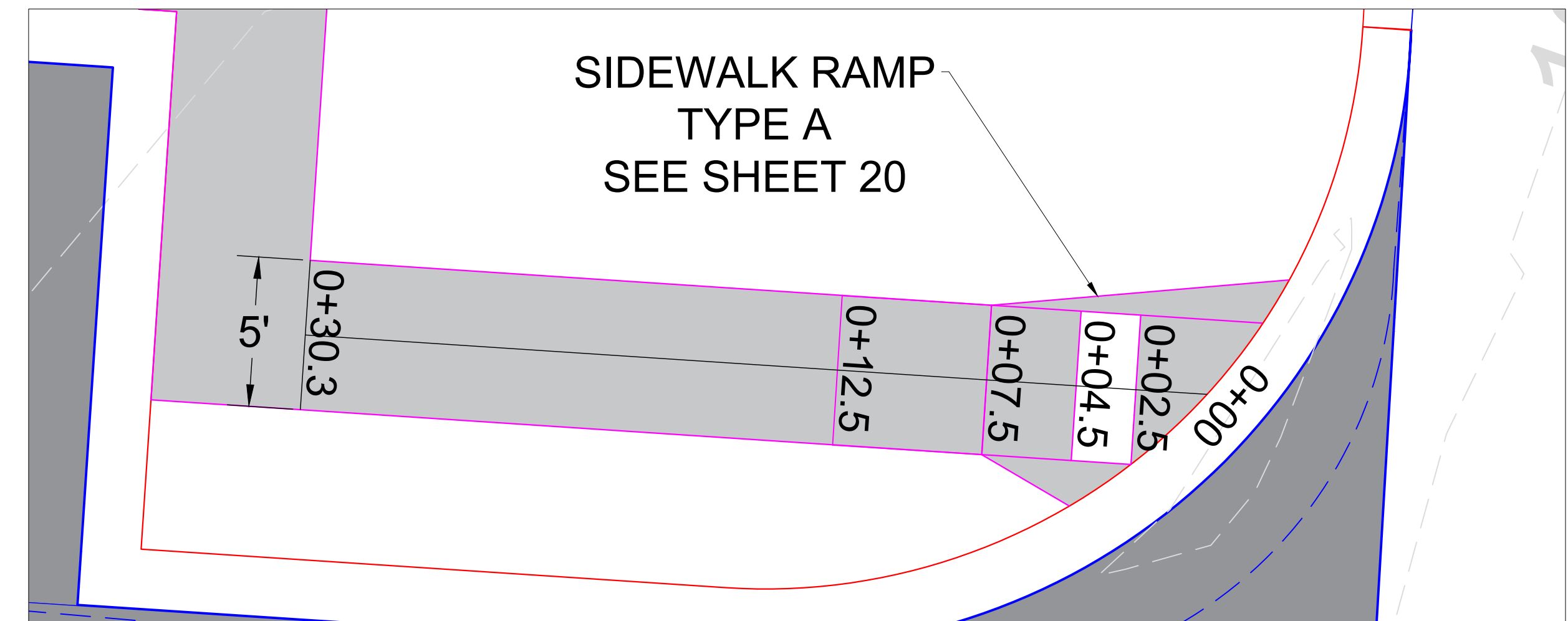
1 SIDEWALK RAMP A
SCALE 1":4'



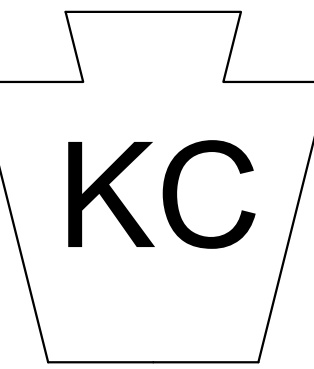
2 SIDEWALK RAMP B
SCALE 1":4'



3 SIDEWALK RAMP C
SCALE 1":4'



4 SIDEWALK RAMP D
SCALE 1":4'



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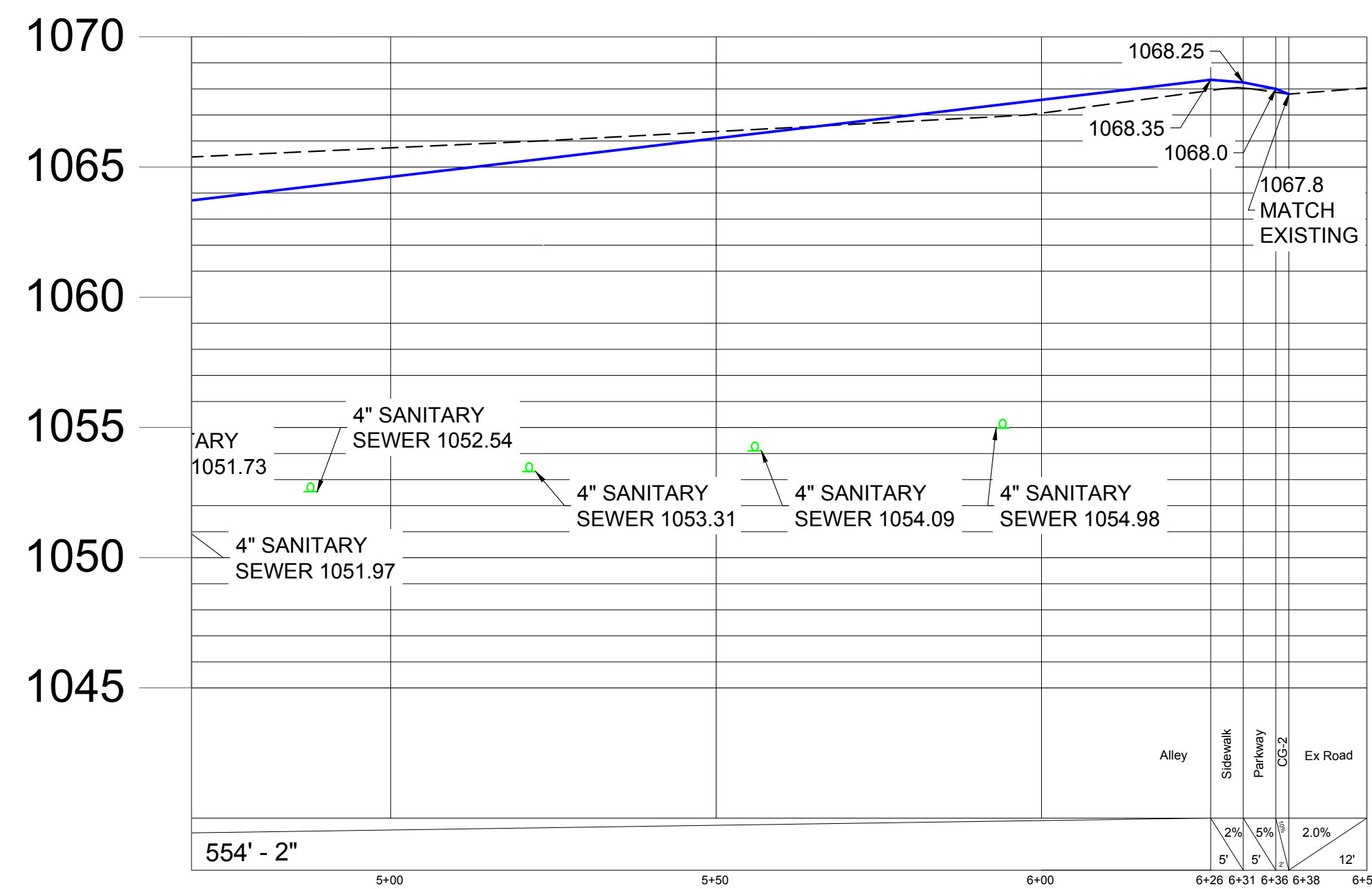
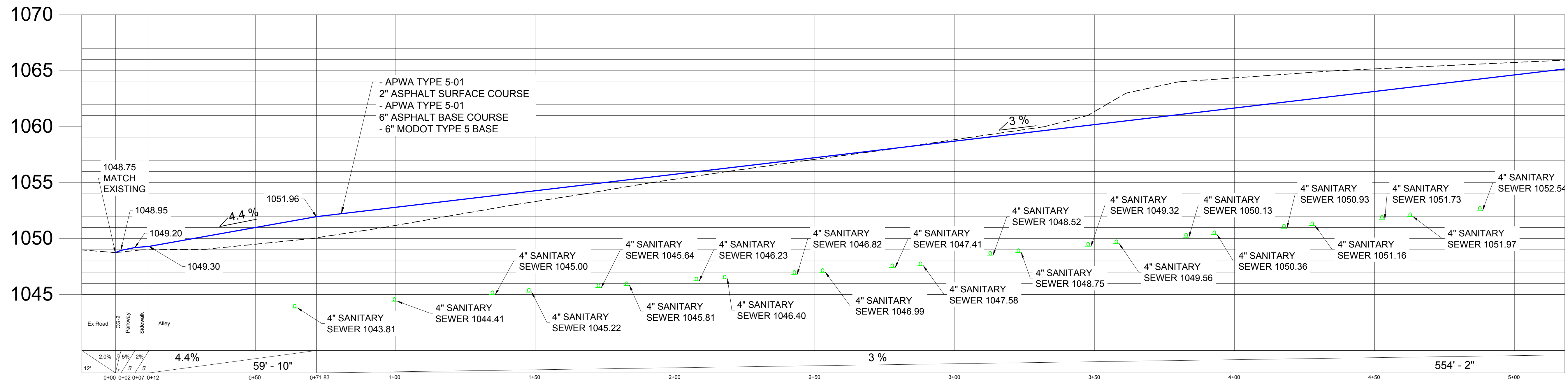
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SITE GRADING AND UTILITY PLANS
1401 GOODE AVENUE
GRANDVIEW, MISSOURI

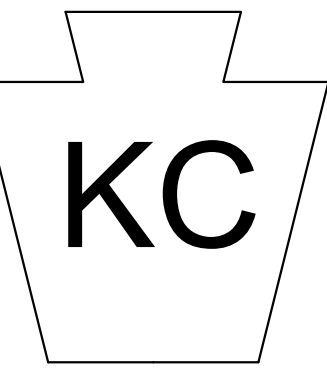
REVISION LOG

CREATED	10/20/2023
REVISED	12/29/2023
REVISED	2/15/2024
REVISED	06/06/2024

DRAWING TITLE
SIDEWALK RAMP
PLAN & PROFILE
SHEET NO.



1 ALLEY PROFILE
 Vertical Scale 1":5'
 Horizontal Scale 1":20'



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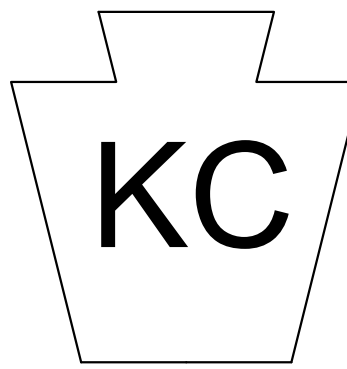


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SITE GRADING AND UTILITY PLANS
 1401 GOODE AVENUE
 GRANDVIEW, MISSOURI

REVISION LOG
CREATED 10/20/2023
REVISED 12/29/2023
REVISED 2/15/2024
REVISED 06/06/2024

DRAWING TITLE
 PAVEMENT
 PROFILE
 SHEET NO.

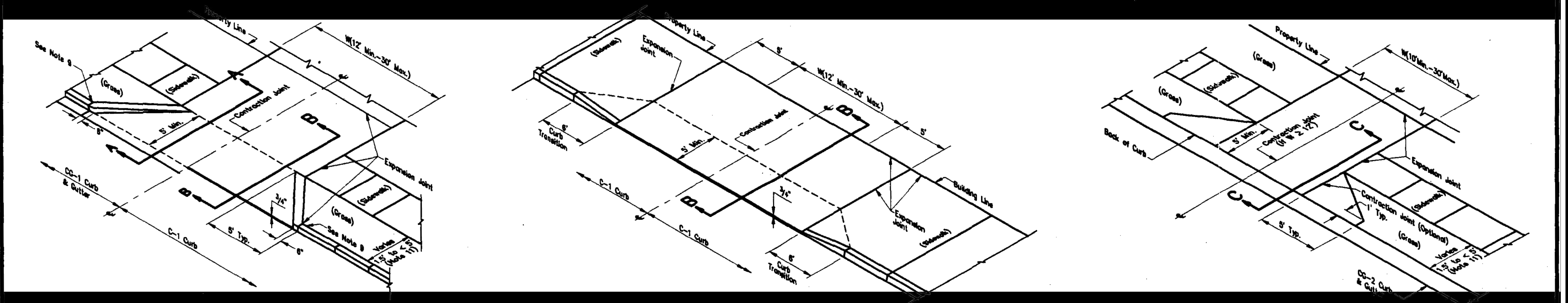


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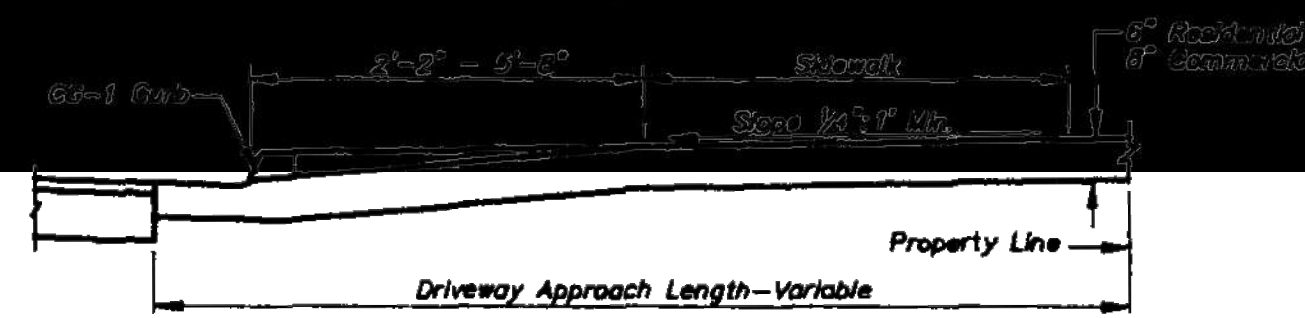
SITE GRADING AND UTILITY PLANS
1401 GOODE AVENUE
GRANDVIEW, MISSOURI



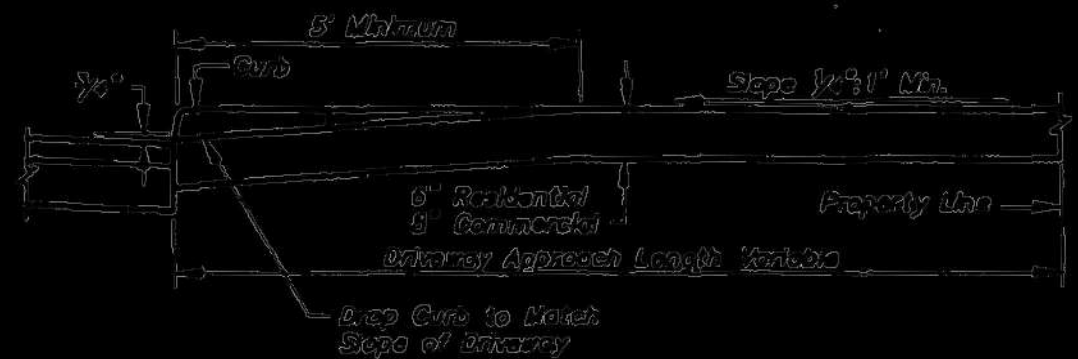
TYPE I
(Parkway 1.5' to < 5')

TYPE II

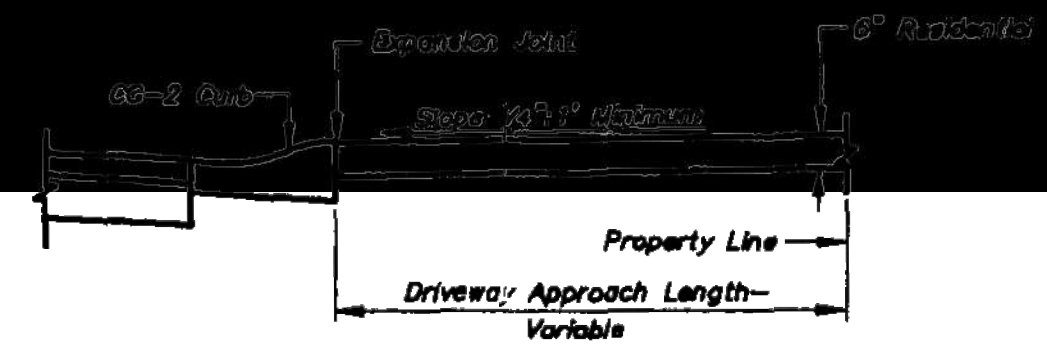
TYPE III
(Parkway 1.5' to < 5')



SECTION A-A (CG-1 CURB SHOWN)



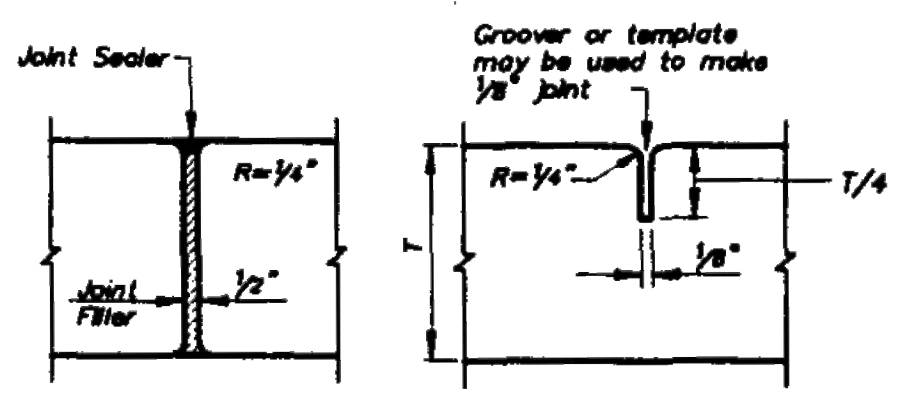
SECTION B-B (C-1 CURB)



SECTION C-C (CG-2 CURB)

NOTES:

1. The top 6" of driveway subgrade shall be compacted to 95% of standard maximum density.
2. Concrete shall conform to MCIB Mix No. WA610-1-4, except in CBD where WA610-1-4 with Trap Rock Aggregate is required, Section 2209.2.A.
3. Expansion joint filler and joint sealing compound shall conform to Standard Specifications Section 2209.2.
4. Curing membranes shall conform to Standard Specifications Section 2208.2F.
5. Curb transitions on driveway flares are considered part of driveway.
6. In CBD, 6 x 6-W2.9 x W2.9 reinforcing shall be placed in center of slab thickness.
7. On Park Department Property place 6 x 6-W1.4 x W.4 reinforcing in center of slab thickness and use radius instead of flare.
8. Contraction Joints shall be spaced at 12' max., both directions.
9. Two 5/8"Ø x 2' smooth dowels (one for C-1 Curb). See curb standards for placement.
10. Form 3/4" lip at pavement line on drives in C-1 & CS Curbs.
11. If parkway is < 1.5', fill with concrete as part of the sidewalk.

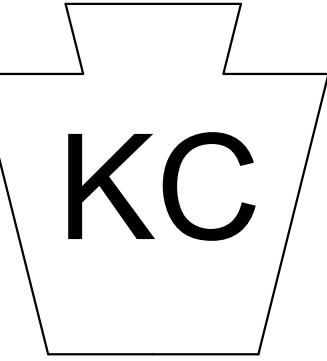


EXPANSION JOINT **CONTRACTION JOINT**
JOINT DETAILS

AMERICAN PUBLIC WORKS ASSOCIATION	
APWA	KANSAS CITY METROPOLITAN CHAPTER
CONCRETE DRIVEWAY DETAILS	STANDARD DRAWING NUMBER D - 1 ADOPTED: APRIL 17, 1986

REVISION LOG	
CREATED	10/20/2023
REVISED	12/29/2023
REVISED	2/15/2024
REVISED	06/06/2024

DRAWING TITLE
DRIVEWAY
DETAILS
SHEET NO.

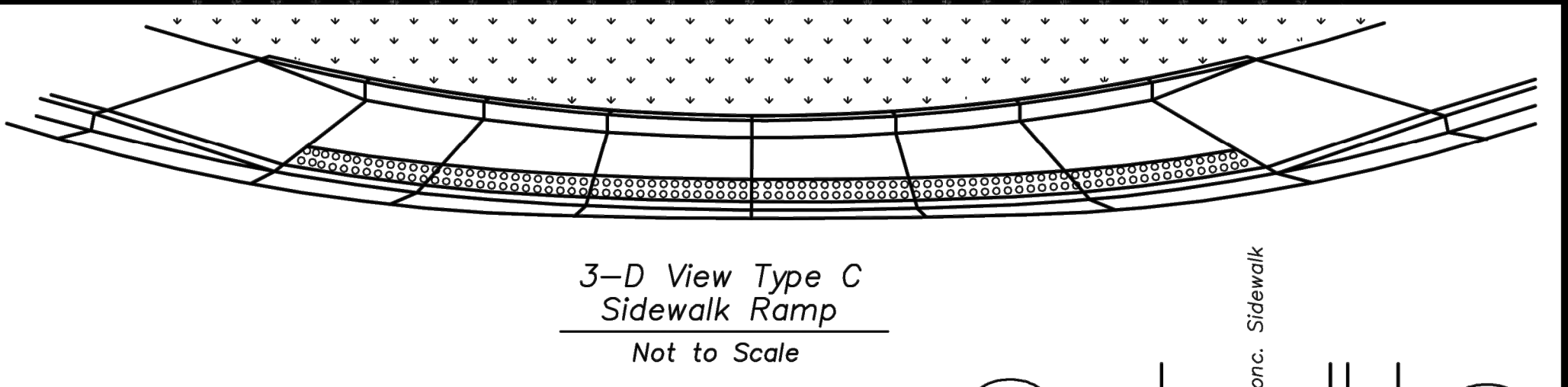
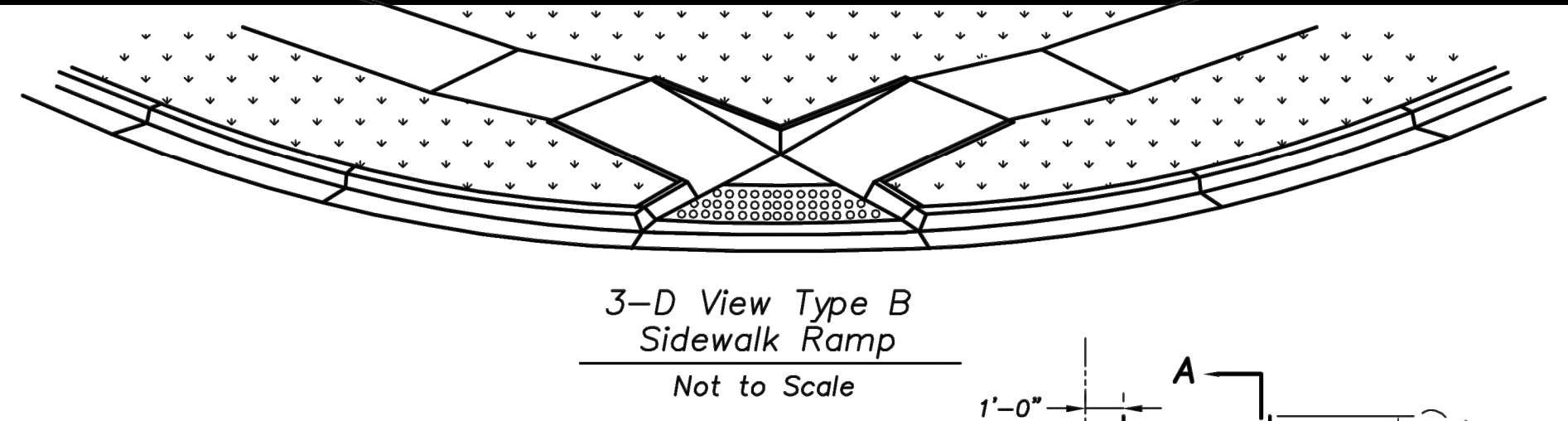
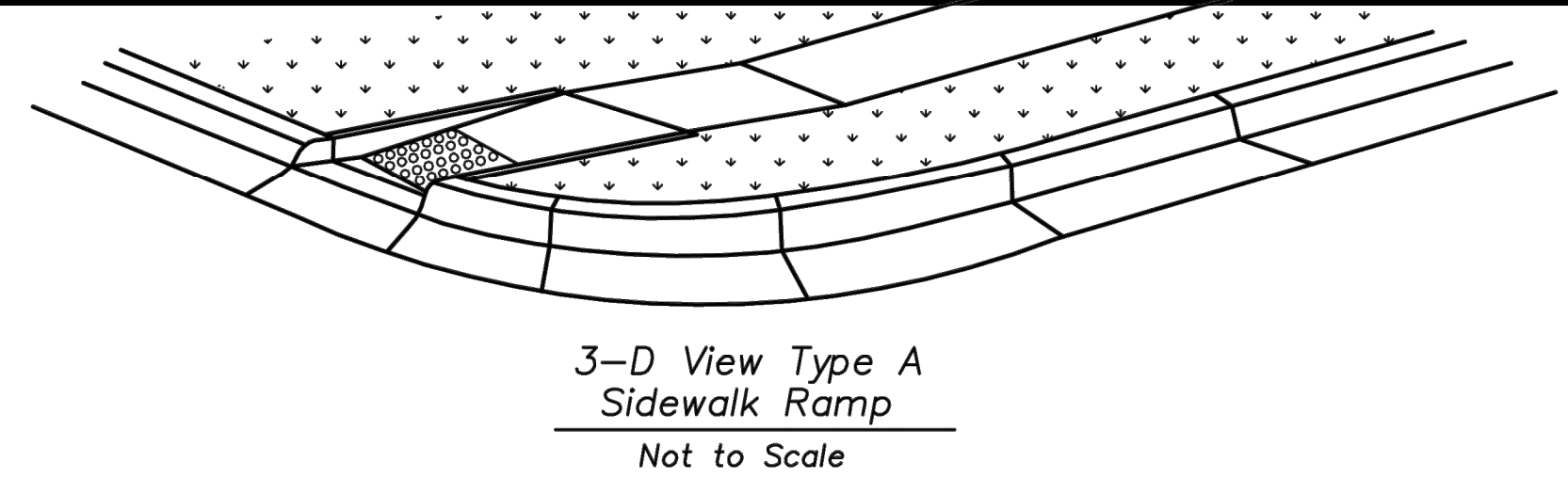


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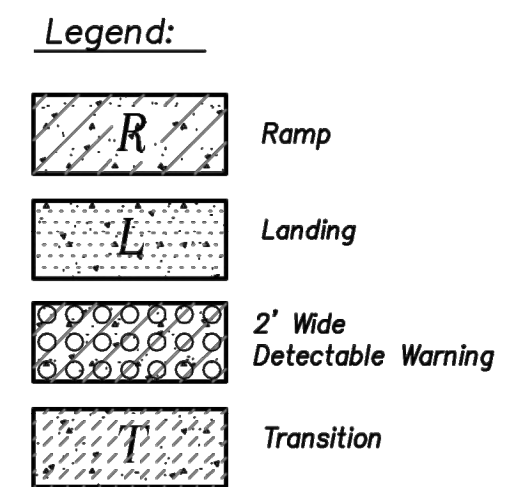
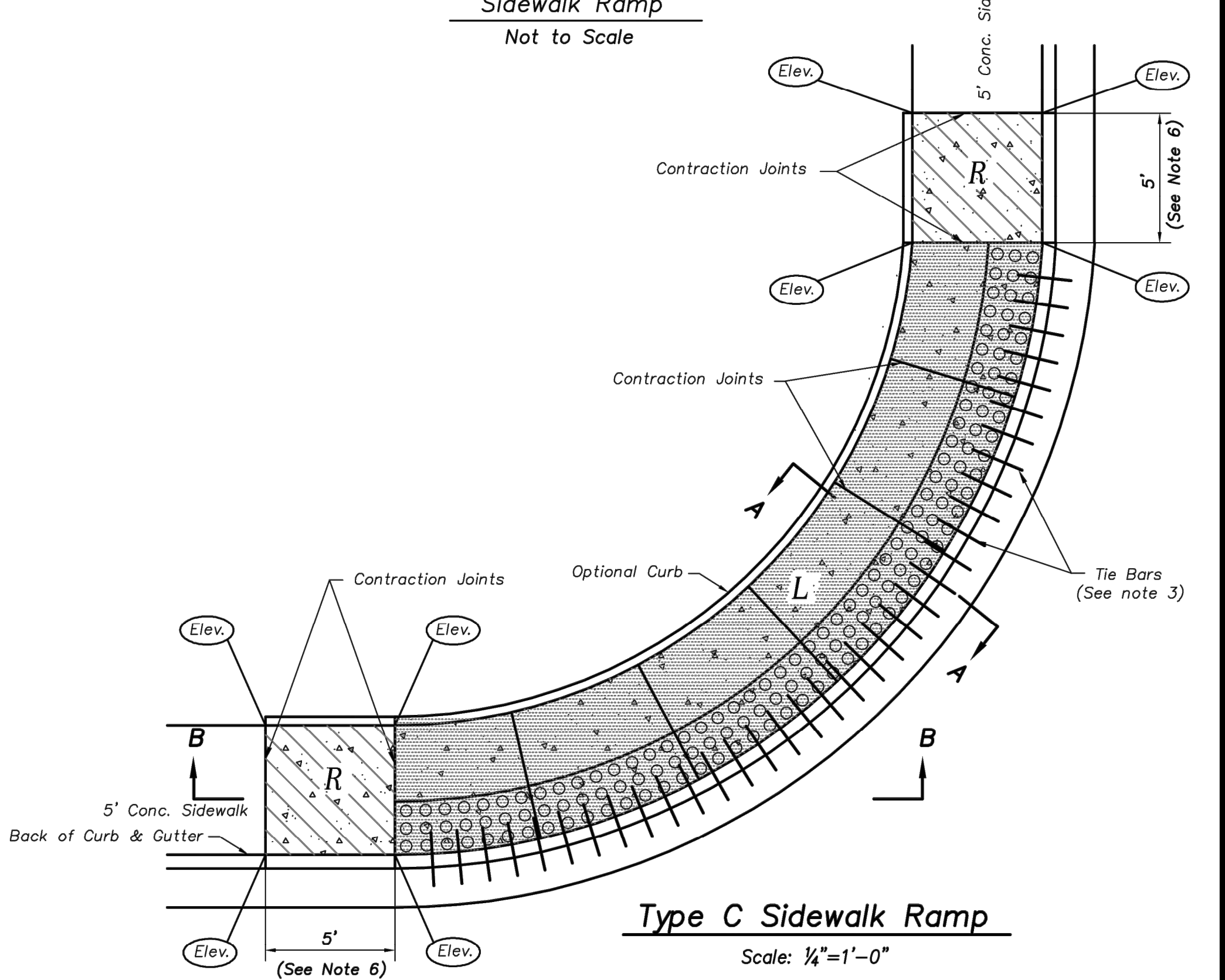
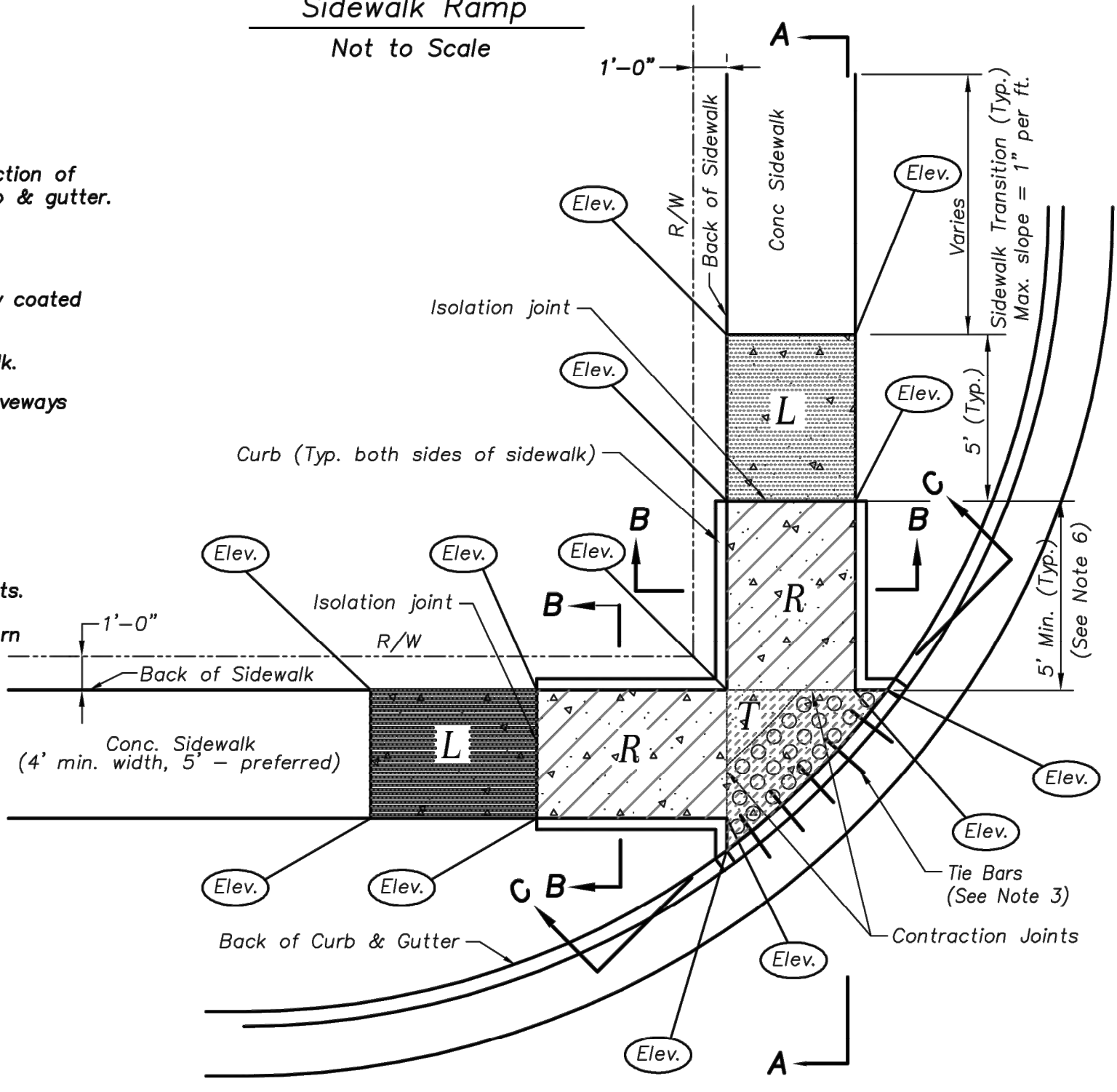
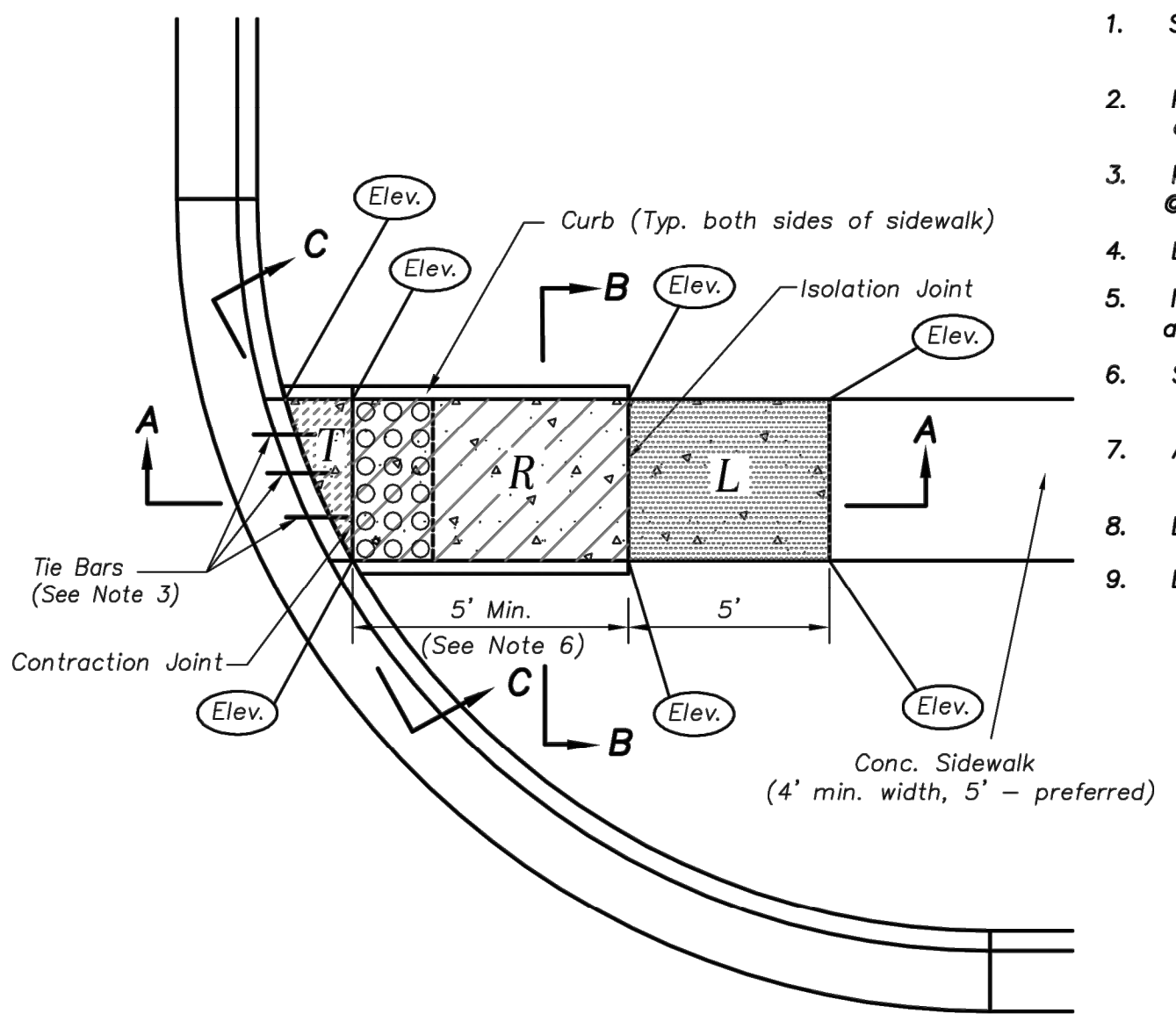
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SITE GRADING AND UTILITY PLANS
1401 GOODE AVENUE
GRANDVIEW, MISSOURI



Sidewalk Ramp Notes:

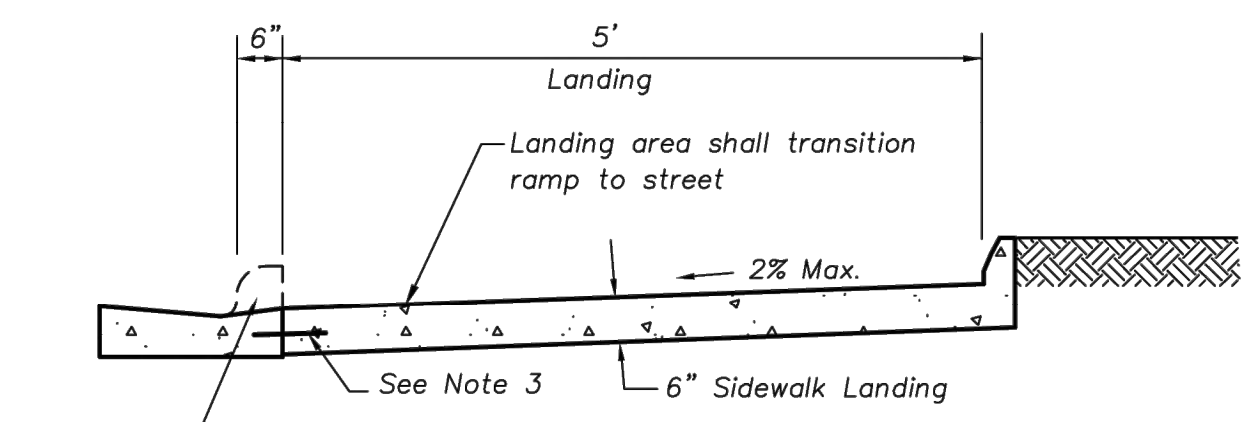
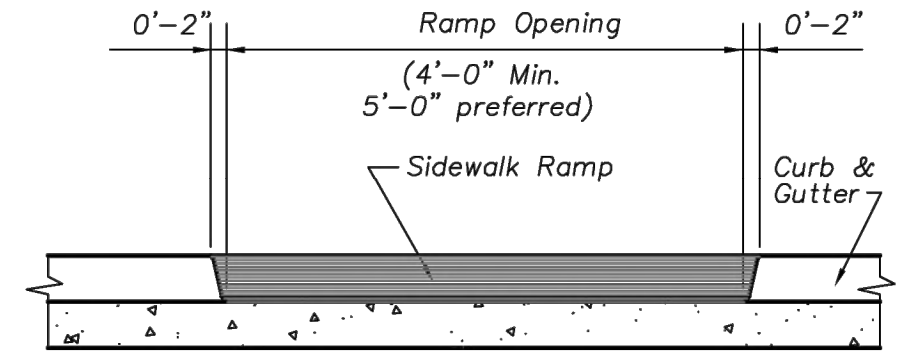
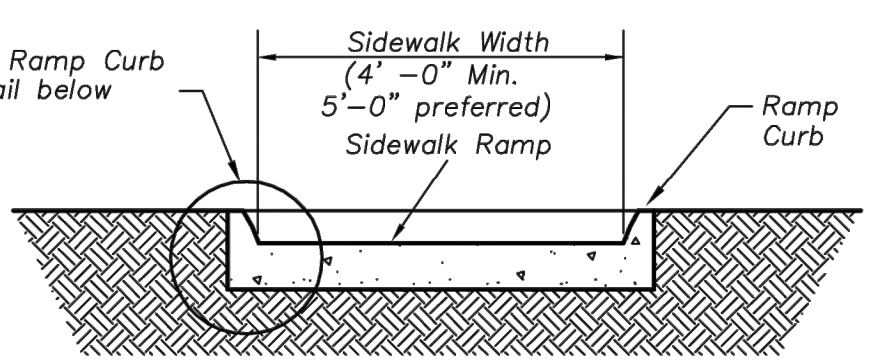
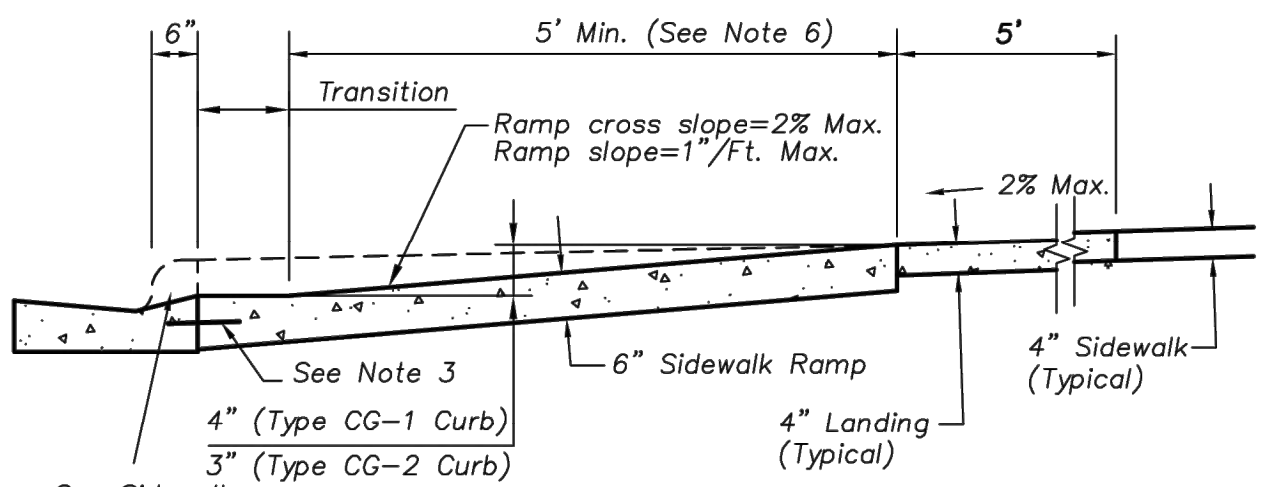
1. Sidewalk ramp location determined from the intersection of the extension of back of sidewalk and back of curb & gutter.
2. Plan drawings shall include a table of elevations for all points labelled as (Elev.).
3. Key all construction joints or use tie bars #4 epoxy coated @ 12" o.c.
4. Longitudinal joint spacing to match width of sidewalk.
5. Isolation joints shall be placed where walk abuts driveways and similar structures, and 250' centers max.
6. Sidewalk Ramp shall be lengthened to provide ADA compliance slope but need not exceed 15'.
7. ADA maximum ramp slope = 1"/ft. ADA maximum cross slope = 2%.
8. Detectable warnings to comply with ADA requirements.
9. Landing for Type C ramp along the entire curb return is preferred, but may be shortened to minimum ADA compliant dimension.



Type A Sidewalk Ramp
Scale: 1/4"=1'-0"

Type B Sidewalk Ramp
Scale: 1/4"=1'-0"

Type C Sidewalk Ramp
Scale: 1/4"=1'-0"

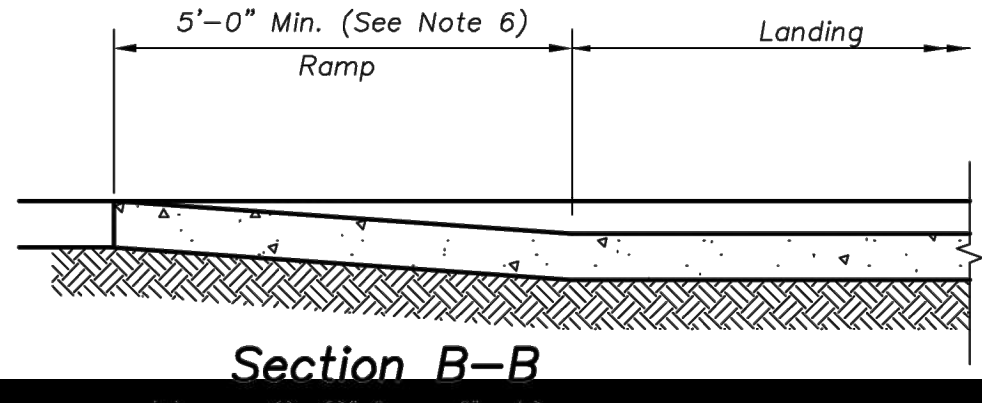
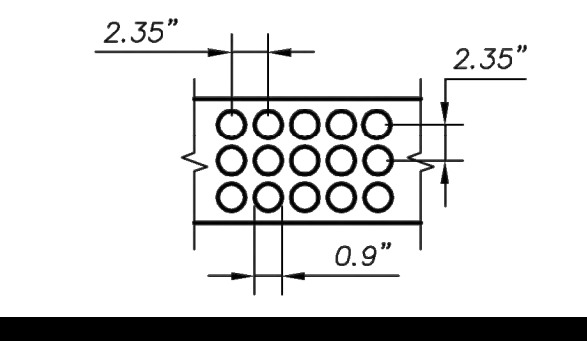
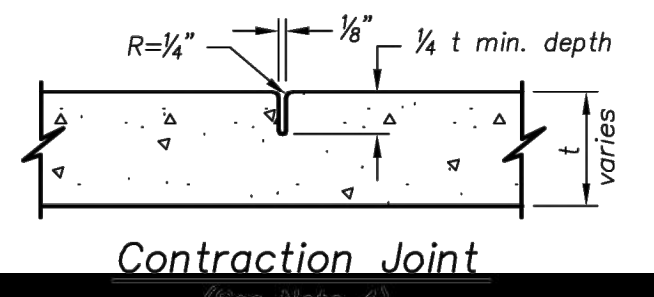
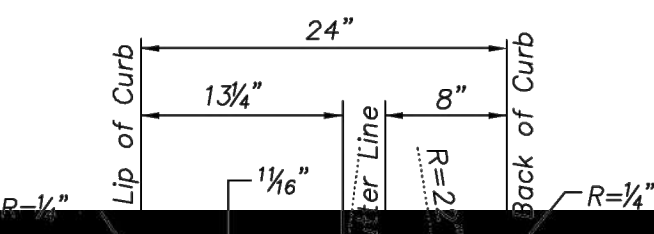
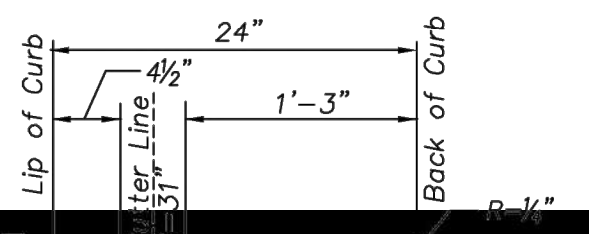
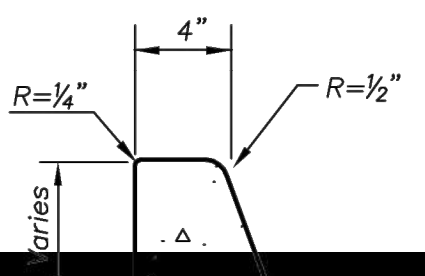


Section A-A Type A & B Sidewalk Ramp
Scale: 1/2"=1'-0"

Section B-B Type A & B Sidewalk Ramp
Scale: 1/2"=1'-0"

Section C-C Type A & B Sidewalk Ramp
Scale: 1/2"=1'-0"

Section A-A Type C Sidewalk Ramp
Scale: 1/2"=1'-0"



Ramp Curb Detail
Scale: 1 1/2" = 1'-0"

Use With Type CG-2 Curb
Scale: 1"=1'-0"

Use With Type CG-1 Curb
Scale: 1"=1'-0"

Isolation Joint
(See Note 5)

Detectable Warning Dome Spacing and Section
Not to Scale

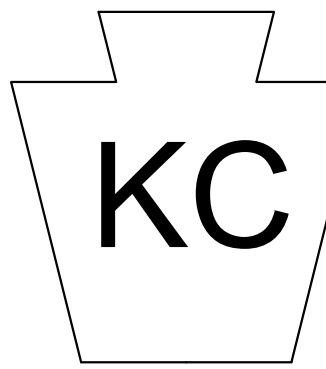
Street Curb Detail at Ramp

AMERICAN PUBLIC WORKS ASSOCIATION
APWA
KANSAS CITY
METROPOLITAN CHAPTER
STANDARD DRAWING
NUMBER SW-1
ADOPTED:

REVISION LOG

CREATED	10/20/2023
REVISED	12/29/2023
REVISED	2/15/2024
REVISED	06/06/2024

DRAWING TITLE
SIDEWALK
DETAILS
SHEET NO.

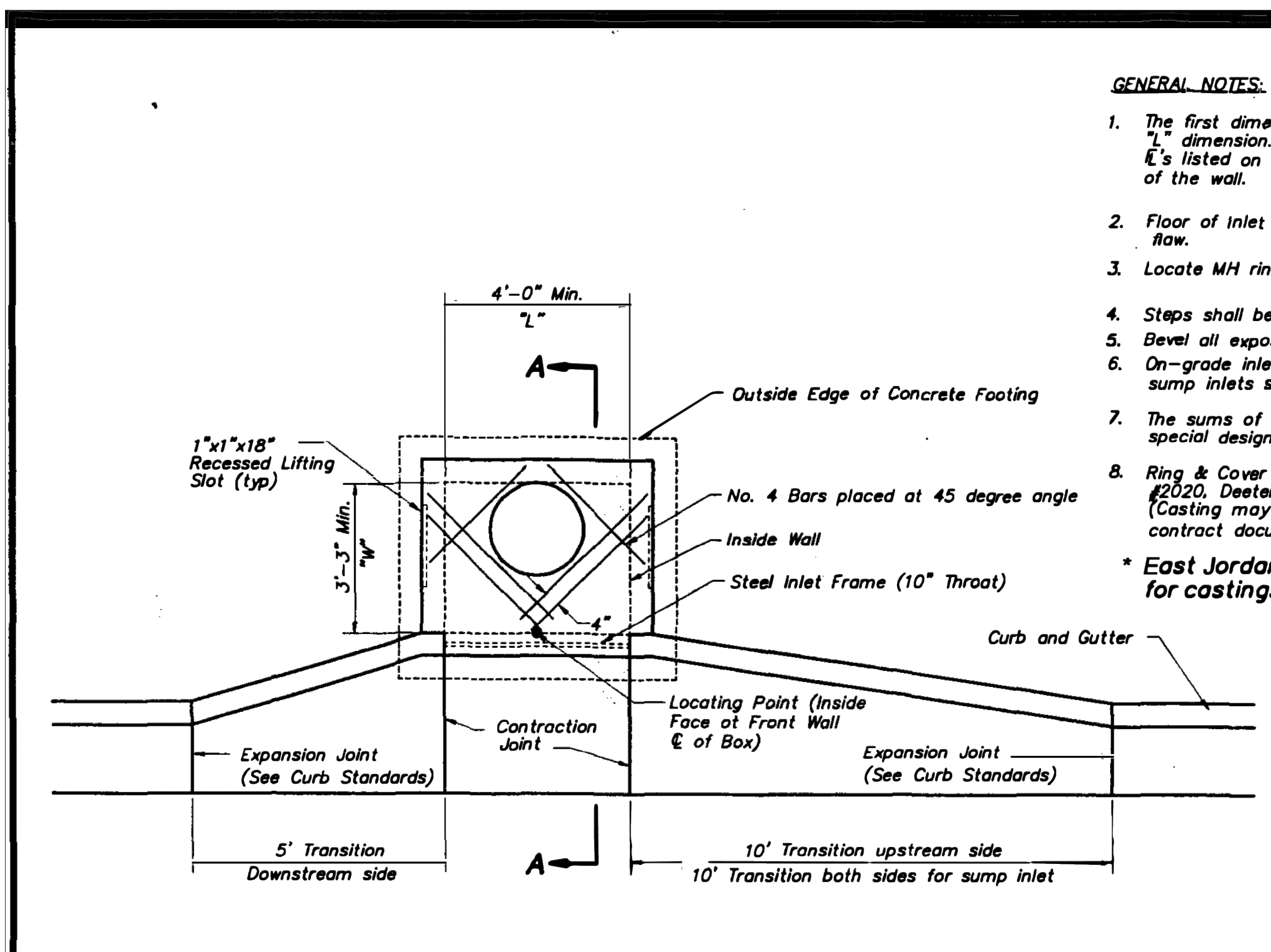


KEYSTONE KC
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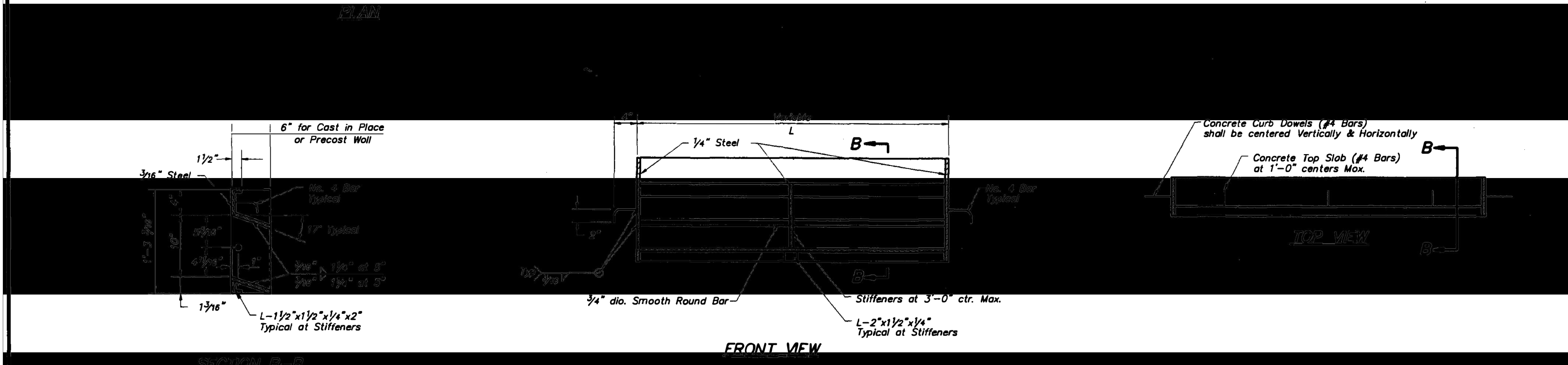
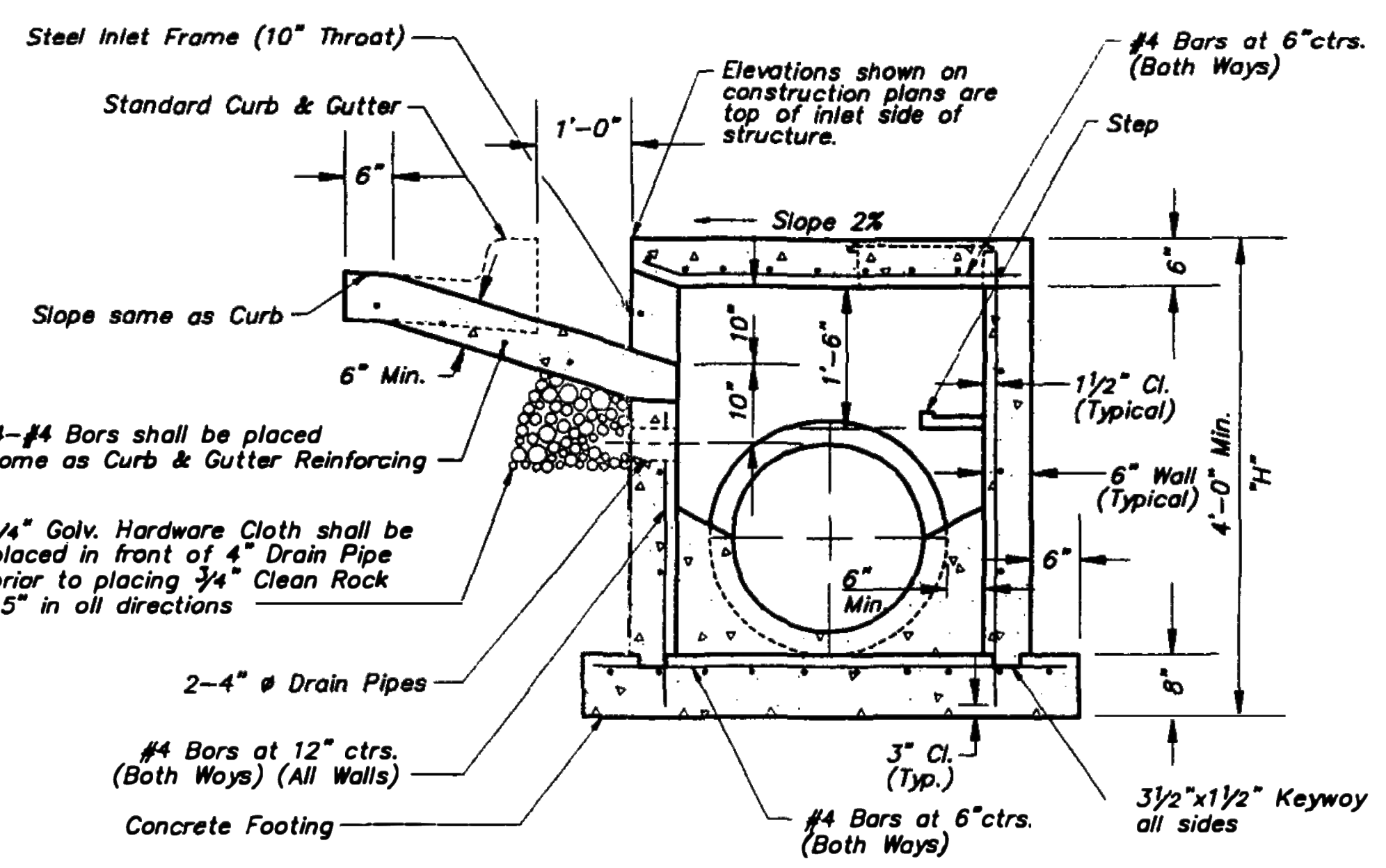
6/10/2024

SITE GRADING AND UTILITY PLANS
1401 GOODE AVENUE
GRANDVIEW, MISSOURI



GENERAL NOTES:

1. The first dimension listed in the Construction Notes is the "L" dimension. The second dimension is the "W" dimension. L's listed on the project plans are listed at the inside face of the wall.
 2. Floor of inlet shall be shaped with invert to provide smooth flow.
 3. Locate MH ring and cover over outlet.
 4. Steps shall be spaced at 1'-4" O.C. vertically.
 5. Bevel all exposed edges with 3/4" chamfer or 1/2" tooled edge.
 6. On-grade inlets shall conform to the street grade and sump inlets shall be level.
 7. The sums of "L" & "W" shall not exceed 14' without special design. (See project plans for details.)
 8. Ring & Cover to be Neenah R-1537, Clay & Bailey #2020, Deeter #2016, or approved equal. (Casting may vary by municipality, refer to plans & contract documents.)
- * East Jordan is an approved manufacturer for castings.

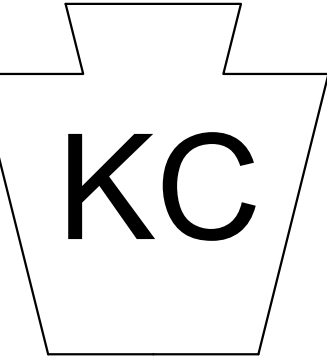


NOTES:

1. All welds shall be performed in accordance with appropriate AWS Specifications & Procedures.
 2. All welds on exposed surfaces shall be dressed so as to provide a pleasing finished appearance.
3. The entire frame area to be primed with a single coat of ZINC-PRIMER (337-77 primer (Red) or equal.

AMERICAN PUBLIC WORKS ASSOCIATION
APWA
KANSAS CITY METROPOLITAN CHAPTER
CURB INLET - TYPE 2
STANDARD DRAWING
NUMBER C - 2
ADOPTED: APRIL 17, 1995

REVISION LOG	
CREATED	10/20/2023
REVISED	12/29/2023
REVISED	2/15/2024
REVISED	06/06/2024
DRAWING TITLE	
CURB INLET DETAILS	
SHEET NO.	

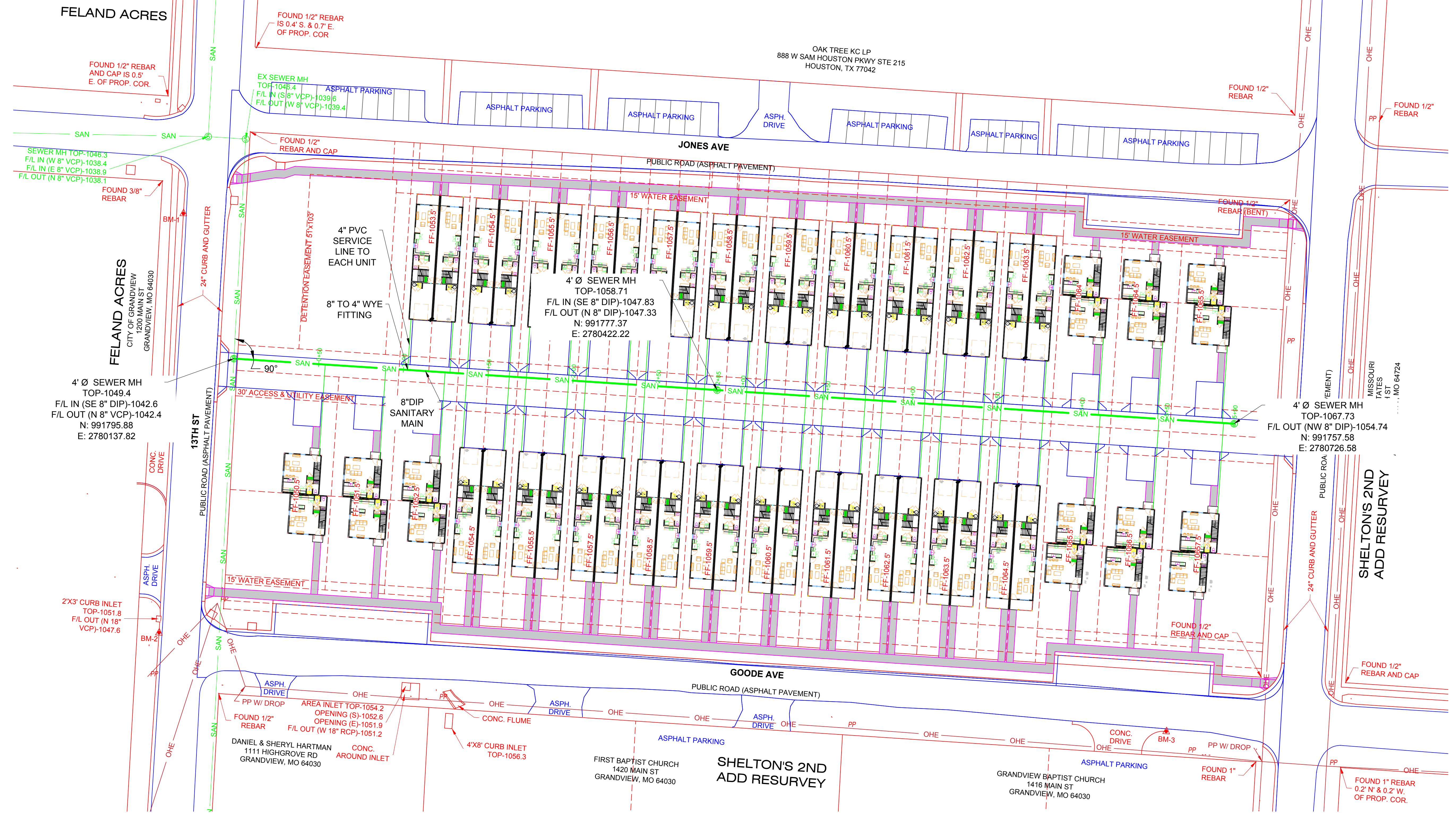


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SITE GRADING AND UTILITY PLANS
1401 GOODE AVENUE
GRANDVIEW, MISSOURI



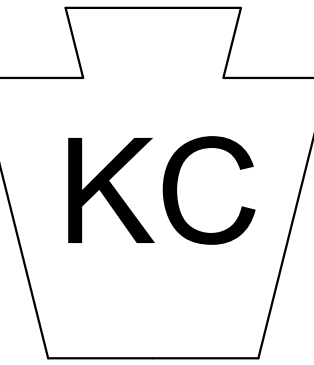
1 SANITARY SEWER PLAN
SCALE 1":30'

REVISION LOG	
CREATED	10/20/2023
REVISED	12/29/2023
REVISED	2/15/2024
REVISED	06/06/2024

DRAWING TITLE
SANITARY SEWER
PLAN

SHEET NO.

22

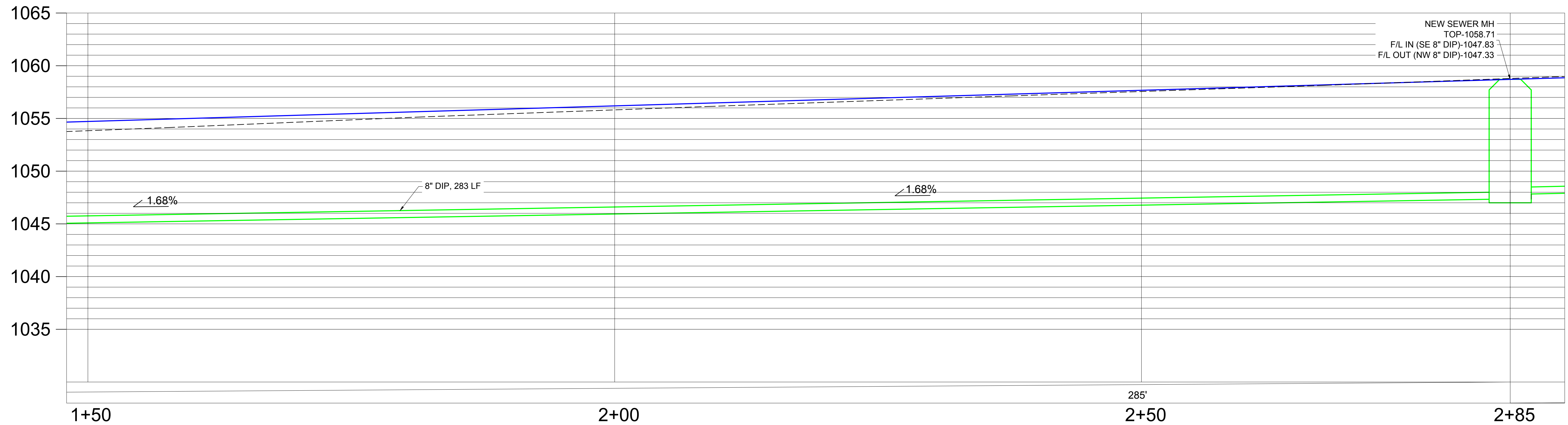
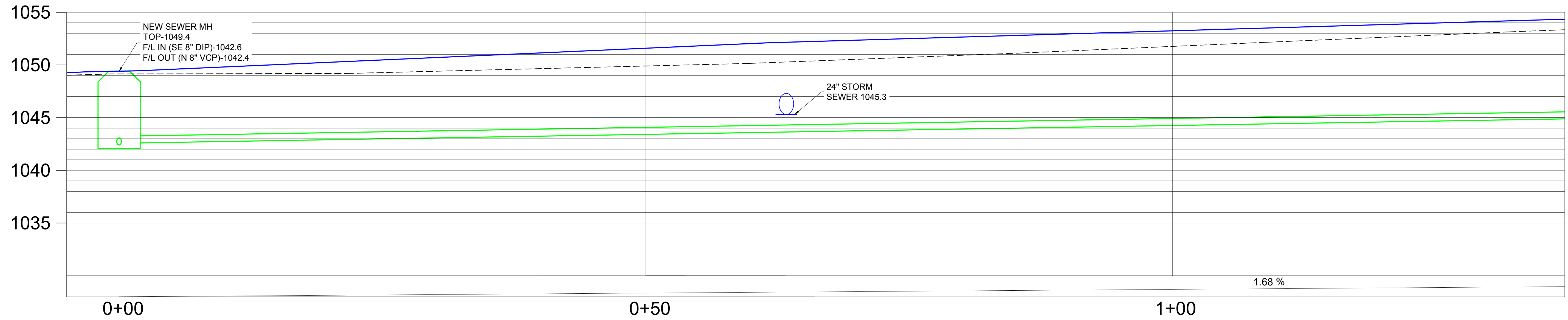


KEYSTONE KC
Engineering, LLC
1530 Duck Raod
Grandview, MO
816-287-1696



6/10/2024

SITE GRADING AND UTILITY PLANS
1401 GOODE AVENUE
GRANDVIEW, MISSOURI



1 SANITARY SEWER PIPE PROFILES
SCALE 1"=5'

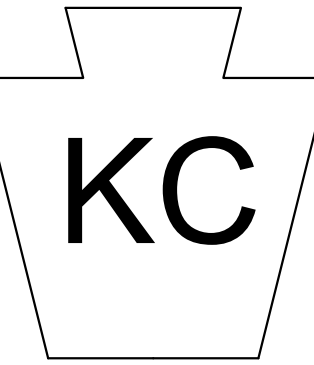
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CREATED	10/20/2023
REVISED	12/29/2023
REVISED	2/15/2024
REVISED	06/06/2024

DRAWING TITLE
SANITARY SEWER
PROFILE

SHEET NO.

23

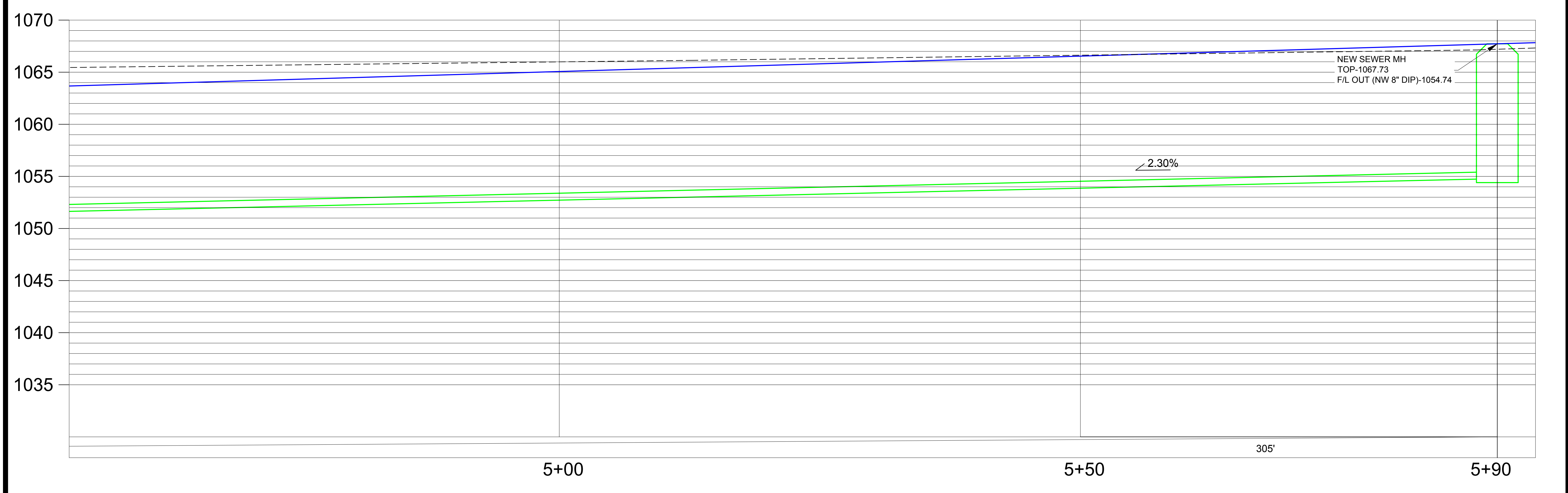
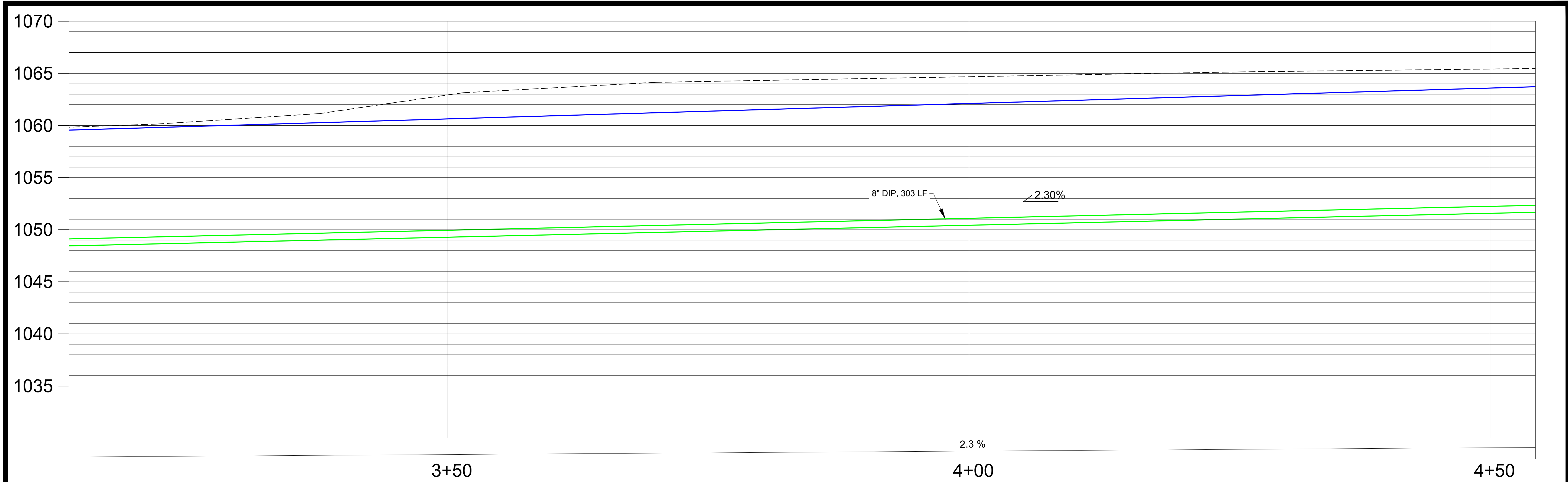


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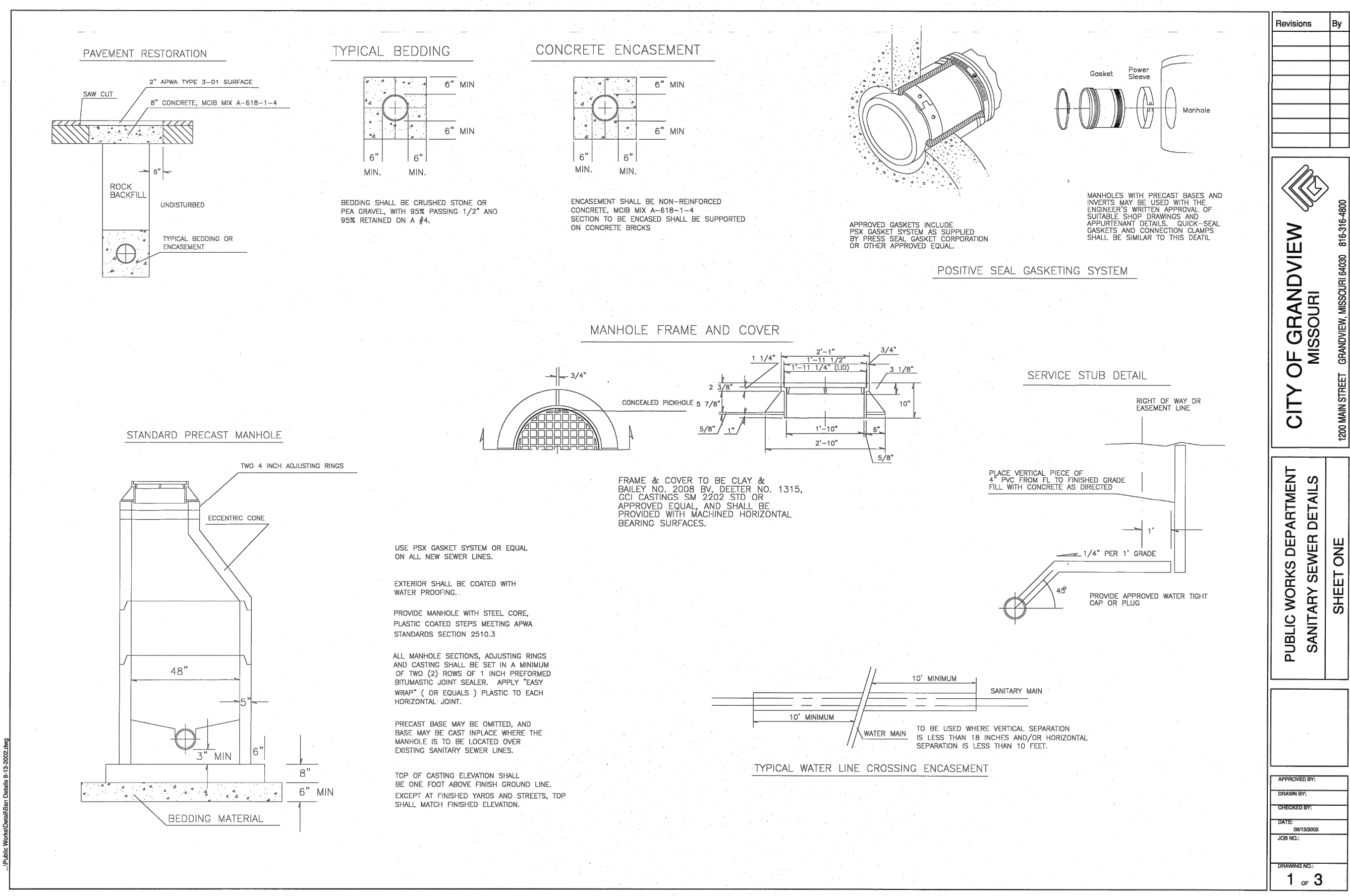
SITE GRADING AND UTILITY PLANS
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1 SANITARY SEWER PIPE PROFILES
SCALE 1"=5'

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SANITARY SEWER
PROFILE
SHEET NO.

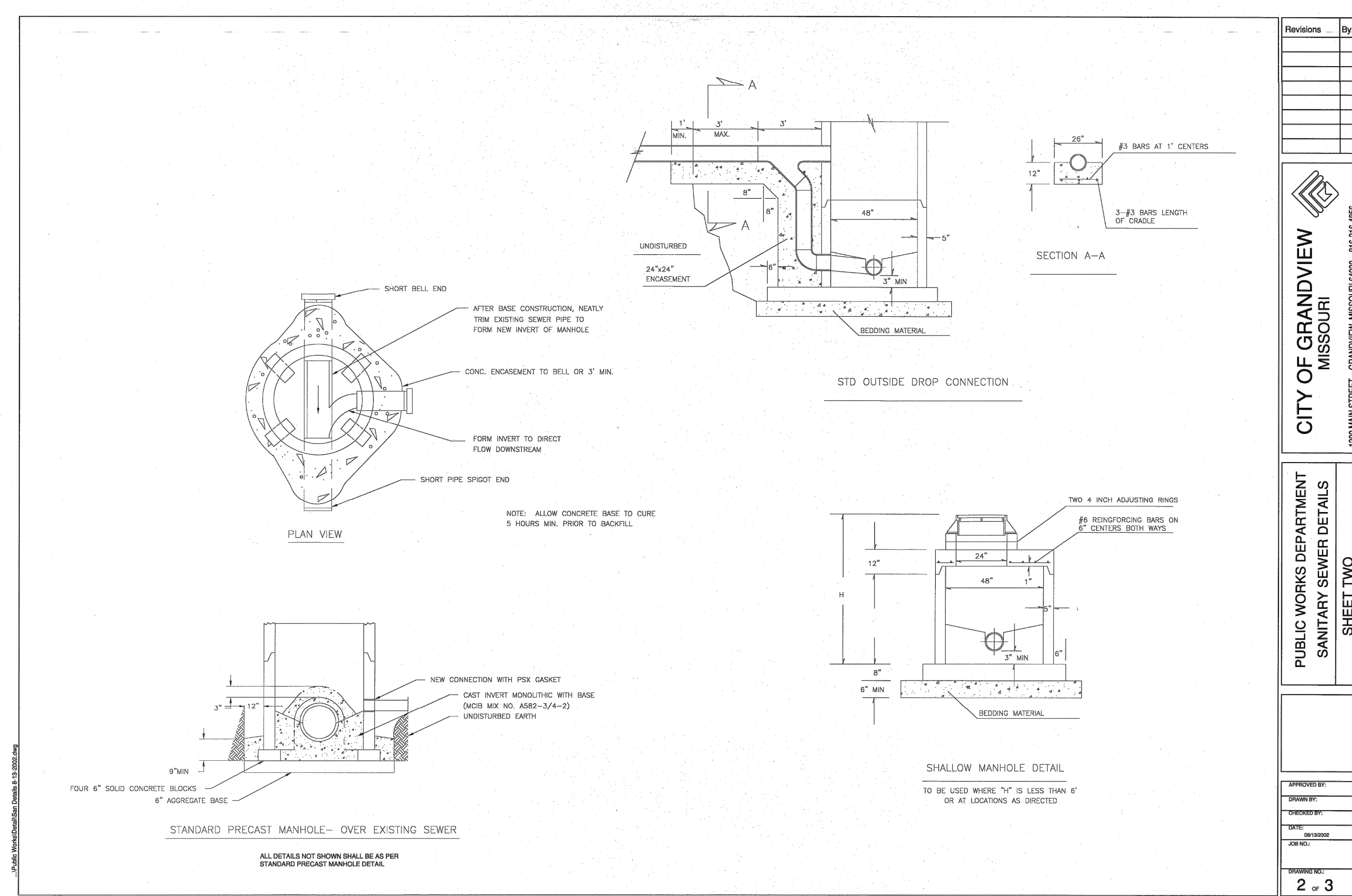


Revisions By

CITY OF GRANDVIEW MISSOURI
 1200 MAIN STREET GRANDVIEW, MISSOURI 64030 816-316-4858

PUBLIC WORKS DEPARTMENT
 SANITARY SEWER DETAILS
 SHEET ONE

APPROVED BY: _____
 DRAWN BY: _____
 CHECKED BY: _____
 DATE: 08/20/2024
 JOB NO.: _____
 SHEET NO.: 1 of 3

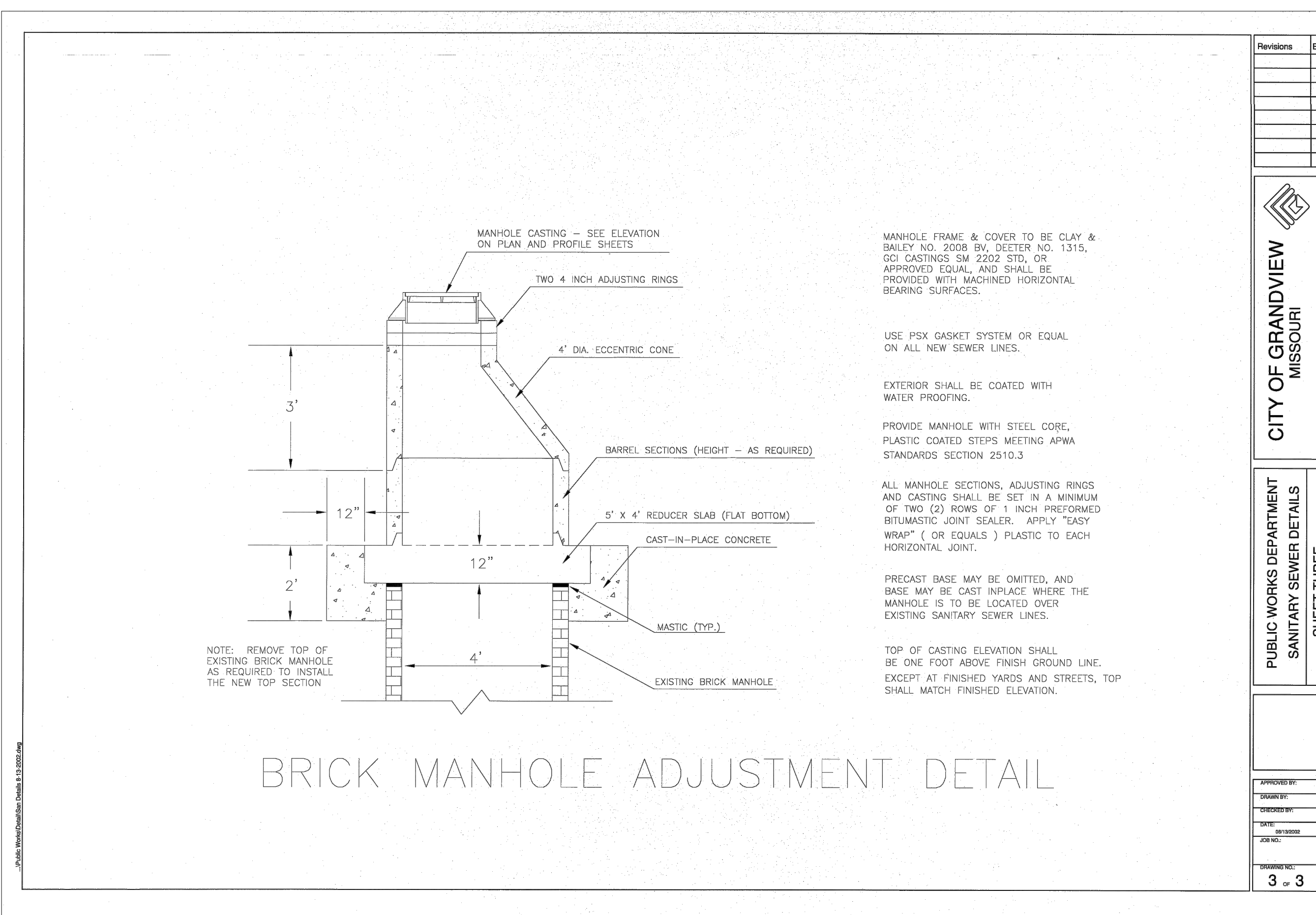


Revisions By

CITY OF GRANDVIEW MISSOURI
 1200 MAIN STREET GRANDVIEW, MISSOURI 64030 816-316-4858

PUBLIC WORKS DEPARTMENT
 SANITARY SEWER DETAILS
 SHEET TWO

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 DRAWN BY: _____
 CHECKED BY: _____
 DATE: 08/20/2024
 JOB NO.: _____
 SHEET NO.: 2 of 3



Revisions By

CITY OF GRANDVIEW MISSOURI
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PUBLIC WORKS DEPARTMENT
 SANITARY SEWER DETAILS
 SHEET THREE

APPROVED BY: _____
 DRAWN BY: _____
 CHECKED BY: _____
 DATE: 08/20/2024
 JOB NO.: _____
 SHEET NO.: 3 of 3

Sanitary Capacity Check

Units	DFU/unit	Dev. DFU
	60	23 1380

Per Unit		
Fixture	Count	DFU
Toilets	3	9
Vanity	4	4
Washer	1	2
Kitchen	1	4
Shower	2	4
Total		23

DFU	
Bathtub	2
Vanity	1
Toilet	3
Shower	2
Kitchen Sink	2
Dishwasher	2
Washing Ma.	2

Pipe Size	(1/4" Fall)	Fixture Load
4		100
6		480
8		1100
10		2320
12		4500

Existing Sanitary Sewer Capacity

Size (inches)	Material	Elevation		Length (ft)	Slope	Area	Hydraulic F v		Q (CFS)
		Start	End				k	Roughness Coeff	
8 VCP			1039.6	86	2.50%	0.35	0.166667	6.978289	2.435883
8 VCP		1039.4	1038.9	22	2.77%	0.35	0.166667	6.62822	2.313685
8 VCP		1038.1	1029.16	350	2.55%	0.35	0.166667	7.05971	2.464304

DFU	GPM	CFS
1380	10322.4	22.99841

Hydraulic Radius k: 1.318

Material Roughness Coeff:
 RCP: 110
 Cast Iron: 100
 Copper: 140
 Plastic: 150
 Steel: 120

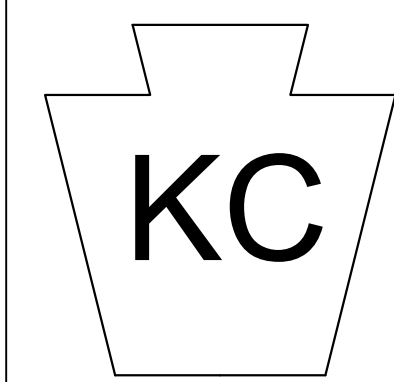
Gallons Per Day - Single Family Residence: 300

Units: 60

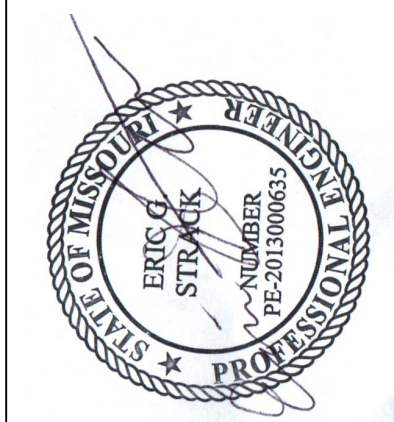
Development Wide:
 GPD: 18000
 GPM: 12.5
 CFS: 0.02785

Uniform Plumbing Code:
 1380 DFU
 250 GPM
 Chart A 103.1(1)

0.5570025 CFS



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DRAWING TITLE
 SANITARY SEWER
 DETAILS
 SHEET NO.

GENERAL NOTES:

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT VERSION OF THE STANDARDS AND SPECIFICATIONS FOR WATER MAIN EXTENSIONS AND RELOCATIONS OF THE JACKSON COUNTY WATER SERVICES DISTRICT # (PWSD #1).
2. THE LOCATIONS OF EXISTING UTILITIES, AS SHOWN, ARE APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES. CONTRACTORS SHALL POTHOLE AND EXPOSE ALL UTILITIES (INDICATED ON THE DRAWINGS, LOCATED AT GRADE BY A UTILITY LOCATING SERVICE, OR EVIDENT FROM UTILITY COMPANY INFORMATION) AT LEAST 500 FEET IN ADVANCE OF WATER MAIN CONSTRUCTION, DETERMINING THE DEPTH, SIZE, AND MATERIAL OF THE UTILITIES IN PROXIMITY TO THE PROPOSED WATER MAIN ALIGNMENT. CONTRACTOR SHALL PROVIDE THIS INFORMATION TO THE ENGINEER & ADVISE OF ANY POTENTIAL CONFLICTS WITH THE PROPOSED PIPELINE ALIGNMENT. DEFLECT PIPE TO MAINTAIN MINIMUM 5 FEET HORIZONTAL AND 18 INCH VERTICAL CLEARANCES BETWEEN PROPOSED WATER MAIN AND ALL EXISTING UTILITIES.
3. A STREET CLOSURE PERMIT MAY BE REQUIRED FOR THIS WORK. CONTACT THE PUBLIC WORKS DEPARTMENT PERMIT COUNTER AT CITY HALL.
4. CONTRACTORS SHALL PROTECT EXISTING POWER POLES AND LIGHT POLES FROM DAMAGE AND SHALL PROVIDE BRACING, SHORING, OR OTHER WORK NECESSARY FOR SUCH PROTECTION. ANY STRUCTURES REMOVED DURING CONSTRUCTION OPERATIONS SHALL BE REPLACED.
5. EROSION CONTROL PLANS AND PROCEDURES SHALL BE IN PLACE PRIOR TO ANY EXCAVATION. CONTRACTOR TO REFER TO THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) DEVELOPED BY DESIGN ENGINEER FOR THIS PROJECT. A COPY OF THE SWPPP CAN BE FOUND IN THE PROJECT DOCUMENTS.
6. SURFACE RESTORATION FOR THE AREAS NOT PAVED OR LANDSCAPED SHALL BE WITH SOD OR SEED. AREAS WITH ESTABLISHED MOWED LAWNS SHALL BE SODDED. ALL OTHER AREAS THAT ARE NOT PAVED OR LANDSCAPED SHALL BE SEEDED. SODDING SHALL BE IN ACCORDANCE WITH SECTION 02931 - SODDING AND SEEDING SHALL BE IN ACCORDANCE WITH SECTION 02930 - SEEDING OF THE PROJECT MANUAL.
7. ALL RIGHT-OF-WAY MONUMENTS SHALL NOT BE DISTURBED OR DESTROYED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND RESETTING ALL DISTURBED PROPERTY CORNER MARKERS. THERE WILL BE NO SEPARATE PAYMENT FOR THIS WORK.
8. CONTRACTOR SHALL MAKE EVERY REASONABLE EFFORT TO SAVE ANY BUSHES, TREES, EXISTING STRUCTURE, YARD FEATURE OR OTHER ITEM. ANY ITEM DAMAGED BY THE CONTRACTOR SHALL BE REPLACED OR REPAIRED TO LIKE NEW OR BETTER CONDITION. THERE WILL BE NO SEPARATE PAYMENT FOR THIS WORK.
9. THE CONTRACTOR SHALL PROVIDE & MAINTAIN TEMPORARY SURFACING CAPABLE TO SUPPORTING HEAVY WHEELED TRAFFIC (E.G., UNTREATED COMPACT AGGREGATE, STEEL PLATES) IN ANY PAVED AREAS CUT OR DISTURBED UNTIL CONCRETE OR ASPHALT CAN BE PLACED.
10. ALL PAVED SURFACES THAT ARE EITHER COMPRISED OF CONCRETE OR ASPHALT (E.G., STREETS, DRIVEWAYS, PARKING LOTS, ETC.) THAT ARE REMOVED BY THIS CONSTRUCTION SHALL BE REPLACED IN ACCORDANCE WITH SECTION 02575 - SURFACE RESTORATION OF THE PROJECT MANUAL AND THE CURRENT "STREET CUT RESTORATION" STANDARD DRAWING SR-1, KCMO.

SERVICE LINE GENERAL NOTES:

1. CURB STOP LOCATION TO BE ESTABLISHED BY A PWSD #1 WATER FIELD INSPECTOR IN FIELD TO AVOID BEING WITHIN DITCH OR ADJACENT TO PAVEMENT.
2. CONTRACTOR SHALL CONTACT A PWSD #1 WATER ENGINEER PRIOR TO RELOCATION OF EXISTING METERS.
3. NEW CURB STOPS SHALL BE INSTALLED WITHIN PUBLIC RIGHT-OF-WAY AS SHOW ON THE DRAWINGS, TYPICALLY ONE FOOT FROM THE BACK OF CURB. CONNECT SERVICE AS REQUIRED BY THE LATEST RULES AND REGULATIONS FOR WATER SERVICE LINES, INCLUDING ANY REQUIRED UPGRADES TO THE EXISTING SERVICE.
4. NEW METER SETS SHALL BE PLACED ON PRIVATE PROPERTY AS SHOWN ON THE DRAWINGS, AT LEAST ONE FOOT INSIDE THE PROPERTY LINE, FOLLOWING THE CURB STOP AT SUCH A LOCATION AS TO PREVENT ACCUMULATION OF WATER WITHIN THE TILE AND PROVIDE FULL ACCESSIBILITY.
5. METER AND CURB STOP RELOCATIONS SHALL INCLUDE FURNISHING AND INSTALLING A NEW METER PIT, A NEW METER YOKE, A NEW CURB STOP, A NEW CURB BOX, NEW FITTINGS, AND ALL APPURTENANCES AS REQUIRED BY THE LATEST RULES AND REGULATIONS FOR WATER SERVICE LINES INCLUDING AND REQUIRED UPGRADES TO THE EXISTING WATER SERVICE. THE CONTRACTOR SHALL COORDINATE WITH KC WATER FOR REMOVAL AND INSTALLATION OF NEW METERS TO MINIMIZE THE PERIOD WHEN THE CUSTOMER WILL BE WITHOUT SERVICE.
6. BRANCH SERVICE LINES GREATER THAN ONE INCH IN DIAMETER SHALL BE CONNECTED TO THE NEW MAIN THROUGH A BRANCH SERVICE VALVE OF THE NOMINAL SIZE OF THE BRANCH SERVICE LINE, BUT NO SMALLER THAN SIX INCHES IN DIAMETER.
7. BEFORE INSTALLATION OF TEES OR CORP STOPS FOR NEW SERVICE CONNECTIONS, CONTRACTOR SHALL POTHOLE AND DETERMINE THE LOCATION OF EXISTING SERVICES, AND CONFIRM SIZE, CONFIGURATION, AND MATERIAL. ADJUST THE LOCATION OF THE NEW SERVICE TEES OR CORP STOPS AS REQUIRED.

WATER PROJECT GENERAL NOTES:

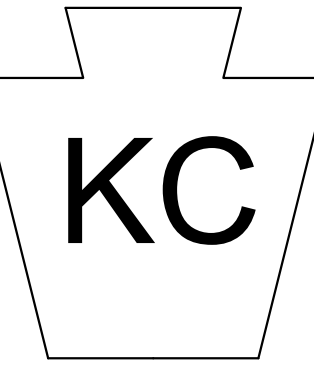
1. CONTRACTOR SHALL POTHOLE AND EXPOSE ALL TIE-IN AND CROSSING LOCATIONS. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL FITTINGS REQUIRED TO PROVIDE PROPER HORIZONTAL AND VERTICAL ALIGNMENT FOR NEW WATER MAINS. CONNECTIONS TO EXISTING WATER MAINS AND INSTALLATION OF FIRE HYDRANTS AT THE PROPER LOCATION AND ELEVATION, WHETHER OR NOT THE PROPER FITTINGS, LOCATION OR ELEVATIONS ARE CALLED OUT ON THE DRAWINGS, INCLUDING MODIFICATION OF EXISTING INFRASTRUCTURE REQUIRED TO MAKE ALL OF THE WORK CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS FOR WATER MAIN EXTENSIONS AND RELOCATIONS OF THE PWSD #1.
2. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL TEMPORARY BLOW-OFF ASSEMBLIES, FITTINGS, THRUST BLOCKING, AND RESTRAINING DEVICES REQUIRED FOR TEMPORARY CONNECTIONS FOR FLUSHING, PRESSURE TESTING, CHLORINATION, AND DE-CHLORINATION OF THE NEW WATER MAINS. PRIOR TO PLACING NEW MAINS IN SERVICE THE CONTRACTOR SHALL REMOVE ANY CORPORATION COCKS USED FOR TESTING OR CHLORINATION AND REPLACE THEM WITH TAPERED BRASS PLUGS.
3. THE CONTRACTOR SHALL INSTALL POLYETHYLENE ENCASEMENT ON ALL WATER MAINS, VALVES, FITTINGS, AND OTHER APPURTENANCES FOR THE FULL LENGTH OF THE PROJECT IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS FOR WATER MAIN EXTENSIONS AND RELOCATIONS OF PWSD #1.
4. SCHEDULING OF WATER MAIN SHUTS AND CONNECTION TO EXISTING MAINS SHALL BE AT THE DISCRETION OF JCWSD.
5. ALL FIRE HYDRANT BRANCHES SHALL BE RESTRAINED USING APPROVED RESTRAINING DEVICES. HYDRANTS SHALL BE INSTALLED SO THAT THE CENTERLINE OF THE OUTLET NOZZLE IS BETWEEN EIGHTEEN AND TWENTY-ONE INCHES (18" - 21") ABOVE FINISHED GRADE, AND SO THAT THERE IS A MINIMUM CLEAR AREA OF 5' IN EACH DIRECTION TO ALLOW OPERATION OF THE HYDRANT.
6. SECTIONS OF WATER MAIN REQUIRING MULTIPLE BENDS, SUCH AS CUL-DE-SACS, SHALL BE RESTRAINED WITH APPROVED JOINT RESTRAINING DEVICES AND STRADDLE BLOCKS IN LIEU OF BACKING BLOCKS.
7. STREETS AND PARKING AREAS ARE TO BE TO GRADE AND CURBS IN PLACE PRIOR TO CONSTRUCTION OF WATER MAINS. WATER MAINS SHALL BE INSTALLED WITH A MINIMUM GROUND COVER OF 42 INCHES BELOW FINISHED GRADE. SIXTEEN (16)-INCH AND LARGER WATER MAINS SHALL BE INSTALLED WITH A MINIMUM GROUND COVER OF 60 INCHES BELOW FINISHED GRADE.
8. WATER MAINS SHALL BE LAID AT LEAST 10 FEET, HORIZONTALLY FROM ANY SEWER. WHEN LOCAL CONDITIONS PREVENT A HORIZONTAL SEPARATION OF 10 FEET, A WATER MAIN MAY BE LAID CLOSER THAN 10 FEET TO A SEWER, PROVIDED THAT THE WATER MAIN IS LAID IN A SEPARATE TRENCH, OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER, AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER. WATER MAINS SHALL BE LAID SUCH THAT THERE IS A MINIMUM OF 18 INCHES CLEARANCE BETWEEN THE PIPE WALL AND THE EXTERIOR OF ANY MANHOLE AND/OR INLET ON THE SEWER LINE.

WHENEVER A WATER MAIN MUST CROSS ABOVE A SEWER, A VERTICAL SEPARATION OF 18 INCHES BETWEEN THE BOTTOM OF THE WATER MAIN AND THE TOP OF THE SEWER SHALL BE MAINTAINED. WHENEVER A WATER MAIN MUST CROSS UNDER A SEWER, A VERTICAL SEPARATION OF 18 INCHES BETWEEN THE BOTTOM OF THE SEWER AND THE TOP OF THE WATER MAIN SHALL BE MAINTAINED. A FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ON THE SEWER TO BE CROSSED SO THAT THE JOINTS WILL BE EQUALLY DISTANT FROM THE SEWER AND AS FAR AWAY AS POSSIBLE. THE 18-INCH VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF THE WATER MAIN LOCATED WITHIN 10 FEET, HORIZONTALLY, OF ANY SEWER IT CROSSES.

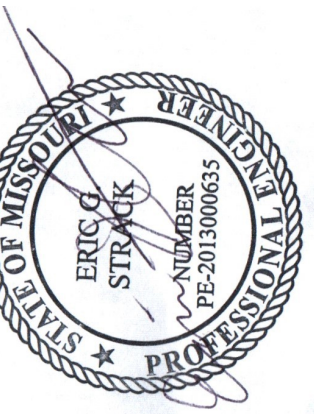
WHEN IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL SEPARATION AS STIPULATED ABOVE, OR WHEN A WATER MAIN MUST CROSS UNDER A SEWER, THE SEWER MUST BE RECONSTRUCTED OF DUCTILE IRON PIPE FOR WATER MAIN EXTENSIONS AND RELOCATIONS; PRE-STRESSED CONCRETE CYLINDER PIPE MEETING THE REQUIREMENTS OF SECTION 02619; OR PVC PRESSURE PIPE CONFORMING TO AWWA C-900 OR C-905, AND SHALL BE PRESSURE TESTED TO ASSURE WATER TIGHTNESS BEFORE BACKFILLING. THE REQUIRED LENGTH OF SEWER TO BE REPLACED OR CONSTRUCTED OF PRESSURE PIPE WILL BE THE LENGTH NECESSARY TO ACHIEVE 10 FEET HORIZONTAL SEPARATION.

WHERE THESE CONDITIONS CANNOT BE MET, THE WATER SERVICES DEPARTMENT SHALL BE CONSULTED AS TO THE PRECAUTIONS TO BE TAKEN TO PROTECT THE PUBLIC WATER SUPPLY.

9. THE END OF ALL ABANDONED WATER MAINS SHALL BE PLUGGED WITH CONCRETE.
10. COVERS, LIDS, AND STANDPIPES ON ALL ABANDONED VALVES SHALL BE REMOVED TO AT LEAST TWO FEET (2') BELOW GRADE AND THE AREA SHALL BE PROPERLY BACKFILLED. IN PAVED AREAS REMOVAL OF VALVE LID AND FILLING OF VALVE BOX WITH CONCRETE MAY BE ALLOWED AT PWSD #1 DISCRETION.
11. EXISTING FIRE HYDRANTS THAT ARE REMOVED SHALL BE RETURNED TO THE PWSD #1 YARD AT 13015 15TH STREET, GRANDVIEW, MO 64030.
12. WATER SERVICE LINES CONNECTED TO MAINS BEING ABANDONED SHALL BE RECONNECTED TO NEW MAINS IN ACCORDANCE WITH THE RULES AND REGULATIONS FOR WATER SERVICE LINES OF PWSD #1, UNLESS SHOWN OTHERWISE. EXISTING WATER SERVICE LINES BEING TRANSFERRED TO NEW MAINS SHALL BE UPGRADED TO MEET CURRENT REGULATIONS.
13. THE CONTRACTOR SHALL VERIFY THE OUTSIDE DIAMETER (O.D.) OF THE EXISTING WATER MAIN PRIOR TO SCHEDULING CONNECTION AND PROVIDE SOLID SLEEVES AS REQUIRED.
14. WATER MAINS SHALL HAVE DOUBLE POLY-WRAP AT ALL GAS MAIN CROSSINGS 10 LF EACH SIDE OF CROSSING. MIN. (20 LF TOTAL MIN.)
15. ALL AUTOMATIC METER READERS ARE TO BE RETURNED TO PWSD #1.
16. PIPE JOINT DEFLECTION SHALL BE LIMITED TO 50% OF THE PIPE MANUFACTURES MAXIMUM RECOMMENDED JOINT DEFLECTION.
17. WHERE EXISTING METERS HAVE NOT BEEN LOCATED BY THE TOPOGRAPHIC SURVEY. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF THE EXISTING METER BEFORE RELOCATING THE METER DURING THE SERVICE TRANSFER. EXISTING METERS THAT COMPLY WITH PWSD #1 REQUIREMENTS WITH NOT HAVE TO BE RELOCATED. METERS NOT FOUND DURING THE TOPOGRAPHIC SURVEY ARE CURRENTLY SHOWN TO BE RELOCATED.
18. MAINTAIN 18 INCHES OF VERTICAL CLEARANCE BETWEEN THE NEW WATER MAIN AND ALL EXISTING UTILITIES AT LOCATIONS WHERE THE WATER MAIN CROSSES THE EXISTING UTILITY.



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SITE GRADING AND UTILITY PLANS
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REVISION LOG

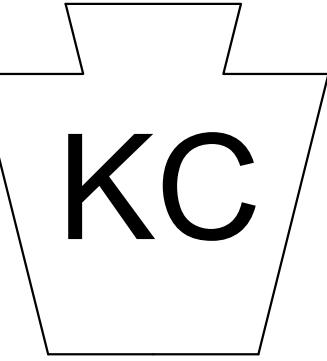
CREATED	10/20/2023
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DRAWING TITLE

WATER
NOTES

SHEET NO.

26

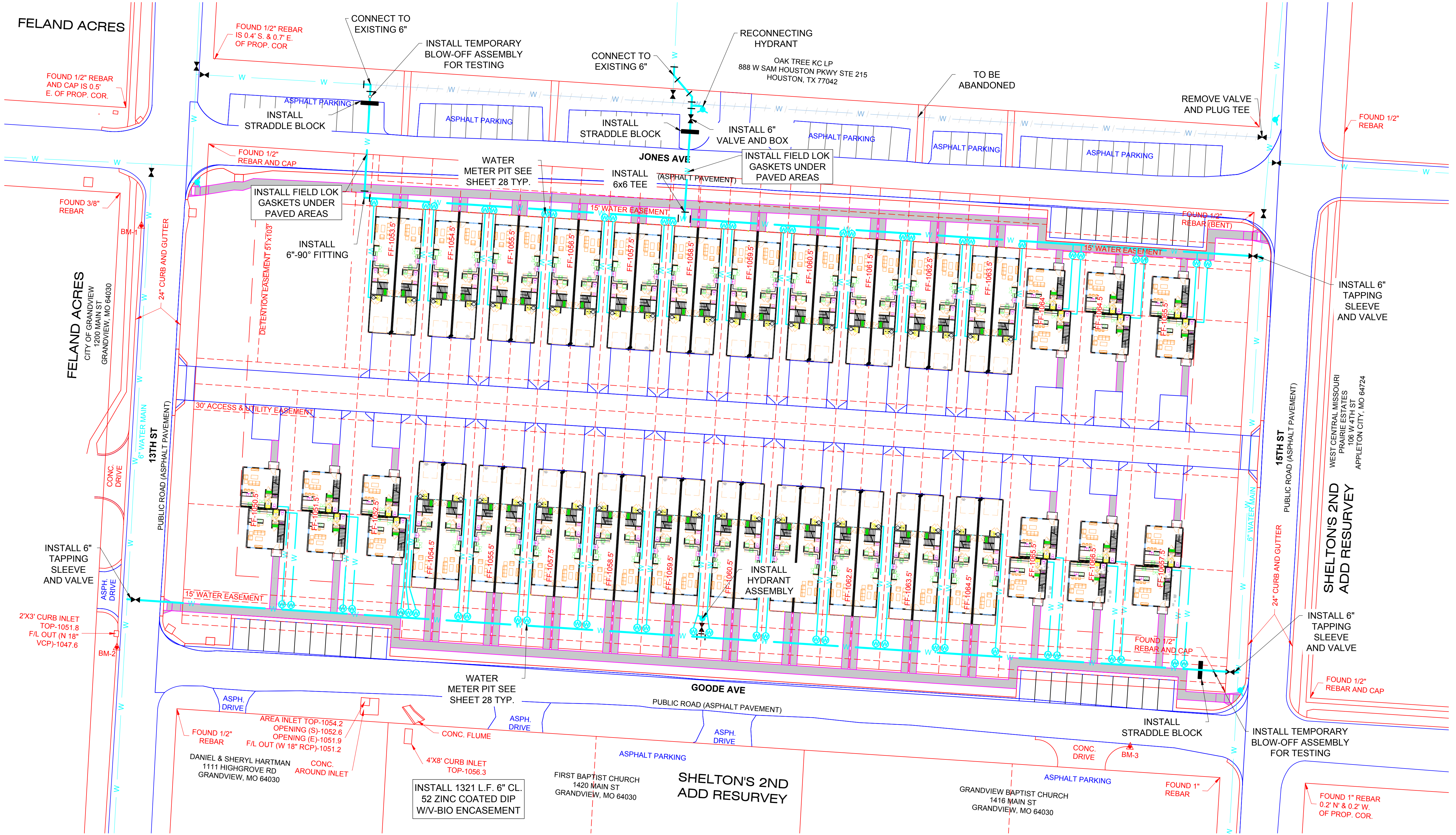


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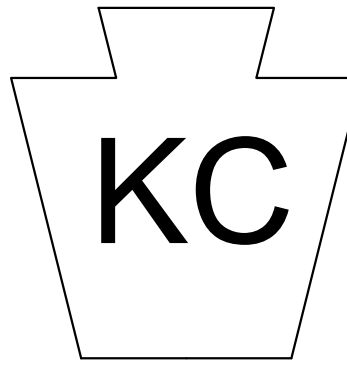
SITE GRADING AND UTILITY PLANS
1401 GOODE AVENUE
GRANDVIEW, MISSOURI



1 WATER PLAN
SCALE 1"=30'

REVISION LOG
CREATED 10/20/2023
REVISED 12/29/2023
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REVISED 06/06/2024

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WATER
PLAN
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SITE GRADING AND UTILITY PLANS
1401 GOODE AVENUE
GRANDVIEW, MISSOURI

GENERAL NOTES

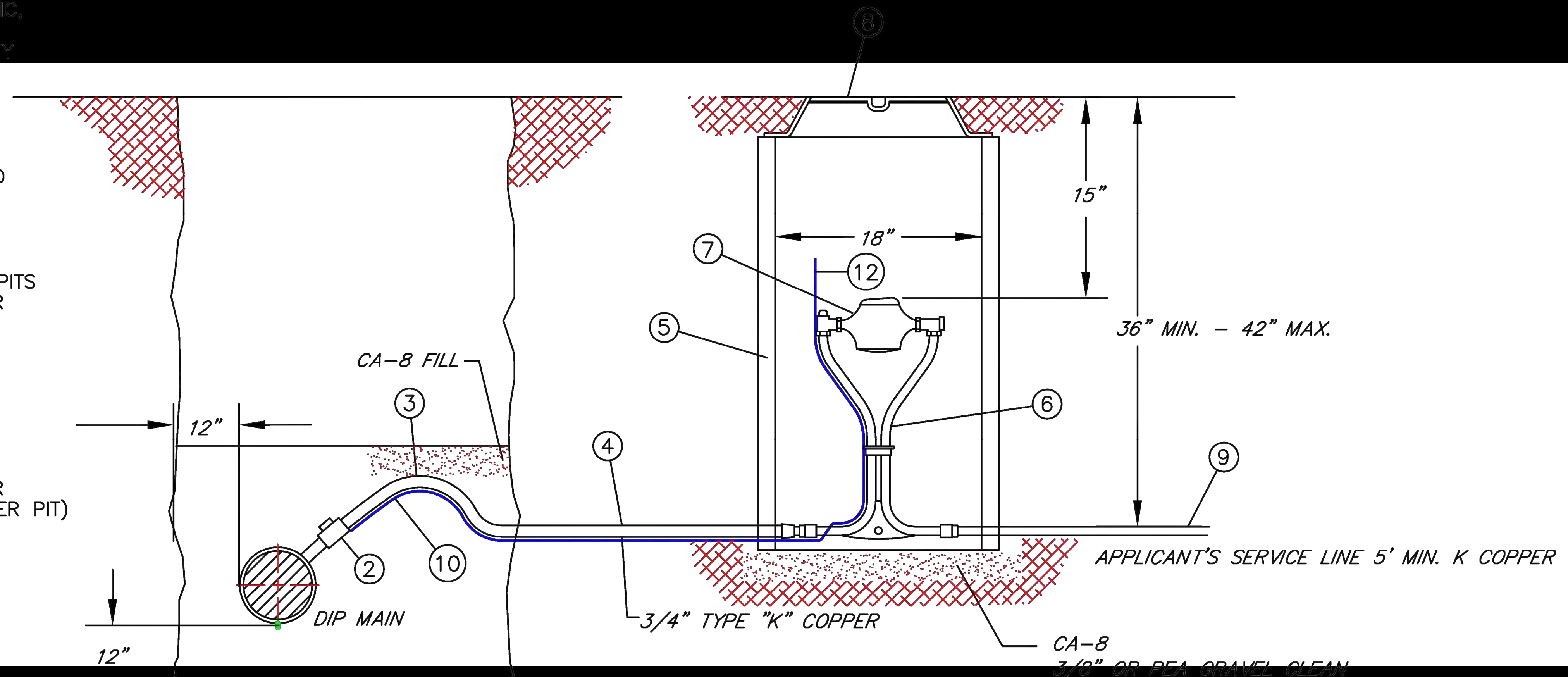
1. THIS METER PIT IS NOT TO BE LOCATED IN AREA SUBJECT TO VEHICULAR OR PEDESTRIAN TRAFFIC, OR IN CONCRETE PAVEMENT.
2. IF METER IS NOT LOCATED AT FRONT PROPERTY LINE, APPROVAL MUST BE OBTAINED FROM WATER DISTRICT No. 1.
3. ALL EXCAVATION AND INSTALLATION TO BE BY CONTRACTOR.
4. UNDER NO CIRCUMSTANCES SHALL ANY OTHER EQUIPMENT OF ANY DESCRIPTION BE INSTALLED IN THIS PIT.
5. SETTER SHALL BE CENTERED IN PIT.
6. DO NOT COVER COUPLINGS IN PIT WITH DIRT OR GRAVEL.
7. CONTRACTOR SHALL REMOVE EXISTING METER PITS TO BE ABANDONED, INCLUDING PIT AND METER SETTER.

LEGEND

1. WATER MAIN
2. CORPORATION STOP
3. GOOSENECK
4. DISTRICT'S SERVICE SHALL BE TYPE K COPPER
5. 18" PLASTIC METER PIT (1"-24" PLASTIC METER PIT)
6. METER SETTING
7. WATER METER
8. METER PIT RING & LID
9. APPLICANT'S SERVICE LINE 5' MIN. COPPER
10. #12 BLUE COPPER CLAD TRACER WIRE

NOTE:

Meter shall be reconnected after the lines have been sterilized and flushed.



TYPICAL SERVICE CONNECTION DETAIL

5/8" x 3/4" AND 1" STANDARD METER INSTALLATION

Scale: 1" = 1'-0"

NOTE:

1. SEE SERVICE APPLICATION BOOKLET FOR DEFINITIONS, RESPONSIBILITY OF APPLICANT AND GENERAL SPECIFICATIONS.
2. ALL REQUIREMENTS AND SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTIFICATION.

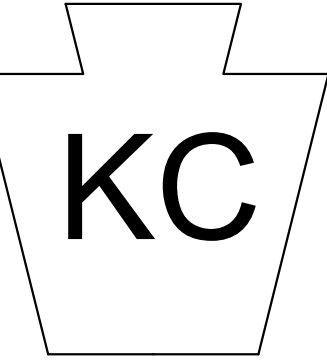
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WATER
DETAILS

SHEET NO.

28

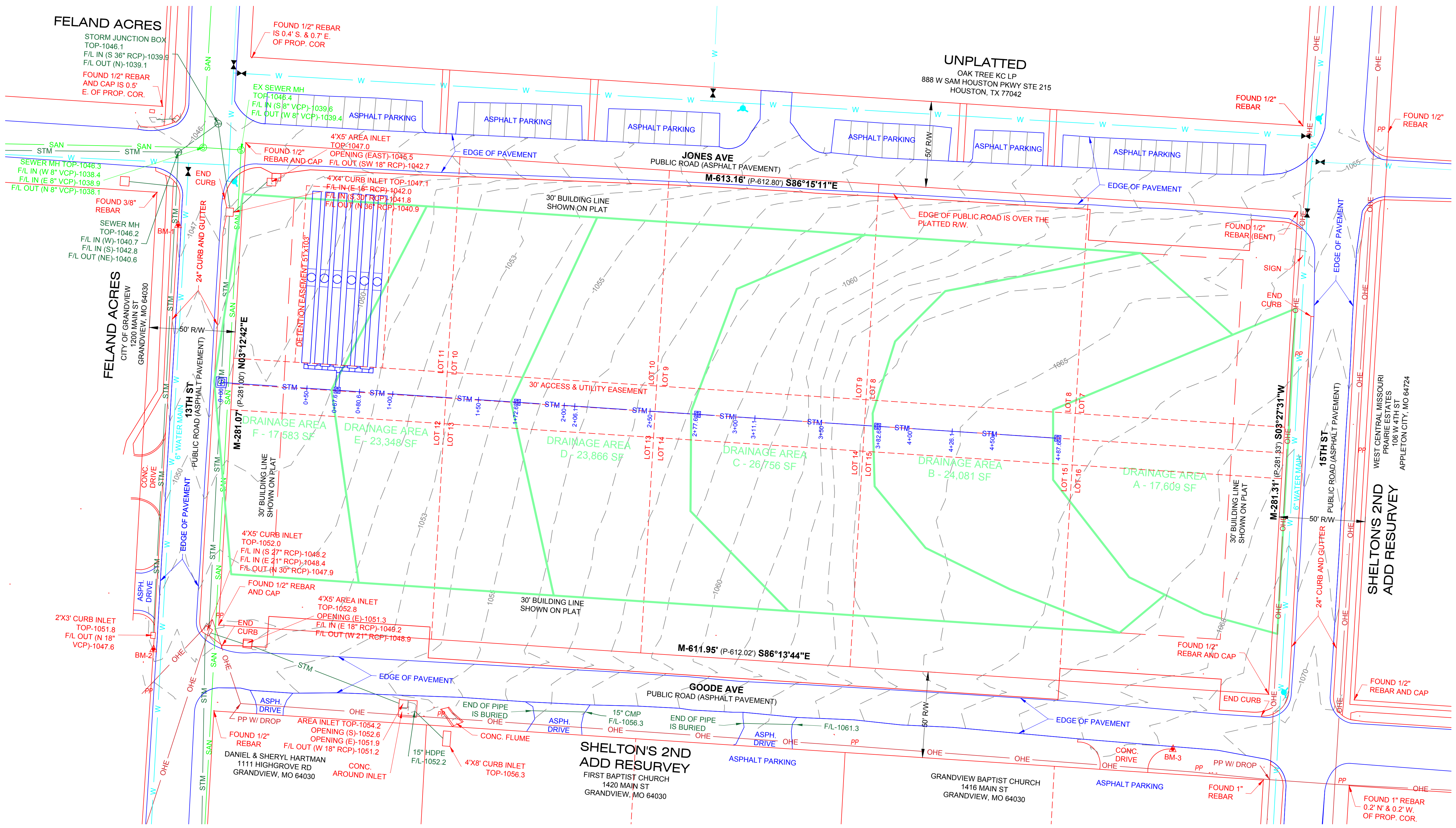


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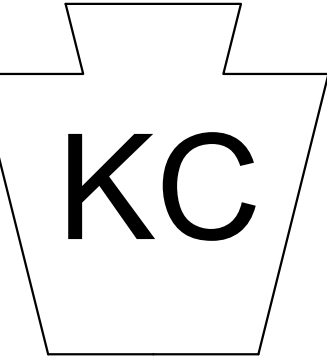
SITE GRADING AND UTILITY PLANS
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1 DRAINAGE AREAS PLAN
SCALE 1":30'

REVISION LOG
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DRAINAGE
AREAS PLAN
SHEET NO.

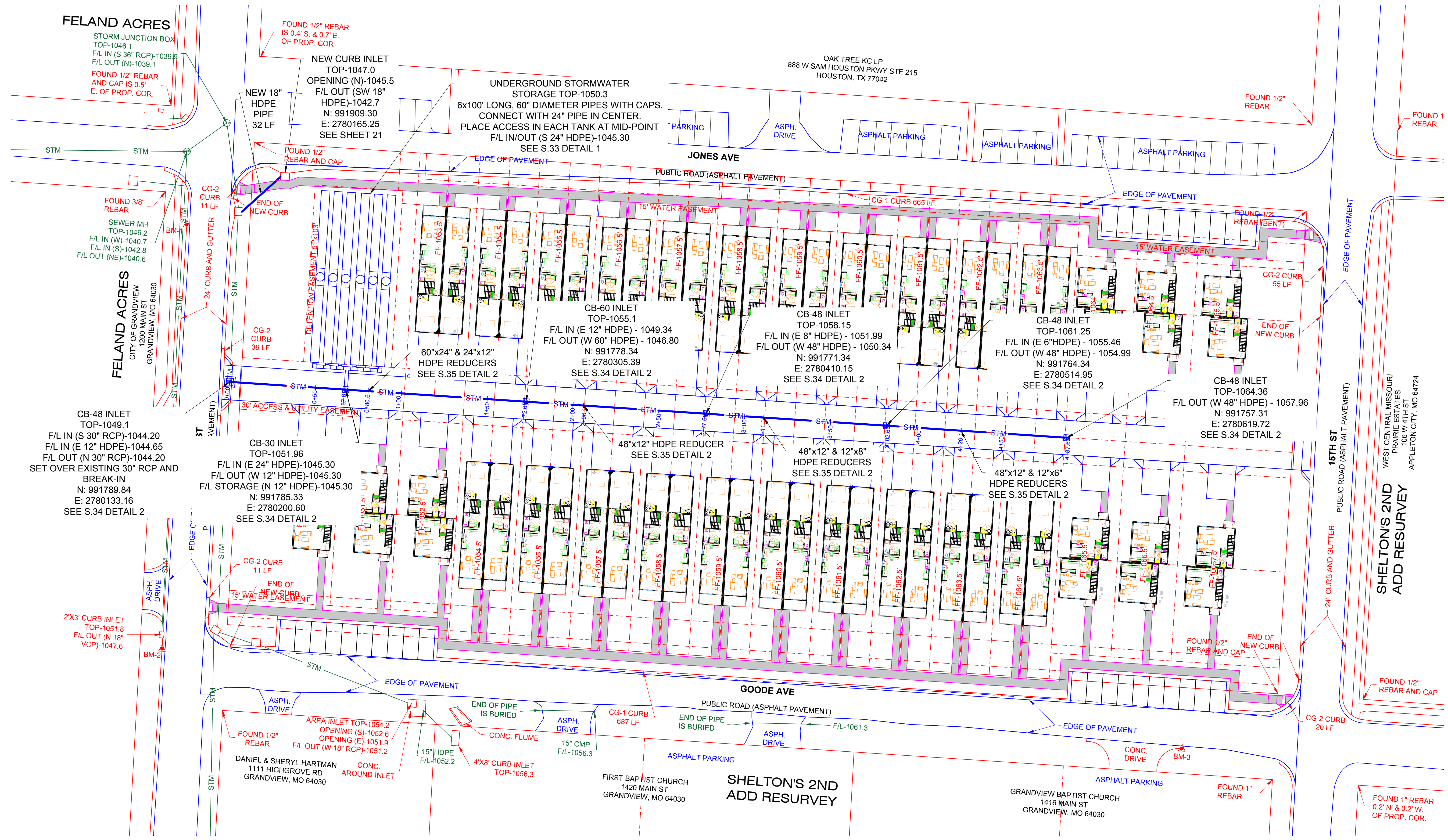


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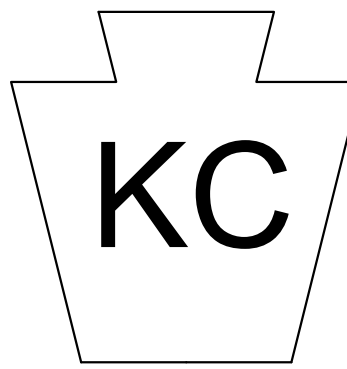


1 STORM SEWER PLAN
SCALE 1":30'

- NOTES:**
- FOR UNDERGROUND PIPE INSTALLATION SEE S.34 DETAIL 1
 - FOR PIPE MANHOLE CONNECTION SEE S.35 DETAIL 3

REVISION LOG
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STORM SEWER
PLAN
SHEET NO.

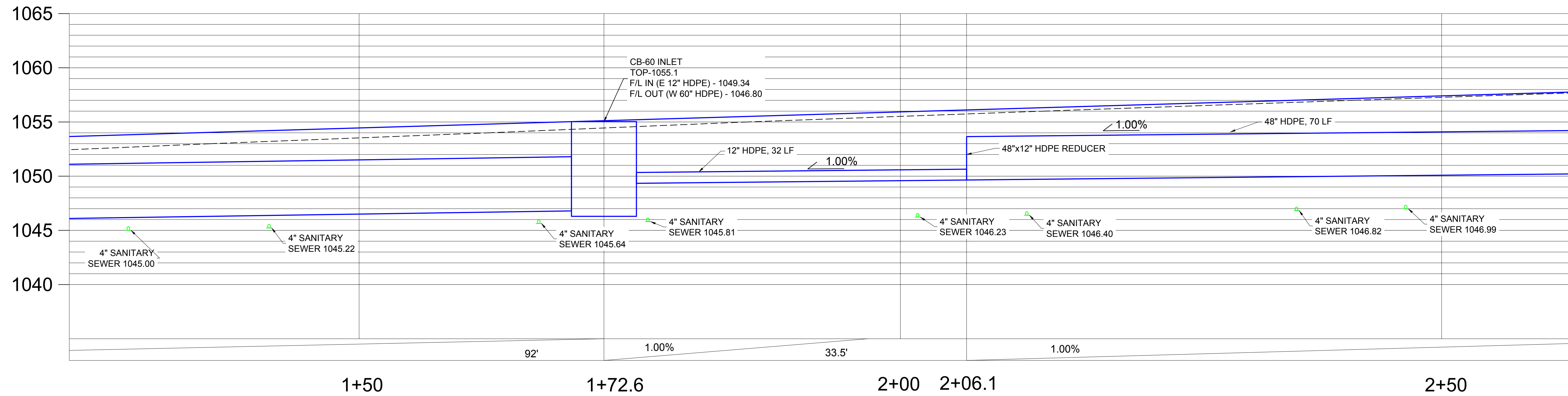
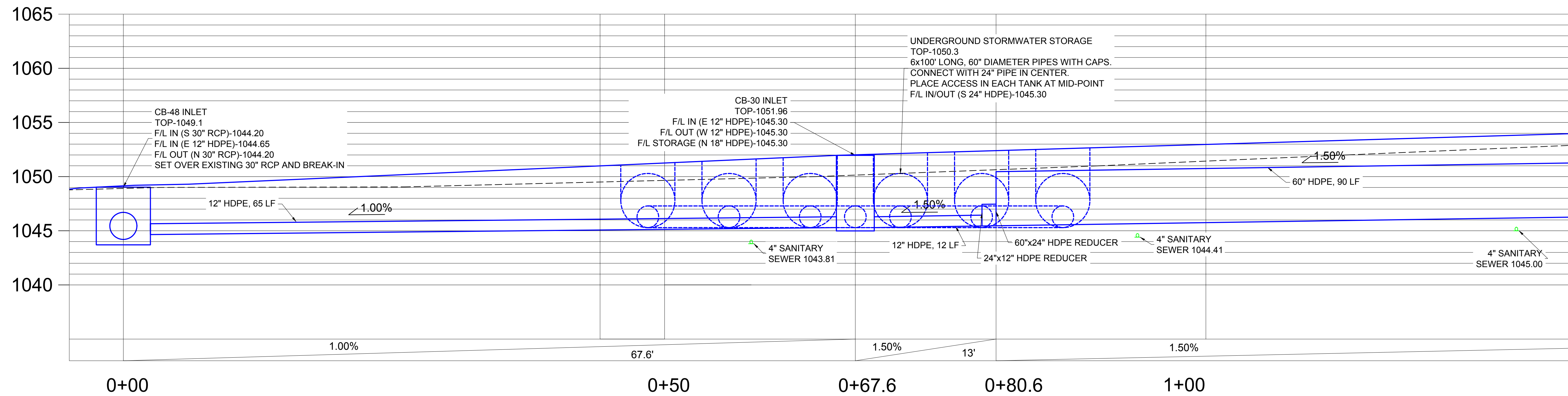


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1530 Duck Road
Grandview, MO
816-287-1696



6/10/2024

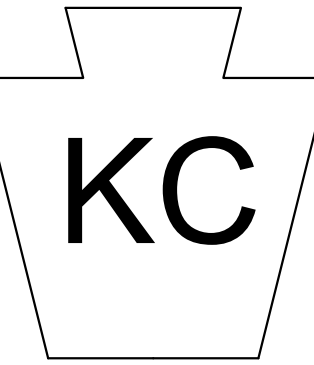
SITE GRADING AND UTILITY PLANS
1401 GOODE AVENUE
GRANDVIEW, MISSOURI



1 STORM SEWER PROFILES
SCALE 1"=5'

REVISION LOG
CREATED 10/20/2023
REVISED 12/29/2023
REVISED 2/15/2024
REVISED 06/06/2024

DRAWING TITLE
STORM SEWER
PROFILE
SHEET NO.

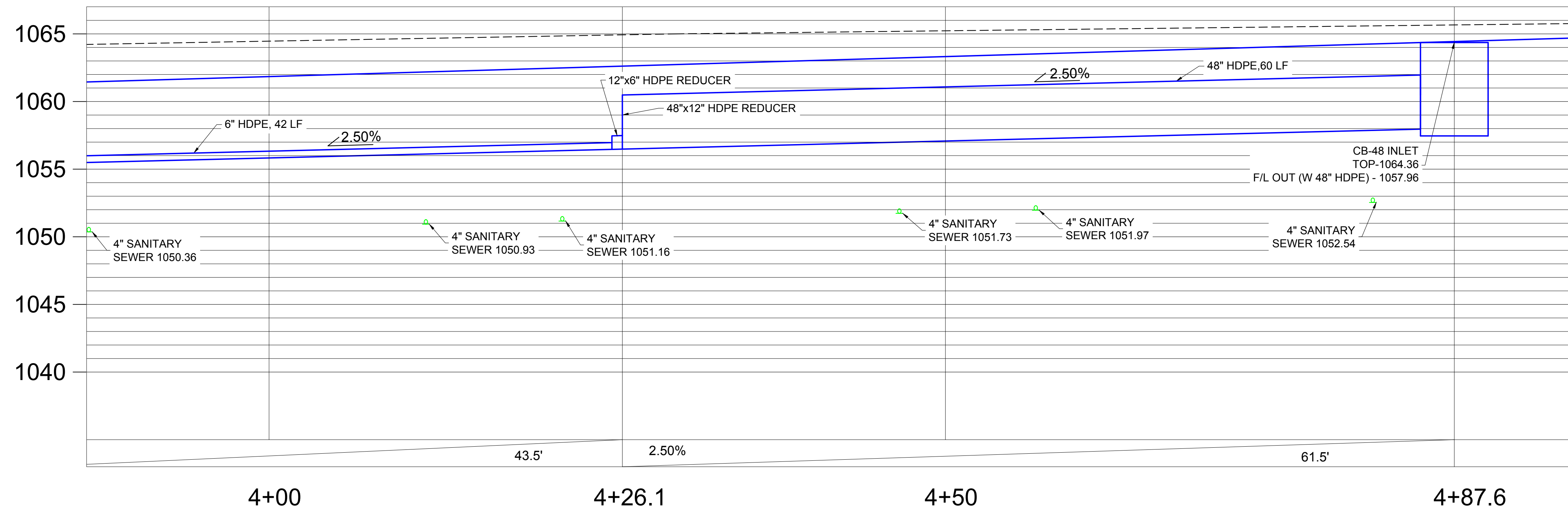
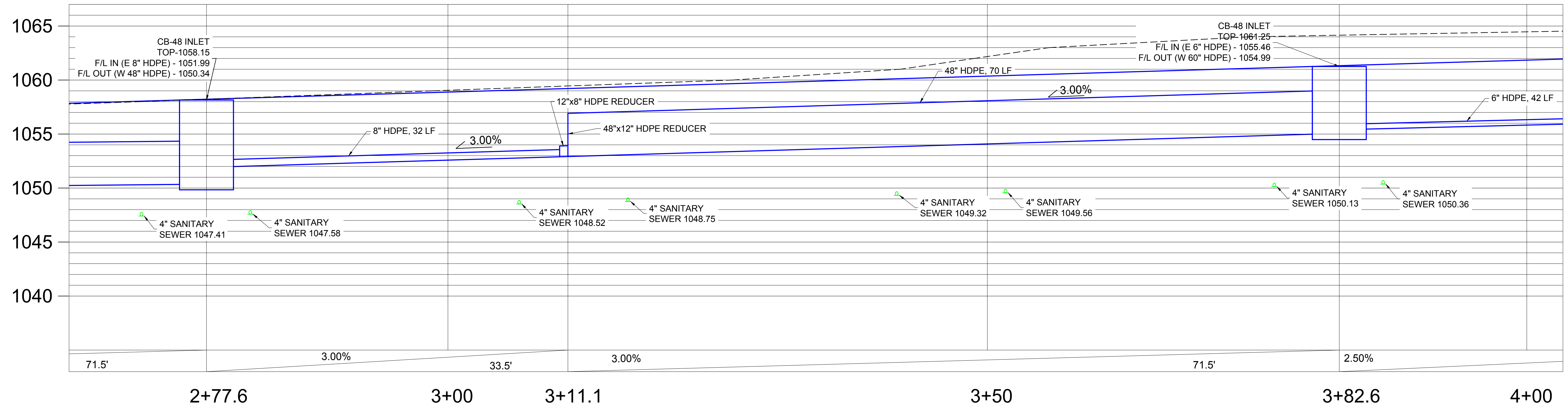


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SITE GRADING AND UTILITY PLANS
1401 GOODE AVENUE
GRANDVIEW, MISSOURI



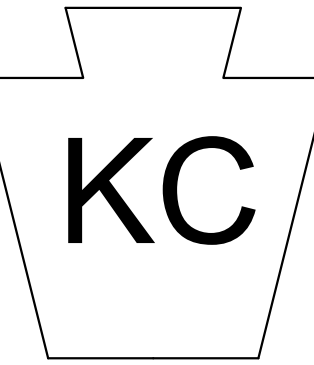
2 STORM SEWER PIPE PROFILES
SCALE 1":5'

REVISION LOG

CREATED	10/20/2023
REVISED	12/29/2023
REVISED	2/15/2024
REVISED	06/06/2024

DRAWING TITLE
STORM SEWER
PROFILE
SHEET NO.

32

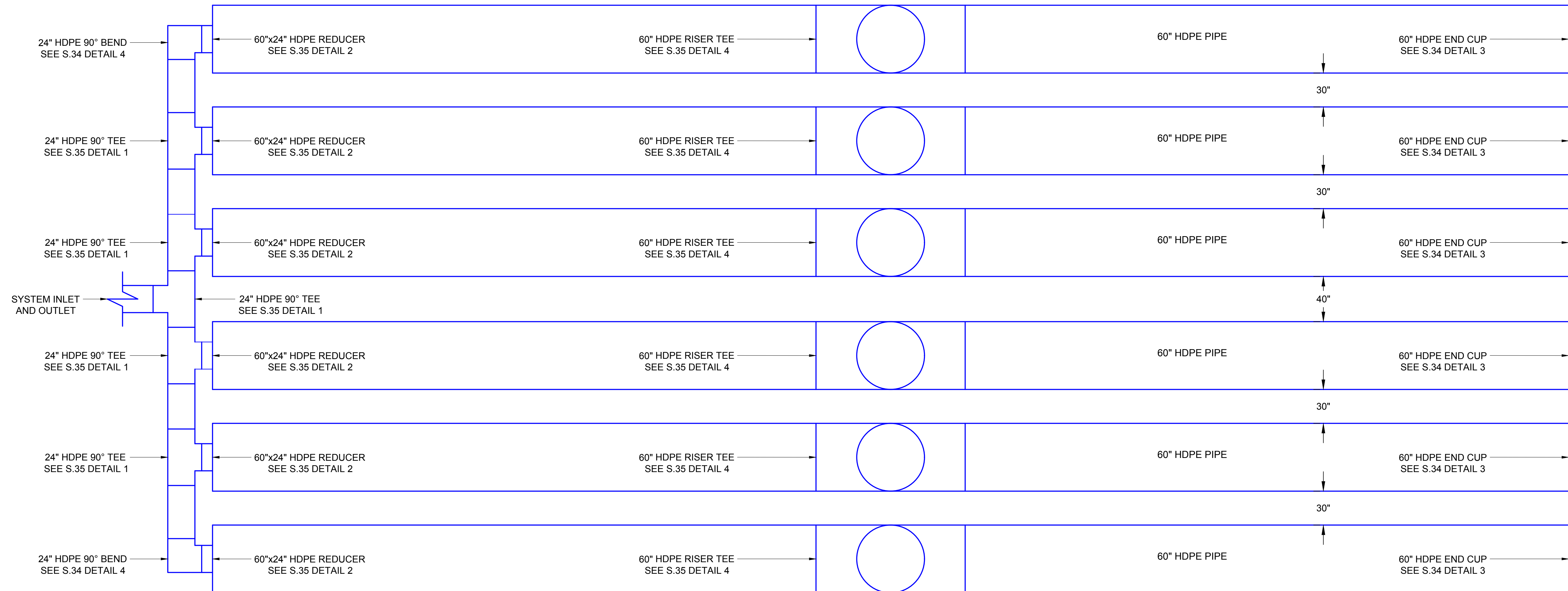


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SITE GRADING AND UTILITY PLANS
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GRANDVIEW, MISSOURI

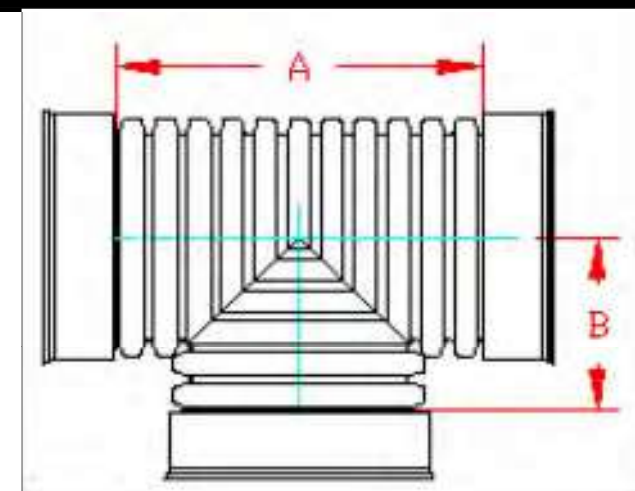


1 STORM WATER STORAGE PLAN
SCALE 1":4'

REVISION LOG
CREATED 10/20/2023
REVISED 12/29/2023
REVISED 2/15/2024
REVISED 06/06/2024

DRAWING TITLE
STORM WATER
STORAGE PLAN
SHEET NO.

1866AN	18 in (450 mm)	42.9 in (1089 mm)	21.4 in (545 mm)	*
1866AN85B	18 in (450 mm)	26.8 in (681 mm)	13.4 in (340 mm)	ST
1866AN65B	18 in (450 mm)	26.8 in (681 mm)	13.4 in (340 mm)	WT
2467AN	24 in (600 mm)	50.4 in (1280 mm)	25.2 in (640 mm)	*
2467AN85B	24 in (600 mm)	37.8 in (960 mm)	18.9 in (480 mm)	ST
2467AN65B	24 in (600 mm)	37.8 in (960 mm)	18.9 in (480 mm)	WT



ST & WT (INCLUDES 3 GASKETS)

* = PLAIN END
 ST = SOIL TIGHT
 WT = WATER TIGHT
 ** LIMITED AVAILABILITY. PLEASE SEE INJECTION MOLDED FITTING SECTION FOR OTHER AVAILABLE FITTINGS

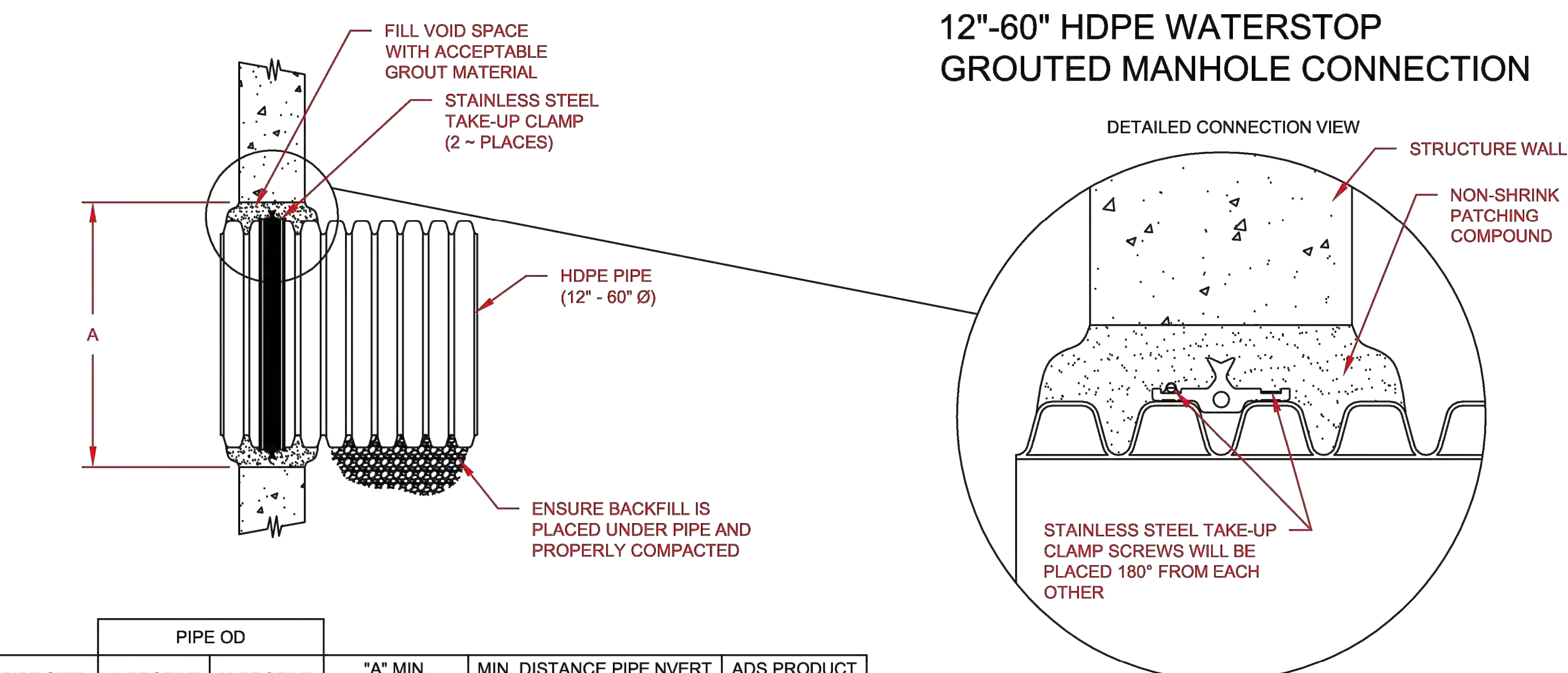
NOTE: ALL FITTINGS DIMENSIONS ARE FOR REFERENCE ONLY

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DRAWING #:	2400
DRAWN BY:	JCB 05.23.07
APPROVED BY:	JCB 06.26.07
REVISIONS:	TJR 4/28/2016

1 DUAL WALL FABRICATED TEES DETAIL NTS



12"-60" HDPE WATERSTOP GROUDED MANHOLE CONNECTION

PIPE SIZE	PIPE OD		"A" MIN. HOLE DIA.	MIN. DISTANCE PIPE INVERT TO STRUCTURE INVERT	ADS PRODUCT CODES
	A-PROFILE	H-PROFILE			
12" (300mm)	14.5" (368.3mm)	N/A	19.5" (495.3mm)	3.7" (94.0mm)	1202PS
15" (375mm)	17.6" (447.0mm)	N/A	23.00" (584.2mm)	4.0" (101.6mm)	1502PS
18" (450mm)	21.2" (538.5mm)	N/A	26.50" (673.1mm)	4.2" (106.7mm)	1802PS
24" (600mm)	27.8" (706.1mm)	N/A	33.25" (844.5mm)	4.5" (114.3mm)	2402PS
30" (750mm)	35.1" (891.5mm)	N/A	40.50" (1028.7mm)	5.2" (132.1mm)	3002PS
36" (900mm)	41.1" (1043.9mm)	41.1" (1043.9mm)	47.00" (1193.8mm)	5.5" (139.7mm)	3602PS
42" (1050mm)	47.7" (1211.6mm)	47.7" (1219.2mm)	53.00" (1346.2mm)	5.7" (144.8mm)	4202PS
48" (1200mm)	53.6" (1361.4mm)	54.0" (1371.6mm)	59.00" (1498.6mm)	5.7" (144.8mm)	4802PS
60" (1500mm)	66.3" (1684.0mm)	67.3" (1709.4mm)	72.00" (1828.8mm)	6.4" (162.6mm)	6002PS

NOTES:
 PERFORMANCE HIGHLY DEPENDENT ON INSTALLATION. CONTRACTOR MUST ENSURE MANHOLE GASKET IS UNIFORMLY SEATED AROUND STRUCTURE ADAPTER. EXTRA PRECAUTIONS MUST BE TAKEN TO PREVENT DIFFERENTIAL SETTLEMENT BETWEEN THE PIPE AND MANHOLE.

SEE STANDARD DETAIL STD-201 AND INSTALLATION GUIDE 1.05: WATERSTOP INSTALLATION FOR INSTALLATION RECOMMENDATIONS.

3	ADDED METRIC UNITS	TJR	01/30/16		
REV.	DESCRIPTION	BY	MM/DD/YY	CHKD	

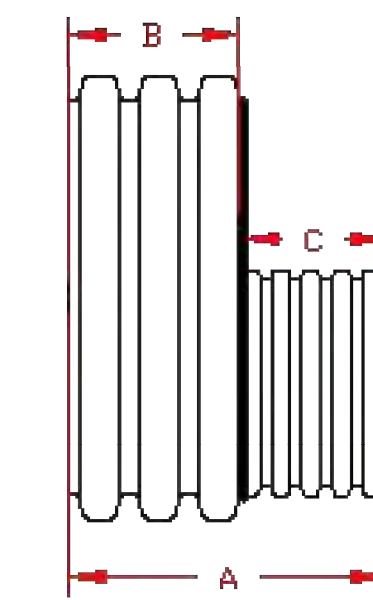
12"-60" HDPE GROUDED WATERSTOP MH CONNECTION

DRAWING NUMBER: STD-203

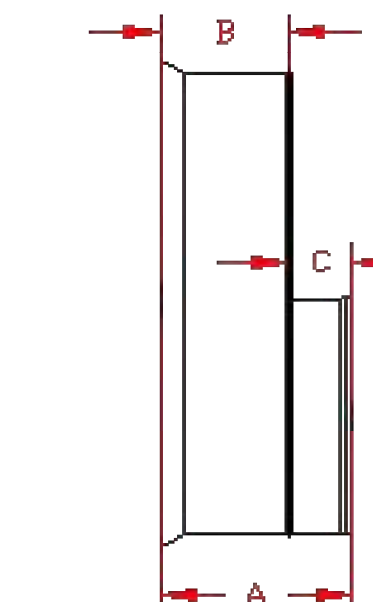
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3 HDPE PIPE MANHOLE CONNECTION DETAIL NTS

PART #	PIPE SIZE	A	B	C	JOINT
6077AN	60 x 24 in (1500 x 600 mm)	33.6 in (852 mm)	18.0 in (457 mm)	15.6 in (395 mm)	*
6077AN85B	60 x 24 in (1500 x 600 mm)	16.6 in (421 mm)	9.6 in (243 mm)	7.0 in (178 mm)	ST
6077AN65B	60 x 24 in (1500 x 600 mm)	16.6 in (421 mm)	9.6 in (243 mm)	7.0 in (178 mm)	WT
6078AN	60 x 30 in (1500 x 750 mm)	34.5 in (876 mm)	18.0 in (457 mm)	16.5 in (419 mm)	*
6078AN85B	60 x 30 in (1500 x 750 mm)	21.3 in (542 mm)	9.6 in (243 mm)	11.8 in (298 mm)	ST
6078AN65B	60 x 30 in (1500 x 750 mm)	21.3 in (542 mm)	9.6 in (243 mm)	11.8 in (298 mm)	WT
6079AN	60 x 36 in (1500 x 900 mm)	38.6 in (979 mm)	18.0 in (457 mm)	20.6 in (522 mm)	*
4874AN	48 x 12 in (1200 x 300 mm)	25.0 in (634 mm)	8.8 in (223 mm)	6.5 in (165 mm)	*
4874AN85B	48 x 12 in (1200 x 300 mm)	15.3 in (388 mm)	8.8 in (223 mm)	6.5 in (165 mm)	ST
4874AN65B	48 x 12 in (1200 x 300 mm)	18.5 in (470 mm)	12.0 in (305 mm)	6.5 in (165 mm)	WT
2474AN	24 x 12 in (600 x 300 mm)	18.7 in (474 mm)	9.5 in (240 mm)	9.2 in (234 mm)	*
2474AN85B	24 x 12 in (600 x 300 mm)	13.5 in (343 mm)	7.0 in (178 mm)	6.5 in (165 mm)	ST
2474AN65B	24 x 12 in (600 x 300 mm)	13.5 in (343 mm)	7.0 in (178 mm)	6.5 in (165 mm)	WT
1271AN	12 x 6 in (300 x 150 mm)	12.0 in (304 mm)	5.8 in (146 mm)	6.2 in (157 mm)	*
1271AN65B	12 x 6 in (300 x 150 mm)	10.0 in (254 mm)	6.5 in (165 mm)	3.5 in (89 mm)	WT
1272AN	12 x 8 in (300 x 200 mm)	12.5 in (317 mm)	5.8 in (146 mm)	6.7 in (171 mm)	*
1272AN65B	12 x 8 in (300 x 200 mm)	10.8 in (273 mm)	6.5 in (165 mm)	4.3 in (108 mm)	WT
1273AN	12 x 10 in (300 x 250 mm)	13.3 in (338 mm)	5.8 in (146 mm)	7.6 in (192 mm)	*
1273AN65B	12 x 10 in (300 x 250 mm)	11.8 in (298 mm)	6.5 in (165 mm)	5.3 in (133 mm)	WT

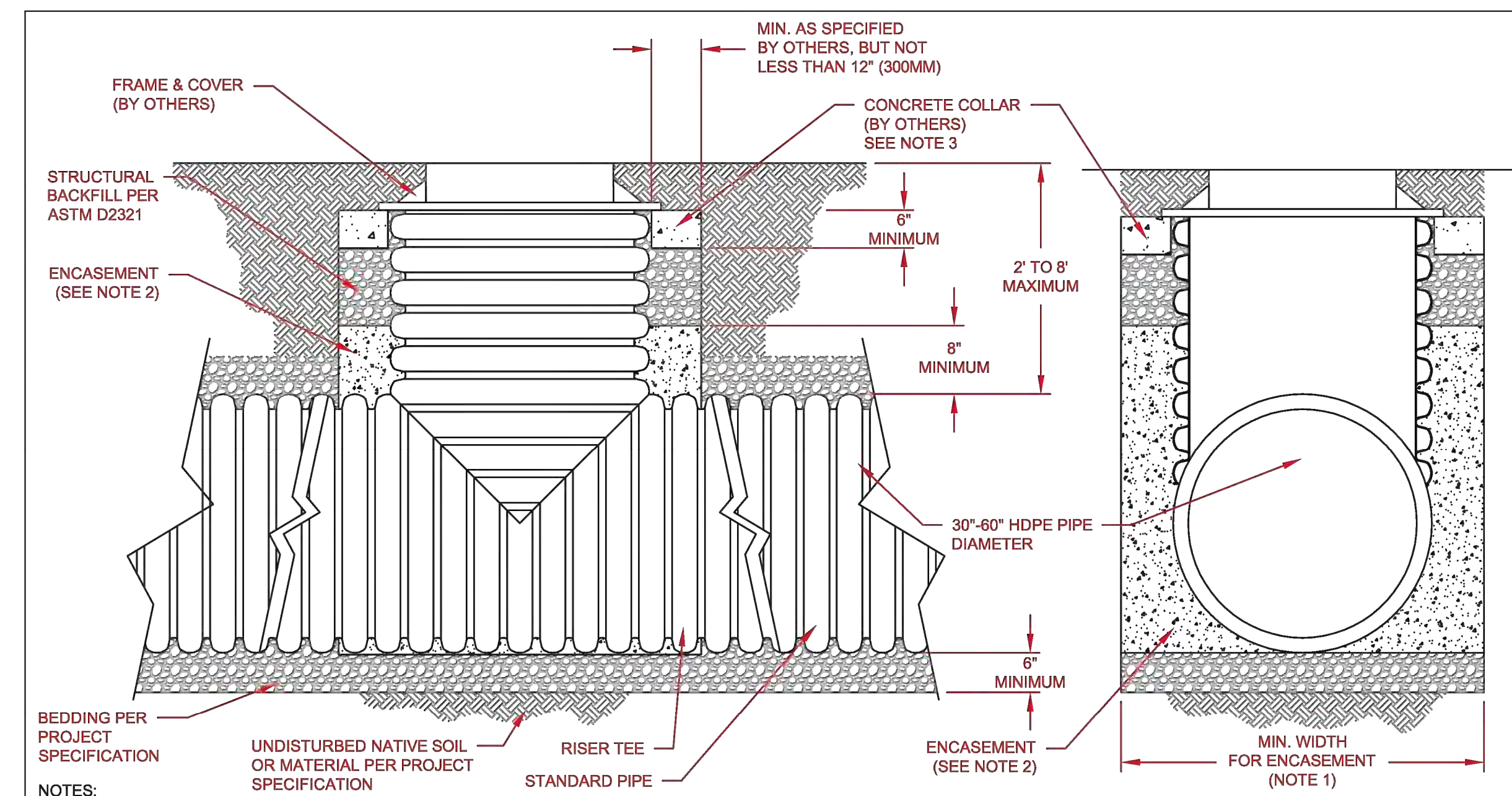


PLAIN END



ST & WT (INCLUDES 2 GASKETS)

2 DUAL WALL FABRICATED REDUCERS DETAIL NTS



NOTES:

- RECOMMENDED MINIMUM TRENCH WIDTH FOR ENCASEMENT AROUND RISER TEE = O.D. + 16". STANDARD PIPE INSTALLATION MAY REQUIRE A WIDER TRENCH. FOR MINIMUM TRENCH WIDTHS OF STANDARD PIPE REFERENCE THE DRAINAGE HANDBOOK
- ENCASEMENT: FLOWABLE MATERIAL THAT CURES WITH TIME (SLURRY, FLOWABLE FILL, CLSM, CONCRETE, ETC.), DESIGNED BY OTHERS (ENGINEER OF RECORD, CONTRACT ENGINEER, ETC.) FOR THE SPECIFIC PROJECT AND SITE CONDITIONS TO CARRY ALL ANTICIPATED LOADING
- CONCRETE COLLAR SHALL BE DESIGNED BY OTHERS (ENGINEER OF RECORD, CONTRACT ENGINEER, ETC.) FOR THE SPECIFIC PROJECT AND SITE CONDITIONS TO CARRY ALL ANTICIPATED LOADING.
- FOR PROJECTS WHERE COVER EXCEEDS THE MINIMUM OR MAXIMUM VALUES SHOWN, CONTACT ADS FOR SPECIFIC DESIGN CONSIDERATIONS.

ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DEPICT THE COMPONENTS AS REQUESTED. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

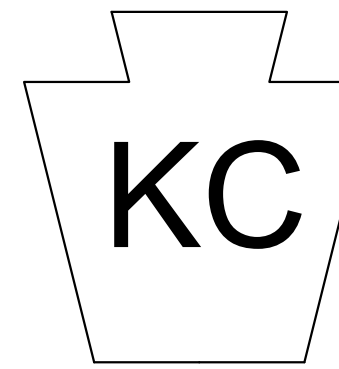
4 HDPE RISER TEE DETAIL NTS

3	RENAMED AND RENUMBERED	TJR	02/15/16		
REV.	DESCRIPTION	BY	MM/DD/YY	CHKD	

HDPE RISER TEE INSTALLATION (30"-60in PIPE)

DRAWING NUMBER: STD-405

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 Grandview, MO
 816-287-1696



6/10/2024

SITE GRADING AND UTILITY PLANS
 1401 GOODE AVENUE
 GRANDVIEW, MISSOURI

REVISION LOG

CREATED	10/20/2023
REVISED	12/29/2023
REVISED	2/15/2024
REVISED	06/06/2024

DRAWING TITLE
 STORM SEWER
 DETAILS

SHEET NO.

35



1 SITE PHOTOMETRIC PLAN - WEST
SCALE: 1/16" = 1'-0"

PHOTOMETRIC PLAN GENERAL NOTES:

- PHOTOMETRIC CALCULATIONS PER BASIS OF DESIGN. ALTERNATE LIGHT FIXTURES OR CHANGES IN MOUNTING HEIGHTS WILL REQUIRE RECALCULATION.
- POLE BASES SHALL BE AUGER-IN TYPE SUITABLE FOR POLE HEIGHT AND WEIGHT BASED ON MANUFACTURERS RECOMMENDATIONS.

LIGHT FIXTURE SCHEDULE

Symbol	Label	Manufacturer	Catalog	LED SOURCE	LUMEN OUTPUT	LLF	Input Power
○	SL1	LITHONIA LIGHTING	RADPT-P3-30K-SYM	YES	3,189	0.9	25

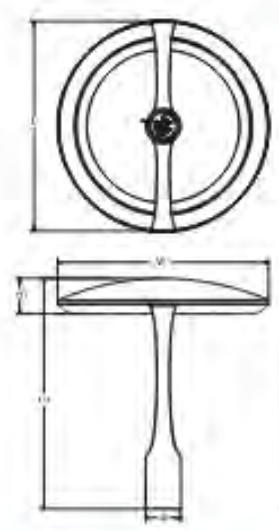
CALCULATION SUMMARY

Description	Symbol	Units	Average	Max.	Min.
Sidewalk East	+	fc	0.51	1.2	0.0
Sidewalk West	+	fc	0.67	1.2	0.0
Parking Area 1	+	fc	0.35	1.0	0.1
Private Drive	+	fc	0.47	1.2	0.0



Radean Post Top LED Area Luminaire

Specifications
 EPA: 1102 W (81,975 ft)
 Length: 24" (610mm)
 Width: 24" (610mm)
 H1 Luminaire Height: 67" (1702mm)
 H2 Luminaire Height: 29" (736mm)
 Weight: 38lbs (17.24kg)



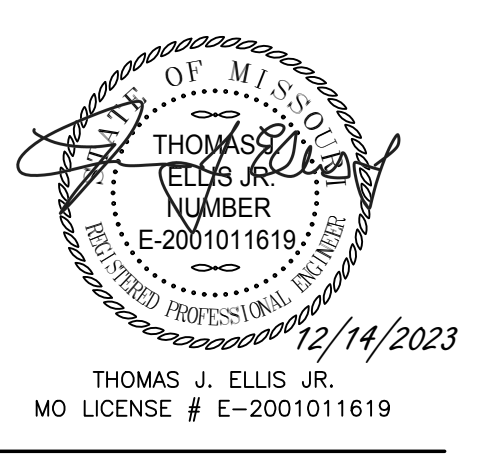
Introduction
 The architecturally-inspired shape of the RADEAN™ post top area luminaire embodies the grace and strength of the RADEAN family. The twin copper-core cast aluminum arms support the slender superstructure, creating a beautiful sculpture by day transforming into a beacon of comfort by night. Triangular arms redirect reflection maintaining its visually quiet appearance. With sleek lines and simple silhouettes, these LED luminaires use specialized lighting and visual comfort to transform common areas like courtyards, outdoor retail locations, universities and corporate campuses into pedestrian-friendly nighttime environments.

Ordering Information: EXAMPLE: RADPT LED P3 30K SYM MVOLT PT4 PE DNAXD

Symbol	Manufacturer	Model	Color	Mounting	Notes
SL1	LITHONIA LIGHTING	RADPT-P3-30K-SYM	3000K	POST TOP	3000K, 3000LM, 24" x 24"

LITHONIA LIGHTING COMMERCIAL OUTDOOR • One Lithonia Way • Gwynn, Georgia 30242 • Phone: 1-800-765-8877 • www.lithonia.com

1100 Main Street, 4th Floor
 Kansas City, MO 64105
 Kansas COA: E-2361
 913-689-9449
 contact@5by5eng.com
 5by5eng.com



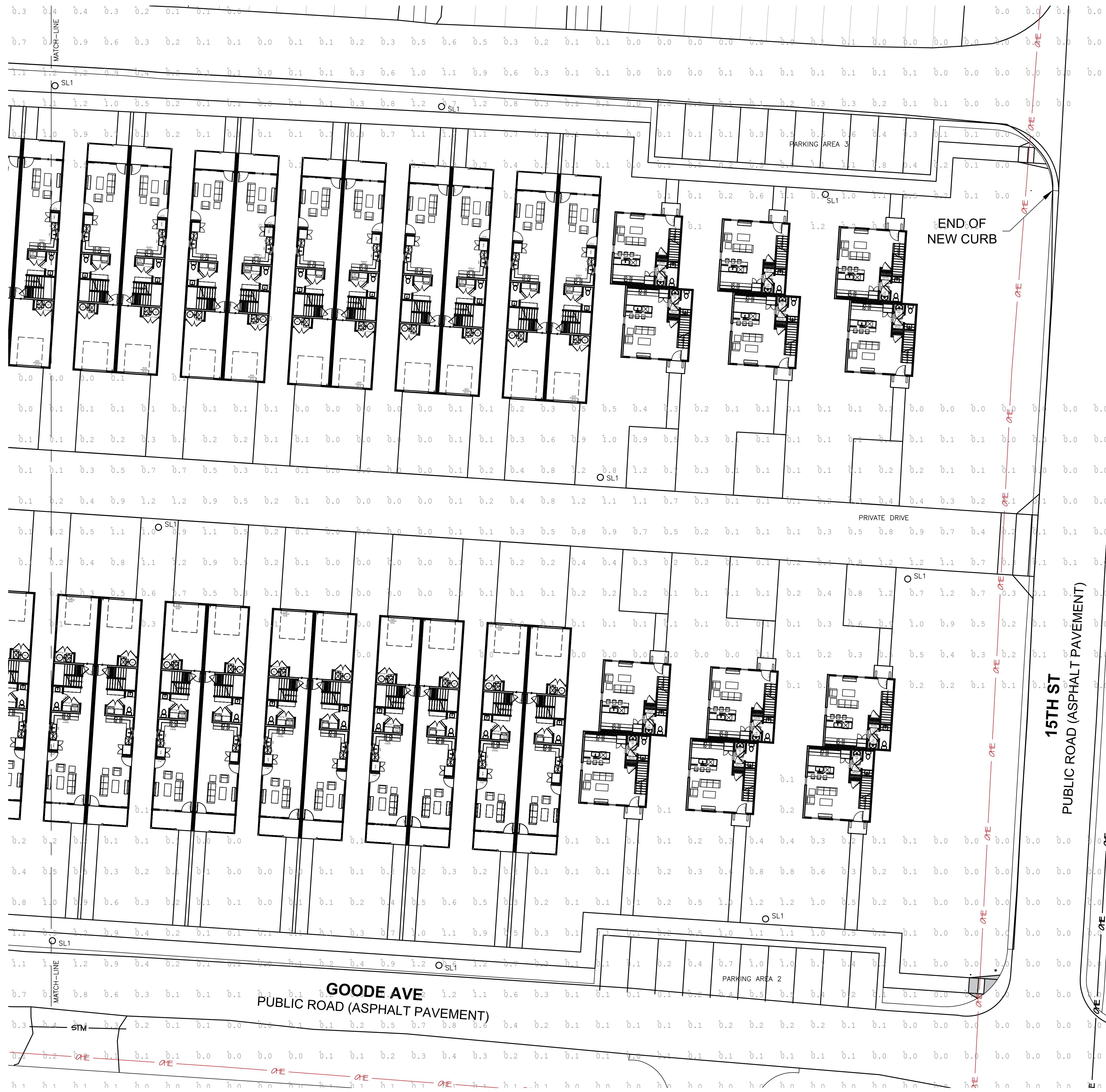
THOMAS J. ELLIS JR.
 MO LICENSE # E-2001011619

A New Development:
Goode Avenue Townhomes
 Street Lighting Photometrics
 1401 Goode Avenue
 Grandview, MO 64030

FOR CITY REVIEW - 12/14/2023

E001

SITE PHOTOMETRIC PLAN - WEST



- PHOTOMETRIC PLAN GENERAL NOTES:**
1. PHOTOMETRIC CALCULATIONS PER BASIS OF DESIGN. ALTERNATE LIGHT FIXTURES OR CHANGES IN MOUNTING HEIGHTS WILL REQUIRE RECALCULATION.
 2. POLE BASES SHALL BE AUGER-IN TYPE SUITABLE FOR POLE HEIGHT AND WEIGHT BASED ON MANUFACTURERS RECOMMENDATIONS.

CALCULATION SUMMARY

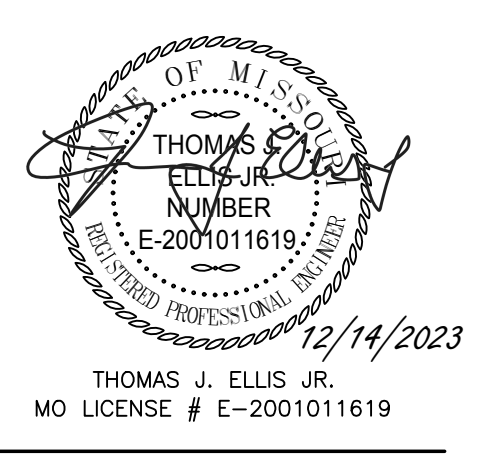
Description	Symbol	Units	Average	Max.	Min.
Sidewalk East	+	fc	0.51	1.2	0.0
Sidewalk West	+	fc	0.67	1.2	0.0
Parking Area 2	+	fc	0.37	1.0	0.1
Parking Area 3	+	fc	0.50	1.1	0.1
Private Drive	+	fc	0.47	1.2	0.0

1 SITE PHOTOMETRIC PLAN - EAST
SCALE: 1/16" = 1'-0"

1100 Main Street, 4th Floor
Kansas City, MO 64105
Kansas COA: E-2361
913-889-9449
contact@5by5eng.com
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5BY5

ENGINEERS



A New Development:
Goode Avenue Townhomes
Street Lighting Photometrics
 1401 Goode Avenue
 Grandview, MO 64030

FOR CITY REVIEW - 12/14/2023

E002

SITE PHOTOMETRIC PLAN - EAST