

DRAINAGE REPORT

SITE LOCATION

The existing site is an approximate 4.25-acre piece of land located west of 3rd Street and south of I-40 and Indian School in Albuquerque, New Mexico. The site can be accessed via 3rd Street. (see vicinity map this sheet)

EXISTING CONDITIONS

The existing site is estimated at 4.25 acres and is currently developed as a city park and existing fire station. The site is relatively flat with a very mild slope to the south and west. The site does not lie within a 100-year FEMA floodplain. However, 3rd Street and McKnight both have a FEMA designated Zone AO floodplain as indicated on the FEMA panel on this sheet. Discharge from the site must be limited to existing conditions as indicated in the Mid-Valley DMP.

PROPOSED CONDITIONS

The proposed project will consist of a new fire station building, a new driveway entrance from 3rd Street and parking lot areas on the west side of the site. The site will also have several landscape areas and a large water harvesting feature on the northwest side of the property. The site has been divided into two drainage basins, Basin A and B. Basin A is the total site area of 3.05 acres that will be developed as the new fire station site and will be routed to the new detention pond. Basin B is estimated at 1.2 acres and consists of the southern portion of the overall site that represents the existing fire station development and what will free discharge from the site.

Storm water will be routed to the new detention pond via surface flow and underground storm sewer pipes that will collect roof drainage from the building and the south parking lot area. A 12" storm sewer outfall pipe has been added to the pond so that the pond can slowly discharge into the existing storm sewer system in McKnight at a controlled rate per the Mid-Valley DMP. An orifice plate will be added to the inlet of the 12" storm drainpipe as needed to control the release rate from the pond.

CONCLUSIONS

When fully developed as indicated on the grading and drainage plan, runoff from the new fire station site will discharge to a water harvest feature on the northwest side of the site. Basin A will be routed through the proposed detention pond. Runoff from the detention pond discharge to the McKnight storm drain system at a controlled rate per the Mid-Valley DMP. Basin B will free discharge from the site as it does under existing conditions.

HYDROLOGY CALCULATIONS

| Basin | Area (Ac.) | Land Treatment Factors | | | | Ew (in) | V(100-6) (in) | V(100-24) (in) | Q(100) (cfs) |
|---------------------|------------|------------------------|-------|-------|-------|---------|---------------|----------------|--------------|
| | | A | B | C | D | | | | |
| Existing Conditions | | | | | | | | | |
| Site | 4.250 | 0.000 | 2.960 | 0.000 | 1.290 | 1.264 | 0.448 | 0.49 | 12.58 |
| Total | 4.250 | | | | | | | 0.49 | 12.58 |
| Proposed Conditions | | | | | | | | | |
| A | 3.050 | 0.000 | 0.000 | 1.820 | 1.230 | 1.55 | 0.395 | 0.44 | 10.89 |
| B | 1.200 | 0.000 | 0.000 | 0.320 | 0.880 | 1.98 | 0.195 | 0.23 | 4.50 |
| Total | 4.250 | | | | | | | 0.66 | 15.68 |

WATER HARVEST AREA

| WHA #1 | | | |
|-------------------|--------------|-------------|-----------------|
| Pond Rating Table | | | |
| Slope | | | |
| Elev. (ft) | Area (sq ft) | Volume (cf) | Cum Volume (cf) |
| 61 | 3766 | 0 | 0 |
| 62 | 5127 | 4446.500 | 4446.500 |
| 63 | 6645 | 5886.500 | 10332.500 |

STORM WATER QUALITY CALCULATIONS

$SWQV = (0.42" / 12 * 91,511 \text{ SF}) = 3,217 \text{ CUBIC FEET}$

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
PRELIMINARY APPROVED
DATE: 7/12/2024
BY: [Signature]
HydroTeam # H14D120
THESE PLANS AND/OR REPORT ARE CONCEPTUAL ONLY. MORE INFORMATION MAY BE NEEDED IN THEM AND SUBMITTED TO HYDROLOGY FOR BUILDING PERMIT APPROVAL.

GENERAL NOTES:

- EXISTING TOPOGRAPHIC SURVEY PERFORMED AND COMPILED BY PRECISION SURVEYS, INC., ALBUQUERQUE, NEW MEXICO JANUARY, 2024. MILLER ENGINEERING CONSULTANTS HAS UNDERTAKEN NO FIELD VERIFICATION OF THIS INFORMATION.
- PROJECT BENCHMARK IS A NATIONAL GEODETIC SURVEY (NGS) A STAINLESS STEEL ROD SET BENEATH A 5 1/2" ACCESS COVER, STAMPED "4-436, 1984", IN THE NORTHWEST QUADRANT OF MENAUL BOULEVARD NORTHWEST AND THE BNSF RAILROAD TRACKS, ELEVATION = 4,975.35 FEET (NAVD 88 VERTICAL DATUM).
- THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES DURING THE CONSTRUCTION PHASE.
- CONTRACTOR SHALL OBTAIN A GRADING PERMIT FROM THE CITY OF ALBUQUERQUE, PRIOR TO ANY GRADING OR CONSTRUCTION.
- TWO WORKING DAYS PRIOR TO ANY EXCAVATION CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 260-1990 FOR LOCATION OF EXISTING UTILITIES.
- ALL EMBANKMENTS SHALL BE PLACED AND COMPACTED IN LIFTS OF MAXIMUM OF 8". THE EMBANKMENTS SHALL BE WETTED AND COMPACTED TO 95% OPTIMUM DENSITY PER ASTM D1557 AND 95% UNDER ALL STRUCTURES INCLUDING DRIVEWAYS AND PARKING LOTS.
- THE CONTRACTOR SHALL FIELD VERIFY LOCATION AND SIZE OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE "STORM DRAINAGE REGULATIONS. ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE "GRADING AND DRAINAGE DESIGN REQUIREMENTS AND POLICIES FOR LAND DEVELOPMENT."
- THE OWNER, CONTRACTOR AND/OR BUILDER SHALL COMPLY WITH ALL APPROPRIATE LOCAL, STATE AND FEDERAL REGULATIONS AND REQUIREMENTS.
- THE CONTRACTOR SHALL TAKE ALL APPROPRIATE AND REASONABLE MEASURES TO PREVENT SEDIMENT OR POLLUTANT LOADS STORM WATER FROM EXISTING THE SITE DURING CONSTRUCTION. STORMWATER MAY BE DISCHARGED IN A MANNER, WHICH COMPLIES WITH THE APPROVED GRADING AND DRAINAGE PLAN.
- THE CONTRACTOR SHALL TAKE ALL APPROPRIATE MEASURES TO PREVENT THE MOVEMENT OF CONSTRUCTION RELATED SEDIMENT, DUST, MUD, POLLUTANTS, DEBRIS, WASTE, ETC FROM THE SITE BY WIND, STORM FLOW OR ANY OTHER METHOD EXCLUDING THE INTENTIONAL, LEGAL TRANSPORTATION OF SAME IN A MANNER ACCEPTABLE BY THE CITY.
- THE CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE THE AREAS SHOWN AS "SLOPE LIMITS" ON THE GRADING AND DRAINAGE PLAN.
- SEE ARCHITECTURAL DRAWINGS FOR SIDEWALK AND HANDICAPPED RAMPS, DETAILS AROUND THE BUILDING.
- THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE ANY SPOT ELEVATIONS ON THE GRADING AND DRAINAGE PLAN WHICH APPEAR TO BE AMBIGUOUS OR DO NOT MEET THE INTENT OF THE GRADING AND DRAINAGE PLAN.
- THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DOES NOT MEET ADA ACCESSIBILITY REQUIREMENTS. ALL SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.0%, ALL SIDEWALKS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 5.0%, AND ALL RAMPS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 15:1.
- ALL SIDEWALKS AND CONCRETE FLATWORK SHALL HAVE A MINIMUM OF 0.5% SLOPE. CONTRACTOR SHALL CONTACT PROJECT ENGINEER IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DO NOT MEET THIS REQUIREMENT.
- THE CONTRACTOR SHALL SUBMIT MATERIAL SUBMITTALS, CUT SHEETS AND SHOP DRAWINGS FOR ALL CIVIL RELATED ITEMS FOR REVIEW PRIOR TO CONSTRUCTION.
- THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE 2019 EDITION OF THE NEW MEXICO STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION (GRAY BOOK). ALL UTILITY WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN PUBLIC WORKS ASSOCIATION, NEW MEXICO CHAPTER, STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
- ALL EXISTING MANHOLES, VALVES AND METERS SHALL BE ADJUSTED TO NEW FINISH GRADE.
- THE CONTRACTOR SHALL SUBMIT A SEED MIX DESIGN TO THE OWNER FOR REVIEW AND APPROVAL PRIOR TO STARTING THE SEEDING ON THE PROJECT. THE SEED MIX DESIGN SHALL BE A SEED MIX RECOMMENDED BY NRCS FIELD OFFICE REPRESENTATIVE APPROPRIATE FOR PROJECT LOCATION.

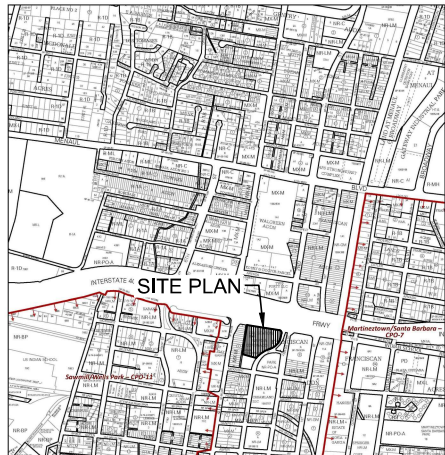
ALL DISTURBED AREAS, NOT ADDRESSED BY ARCHITECTURAL LANDSCAPE PLAN WITH SLOPES OF LESS THAN 3:1 SHALL RECEIVE CLASS "A" SEEDING. ANY SLOPES THAT ARE 3:1 OR STEEPER SLOPES SHALL RECEIVE STEEP SLOPE SEEDING. THE STEEP SLOPE SEEDING SHALL CONSIST OF SEEDING IN CONJUNCTION WITH A 100% COCONUT FIBER BLEND EROSION BLANKET (NORTH AMERICAN GREEN C125) OR APPROVED EQUAL.



CITY OF ALBUQUERQUE
CAPITAL IMPLEMENTATION PROGRAM
AFD FIRE STATION 4
351 MANHATTAN AVENUE, N.E.
ALBUQUERQUE, NM 87125



| | |
|-------------------------------|------------------------|
| Drawing Title: HYDROLOGY PLAN | |
| Design Review Committee | City Engineer Approval |
| Issue Date: JUNE, 2024 | City Project No: . |
| Sheet: CG-101 | |



VICINITY MAP

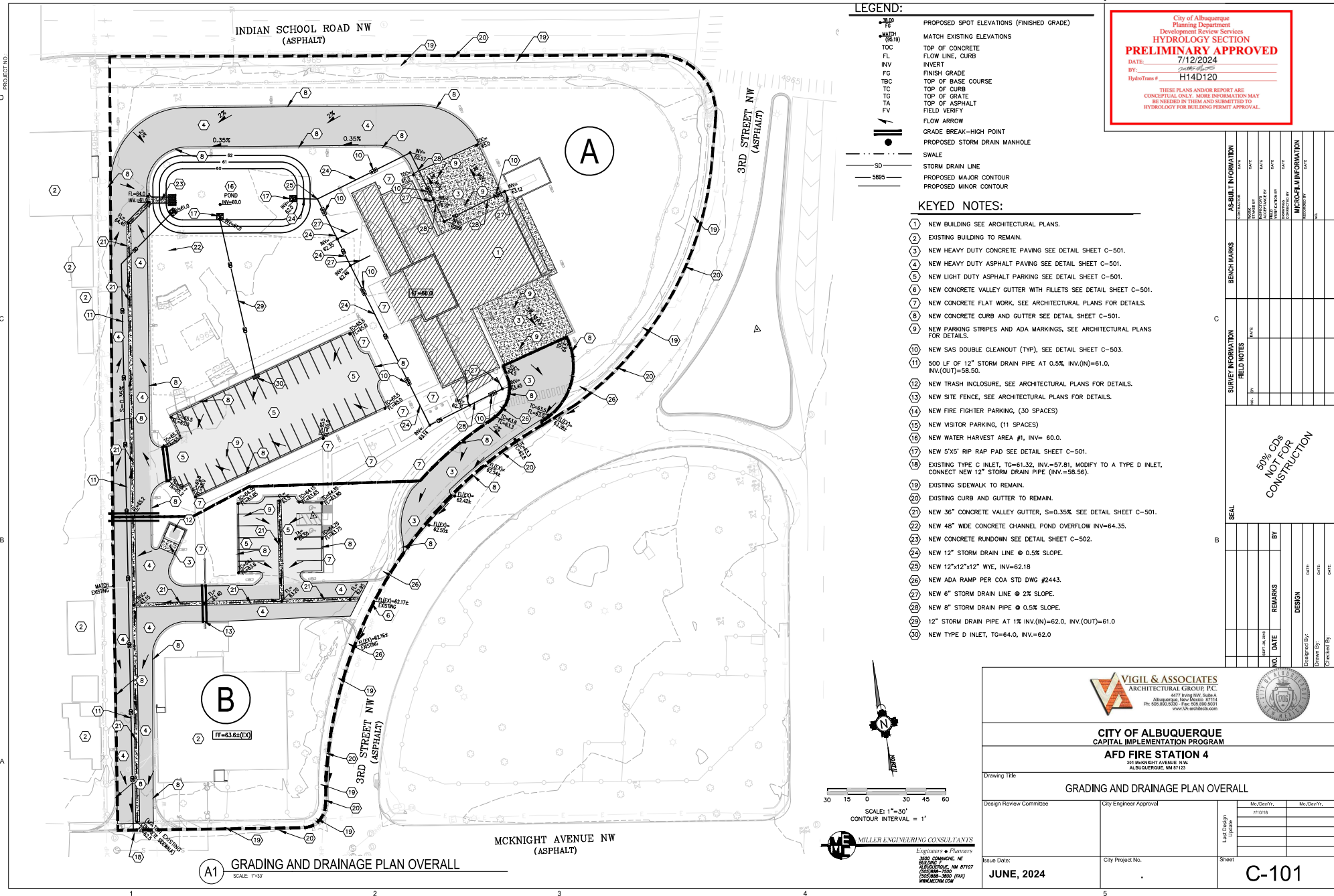
ZONE ATLAS MAP: H-14Z

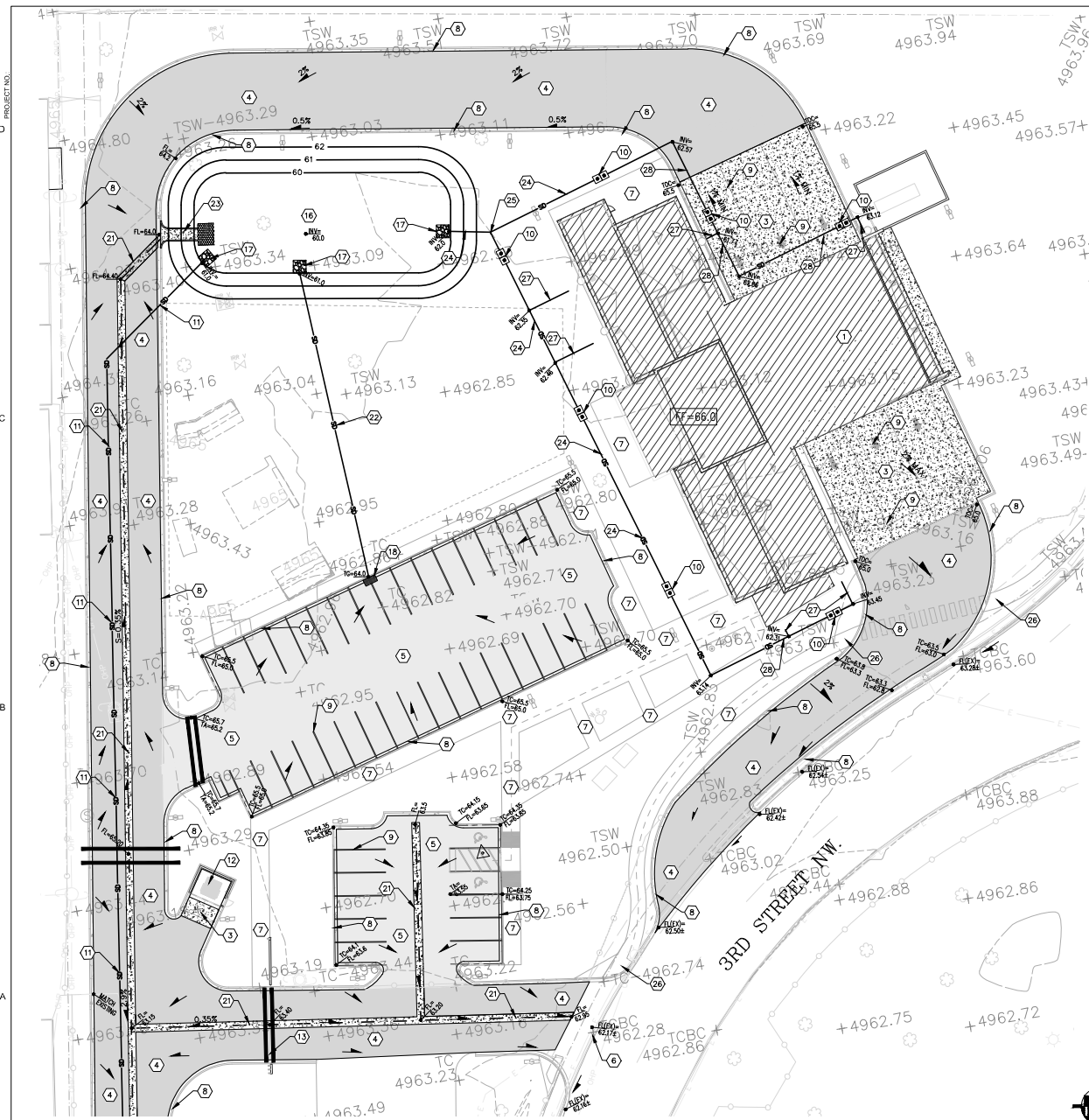
National Flood Hazard Layer FIRMette






















FLOOD ZONE MAP

FLOOD ZONE MAP: 3801C12025



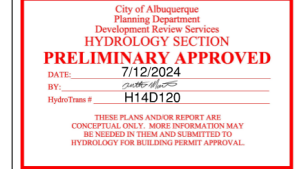
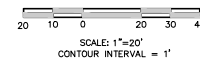


LEGEND:

- | | |
|---|---|
|  | PROPOSED SPOT ELEVATIONS (FINISHED GRADE) |
|  | MATCH EXISTING ELEVATIONS |
|  | TOP OF CONCRETE |
|  | FLOW LINE, CURB |
|  | INVERT |
|  | FINISH GRADE |
|  | TOP OF BASE COURSE |
|  | TOP OF CURB |
|  | TOP OF GRATE |
|  | TOP OF ASPHALT |
|  | FIELD VERIFY |
|  | FLOW ARROW |
|  | GRADE BREAK-HIGH POINT |
|  | PROPOSED STORM DRAIN MANHOLE |
|  | SWALE |
|  | STORM DRAIN LINE |
|  | PROPOSED MAJOR CONTOUR |
|  | PROPOSED MINOR CONTOUR |
|  | PROPOSED CLEANOUT |

KEYED NOTES:

- 1 NEW BUILDING SEE ARCHITECTURAL PLANS.
- 2 EXISTING BUILDING TO REMAIN.
- 3 NEW HEAVY DUTY CONCRETE PAVING SEE DETAIL SHEET C-501.
- 4 NEW HEAVY DUTY ASPHALT PAVING SEE DETAIL SHEET C-501.
- 5 NEW LIGHT DUTY ASPHALT PARKING SEE DETAIL SHEET C-501.
- 6 NEW CONCRETE VALLEY GUTTER WITH FILLETS SEE DETAIL SHEET C-501.
- 7 NEW CONCRETE FLAT WORK, SEE ARCHITECTURAL PLANS FOR DETAILS.
- 8 NEW CONCRETE CURB AND GUTTER SEE DETAIL SHEET C-501.
- 9 NEW PARKING STRIPES AND ADA TYPINGS, SEE ARCHITECTURAL PLANS FOR DETAILS.
- 10 NEW SAS DOUBLE CLEANOUT (TYP), SEE DETAIL SHEET C-503.
- 11 500 LF OF 12" STORM DRAIN PIPE AT 0.5% INV.(N)=61.0, INV.(OUT)=58.50.
- 12 NEW TRASH INCLOSURE, SEE ARCHITECTURAL PLANS FOR DETAILS.
- 13 NEW SITE FENCE, SEE ARCHITECTURAL PLANS FOR DETAILS.
- 14 NEW FIRE FIGHTER PARKING, (30 SPACES)
- 15 NEW VISITOR PARKING, (11 SPACES)
- 16 NEW WATER HARVEST AREA #1, INV= 60.0.
- 17 NEW 5'x5' RIP RAP PAD SEE DETAIL SHEET C-501.
- 18 NEW TYPE D INLET, TG=64.0, INV.=62.0.
- 19 EXISTING SIDEWALK TO REMAIN.
- 20 EXISTING CURB AND GUTTER TO REMAIN.
- 21 NEW 36" CONCRETE VALLEY GUTTER, S=0.35% SEE DETAIL SHEET C-501.
- 22 12" STORM DRAIN PIPE AT 1% INV.(N)=62.0, INV.(OUT)=61.0.
- 23 NEW CONCRETE ROUNDUM SEE DETAIL SHEET C-502.
- 24 NEW 12" STORM DRAIN LINE @ 0.5% SLOPE.
- 25 NEW 12"x12"x12" WYE, INV= 62.18.
- 26 NEW ADA RAMP PER COA STD DWG #2443.
- 27 NEW 6" STORM DRAIN LINE @ 2% SLOPE.
- 28 NEW 8" STORM DRAIN PIPE @ 0.5% SLOPE.

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CITY OF ALBUQUERQUE
CAPITAL IMPLEMENTATION PROGRAM

AFD FIRE STATION 4

301 McKNIGHT AVENUE, N.W.
ALBUQUERQUE, NM 87123

| |
|---------------|
| Drawing Title |
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ENLARGED GRADING AND DRAINAGE PLAN

Design Review Committee

City Engineer Approval

Issue Date:

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| | City Project No. |
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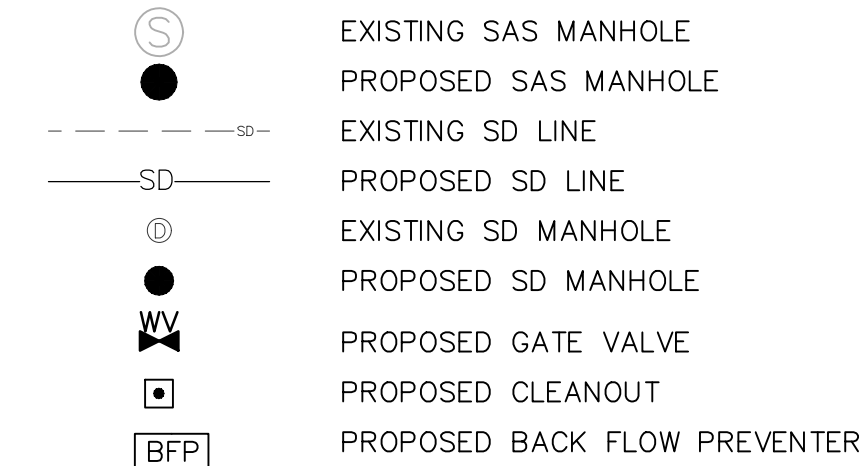
JUNE, 2024

Sheet

C-102

A1 GRADING AND DRAINAGE PLAN ENLARGED
SCALE: 1"=20'

SCALE: 1"=20'



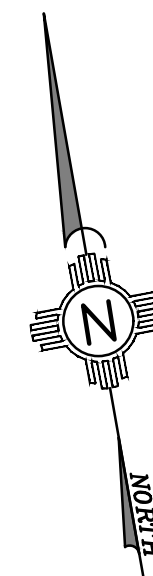
KEYED NOTES

1. NEW BUILDINGS SEE ARCHITECTURAL DRAWINGS.
2. EXISTING PUBLIC 8" VITRIFIED CLAY PIPE SANITARY SEWER LINE.
3. EXISTING PUBLIC SAS MANHOLE (ABCWUA - H14851) TO REMAIN. INV(N)=4954.76, INV(S)=4954.79. L=527'
4. EXISTING PUBLIC SAS MANHOLE (ABCWUA - H14754) TO REMAIN.
5. POINT OF CONNECTION FOR NEW PRIVATE 4" SAS LINE TO EXISTING PUBLIC SAS LINE. PER ABCWUA STD DWG #2125.
6. NEW 2" DIA. DOMESTIC PRIVATE WATER SERVICE LINE WITH METER. PER ABCWUA STD DWG #2301.
7. NEW 6" DIA. DEDICATED PRIVATE FIRE LINE. PER ABCWUA STD DWG #2301.
8. EXISTING PUBLIC 6" CAST IRON WATER MAIN LINE.
9. NEW PUBLIC 6" GATE VALVE (PUBLIC). PER ABCWUA STD DWG #2324.
10. NEW 6" GATE VALVE (PRIVATE).
11. NEW PRIVATE 4" SAS LINE @ 1.5% MINIMUM SLOPE.
12. NEW PRIVATE FIRE HYDRANT. PER ABCWUA STD DWG #2340.
13. NEW PRIVATE POST INDICATOR VALVE (PIV). SEE DETAIL SHEET C-503.
14. CONNECT NEW 2" DIA. PRIVATE DOMESTIC WATER LINE TO EXISTING PUBLIC WATER MAIN. PER ABCWUA STD DWG #2301.
15. CONNECT NEW 6" DIA. PRIVATE DEDICATED FIRE LINE TO EXISTING PUBLIC WATER MAIN WITH TAPPING TEE AND VALVE.
16. SAW CUT, EXISTING ASPHALT TO CLEAN STRAIGHT EDGE. REMOVE, DISPOSE AND REPLACE EXISTING ASPHALT AS NECESSARY TO INSTALL WATER AND SAS LINES. MATCH EXISTING ASPHALT SECTION OF ASPHALT, BASE COURSE AND SUBGRADE PREP. (9' MAX. WIDTH). PER ABCWUA STD DWG #2465.
17. NEW PUBLIC 2" WATER METER. PER ABCWUA STD DWG #2363.
18. POINT OF CONNECTION OF NEW PRIVATE 4" SAS TO NEW BUILDING, SEE PLUMBING PLANS FOR CONTINUATION. INV=61.80.
19. NEW PRIVATE REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY, PER ABCWUA STD DWG #2385.
20. NEW PRIVATE DOUBLE SAS CLEANOUT. SEE DETAIL SHEET C-503.
21. POINT OF CONNECTION OF NEW PRIVATE 2" DOMESTIC LINE TO BUILDING, SEE PLUMBING PLAN FOR LOCATION AND ELEVATION.
22. POINT OF CONNECTION OF PRIVATE 6" DEDICATED FIRE LINE TO BUILDING, SEE PLUMBING PLAN FOR LOCATION AND ELEVATION.
23. NEW PRIVATE FDC. SEE PLUMBING PLAN FOR DETAILS.
24. POINT OF CONNECTION OF NEW PRIVATE 1½" IRRIGATION LINE TO EXISTING PUBLIC WATER MAIN. PER ABCWUA STD DWG #2301.
25. NEW PRIVATE 1½" IRRIGATION LINE.
26. NEW PUBLIC 1½" WATER METER, FOR LANDSCAPING. PER ABCWUA STD DWG #2363.
27. NEW PRIVATE 1½" BACK FLOW PREVENTER AND HOT BOX, SEE LANDSCAPING FOR CONTINUATION.
28. OIL INTERCEPTOR LOCATION, SEE PLUMBING PLAN.
29. POINT OF CONNECTION FOR OIL INTERCEPTOR, INV=62.78. SEE PLUMBING PLAN FOR CONTINUATION.
30. NEW 4"x4"x4" WYE.
31. NEW 4" SAS LINE @ 2% SLOPE.
32. NEW FLOOR DRAIN AT TRASH ENCLOSURE.

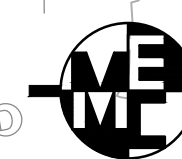
GENERAL NOTE:
1. ALL WATER LINES SHALL HAVE A 3' MINIMUM BURY.

NOTE:

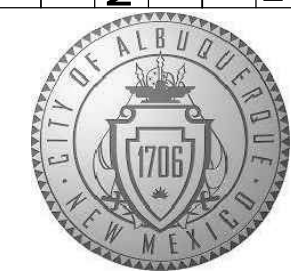
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL UTILITY CONNECTIONS INCLUDING ALL PERMITTING AND ASSOCIATED FEES TO ENSURE COMPLETE UTILITY SERVICE INSTALLATIONS FOR THIS PROJECT.
2. COORDINATION WITH WATER AUTHORITY CROSS CONNECTION SECTION WILL BE REQUIRED TO ENSURE PROPER BACKFLOW CONTAINMENT IS IN PLACE PRIOR TO RELEASE OF METER FOR THE SITE. CONTACT THE CROSS CONNECTION SECTION AT 505-289-3454.
3. COORDINATION WITH THE WATER AUTHORITY PRE-TREATMENT ENGINEER IS REQUIRED TO ENSURE THE SITE COMPLIES WITH WATER AUTHORITY SEWER USE ORDINANCE. CONTACT THE PRE-TREATMENT ENGINEER AT 505-289-3439.



SCALE: 1"=30'
CONTOUR INTERVAL = 1



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CITY OF ALBUQUERQUE
CAPITAL IMPLEMENTATION PROGRAM

AFD FIRE STATION
301 McKNIGHT AVENUE N.W.
ALBUQUERQUE, NM 87123

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| Drawing Title |
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SITE UTILITY PLAN

Design Review Committee

| |
|------------------------|
| City Engineer Approval |
|------------------------|

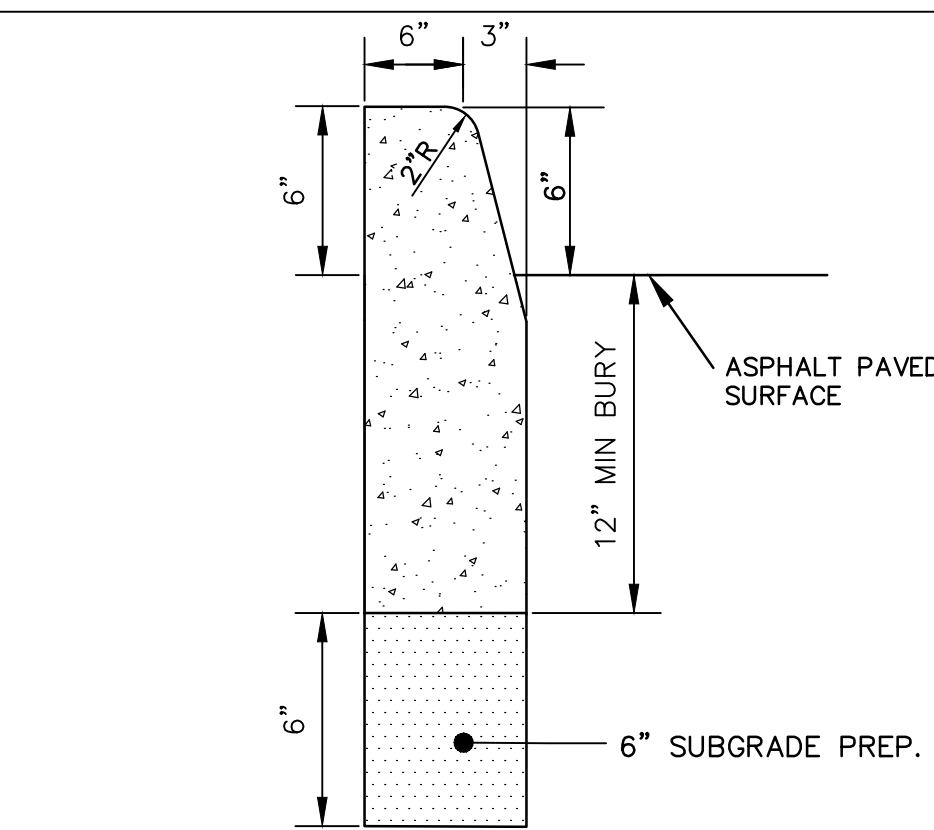
Issue Date:
JULY, 2025

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| | City Project No. |
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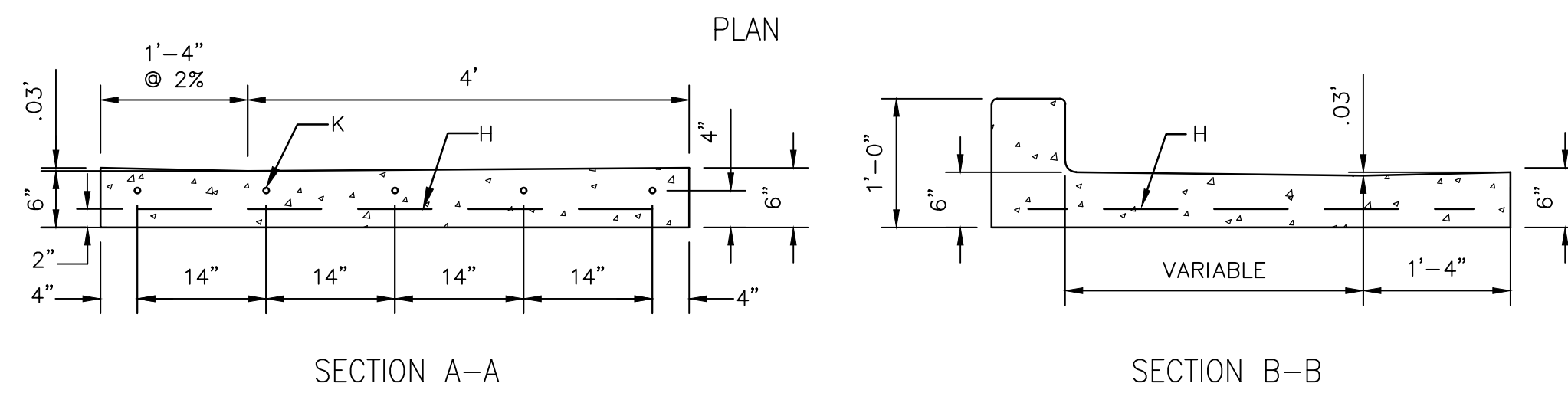
Last Design Update

| Mo./Day/Yr. | Mo./Day/Yr. |
|-------------|-------------|
| 7/24/18 | |
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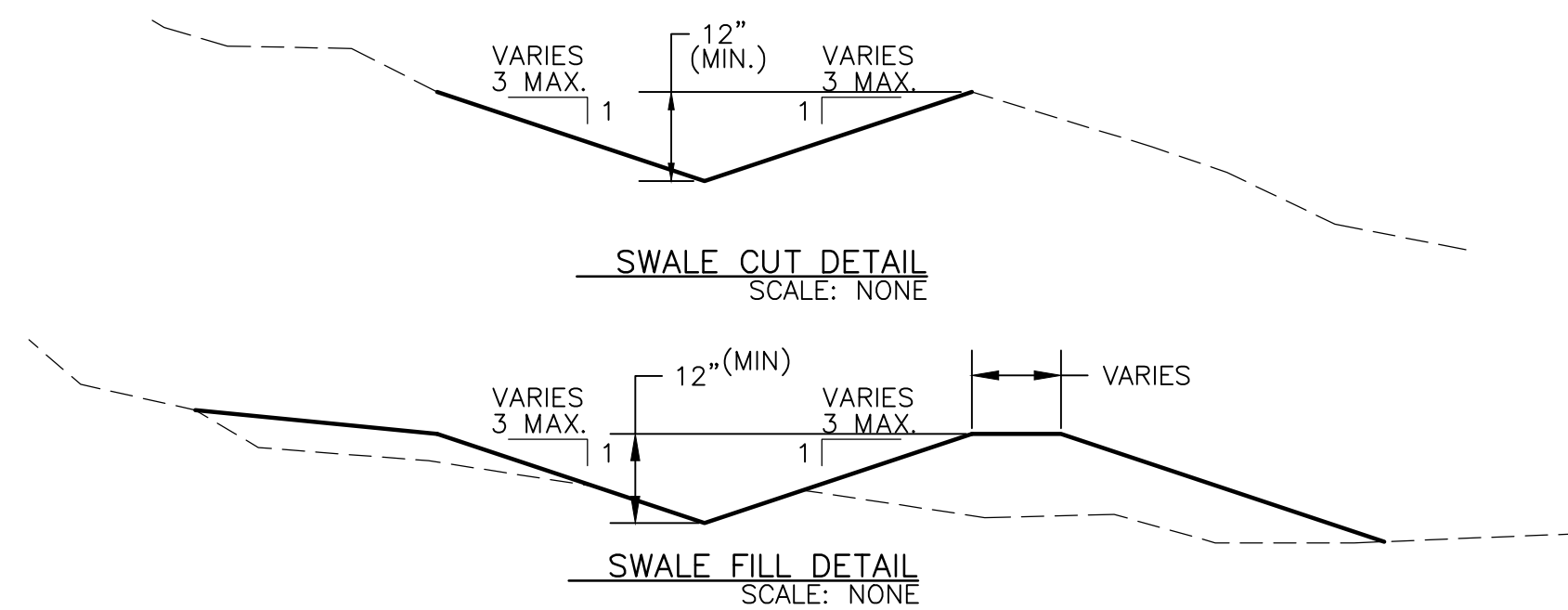
C-201



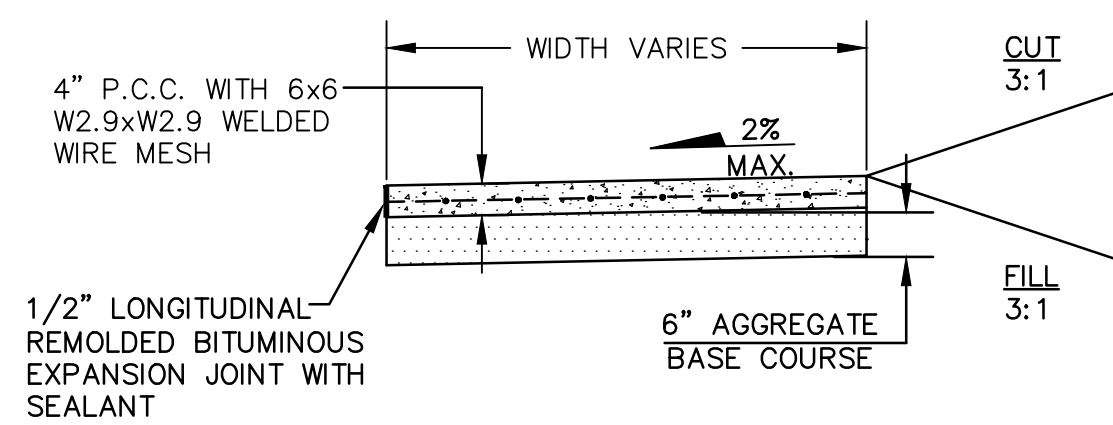
E1 TYPICAL STANDARD CURB AND GUTTER SECTION
SCALE: NOT TO SCALE



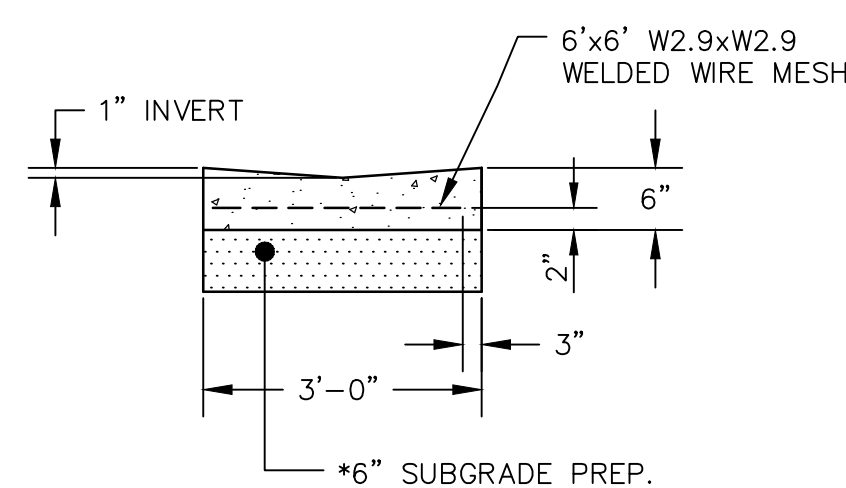
D4 CONCRETE PAVING VALLEY GUTTER AND RETURNS
SCALE: NOT TO SCALE



C5 **EARTHEN SWALE**
SCALE: NOT TO SCALE

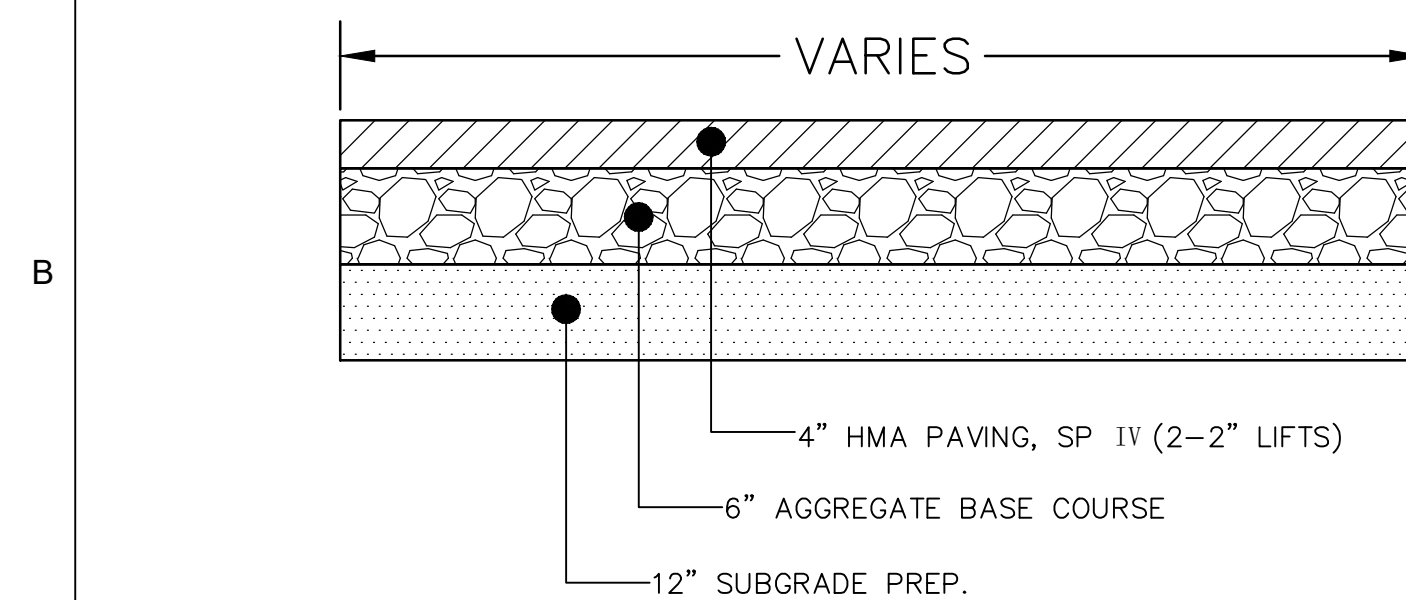


A1 TYPICAL SIDEWALK SECTION
SCALE: NOT TO SCALE



A4 6" X 36" CONCRETE VALLEY GUTTER DETAIL
SCALE: NOT TO SCALE

* 6" SUBGRADE PREP. SHALL BE CONSIDERED INCIDENTAL TO ITEM NO. 609636, CONCRETE VALLEY GUTTER - 6"x36" AND NO SEPERATE MEASUREMENT OR PAYMENT WILL BE MADE FOR THE WORK.



E5 TYPICAL LIGHT DUTY ASPHALT PAVING DETAIL
SCALE: NOT TO SCALE

1/4"

TOOLED JOINT AT 5'-0" O.C.

BROOM FINISH

1/4"

1/2" BITUMINOUS EXPANSION JOINT AT 30'-0" O.C. WITH SEALANT

BROOM FINISH

A3 CONCRETE SIDEWALK JOINTS

VARIES

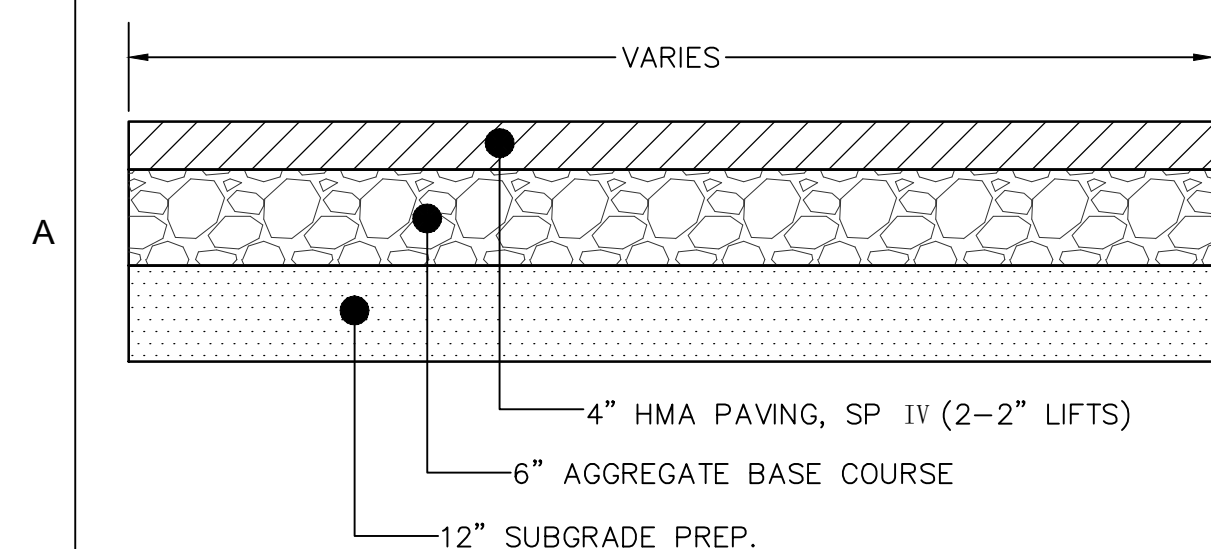
6" PORTLAND CEMENT CONCRETE WITH WELDED WIRE FABRIC SHALL CONSIST OF A 6X6 W1.4XW1.4.

6" BASE COURSE

12" SUBGRADE PREP.

A3 HEAVY DUTY CONCRETE PAVING SECTION
SCALE: NOT TO SCALE

NOTE: FOR MINIMUM REQUIREMENTS
REFER TO THE GEOTECHNICAL REPORT PREPARED BY GEO-TEST, INC.
SANTA FE, NM, PROJECT NO. 1-40207, DATED APRIL 17, 2024.

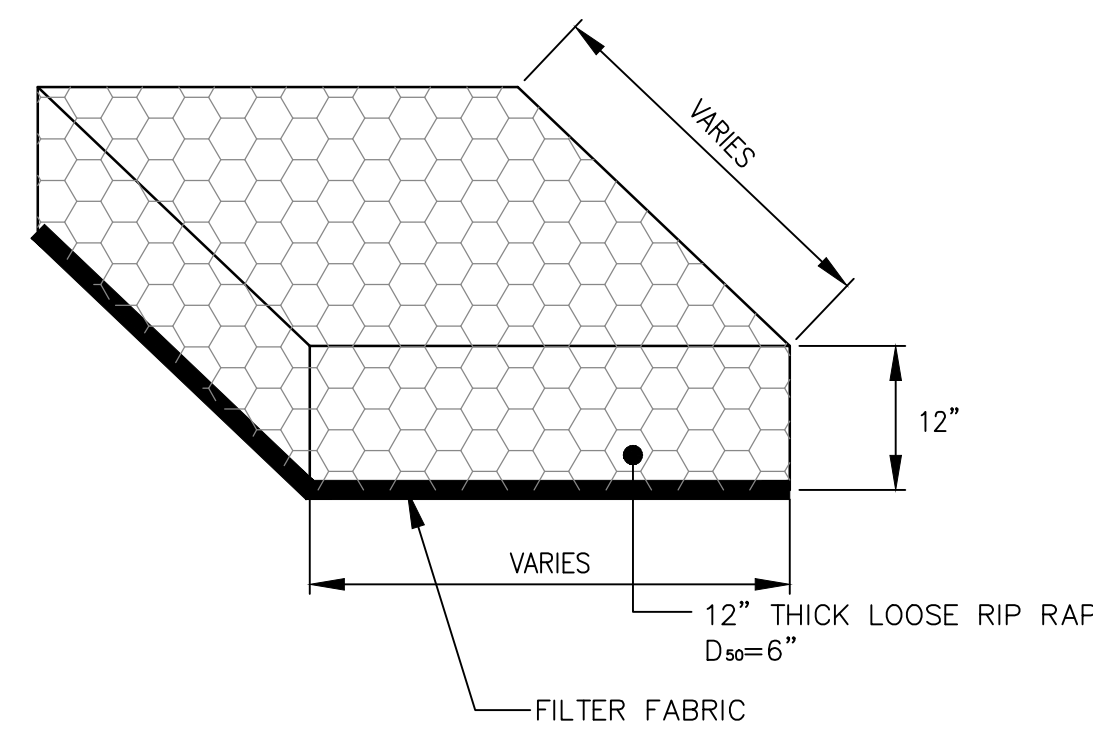


A1 HEAVY DUTY ASPHALT PAVING DETAIL
SCALE: NOT TO SCALE NOTE: FOR MINIMUM REQUIREMENTS

NOTE: FOR MINIMUM REQUIREMENTS
REFER TO THE GEOTECHNICAL REPORT PREPARED BY GEO-TEST, INC.
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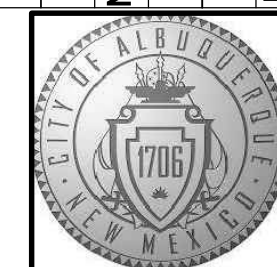
1. DESIGN ELEVATIONS TO BE GIVEN AT EACH END OF THE CURB RETURN (TOP OF CURB ELEV.) AND AT INTERSECTIONS OF PROJECTED FLOWLINES (FLOWLINE ELEV.).
2. ON UPSTREAM AND DOWNSTREAM ENDS OF THE INTERSECTION, VALLEY GUTTER CONSTRUCTION SHALL EXTEND TO THE END OF RETURNS.
3. THE VALLEY GUTTER TO BE REINFORCED WITH 6"x6"xNo. 6 GA. WIRE MESH.
4. INVERT OF VALLEY GUTTER TO EXTEND FROM FLOWLINE OF UPSTREAM CURB RETURN TO FLOWLINE OF DOWNSTREAM CURB RETURN.
5. CURB FLOWLINE AND TOP OF CURB ELEV. SHOWN IN THE BOX TO CORRESPOND TO QUARTERPOINTS INDICATED ON THE CURB RETURN IN THE CLOCKWISE DIRECTION.
6. ---- DENOTES 1/2" EXPANSION JOINT.
7. FOR NEW CONSTRUCTION, VALLEY GUTTER SHALL BE CONSTRUCTED PRIOR TO ADJACENT PAVEMENT. ASPHALT CONCRETE SHALL BE INSTALLED MONOLITHICALLY TO MEET NEW VALLEY GUTTER.
8. PRIOR TO CONSTRUCTION OF NEW VALLEY GUTTER ON EXISTING ACCEPTED STREETS, PAVEMENT SHALL BE REMOVED AS SHOWN ON PLANS.

- A. END OF CURB RETURN, SEE NOTE 1.
- B. FOR RAMP DETAILS SEE SHEET C-505
- C. INTERSECTION OF FLOWLINES, SEE NOTE 1.
- D. SURFACE AND CURB TO BE MONOLITHIC.
- E. DIRECTION OF FLOW.
- F. FLOWLINE.
- G. PROJECTED FLOWLINE OF 0.03' INVERT, SEE NOTE 2.
- H. 6"x6"x No. 6 GA. WIRE MESH.
- K. NO. 4 REBARS 3'-0" LONG @ 14" O.C.
- L. FILLET AS PER PLAN.



A4 CLASS 'B' RIP RAP PAD DETAIL
SCALE: NOT TO SCALE

SEE PLANS FOR SHAPE AND DIMENSIONS

[illegible]

VIGIL & ASSOCIATES
ARCHITECTURAL GROUP, P.C.

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Albuquerque, New Mexico 87114
Ph: 505.890.5030 - Fax: 505.890.5031
www.VA-architects.com

CITY OF ALBUQUERQUE
CAPITAL IMPLEMENTATION PROGRAM

AFD FIRE STATION 4
301 MCKNIGHT AVENUE N.W.
ALBUQUERQUE, NM 87123

MISCELLANEOUS DETAILS

| |
|---------------|
| Drawing Title |
|---------------|

Design Review Committee

Issue Date:

JULY, 2025

City Engineer Approval

City Project No.

Last Design Update

Sheet

| Mo./Day/Yr. | Mo./Day/Yr. |
|-------------|-------------|
| 7/24/18 | |
| | |
| | |
| | |

C-501

T:\Clients\VIGIL & ASSOCIATES\CABQ Fire Station #4\CAD\Sheets\C-501 MISC DETAILS.dwg, 7/16/2025 9:36:45 AM, 1:1

PROJECT NO.:

C

B

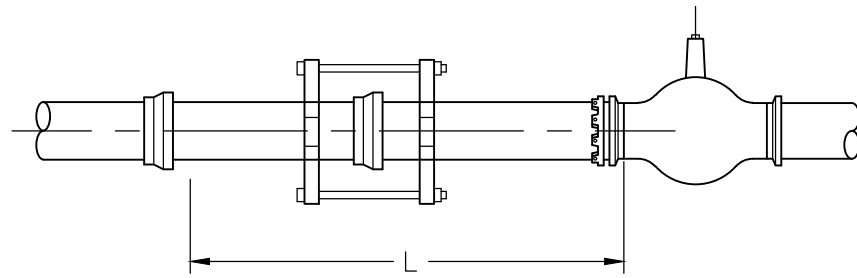
A

REDUCER

| RESTRAIN EITHER L_s OR L_l LENGTH | (L_s) L SMALL or (L_l) L LARGE | |
|--|---|---------------------------------------|
| | UNOBSTRUCTED STRAIGHT RUN LENGTH, FEET RESTRAINED | LARGE SIDE RESTRAINED LENGTH, FEET |
| 6" x 4" | 42 | 28 |
| 8" x 4" | 39 | 30 |
| 8" x 6" | 39 | 30 |
| 10" x 6" | 87 | 53 |
| 10" x 8" | 36 | 29 |
| 12" x 8" | 81 | 54 |
| 12" x 10" | 36 | 30 |
| 14" x 10" | 78 | 55 |

| LINE SIZE | RESTRAINED LENGTH L_l , BOTH SIDES OF VALVE, FEET |
|--------------|--|
| 4" | 39 |
| 6" | 55 |
| 8" | 72 |
| 10" | 86 |
| 12" | 102 |
| 14" | 116 |

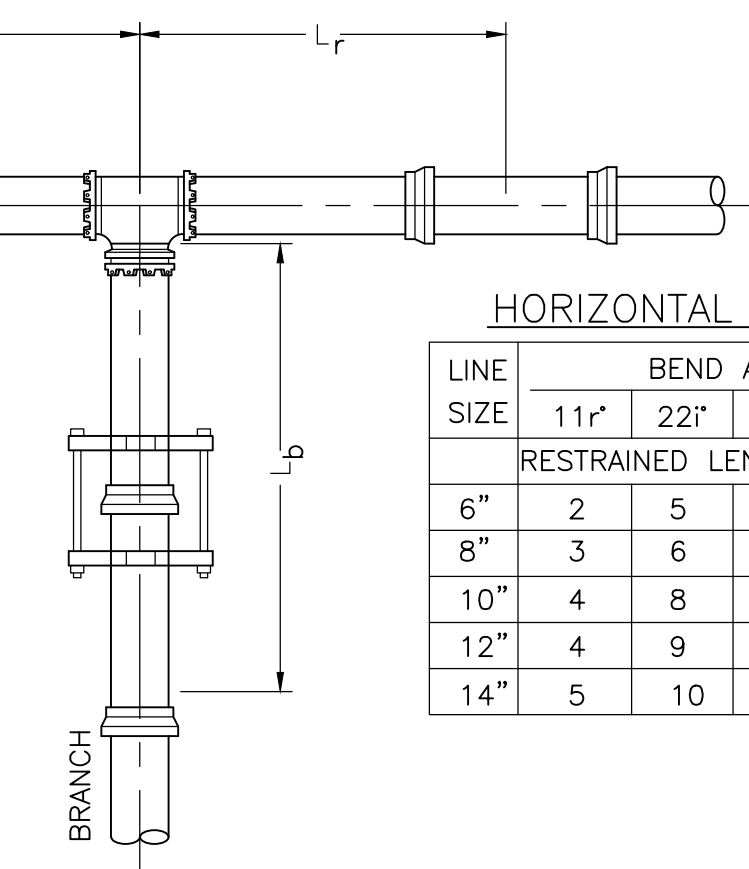
THESE LENGTHS MAY BE USED
WHERE ENOUGH NEW PIPE EXISTS
TO INSTALL THE RESTRAINT JOINTS
ALONG A STRAIGHT PIPE RUN.



THRUST RESTRAINT GENERAL NOTES

- RESTRAINED PIPE LENGTHS FOR PVC USING EBAA IRON THRUST RESTRAINING SYSTEM.
- LENGTHS MAY OVERLAP TO DETERMINE GREATEST RESTRAINT LENGTH IN ANY ONE DIRECTION.
- CONTRACTOR SHALL MINIMIZE NUMBERS OF RESTRAINED JOINTS REQUIRED BY USING 20' LONG SECTIONS OF PIPE WITHIN THE RESTRAINED LENGTH WHERE POSSIBLE. DIVIDE LENGTH BY 20 AND TRUNCATE DECIMAL PORTION OF NUMBER TO DETERMINE THE NUMBER OF REQUIRED RESTRAINED JOINTS.
- SPECIAL CONSIDERATION MAY BE NEEDED TO MEET CERTAIN FIELD CONDITIONS.
- RESTRAINT LENGTHS MAY EXTEND INTO EXISTING WATER MAINS, REQUIRING RESTRAINED FITTINGS TO BE PLACED AT EXISTING WATERLINE JOINTS FOR THE LENGTH SPECIFIED IN THE TABLES ON THIS SHEET.
- CONCRETE BLOCKING, PER COA STANDARD DRAWING 2320, SHALL BE USED IN LIEU OF RESTRAINED JOINTS AT ALL CAPS. DESIGN ASSUMPTIONS:

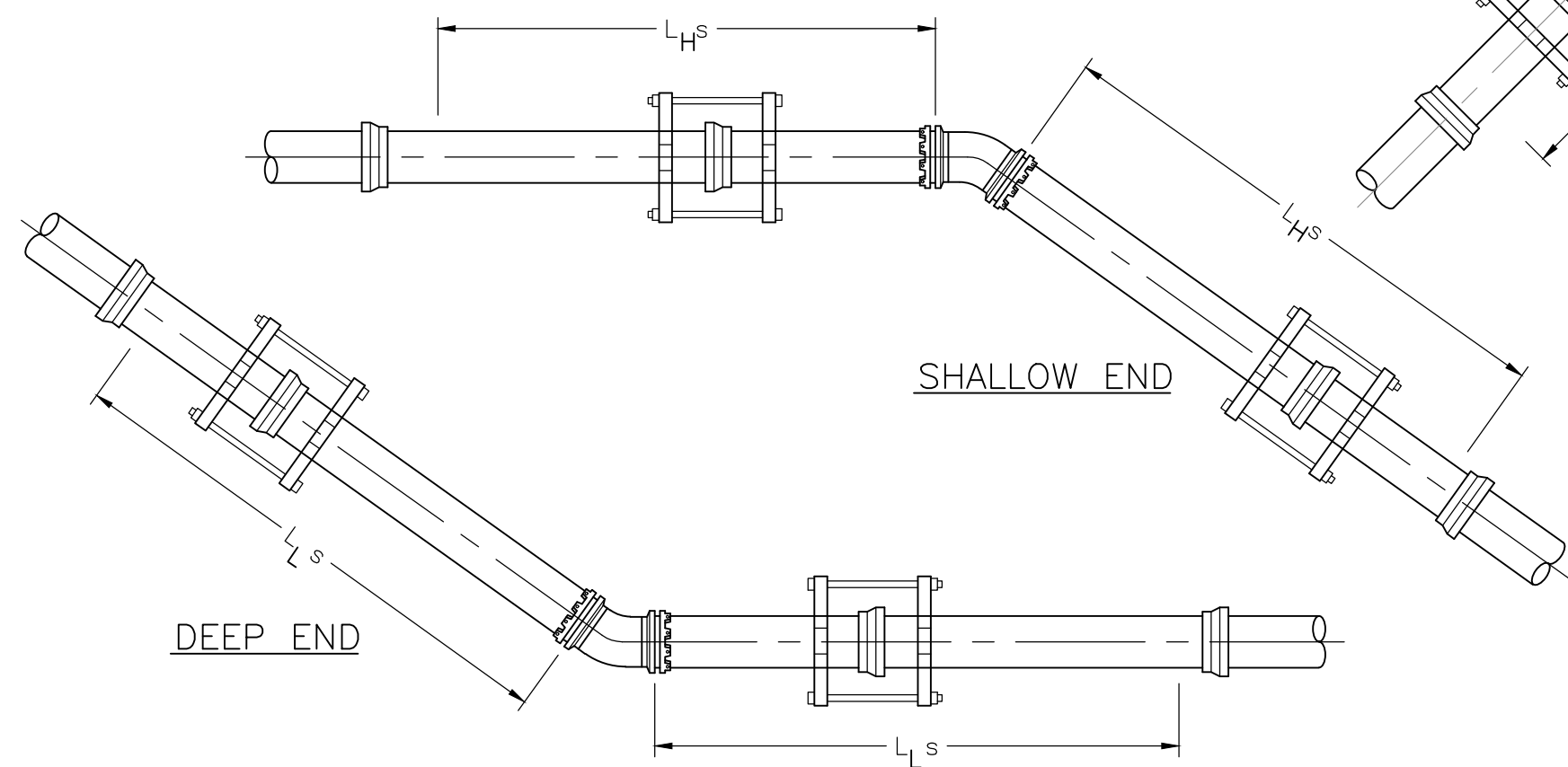
SAFETY FACTOR: 1.5
PRESSURE: 150 PSI
SOIL TYPE: GM & SM - SILTY GRAVELS AND SILTY SANDS
PIPE: PVC
TRENCH TYPE: 3 (PIPE BEDDED IN 4 INCHES MINIMUM LOOSE SOIL. BACKFILL LIGHTLY CONSOLIDATED TO TOP OF THE PIPE.)



NOTE: TABLE PROVIDES REQUIRED
 L_b (RESTRAINED LENGTH OF BRANCH)
FOR A GIVEN L_r (RESTRAINED PIPE
LENGTH ON THE TEE RUN) AT
VARIOUS DIAMETERS.

HORIZONTAL BENDS

| LINE SIZE | BEND ANGLE | | | RESTRAINED LENGTH, L , FEET |
|--------------|------------|-----|-----|-------------------------------|
| | 11° | 22° | 45° | |
| 6" | 2 | 5 | 10 | 25 |
| 8" | 3 | 6 | 13 | 32 |
| 10" | 4 | 8 | 16 | 38 |
| 12" | 4 | 9 | 19 | 45 |
| 14" | 5 | 10 | 21 | 51 |



VERTICAL OFFSETS

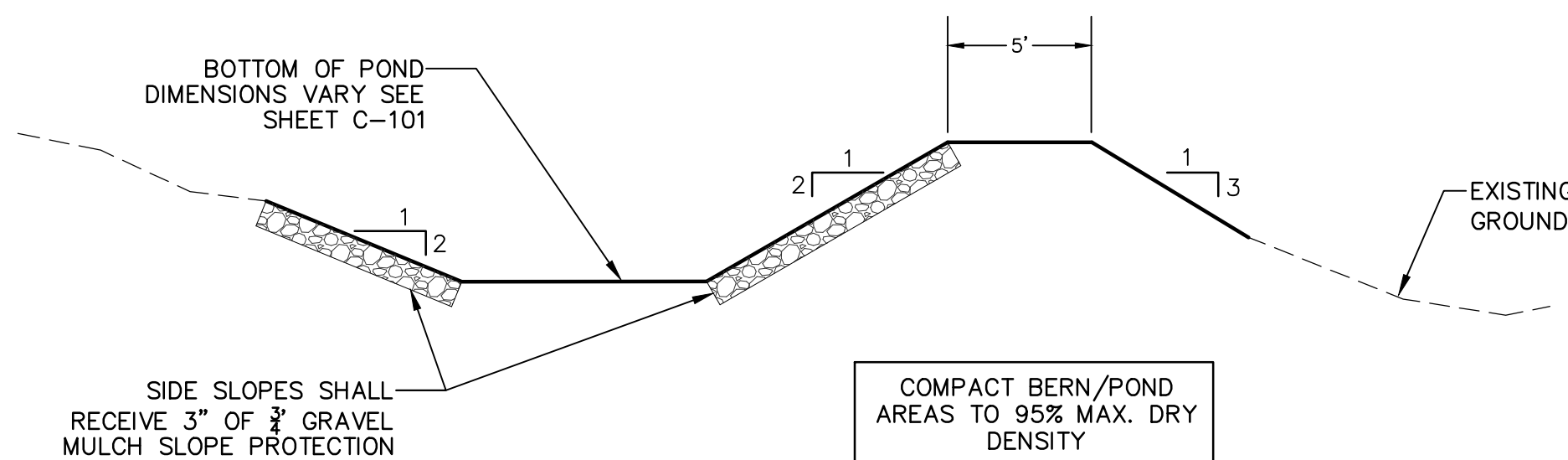
ADDITIONAL DESIGN PARAMETERS
SHALLOW END DEPTH = 3.0'
DEEP END DEPTH = 6.0'

| LINE SIZE | 22° BEND | | | | 45° BEND | | | |
|--------------|--------------------------|-----------------------------|--------------------------|-----------------------------|--------------------------|-----------------------------|--------------------------|-----------------------------|
| | RESTRAINED LENGTH | | | | RESTRAINED LENGTH | | | |
| | DEEP END L_L , FEET | SHALLOW END L_H , FEET | DEEP END L_L , FEET | SHALLOW END L_H , FEET | DEEP END L_L , FEET | SHALLOW END L_H , FEET | DEEP END L_L , FEET | SHALLOW END L_H , FEET |
| 6" | 3 | 11 | 5 | 23 | 3 | 14 | 7 | 30 |
| 8" | 3 | 14 | 7 | 30 | 4 | 17 | 8 | 36 |
| 10" | 4 | 17 | 8 | 36 | 5 | 20 | 10 | 42 |
| 12" | 5 | 20 | 10 | 42 | 5 | 23 | 11 | 48 |
| 14" | 5 | 23 | 11 | 48 | | | | |

B1

PIPE RESTRAINT LENGTHS

SCALE: NOT TO SCALE

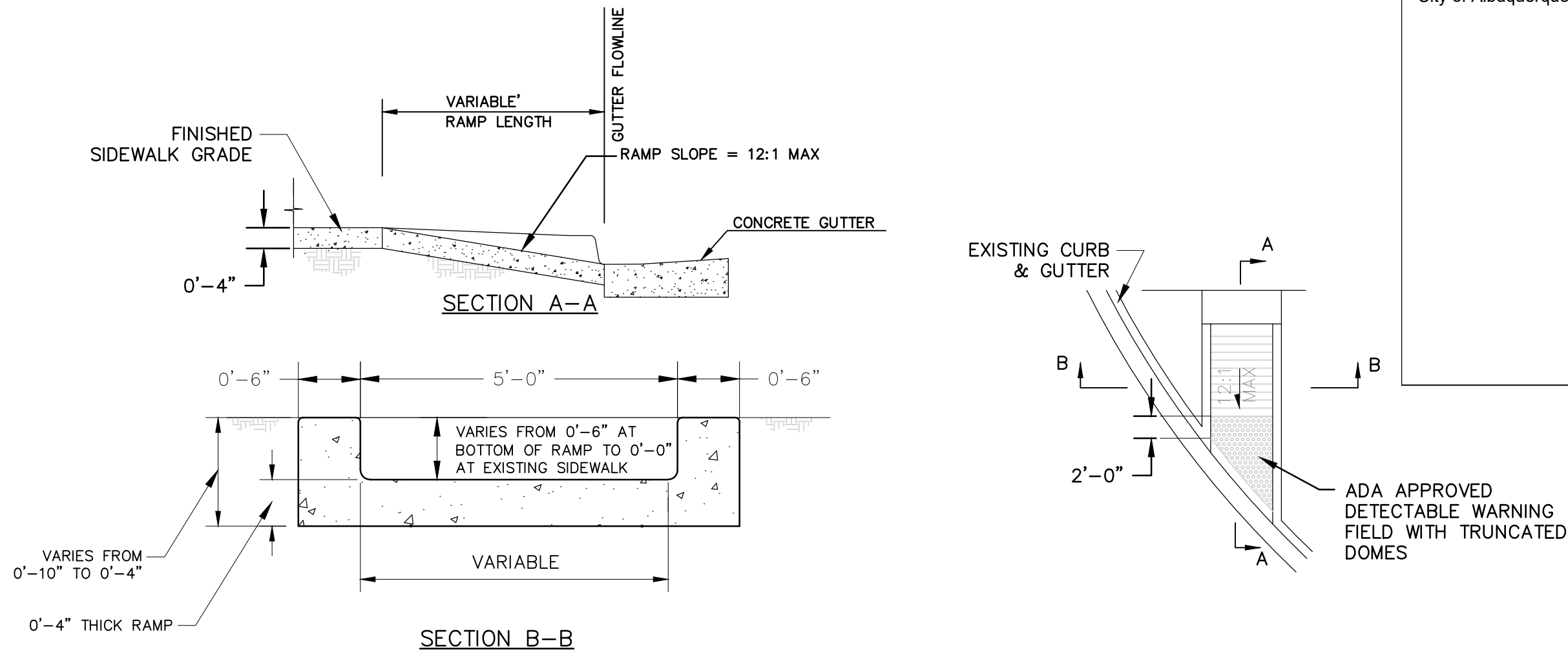


C5

TYPICAL WATER HARVEST AREA SECTION

SCALE: NOT TO SCALE

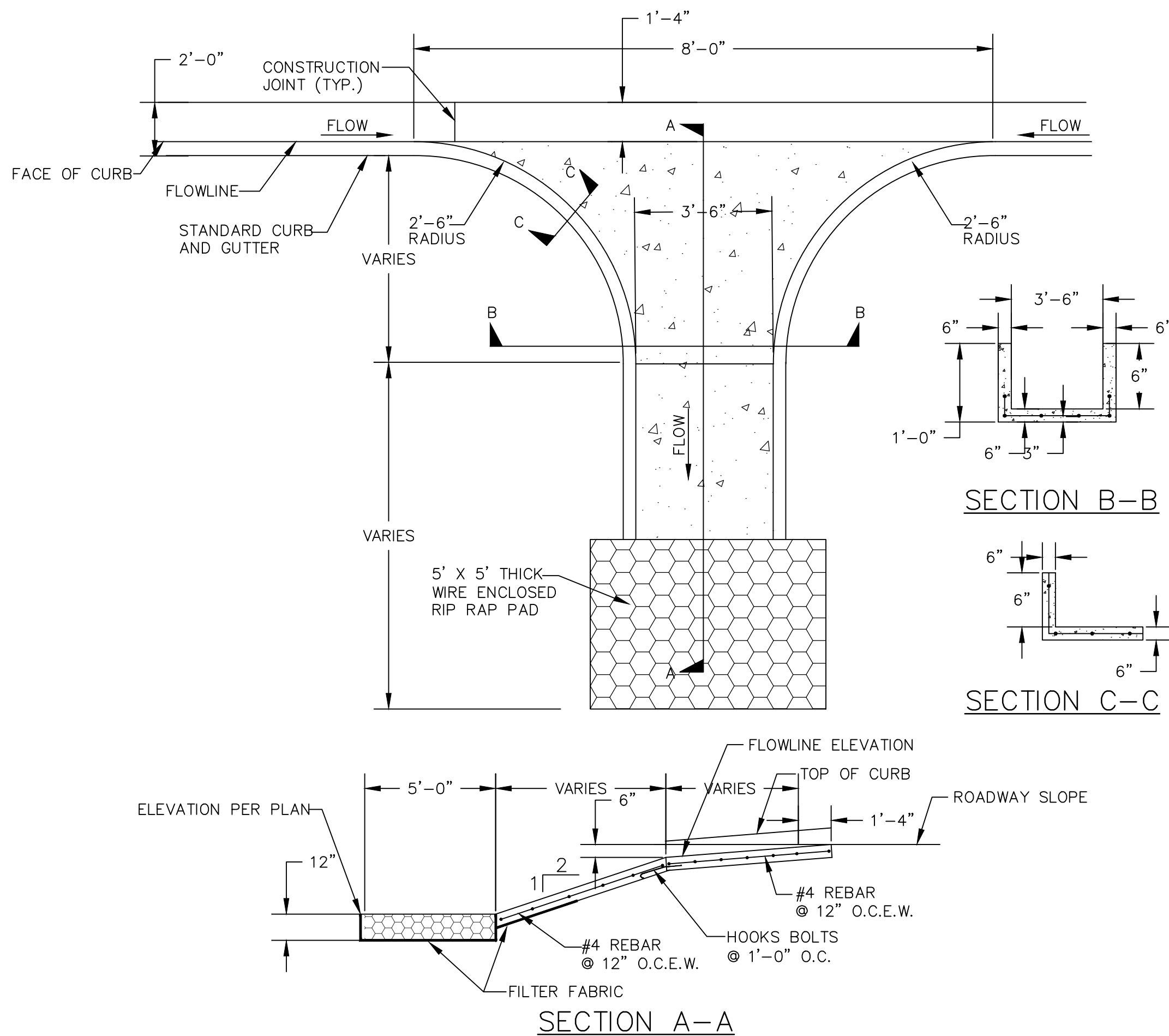
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D5

HANDICAP RAMP DETAIL

SCALE: NOT TO SCALE



A5

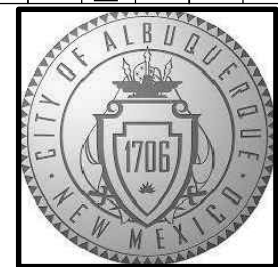
CONCRETE RUNDOWN DETAIL

SCALE: NOT TO SCALE

5

City of Albuquerque Electronic Stamp

| AS-BUILT INFORMATION | | BENCH MARKS | | SURVEY INFORMATION | | FIELD NOTES | | SEAL | | REMARKS | | DESIGN | |
|----------------------|------|---------------------|------|--------------------|----|-------------|-----|------|------|---------|------|--------|------|
| CONTRACTOR | DATE | WORKED BY | DATE | NO. | BY | DATE | NO. | NO. | DATE | NO. | DATE | NO. | DATE |
| WORKED BY | DATE | SUPERVISOR | DATE | | | | | | | | | | |
| ACCEPTANCE BY | DATE | FIELD INSPECTION BY | DATE | | | | | | | | | | |
| FINANCE | DATE | INSURANCE | DATE | | | | | | | | | | |
| CONNECTED BY | DATE | PROFESSIONAL | DATE | | | | | | | | | | |
| RECORDED BY | DATE | | | | | | | | | | | | |
| NO. | | | | | | | | | | | | | |



CITY OF ALBUQUERQUE CAPITAL IMPLEMENTATION PROGRAM

AFD FIRE STATION 4

301 MCKNIGHT AVENUE, N.W.
ALBUQUERQUE, NM 87123

Drawing Title

MISCELLANEOUS DETAILS

Design Review Committee

City Engineer Approval

Issue Date:

JULY, 2025

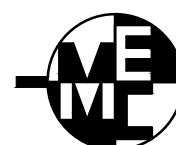
City Project No.

Last Design Update

| Mo./Day/Yr. | Mo./Day/Yr. |
|-------------|-------------|
| 7/24/18 | |
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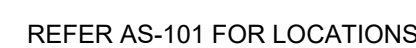
Sheet

C-502



MILLER ENGINEERING CONSULTANTS
Engineers • Planners
3500 DOMINIQUE, NE
ALBUQUERQUE, NM 87107
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(505) 888-3800 (FAX)
WWW.MECNM.COM

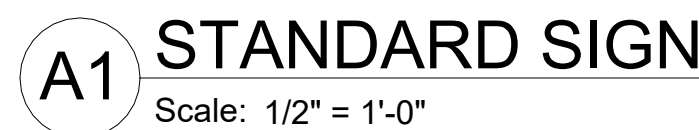
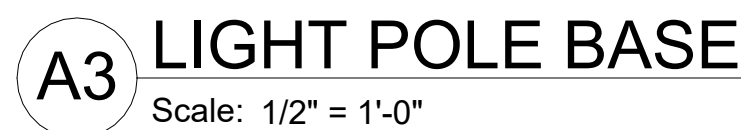





NOTE: FOR REFERENCE ONLY; UTILIZE INDUSTRY
STANDARDS FOR TYPICAL
SIZE/COLOR/STYLIZATION

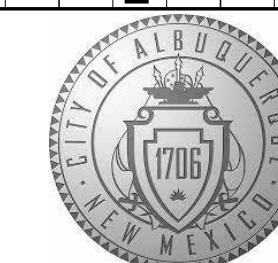


| * POLE BASE LENGTH (L) BELOW FINISHED GRADE AND DIAMETER (D) AS FOLLOWS | |
|---|---|
| TOP OF POLE HEIGHT (HT) AFG | CONCRETE BASE LENGTH BELOW GRADE & DIAMETER |
| 0' < HT ≤ 15' | → 48" L x 16" D |
| 15' < HT ≤ 29' | → 60" L x 20" D |
| 29' < HT ≤ 40' | → 72" L x 24" D |



City of Albuquerque Electronic Stamp

| SEAL | | | | SURVEY INFORMATION | | BENCH MARKS | | AS-BUILT INFORMATION | |
|---|------|---------|----|--|------|-------------|--|----------------------|--|
| | | | | FIELD NOTES | | | | | |
| NO. | DATE | REMARKS | BY | NO. | DATE | | | | |
| 100% CONSTRUCTION DOCUMENTS NOT FOR CONSTRUCTION | | | |  | | | | | |
| | | | | Designed By: _____ DATE: _____ Drawn By: _____ DATE: _____ Checked By: _____ DATE: _____ | | | | | |



CITY OF ALBUQUERQUE
CAPITAL IMPLEMENTATION PROGRAM

FIRE STATION #4

SITE DETAILS - EPC

Design Review Committee

City Engineer Approval

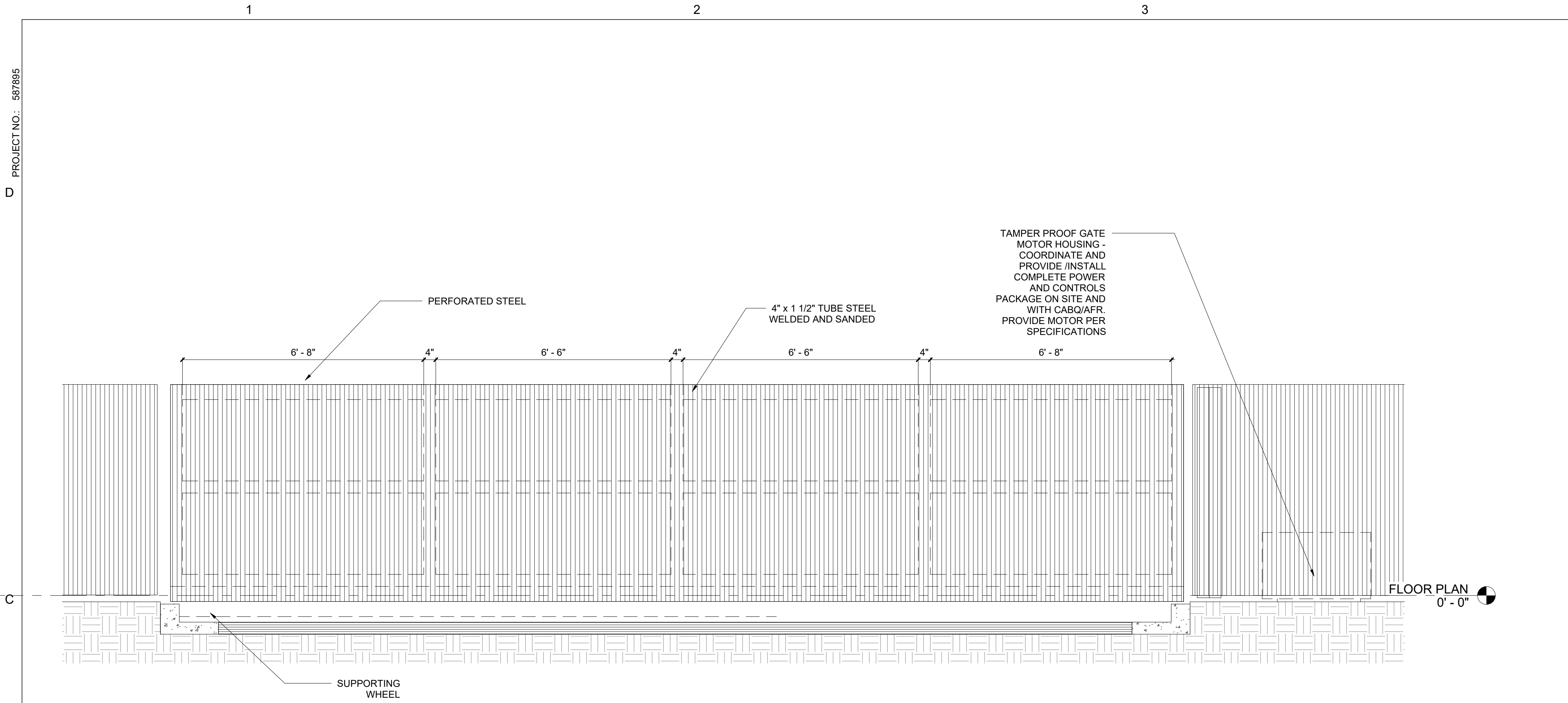
Issue Date:
JULY 2025

| | |
|--|-----------------|
| | City Project No |
|--|-----------------|

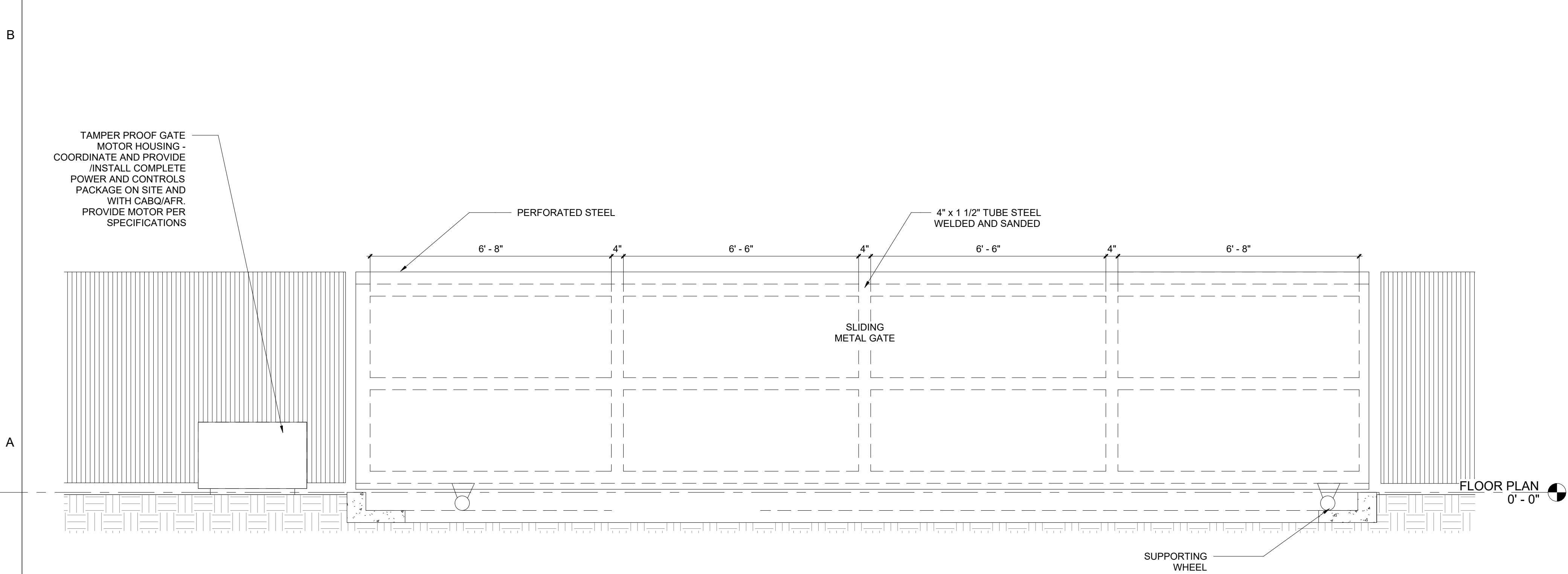
| | |
|--|------|
| | Shee |
|--|------|

EPC-AS-502





C1 SLIDING GATE - FRONT ELEVATION
Scale: 1/2" = 1'-0"



A1 SLIDING GATE- REAR ELEVATION
Scale: 1/2" = 1'-0"

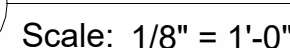
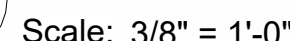
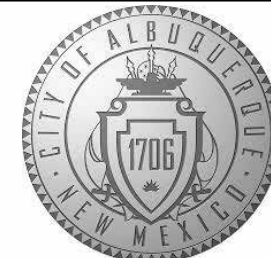
City of Albuquerque Electronic Stamp

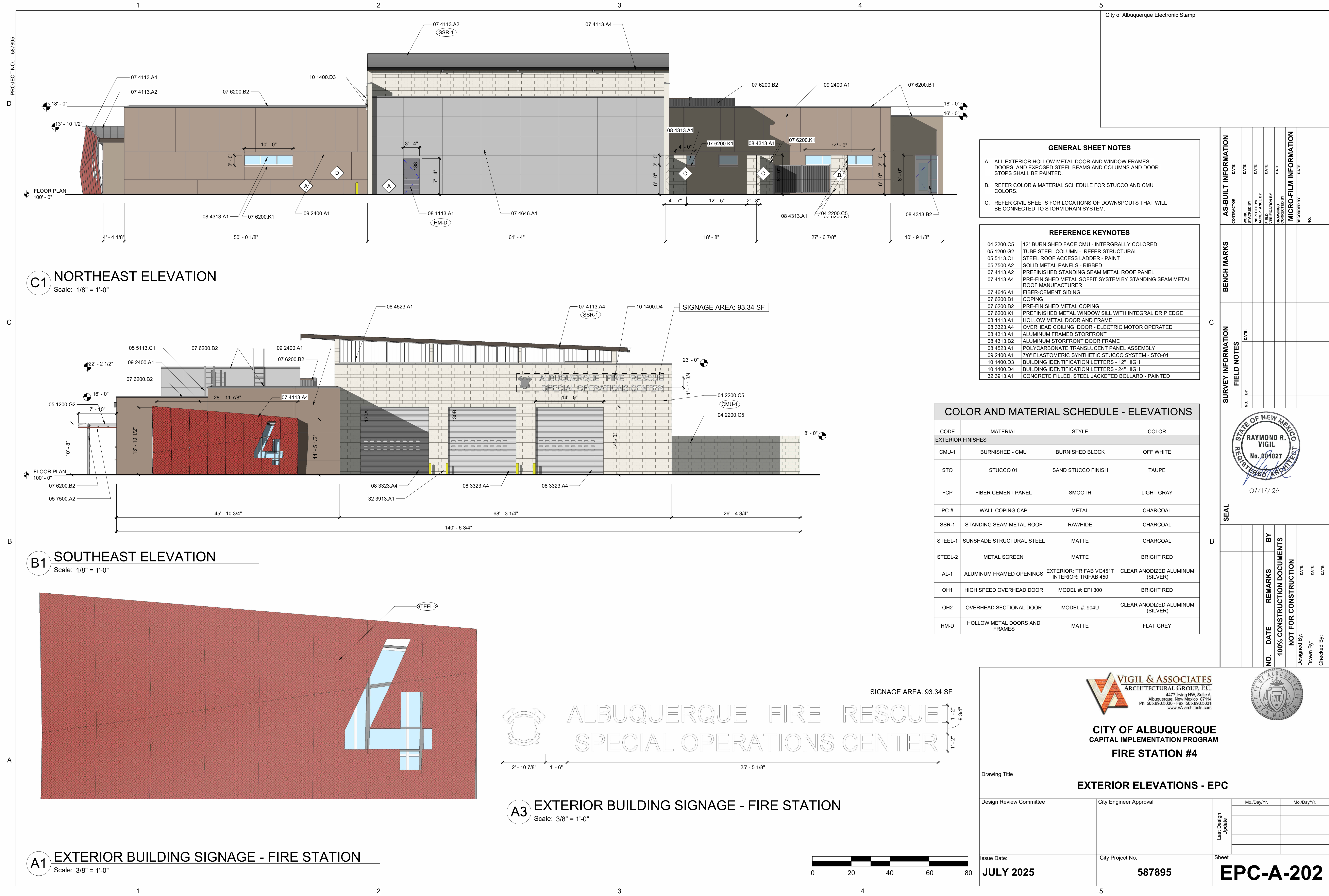
| SURVEY INFORMATION | | BENCH MARKS | | AS-BUILT INFORMATION | |
|------------------------|------|-------------|------------|-----------------------|------|
| FIELD NOTES | | | | | |
| NO. | BY | DATE | CONTRACTOR | WORK STACKED BY | DATE |
| | | | | INSPECTED BY | DATE |
| | | | | FIELD VERIFICATION BY | DATE |
| | | | | CONTRACTOR | DATE |
| MICRO-FILM INFORMATION | | | | | |
| RECORDED BY | DATE | NO. | | | |



CITY OF ALBUQUERQUE
CAPITAL IMPLEMENTATION PROGRAM
FIRE STATION #4

| SLIDING GATE ELEVATIONS - EPC | | | |
|-------------------------------|------------------------|--------------------|-------------------|
| Design Review Committee | City Engineer Approval | Last Design Update | Mo./Day/Yr. |
| | | | |
| | | | |
| | | | |
| | | | |
| Issue Date: | City Project No. | Sheet | |
| JULY 2025 | 587895 | | EPC-AS-504 |

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PROJECT NO.: 587895

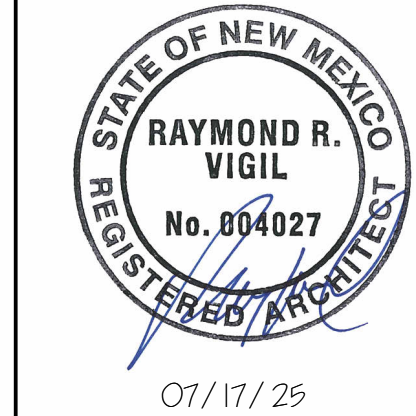
City of Albuquerque Electronic Stamp

- GENERAL SHEET NOTES
A. ALL EXTERIOR HOLLOW METAL DOOR AND WINDOW FRAMES, DOORS, AND EXPOSED STEEL BEAMS AND COLUMNS AND DOOR STOPS SHALL BE PAINTED.
B. REFER COLOR & MATERIAL SCHEDULE FOR STUCCO AND CMU COLORS.
C. REFER CIVIL SHEETS FOR LOCATIONS OF DOWNSPOUTS THAT WILL BE CONNECTED TO STORM DRAIN SYSTEM.

Table with 2 columns: Item, Description. Contains reference keynotes for materials like CMU, Stucco, Metal, and Doors.

Table with 4 columns: CODE, MATERIAL, STYLE, COLOR. Contains color and material schedule for exterior finishes.

AS-BUILT INFORMATION, BENCH MARKS, SURVEY INFORMATION, FIELD NOTES, SEAL, and other project tracking fields.



Project title block including logos for Vigil & Associates and City of Albuquerque, project name 'FIRE STATION #4', and drawing title 'EXTERIOR ELEVATIONS - EPC'.

