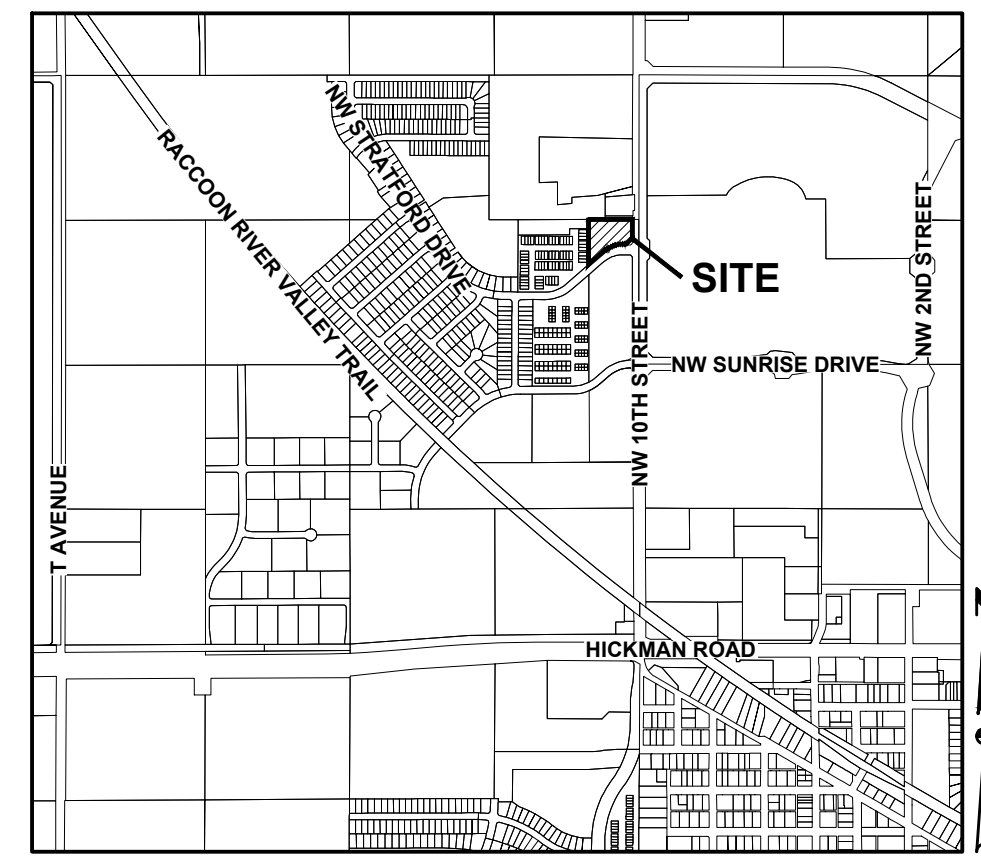


SITE PLAN / PRELIMINARY PLAT FOR: CASEY'S - STORE #4269

WAUKEE, IOWA

VICINITY MAP



WAUKEE, IOWA

NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN UPDATED SITE PLAN ILLUSTRATING ANY CHANGES MADE DURING CONSTRUCTION AND RECEIVE APPROVAL IN WRITING FROM THE CITY OF WAUKEE COMMUNITY DEVELOPMENT DEPARTMENT OF SAID CHANGES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CHANGES MADE WITHOUT WRITTEN APPROVAL.

LEGAL DESCRIPTION

PARCEL 21-148 OF OUTLOT 'Y', STRATFORD CROSSING PLAT 1 & OF TRACT B OF THE NORTHEAST QUARTER (NE $\frac{1}{4}$) OF THE NORTHEAST QUARTER (NE $\frac{1}{4}$) OF SECTION 29, TOWNSHIP 79 NORTH, RANGE 26 WEST OF THE 5TH P.M., AS SHOWN ON THE PLAT OF SURVEY RECORDED IN BOOK 2003 AT PAGE 58, CITY OF WAUKEE, DALLAS COUNTY, IOWA.

ZONING

C-1: COMMUNITY AND HIGHWAY SERVICE COMMERCIAL DISTRICT

PROJECT SITE ADDRESS

600 NW 10TH STREET

EXISTING/ PROPOSED USE

EXISTING: OPEN SPACE

PROPOSED: GAS STATION

DEVELOPMENT SUMMARY

AREA: 2.64 ACRES (114,868 SF)

ZONING: C-1 COMMUNITY AND HIGHWAY SERVICE COMMERCIAL DISTRICT

SETBACKS:

- MINIMUM FRONT YARD - 30 FEET
- MINIMUM REAR YARD - 30 FEET
- MINIMUM SIDE YARD - NO MINIMUM EXCEPT WHEN ADJACENT TO ANY R DISTRICT, THE MINIMUM SIDE YARD SHALL BE 30 FEET
- MAXIMUM HEIGHT - NO MAXIMUM EXCEPT WHEN ADJACENT TO AN R-1, R-2, OR R-4 DISTRICT, THE MAXIMUM SHALL BE 2 STORIES OR 40 FEET

1 STORY OR 14 FEET FOR ACCESSORY BUILDING

BUILDING HEIGHTS

APPROXIMATE BUILDING HEIGHTS:

CONVENIENCE STORE: 21'-4"

CAR WASH: 17'-10"

GAS CANOPY: 22'-3"

IMPERVIOUS SURFACE AREA

51,286 SF

PARKING REQUIREMENTS

CONVENIENCE STORE/GAS STATION:

FIVE (5) SPACES PER ONE THOUSAND (1,000) SQUARE FEET OF GROSS FLOOR AREA

CARWASH: TWO (2) SPACES PER ONE THOUSAND (1,000) SQUARE FEET OF GROSS FLOOR AREA

RETAIL = 5,030 SF
CARWASH = 3,165 SF
PARKING REQUIRED = 33 SPACES
PARKING PROVIDED = 33 SPACES

BENCHMARKS

1. USGS MONUMENT ALUMINUM ROD WITH CAP STAMPED G121 AND NGS ACCESS COVER 3" DEEP, EAST SIDE OF R AVENUE (R16) 0.1 MILES SOUTH OF 300TH STREET. ELEVATION = 1032.83
2. PK NAIL 3' NORTH OF CENTERLINE EASTBOUND HIGHWAY 6 AT THE SE CORNER OF SW SE. ELEVATION = 1040.27

INDEX OF SHEETS

NO.	DESCRIPTION
C-001	COVER SHEET
C-002	QUANTITIES & GENERAL NOTES
C-003	ALTA / NSPS LAND TITLE SURVEY
C-100	TOPOGRAPHIC SURVEY & DEMOLITION PLAN
C-101	DIMENSION PLAN
C-201	GRADING PLAN
C-301	UTILITY PLAN
C-401	EROSION AND SEDIMENT CONTROL PLAN
C-601 - C-605	DETAILS
C-701	LANDSCAPE PLAN

GENERAL LEGEND

PROPOSED	EXISTING	FOUND	SET
PROPERTY BOUNDARY	SECTION CORNER AS NOTED	▲	△
SECTION LINE	1/2" REBAR, YELLOW CAP #15980 (UNLESS OTHERWISE NOTED)	●	○
CENTER LINE	MEASURED BEARING & DISTANCE	M	R
RIGHT OF WAY	RECORDED BEARING & DISTANCE	R	D
BUILDING SETBACK	DEEDED BEARING & DISTANCE	MPE	P.U.E.
PERMANENT EASEMENT	MINIMUM PROTECTION ELEVATION		
TEMPORARY EASEMENT	PUBLIC UTILITY EASEMENT		
TYPE SW-501 STORM INTAKE	CENTERLINE		
TYPE SW-502 STORM INTAKE	SECTION LINE		
TYPE SW-503 STORM INTAKE	EASEMENT LINE		
TYPE SW-505 STORM INTAKE	TELEPHONE LINE		
TYPE SW-506 STORM INTAKE	CABLE TELEVISION LINE		
TYPE SW-512 STORM INTAKE	FIBER OPTICS LINE		
TYPE SW-513 STORM INTAKE	WATERMAIN		
TYPE SW-401 STORM MANHOLE	STORM SEWER		
TYPE SW-402 STORM MANHOLE	SANITARY SEWER		
FLARED END SECTION	STREET LIGHT		
TYPE SW-301 SANITARY MANHOLE	DECIDUOUS TREE		
STORM/SANITARY CLEANOUT	WOOD FENCE		
WATER VALVE	GAS LINE		
FIRE HYDRANT ASSEMBLY SIGN	ELECTRIC LINE		
DETECTABLE WARNING PANEL	OVERHEAD ELECTRIC LINE		
WATER CURB STOP	GAS MANHOLE		
SANITARY SEWER	MONITORING WELLS		
SANITARY SERVICE	FLARED END SECTION		
STORM SEWER	TRAFFIC SIGNAL CONTROL		
STORM SERVICE	CLEANOUT		
WATERMAIN WITH SIZE	GAS APPARATUS		
WATER SERVICE	AIR CONDITIONER		
SAWCUT (FULL DEPTH)	TELEPHONE PEDESTAL		
SILT FENCE	WATER VALVE		
USE AS CONSTRUCTED	FIRE HYDRANT		
MINIMUM PROTECTION ELEVATION	ELECTRIC TRANSFORMER		
FINISHED FLOOR ELEVATION	ELECTRIC METER BOARD		
	MAIL BOX		
	SIGN		
	POWER POLE		
	TELEVISION PEDESTAL		
	SANITARY SEWER MANHOLE		
	STORM SEWER MANHOLE		
	ROUND STORM SEWER INTAKE		
	STORM SEWER INTAKE		
	FLAG POLE		
	SPRINKLER BOX		
	BUSH		
	CONIFEROUS TREE		
	OVERHEAD LIGHT		
	HANDICAPPED PARKING		
	ROOF DRAIN		
	TRAFFIC LIGHT		
	SEPTIC TANK		
	YARD LIGHT		

OWNER

STRATFORD CROSSING, INC.
9550 HICKMAN ROAD, SUITE 100
CLIVE, IOWA 50325
CONTACT: BILL SPENCER
PH: (515) 986-5994

APPLICANT

CASEY'S SERVICES COMPANY
3305 SE DELAWARE AVENUE
ANKENY, IA 50021
CONTACT: BRITNI ANDREASSEN
PH: (515) 381-5106

ENGINEER

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IOWA 50322
CONTACT: ERIN OLLENDIKE
EMAIL: ERINO@CDA-ENG.COM
PH: (515) 369-4400

SURVEYOR

CIVIL DESIGN ADVANTAGE, LLC
4121 NW URBANDALE DRIVE
URBANDALE, IOWA 50322
CONTACT: CHARLIE MCGLOTHLEN
EMAIL: CHARLIEM@CDA-ENG.COM
PH: (515) 369-4400

DATE OF SURVEY

FEBRUARY 11, 2022

CONSTRUCTION SCHEDULE

ANTICIPATED START DATE = AUGUST 2022
ANTICIPATED FINISH DATE = DECEMBER 2022

SUBMITTAL DATES

FIRST SUBMITTAL: 05/24/2022
SECOND SUBMITTAL: 07/19/2022
THIRD SUBMITTAL: 08/02/2022

*** NOTE ***
THE BUILDINGS SHOWN ARE FOR REFERENCE PURPOSES ONLY. FINAL BUILDING TYPE IS SUBJECT TO CHANGE. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.



UTILITY WARNING

ANY UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY AND RECORDS OBTAINED BY THIS SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION SHOWN.



4121 NW URBANDALE DRIVE, URBANDALE, IOWA 50322
PH: (515) 369-4400
PROJECT NO. 2202.055

REFER TO GEOTECHNICAL ENGINEERING REPORT NO. 222060CWC PREPARED BY CONSTRUCTION MATERIALS TESTING, INC. FOR GEOTECHNICAL REQUIREMENTS

THE PROJECT REQUIRES AN IOWA NPDES PERMIT #2 AND CITY OF WAUKEE COSECO PERMIT. CIVIL DESIGN ADVANTAGE WILL PROVIDE THE PERMITS AND THE INITIAL STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE CONTRACTORS USE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UPDATING THE SWPPP THROUGHOUT CONSTRUCTION AND MEETING LOCAL, STATE AND FEDERAL REQUIREMENTS.

ALL CONSTRUCTION MATERIALS, DUMPSTERS, DETACHED TRAILERS OR SIMILAR ITEMS ARE PROHIBITED ON PUBLIC STREETS OR WITHIN THE PUBLIC R.O.W.

THE 2020 EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS, THE 2022 EDITION OF THE SUDAS STANDARD SPECIFICATIONS, THE PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.

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

ERIN OLLENDIKE, P.E.
LICENSE NUMBER 16926
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2023
PAGES OR SHEETS COVERED BY THIS SEAL:
SHEETS C-001 - C-002, & C-100 - C-605

DATE

ALTA/NSPS LAND TITLE SURVEY

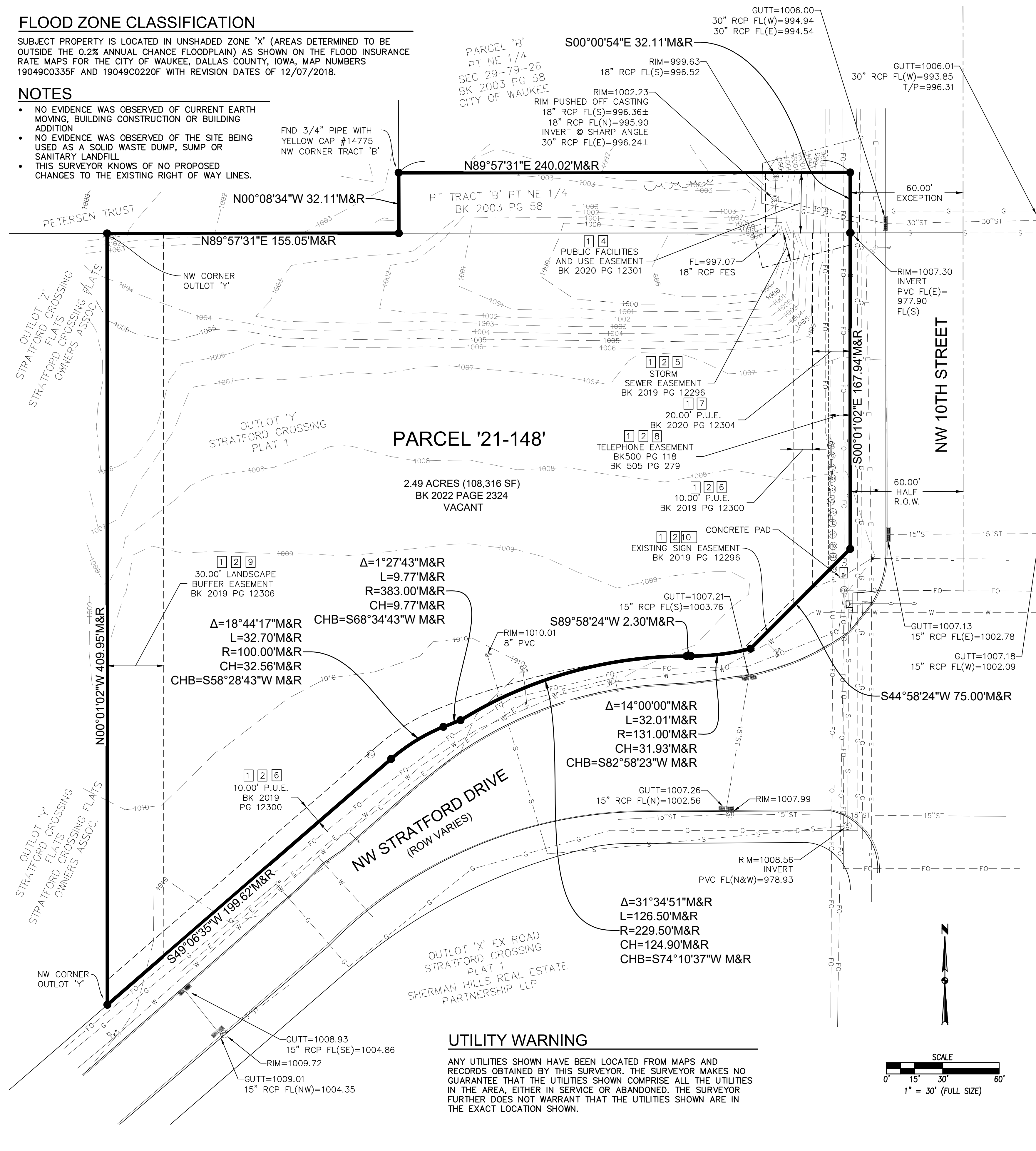
FLOOD ZONE CLASSIFICATION

SUBJECT PROPERTY IS LOCATED IN UNSHADED ZONE 'X' (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE FLOOD INSURANCE RATE MAPS FOR THE CITY OF WAUKEE, DALLAS COUNTY, IOWA, MAP NUMBERS 19049C0335F AND 19049C0220F WITH REVISION DATES OF 12/07/2018.

NOTES

- NO EVIDENCE WAS OBSERVED OF CURRENT EARTH MOVING, BUILDING CONSTRUCTION OR BUILDING ADDITION
- NO EVIDENCE WAS OBSERVED OF THE SITE BEING USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL
- THIS SURVEYOR KNOWS OF NO PROPOSED CHANGES TO THE EXISTING RIGHT OF WAY LINES.

FND 3/4" PIPE WITH YELLOW CAP #14775 NW CORNER TRACT 'B'



LEGEND

FOUND	SET	DESCRIPTION
▲	△	SECTION CORNER AS NOTED
●	○	1/2" REBAR, YELLOW CAP #15980 (UNLESS OTHERWISE NOTED)
M	R	MEASURED BEARING & DISTANCE
R	D	RECORDED BEARING & DISTANCE
D	MPE	DEEDED BEARING & DISTANCE
MPE	P.U.E.	MINIMUM PROTECTION ELEVATION
P.U.E.		PUBLIC UTILITY EASEMENT
		CENTERLINE
		SECTION LINE
		EASEMENT LINE
		TELEPHONE LINE
		CABLE TELEVISION LINE
		FIBER OPTICS LINE
		WATERMAIN
		STORM SEWER
		SANITARY SEWER
		STREET LIGHT
		DECIDUOUS TREE
		WOOD FENCE
		GAS LINE
		ELECTRIC LINE
		OVERHEAD ELECTRIC LINE
		GAS MANHOLE
		MONITORING WELLS
		FLARED END SECTION
		TRAFFIC SIGNAL CONTROL
		CLEANOUT
		GAS APPARATUS
		AIR CONDITIONER
		TELEPHONE PEDESTAL
		WATER VALVE
		FIRE HYDRANT
		ELECTRIC TRANSFORMER
		ELECTRIC METER BOARD
		MAIL BOX
		SIGN
		POWER POLE
		TELEVISION PEDESTAL
		SANITARY SEWER MANHOLE
		STORM SEWER MANHOLE
		ROUND STORM SEWER INTAKE
		STORM SEWER INTAKE
		FLAG POLE
		SPRINKLER BOX
		BUSH
		CONIFEROUS TREE
		OVERHEAD LIGHT
		HANDICAPPED PARKING
		ROOF DRAIN
		TRAFFIC LIGHT
		SEPTIC TANK
		YARD LIGHT

ENGINEER/SURVEYOR

CIVIL DESIGN ADVANTAGE
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322

OWNER / REQUESTED BY

STRATFORD CROSSING, LLC

DATE OF SURVEY

02-11-2022

SITE ADDRESS

VACANT

AREA OF PROPERTY

2.49 ACRES (108,316 SF)

WETLANDS:

NO WETLANDS WERE DELINEATED AT THE TIME OF SURVEY

ZONING

C-1: COMMUNITY AND HIGHWAY SERVICE COMMERCIAL DISTRICT

BULK REGULATIONS

- MINIMUM FRONT YARD - 30 FEET
 - MINIMUM REAR YARD - 30 FEET
 - MINIMUM SIDE YARD - NO MINIMUM EXCEPT WHEN ADJACENT TO ANY R DISTRICT, THE MINIMUM SIDE YARD SHALL BE 30 FEET
 - MAXIMUM HEIGHT - NO MAXIMUM EXCEPT WHEN ADJACENT TO AN R-1, R-2, OR R-4 DISTRICT, THE MAXIMUM SHALL BE 2 STORIES OR 40 FEET
- 1 STORY OR 14 FEET FOR ACCESSORY BUILDING

PROPERTY DESCRIPTION

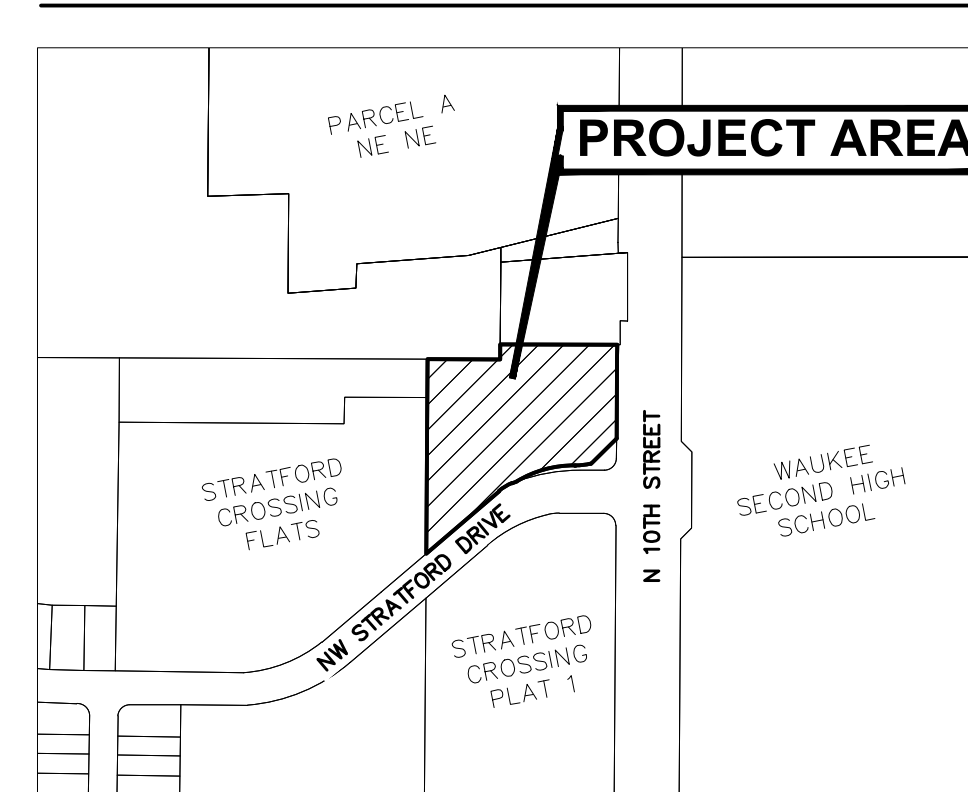
PARCEL 21-148 OF OUTLOT 'Y', STRATFORD CROSSING PLAT 1 & OF TRACT B OF THE NORTHEAST QUARTER (NE $\frac{1}{4}$) OF THE NORTHEAST QUARTER (NE $\frac{1}{4}$) OF SECTION 29, TOWNSHIP 79 NORTH, RANGE 26 WEST OF THE 5TH P.M., AS SHOWN ON THE PLAT OF SURVEY RECORDED IN BOOK 2003 AT PAGE 58, CITY OF WAUKEE, DALLAS COUNTY, IOWA.

SCHEDULE B - SECTION II

THE TITLE OPINION PREPARED BY WHITFIELD & EDDY LAW, WITH A TITLE OPINION NUMBER OF 27770 AND AN EFFECTIVE DATE OF FEBRUARY 1, 2022 WAS USED TO PREPARE THIS SURVEY.

- PLAT RECORDED AT BOOK 2022, PAGE 2324 IN THE OFFICE OF THE DALLAS COUNTY RECORDER IS THE PLAT OF SURVEY FOR PARCEL 21-148 WHICH REFLECTS THE VARIOUS EASEMENTS TO WHICH THE PROPERTY IS SUBJECT. SUBJECT PROPERTY IS THE PROPERTY DESCRIBED IN SAID PLAT AND EASEMENTS SHOWN ON SAID PLAT OF SURVEY ARE AS SHOWN ON THIS SURVEY.
- PLAT REPORTED AT BOOK 2019, PAGE 12296 IS THE FINAL PLAT OF STRATFORD CROSSING, LLC. PART OF THE SUBJECT PROPERTY IS OUTLOT 'Y' OF SAID FINAL PLAT AND INCLUDES EASEMENTS AS SHOWN ON SURVEY.
- ANNEXATION. PROPERTY HAS BEEN ANNEXED INTO THE CITY OF WAUKEE, IOWA.
- PUBLIC UTILITIES AND USE EASEMENT. REPORTED AT BOOK 2020, PAGE 12301 IS A PUBLIC UTILITIES AND USE EASEMENT. -SAID EASEMENT LOCATED ON SUBJECT PROPERTY AS SHOWN ON SURVEY.
- STORM SEWER EASEMENT REPORTED AT BOOK 2019, PAGE 12302 IS A STORM SEWER EASEMENT. -SAID EASEMENT LOCATED ON SUBJECT PROPERTY AS SHOWN ON SURVEY.
- PUBLIC UTILITY EASEMENT. REPORTED AT BOOK 2019, PAGE 12300 IS A 10-FOOT WIDE PUBLIC UTILITY EASEMENT. -SAID EASEMENT LOCATED ON SUBJECT PROPERTY AS SHOWN ON SURVEY.
- PUBLIC UTILITY EASEMENT. REPORTED AT BOOK 2020, PAGE 12304 IS 20-FOOT WIDE PUBLIC UTILITY EASEMENT. -SAID EASEMENT LOCATED ON SUBJECT PROPERTY AS SHOWN ON SURVEY.
- TELEPHONE EASEMENT. REPORTED AT BOOK 500, PAGE 118 (AND BOOK 505, PAGE 279 PER PLAT OF SURVEY IS A TELEPHONE EASEMENT BUT IT IS NOT REPORTED IN THE ABSTRACT). -SAID EASEMENT LOCATED ON SUBJECT PROPERTY AS SHOWN ON SURVEY.
- PRIVATE LANDSCAPE BUFFER EASEMENT. REPORTED AT BOOK 2019, PAGE 12306 IS A PRIVATE LANDSCAPE BUFFER EASEMENT. -SAID EASEMENT IS LOCATED ON THE SUBJECT PROPERTY AS DESCRIBED IN SAID EASEMENT DOCUMENT AND IS SHOWN ON THE FINAL PLAT STRATFORD CROSSING PLAT 1. EASEMENT IS LOCATED ON SUBJECT PROPERTY AS SHOWN ON SURVEY.
- DECLARATION OF COVENANT FOR MONUMENT SIGNS. REPORTED AT BOOK 2019, PAGE 12307 IS A DECLARATION OF COVENANT FOR MONUMENT SIGNS. SAID DECLARATION DESCRIBES A SIGN EASEMENT AS SHOWN ON SURVEY.

VICINITY MAP



CERTIFICATION:

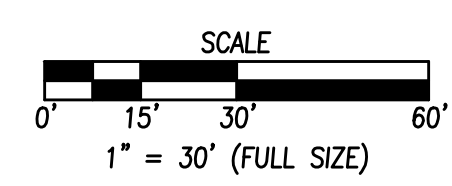
TO CASEY'S SERVICE COMPANY:
THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6(A), 6(B), 7(A), 7(B1), 7(C), 8, 9, 10, 11, 13, 14, 16, 17, 18, AND 19 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON 2-11-2022.

I HEREBY CERTIFY THAT THIS LAND SURVEYING DOCUMENT WAS PREPARED AND THE RELATED SURVEY WORK WAS PERFORMED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF IOWA.

MICHAEL A. BROONER, P.L.S. DATE _____
LICENSE NUMBER 15980
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2022
PAGES OR SHEETS COVERED BY THIS SEAL:
THIS SHEET

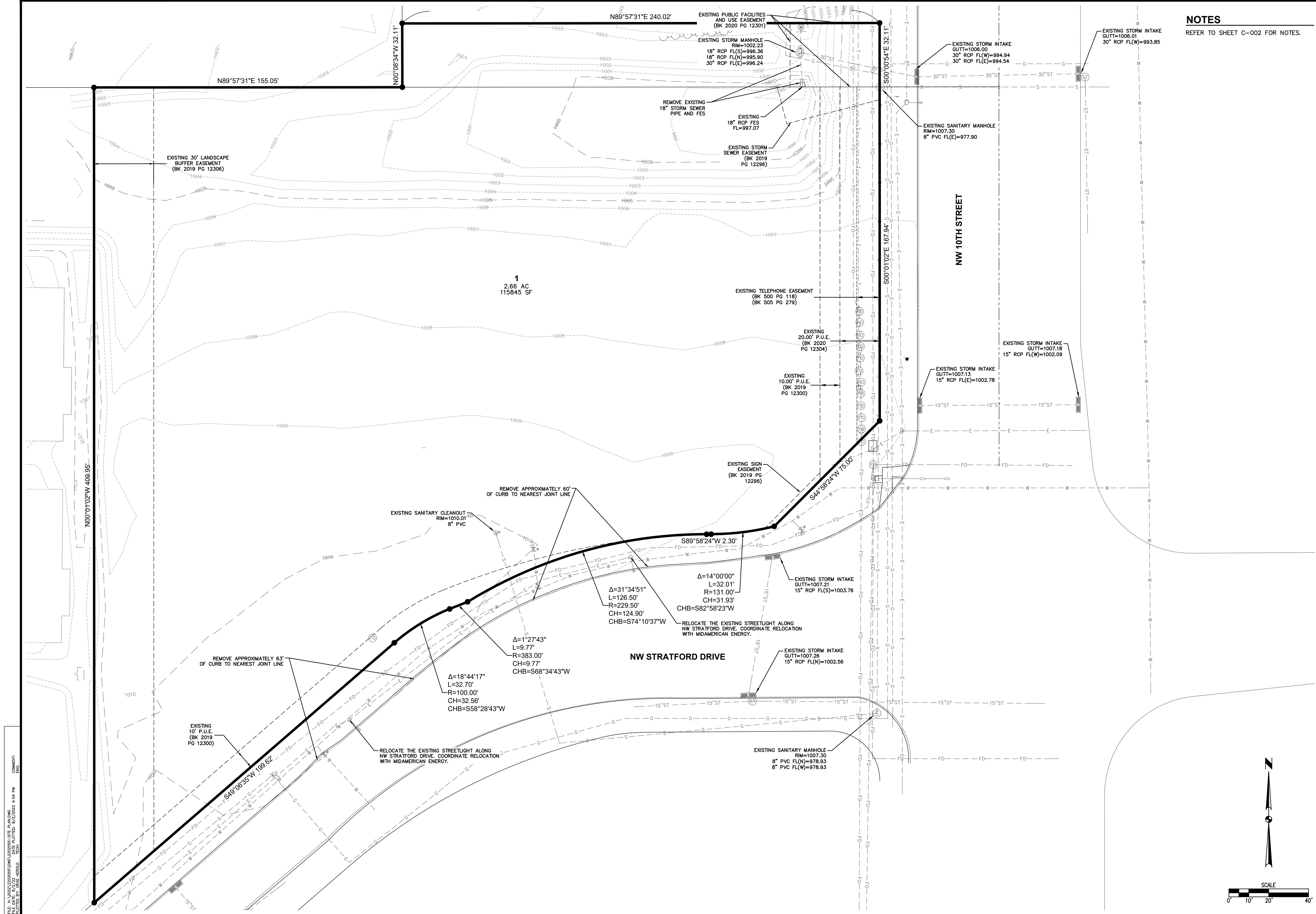
UTILITY WARNING

ANY UTILITIES SHOWN HAVE BEEN LOCATED FROM MAPS AND RECORDS OBTAINED BY THIS SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION SHOWN.



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 DATE PLOTTED: 2/22/2022 4:04 PM

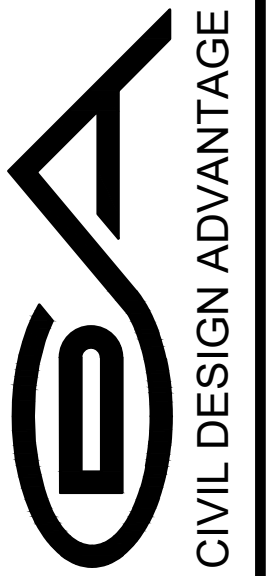
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 07/19/2022
 05/24/2022
 REVISIONS:
 THIRD SUBMITTAL
 SECOND SUBMITTAL
 FIRST SUBMITTAL
 4121 NW URBANDALE DRIVE
 URBANDALE, IA 50322
 PHONE: (515) 369-4400
 ENGINEER: GH, TECH: RL
 ENGINEER: EKO
 CIVIL DESIGN ADVANTAGE
 WAUKEE, IOWA
CASEY'S - STORE #4269
ALTA/NSPS LAND TITLE SURVEY
 600 NW 10TH STREET
 SHEET NUMBER:
C-003
 2202.055



NOTES
REFER TO SHEET C-002 FOR NOTES.

DATE	REVISIONS
08/02/2022	THIRD SUBMITTAL
07/19/2022	SECOND SUBMITTAL
05/24/2022	FIRST SUBMITTAL

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400

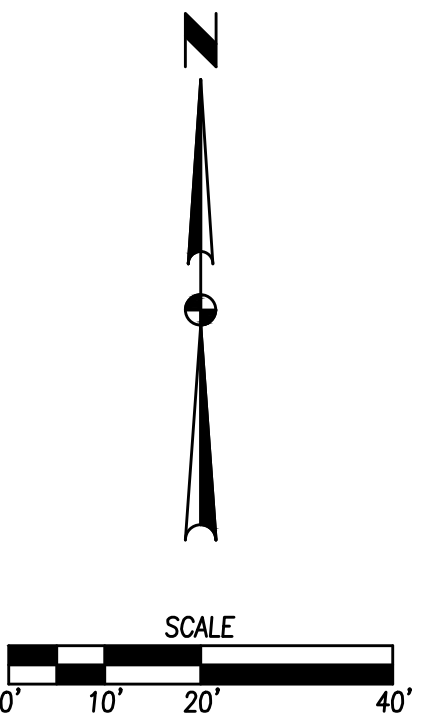


CIVIL DESIGN ADVANTAGE
ENGINEER: EKO
ENGINEER: GH, TECH: RL
WAUKEE, IOWA

CASEY'S - STORE #4269
TOPOGRAPHIC SURVEY & DEMOLITION PLAN

SHEET NUMBER:
C-100
2202.055

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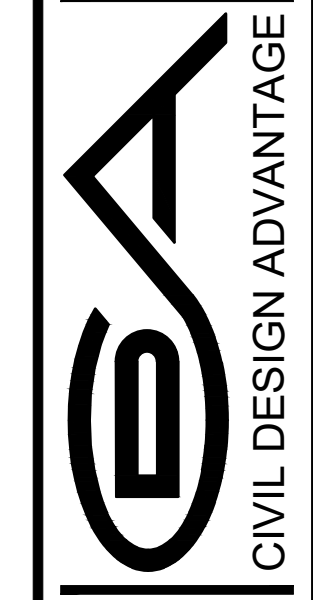


COMMENTS:
ENC.

NOTES
REFER TO SHEET C-002 FOR NOTES.

DATE	REVISIONS
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07/19/2022	SECOND SUBMITTAL
05/24/2022	FIRST SUBMITTAL

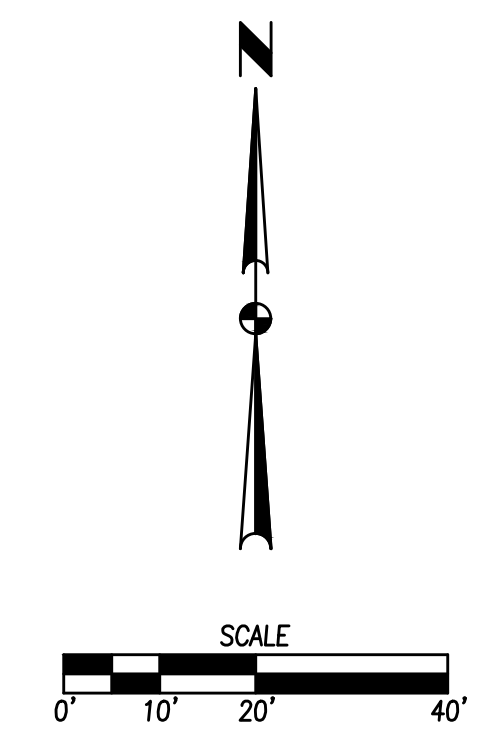
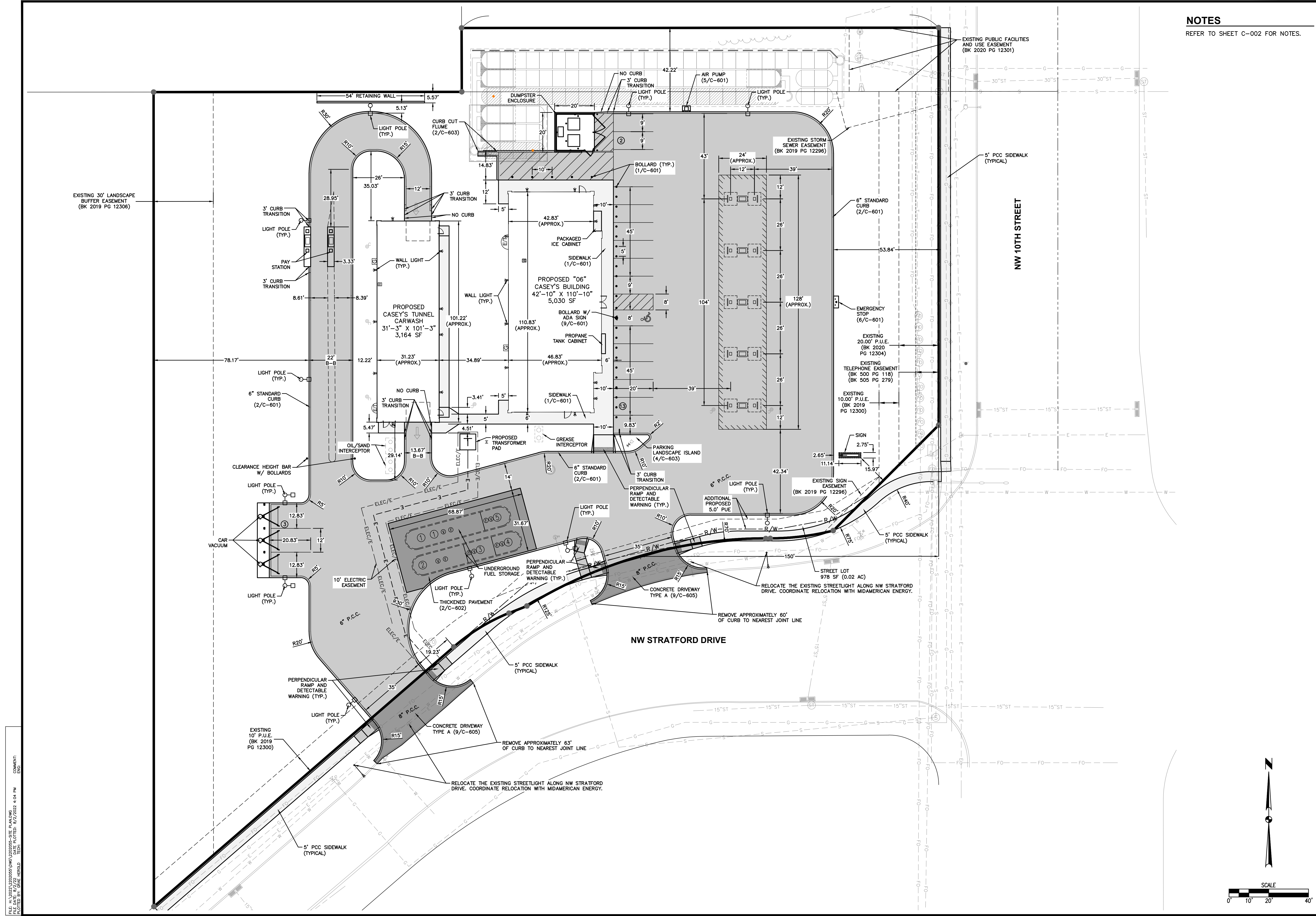
4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400



WAUKEE, IOWA
ENGINEER: EKO
ENGINEER: GH, TECH: RL

CASEY'S - STORE #4269
DIMENSION PLAN

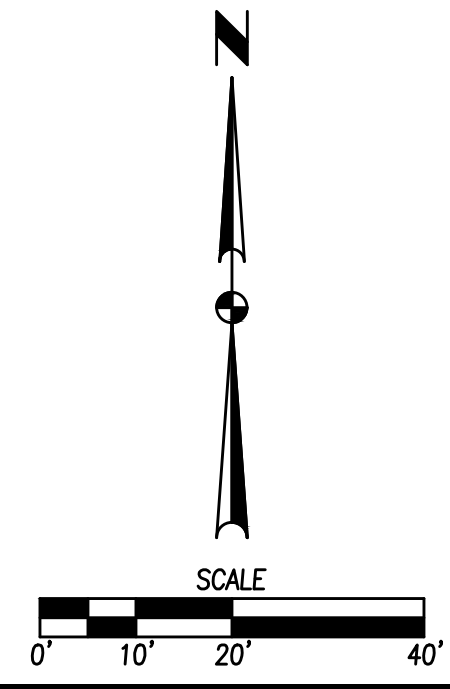
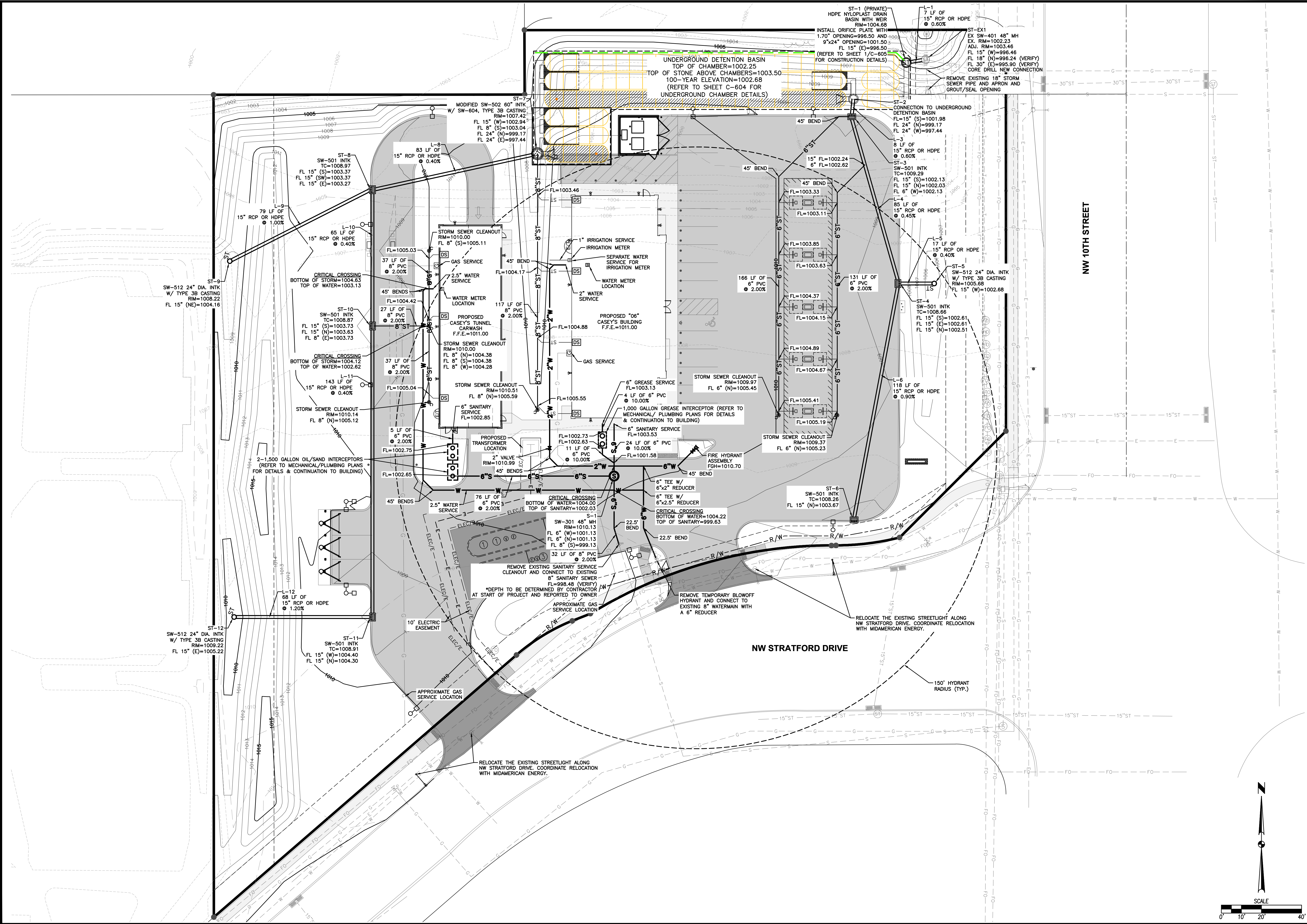
600 NW 10TH STREET
SHEET NUMBER:
C-101
2202.055



COMMENTS:
ENC.
FILE DATE: 8/2/22
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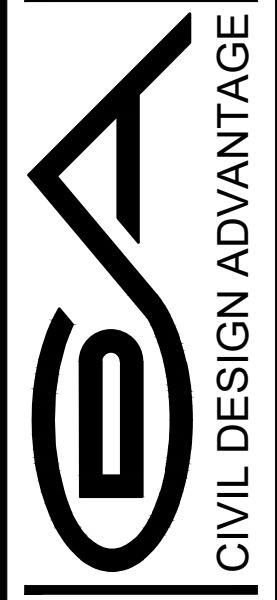
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DATE: 07/22/22
PLOT DATE: 07/22/22 4:04 PM
PLOT BY: GAE/EROLD

COMMENTS:
ENC.



DATE	REVISIONS
08/02/2022	THIRD SUBMITTAL
07/19/2022	SECOND SUBMITTAL
05/24/2022	FIRST SUBMITTAL

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400



CIVIL DESIGN ADVANTAGE
ENGINEER: EKO
ENGINEER: GH, TECH: RL

CASEY'S - STORE #4269

UTILITY PLAN

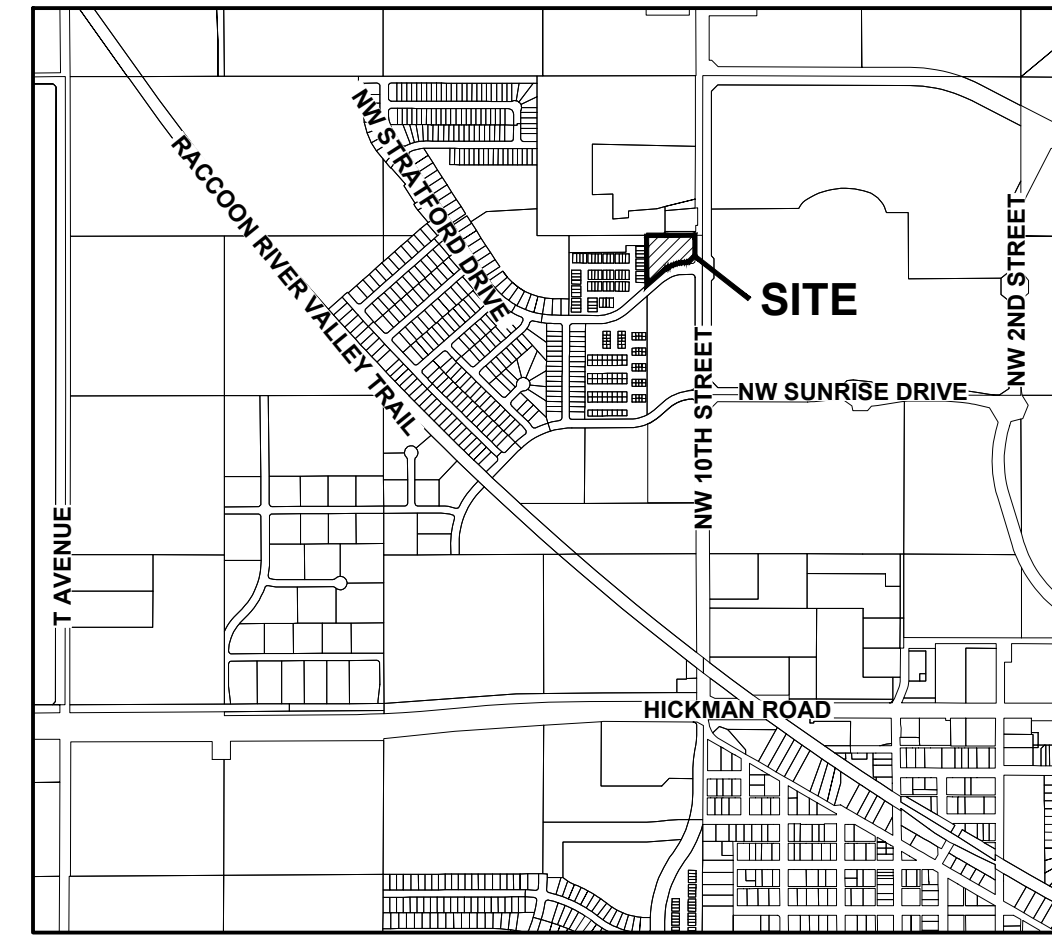
600 NW 10TH STREET
SHEET NUMBER:
C-301
2202.055

CASEY'S - STORE #4269

EROSION AND SEDIMENT CONTROL PLAN

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

STABILIZATION QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	1,632
2	SOD	SF	71,873
3	INLET PROTECTION DEVICES	EA	7
4	CONCRETE WASHOUT PIT	EA	1
5	SUDAS TYPE 4 TEMPORARY SEED MIX	AC	1.65
6	TOPSOIL, RESPREAD (SOIL QUALITY RESTORATION)	AC	1.31

DISCHARGE POINT SUMMARY

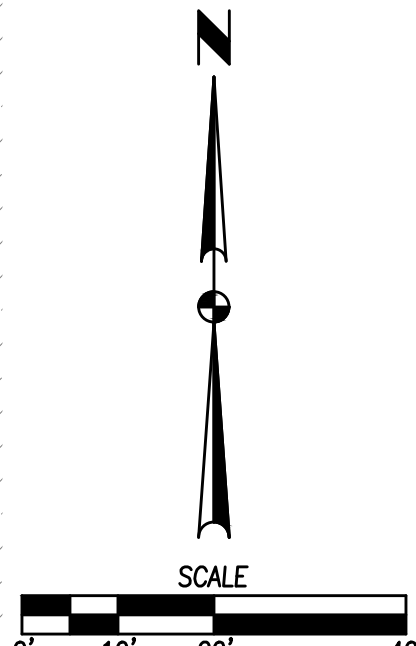
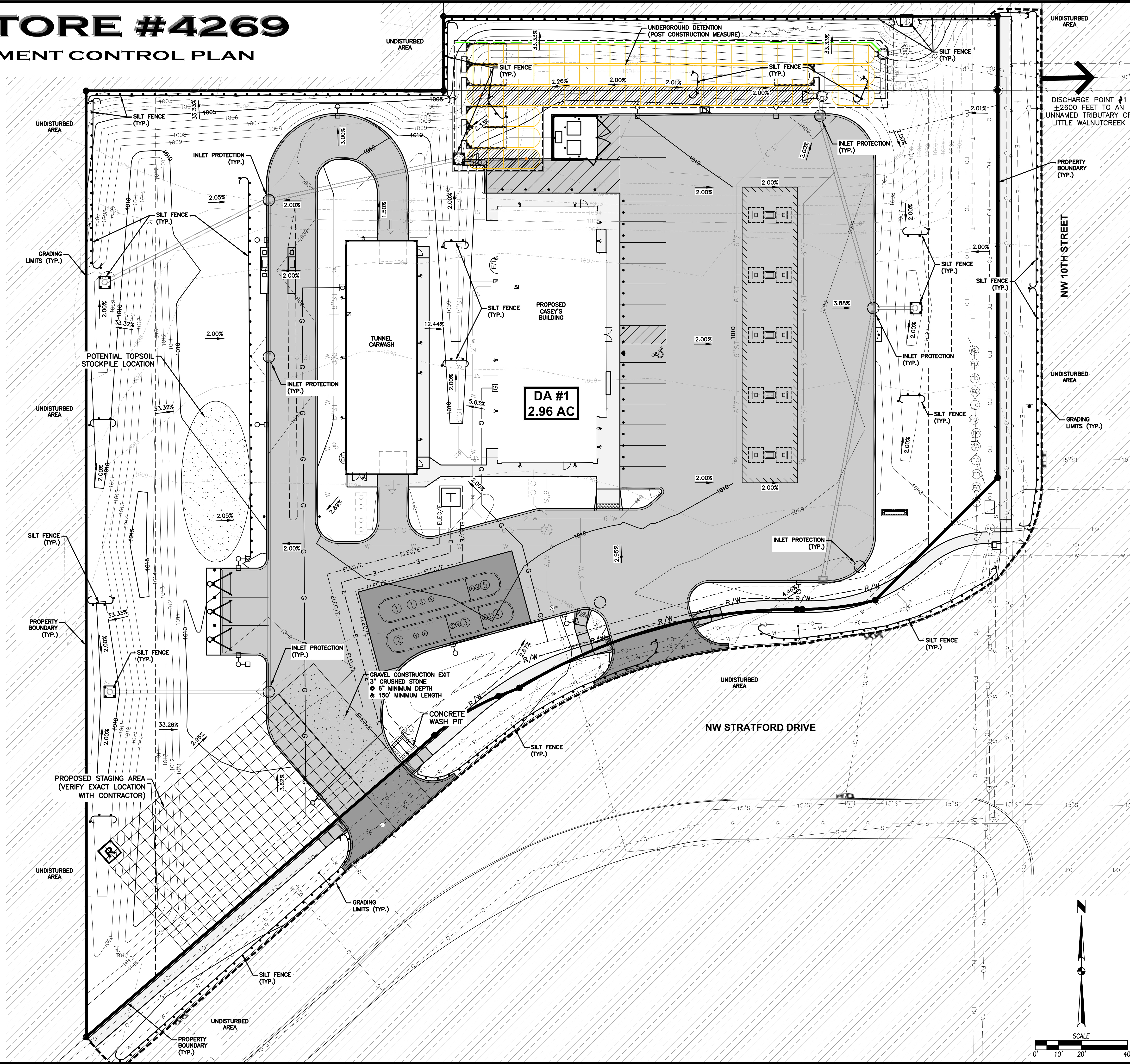
DISCHARGE POINT #1 TO AN UNNAMED TRIBUTARY OF LITTLE WALNUT CREEK ±2600 FT
 TOTAL AREA DISTURBED TO DISCHARGE POINT 2.96 ACRES
 STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT) 10,656 CU FT
 VOLUME PROVIDED IN SILT FENCE (1,632 LF @ 9 CU FT/LF OF FENCE) 14,688 CU FT
 TOTAL VOLUME PROVIDED 14,688 CU FT

NOTES:

- IF DEWATERING IS NEEDED FOR ANY REASON, DISCHARGE OF WATER OFFSITE IS TO CONFORM WITH THE GENERAL PERMIT #2 REQUIREMENT.
- DISTURBED AREAS SHALL BE TEMPORARILY SEED OR MULCHED IMMEDIATELY WHENEVER CLEARING, GRADING, EXCAVATING, OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS.
- STORM SEWERS AND DRAINAGE WAYS SHALL BE PROTECTED FROM CONCRETE SLURRY PRODUCED BY SAWCUTTING AND CONCRETE GRINDING.
- SOIL QUALITY RESTORATION WILL OCCUR ON ALL OPEN SPACE AREA AND IS TO BE OVERLAID WITH A MINIMUM OF 8" OF TOPSOIL WITH A MINIMUM OF 2% ORGANIC MATTER CONTENT FOLLOWING MASS GRADING OPERATIONS TO ENSURE WATER QUALITY VOLUME IS MET. CONTRACTOR SHALL WORK WITH THE GEOTECHNICAL COMPANY ONSITE TO TEST THE TOPSOIL PRIOR TO PLACEMENT TO ENSURE ORGANIC CONTENT REQUIREMENTS ARE BEING MET. PROVIDE TEST REPORTS TO CITY OF WAUKEE STORMWATER DEPARTMENT

SWPPP LEGEND

DRAINAGE ARROW		X.XX %
GRADING LIMITS		
FILTER SOCK		
SILT FENCE		
DITCH CHECK		
INLET PROTECTION		
PORTABLE RESTROOM		R
CONCRETE WASHOUT PIT		
UNDISTURBED AREA		
GRAVEL ENTRANCE		
STAGING AREA		



DATE	REVISIONS
08/02/2022	THIRD SUBMITTAL
07/19/2022	SECOND SUBMITTAL
05/24/2022	FIRST SUBMITTAL

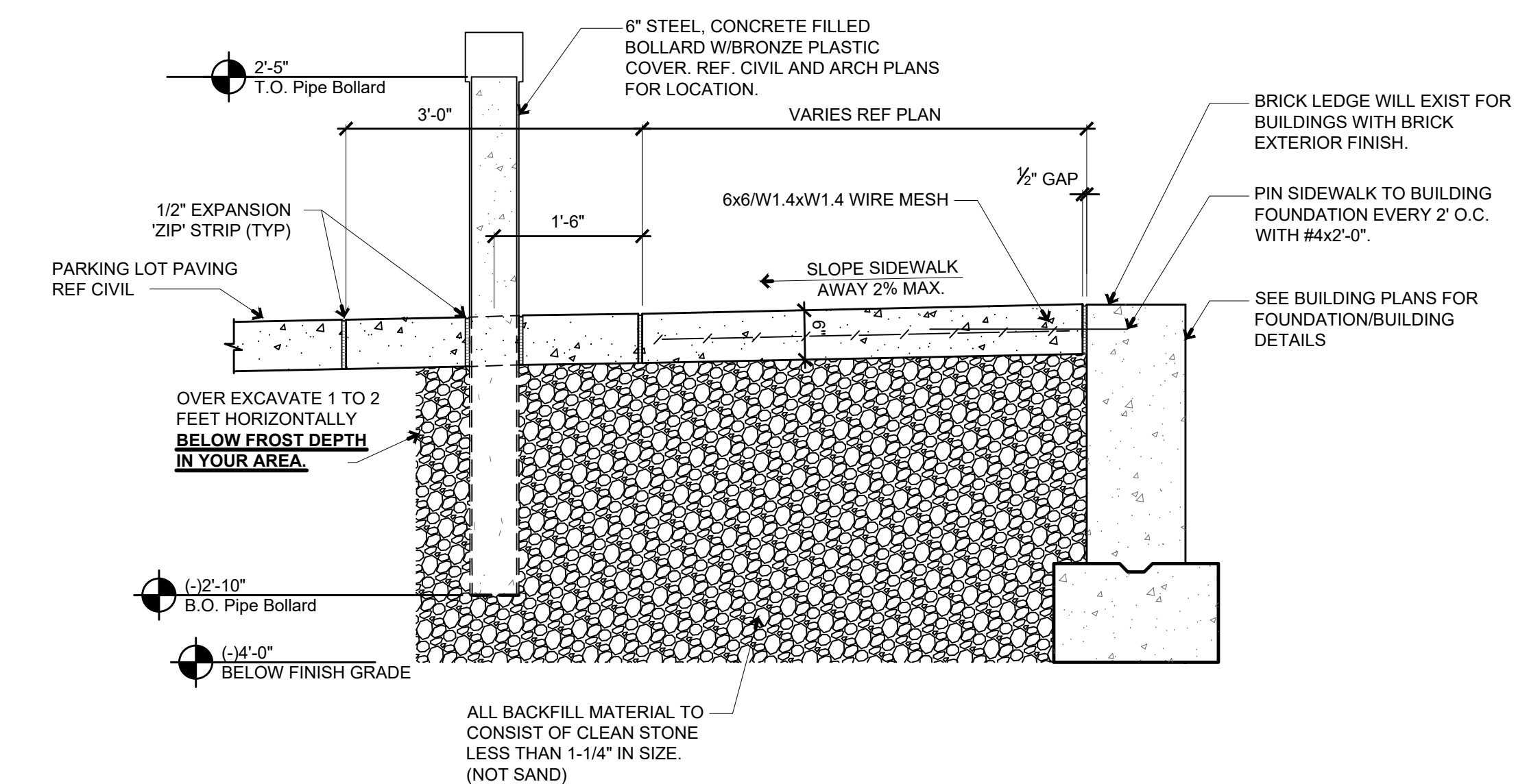
4121 NW URBANDALE DRIVE
 URBANDALE, IA 50322
 PHONE: (515) 369-4400

ENGINEER: GH, TECH: RL
 ENGINEER: EKO

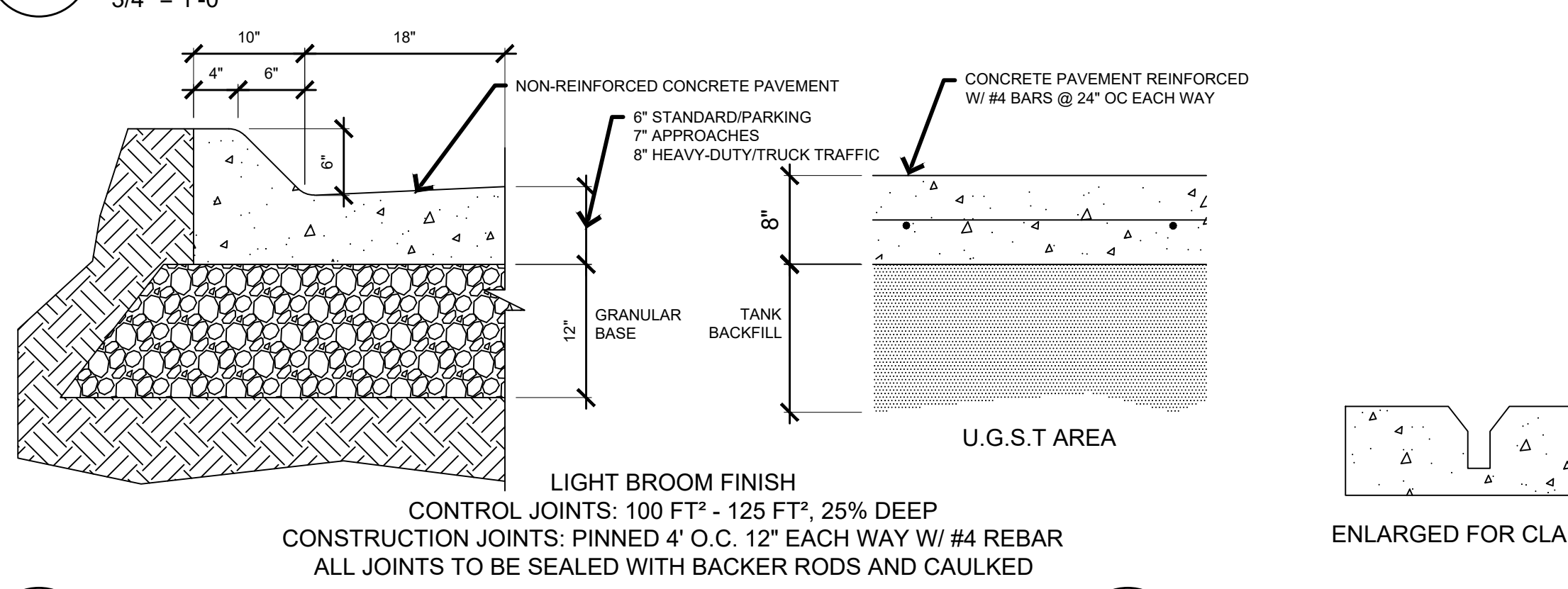
WAUKEE, IOWA

CASEY'S - STORE #4269
 EROSION AND SEDIMENT CONTROL PLAN

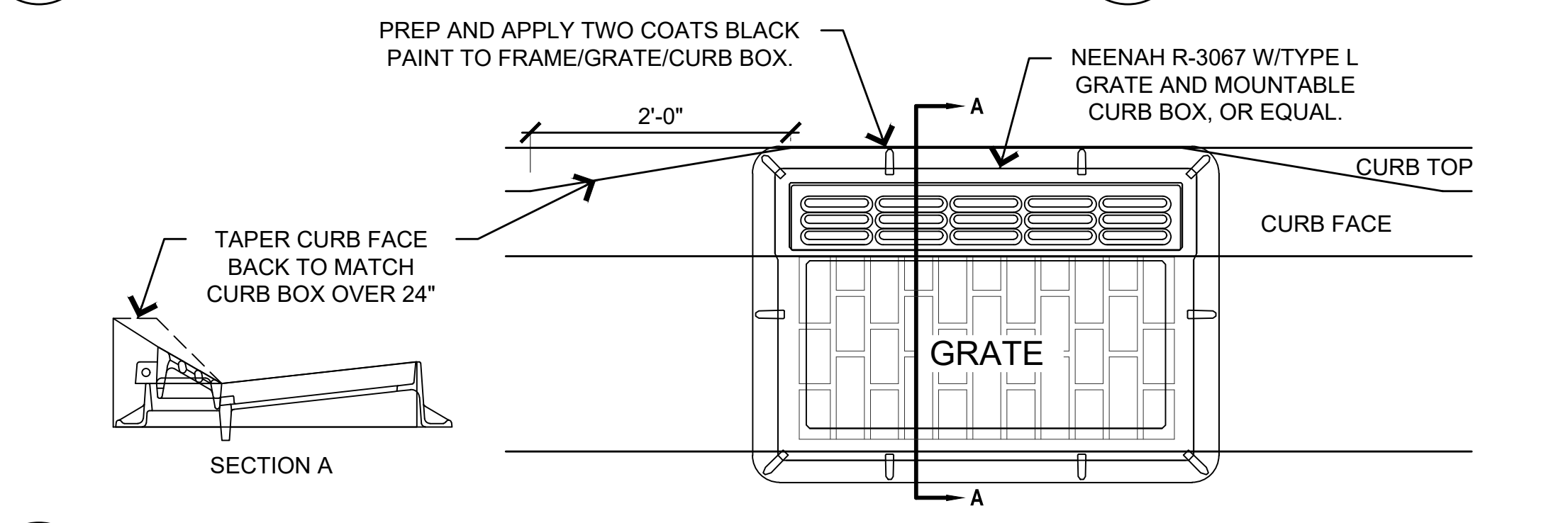
600 NW 10TH STREET
 SHEET NUMBER:
C-401
 2202.055



1 TYPICAL BUILDING SIDEWALK AND BOLLARD
3/4" = 1'-0"



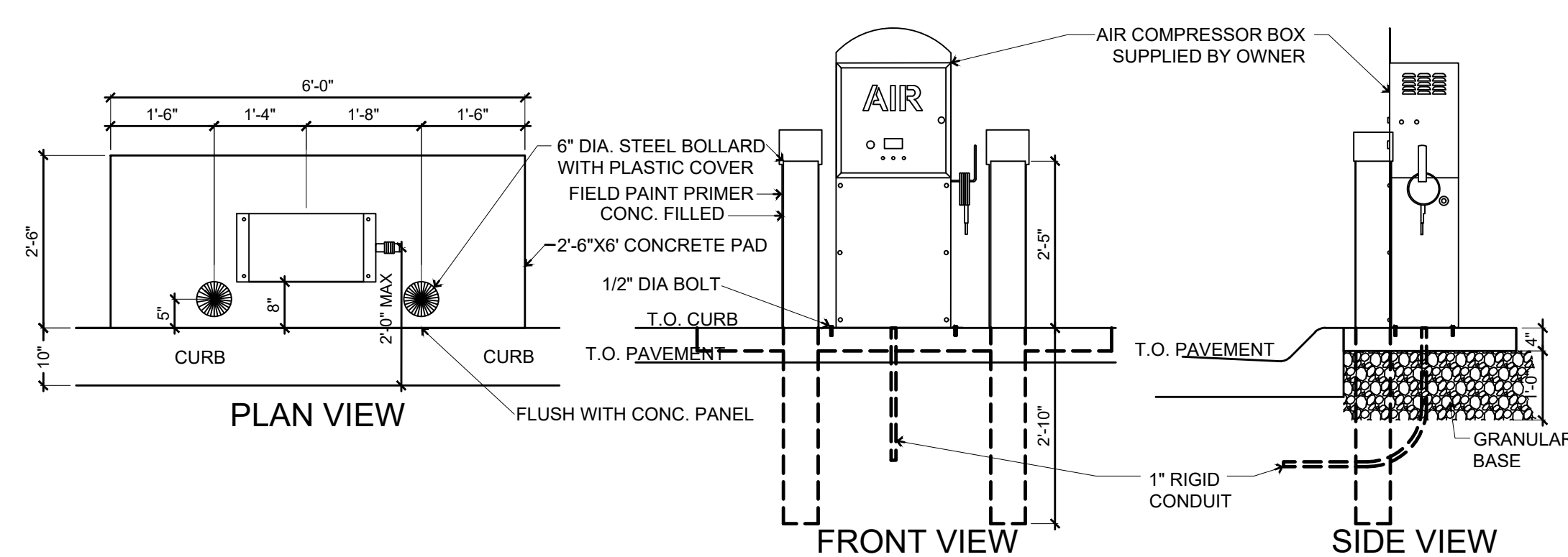
2 CONCRETE PAVING AND CURB
Not to Scale



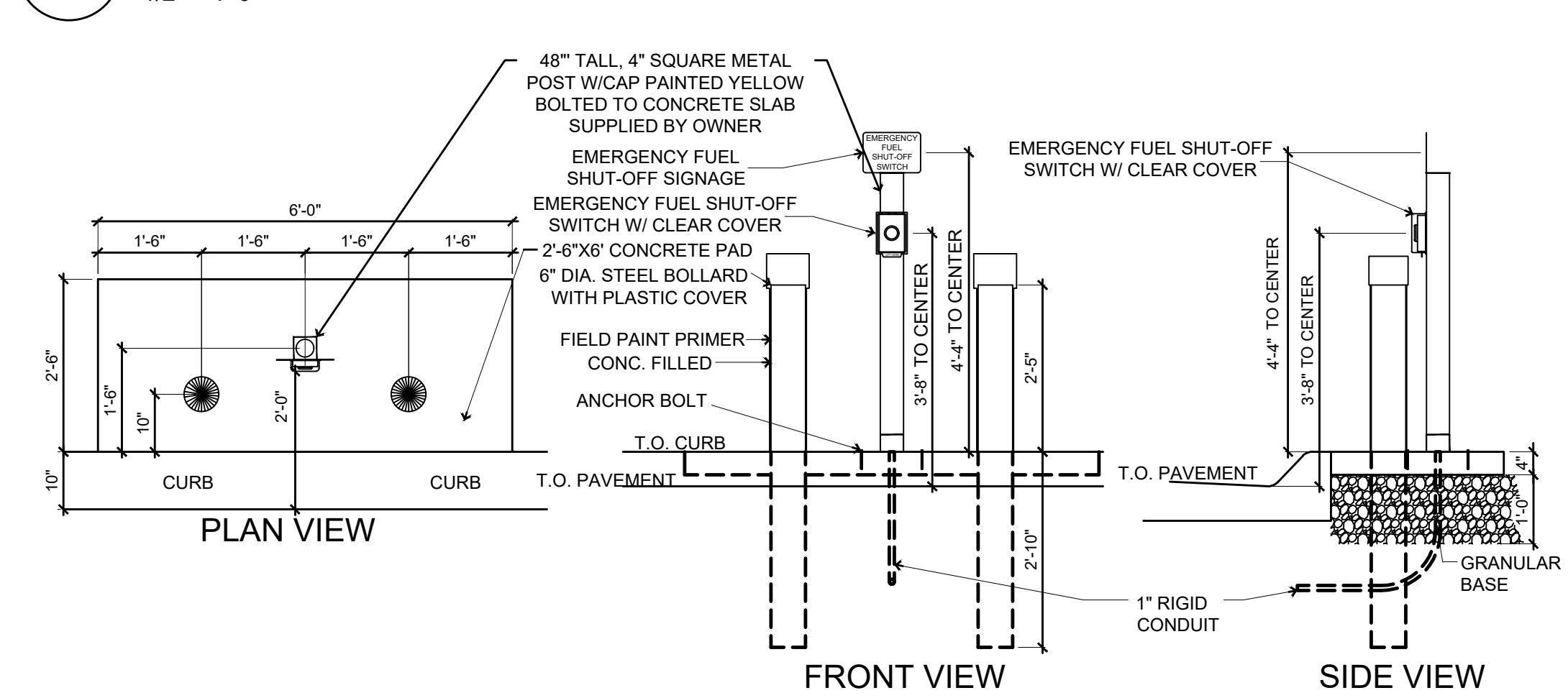
3 PAVING SAW-CUT
Not to Scale



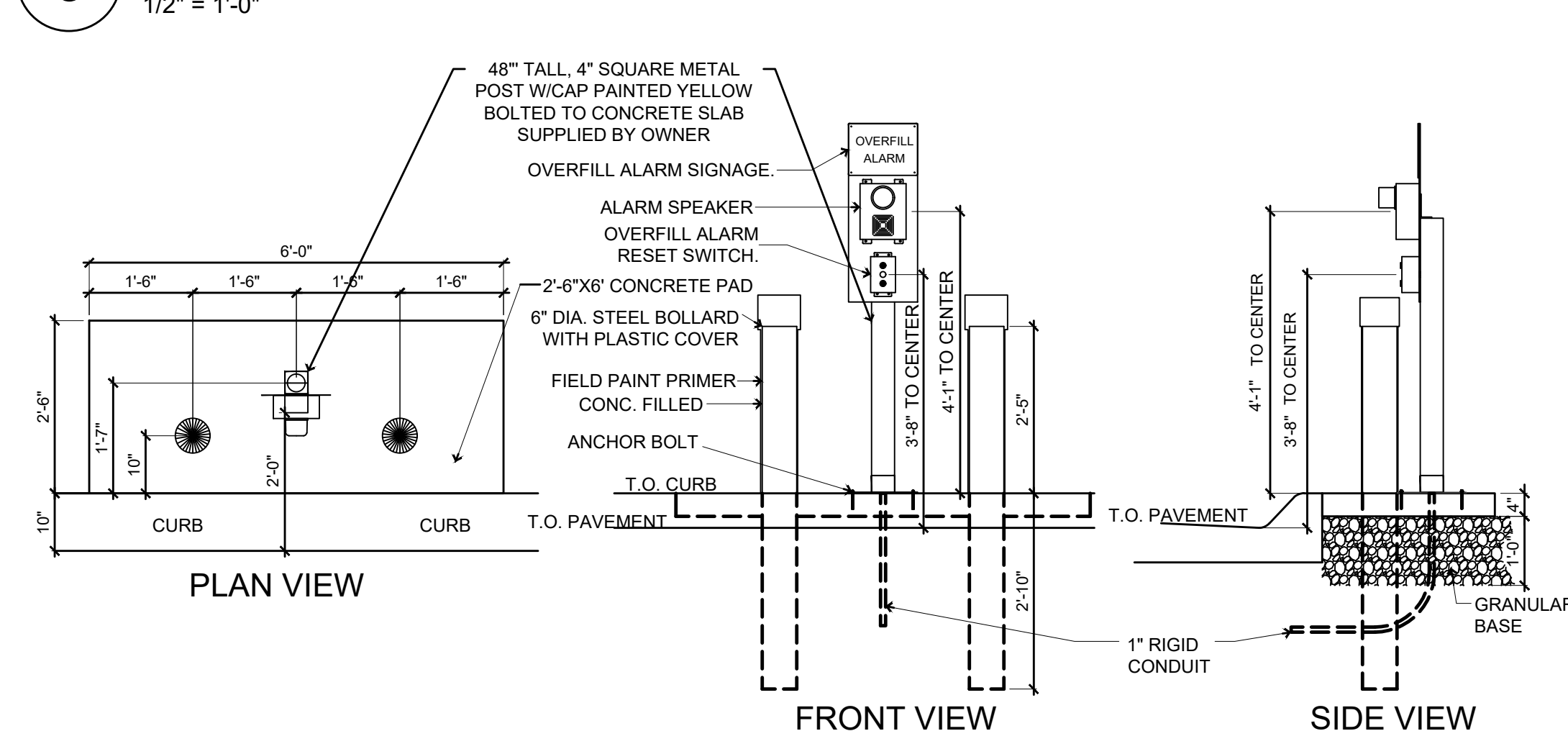
4 CURB INLET
Not to Scale



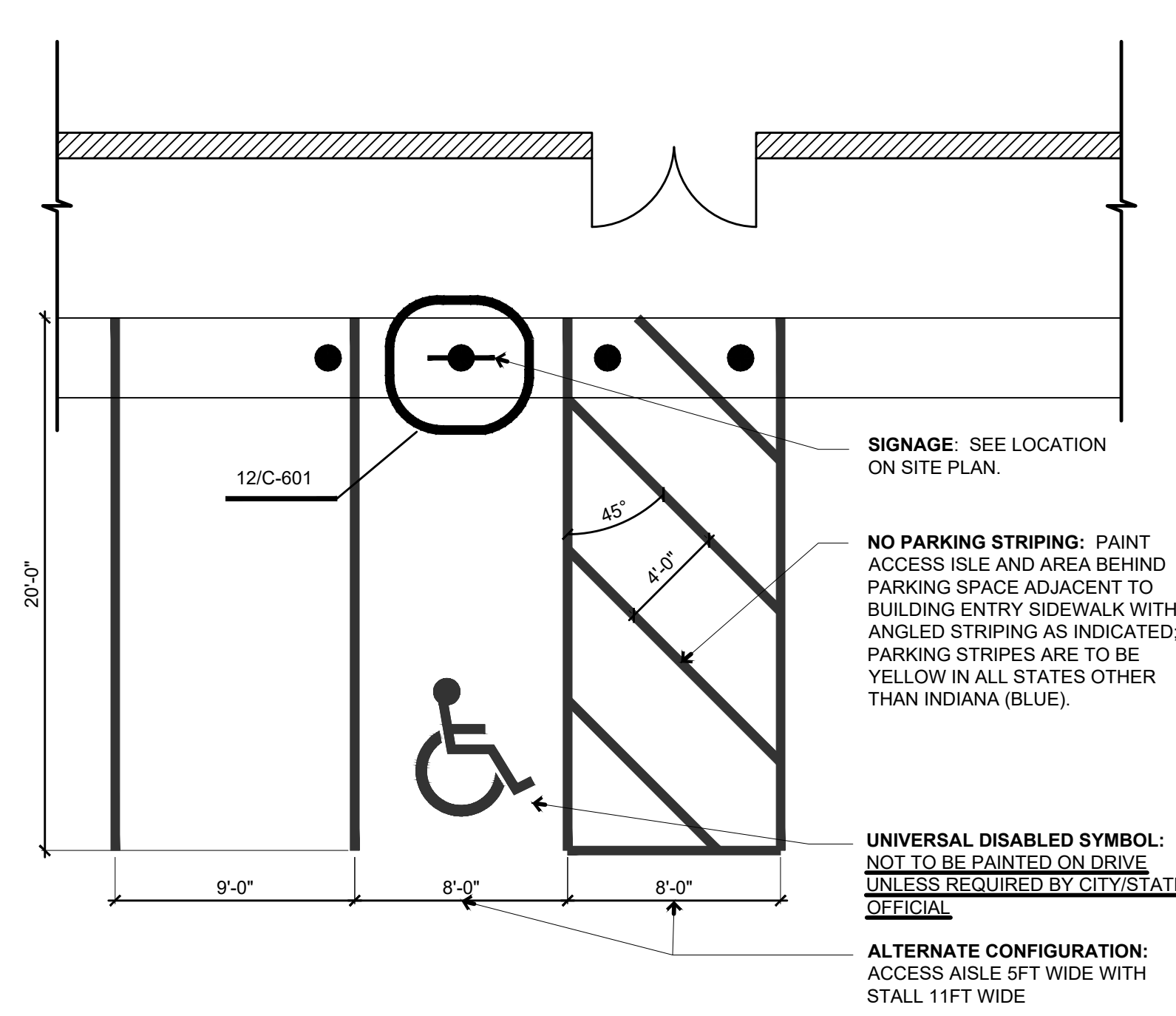
5 AIR COMPRESSOR
1/2" = 1'-0"



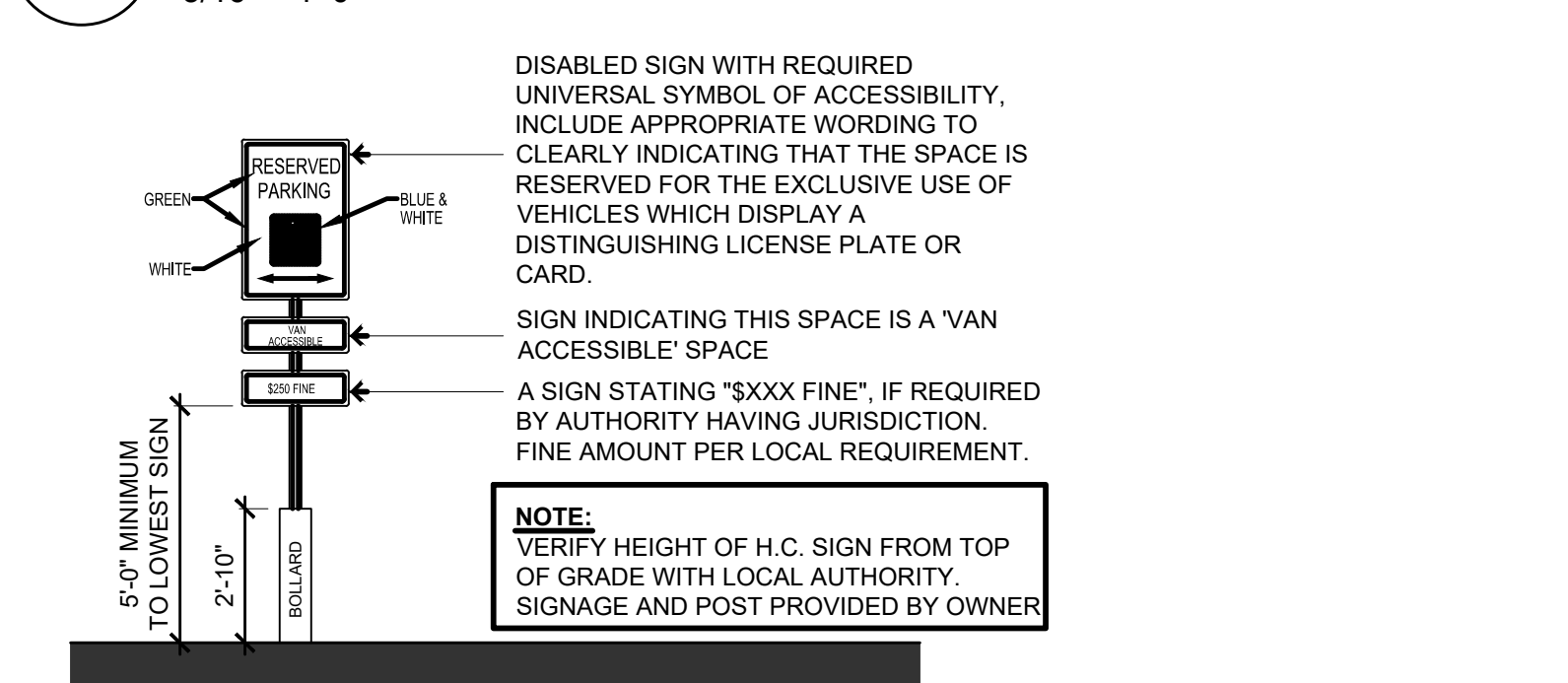
6 EMERGENCY STOP
1/2" = 1'-0"



7 OVERFILL ALARM
1/2" = 1'-0"



8 ADA PARKING SPACES
3/16" = 1'-0"



9 ADA PARKING SIGN
1/4" = 1'-0"

GENERAL NOTES

Concrete:

- All concrete and reinforcing work shall conform to the latest edition of the American Concrete Institute's "Standard Building Code Requirements for Reinforced Concrete," (ACI 318) and "Specifications for Structural Concrete for Buildings," (ACI 301).
- Concrete shall use type II cement. Concrete mix designs shall meet the following requirements:

	MINIMUM 28-DAY f _c	MAXIMUM W/C RATIO	SLUMP	AIR ENTRAIN.
Exterior exposed concrete	4,000 psi	0.42	4" ± 1"	6% ± 1%

If Contractor desires to increase slump above allowable limits to facilitate placement or pumping, this shall be done utilizing a superplasticizer approved by the Ready Mix Designer at a dosage rate provided by Ready Mix Designer.

- The Contractor shall reject any concrete that exceeds the slump limits noted above (prior to adding superplasticizer) or concrete that can not be placed within ninety (90) minutes of batch time.
- No aluminum shall be placed in concrete.
- All concrete is reinforced unless specifically noted as Unreinforced. Reinforce all concrete not otherwise shown with the same reinforcing as in similar sections or areas.
- During hot weather (80 degrees F and above), the Contractor shall comply with the recommendations ACI-305 "Hot Weather Concrete". During cold weather (40 degrees and below), the Contractor shall comply with the recommendations of ACI-306 "Cold Weather Concreting".
- The concrete mix designs are to be submitted as a formal submittal to the Owner for acceptance PRIOR to concrete being delivered to the site.
- Verify with local authorities the required thickness of poured concrete for approaches and parking lot.

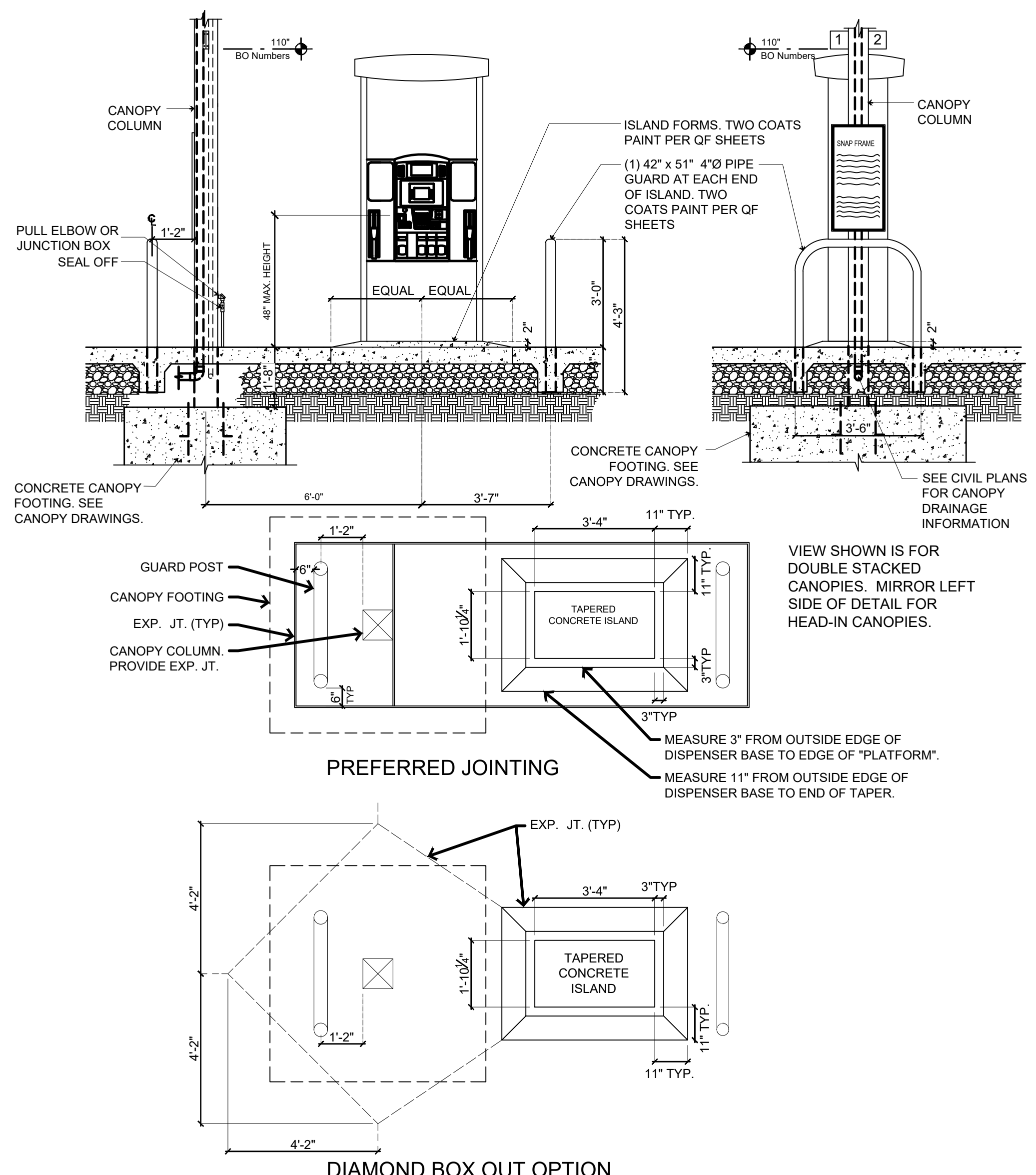
Sub-Base:

- Sub-base Course Under Exterior Concrete Paved Surfaces: Spread and compact sub-base in 6"-9" lifts compacted to 98% Standard Proctor.

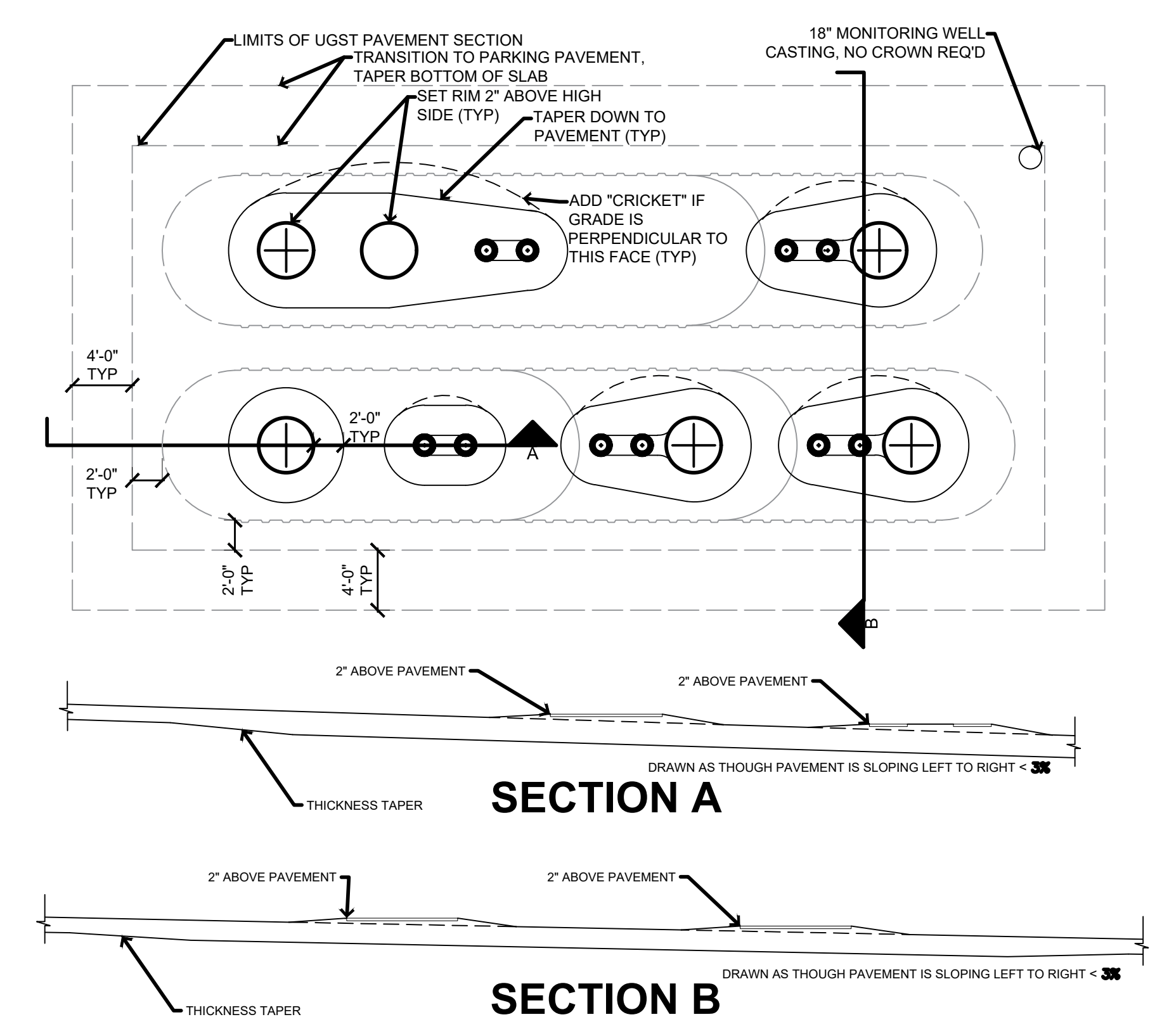
COMMENTS:
ENG.
DATE: 3/2/2022
FILE: 172221
DATE PLOTTED: 6/2/2022 4:04 PM
PLOTTED BY: GME/EROLD

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 PLOTTED BY: GRAE HEROLD TECH

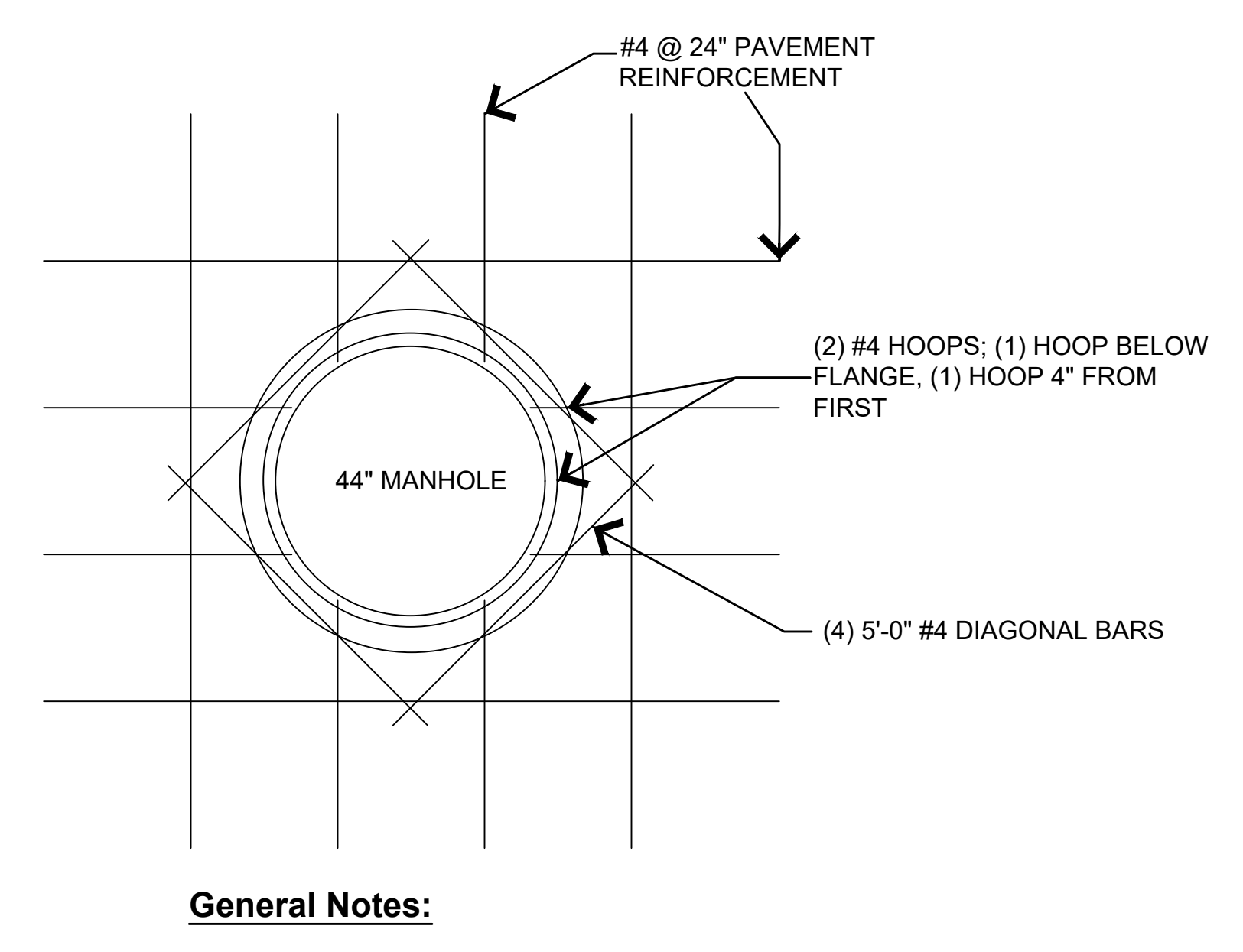
1 GAS TAPERED FUEL ISLAND (PREFERRED OPTION)
 Not to Scale



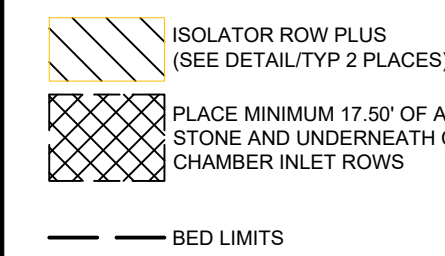
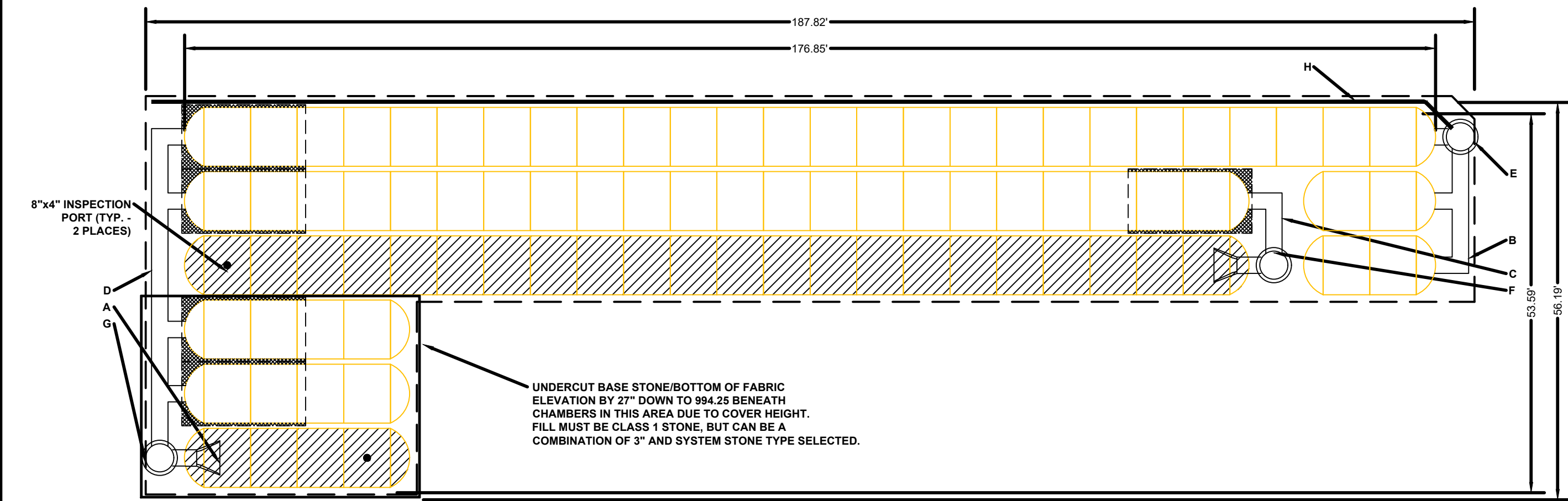
2 UGST PAVING FOR PAVEMENT SLOPE <3%
 Not to Scale



3 UGST Manhole Detail
 1/2" = 1'-0"



PROPOSED LAYOUT		PROPOSED ELEVATIONS		PART TYPE		ITEM ON LAYOUT		DESCRIPTION		INVERT	MAX FLOW
88	STORMTECH MC-7200 CHAMBERS	MAXIMUM ALLOWABLE GRADE (TOP OF UNPAVED UNPAVED)	1009.25	FLAMP	A	INSTALL FLAMP ON 24" ACCESS PIPE / PART# MC72004RAMP (TYP 2 PLACES)					
16	STORMTECH MC-7200 END CAPS	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)	1004.25	MANIFOLD	B	24" x 24" TOP MANIFOLD, ADS N-12	2.26'				
15	STONE ABOVE (IN)	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)	1004.25	MANIFOLD	C	24" x 24" TOP MANIFOLD, ADS N-12	23.05'				
9	STONE BELOW (IN)	MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT)	1004.25	MANIFOLD	D	24" x 24" TOP MANIFOLD, ADS N-12	23.05'				
40	STONE VOID	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)	1000.50	CONCRETE STRUCTURE	E	CONCRETE STRUCTURE					14.0 CFS OUT
27670	INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED) (COVER STONE INCLUDED)	TOP OF STONE	1002.25	CONCRETE STRUCTURE	F	(DESIGN BY ENGINEER / PROVIDED BY OTHERS)					9.5 CFS IN
6505	SYSTEM AREA (SQ)	24" x 24" TOP MANIFOLD INVERT:	999.17	CONCRETE STRUCTURE	G	(DESIGN BY ENGINEER / PROVIDED BY OTHERS)					33.2 CFS IN
488.4	SYSTEM PERIMETER (ft)	24" x 24" BOTTOM MANIFOLD INVERT:	997.44	UNDERDRAIN	H	6" ADS N-12 DUAL WALL PERFORATED HDPE UNDERDRAIN					
		24" ISOLATOR ROW PLUS INVERT:	997.44								
		24" BOTTOM CONNECTION INVERT:	997.44								
		BOTTOM OF MC-7200 CHAMBER:	997.25								
		UNDERDRAIN INVERT:	996.50								
		BOTTOM OF STONE:	996.50								



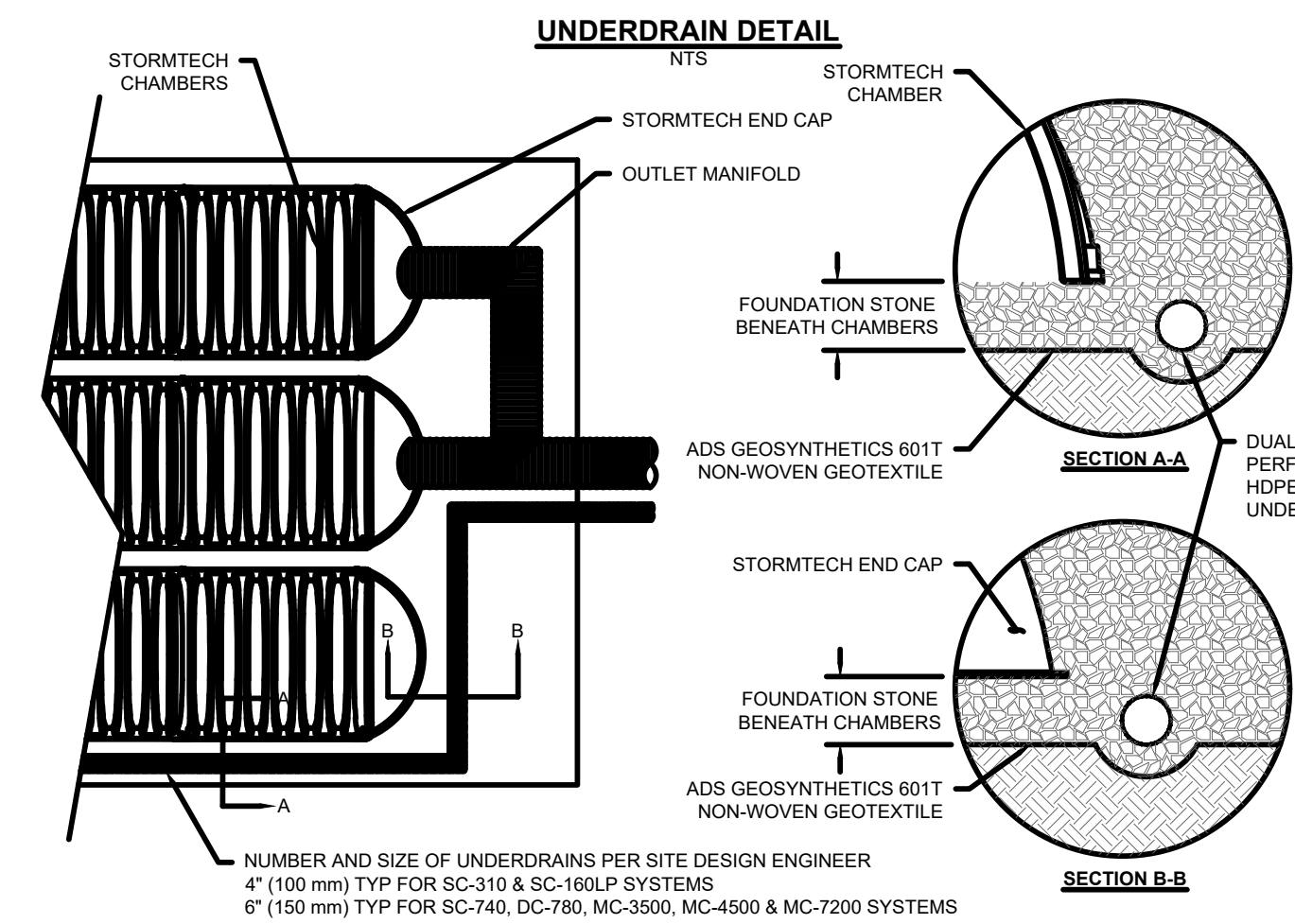
NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE #6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSTANT SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.

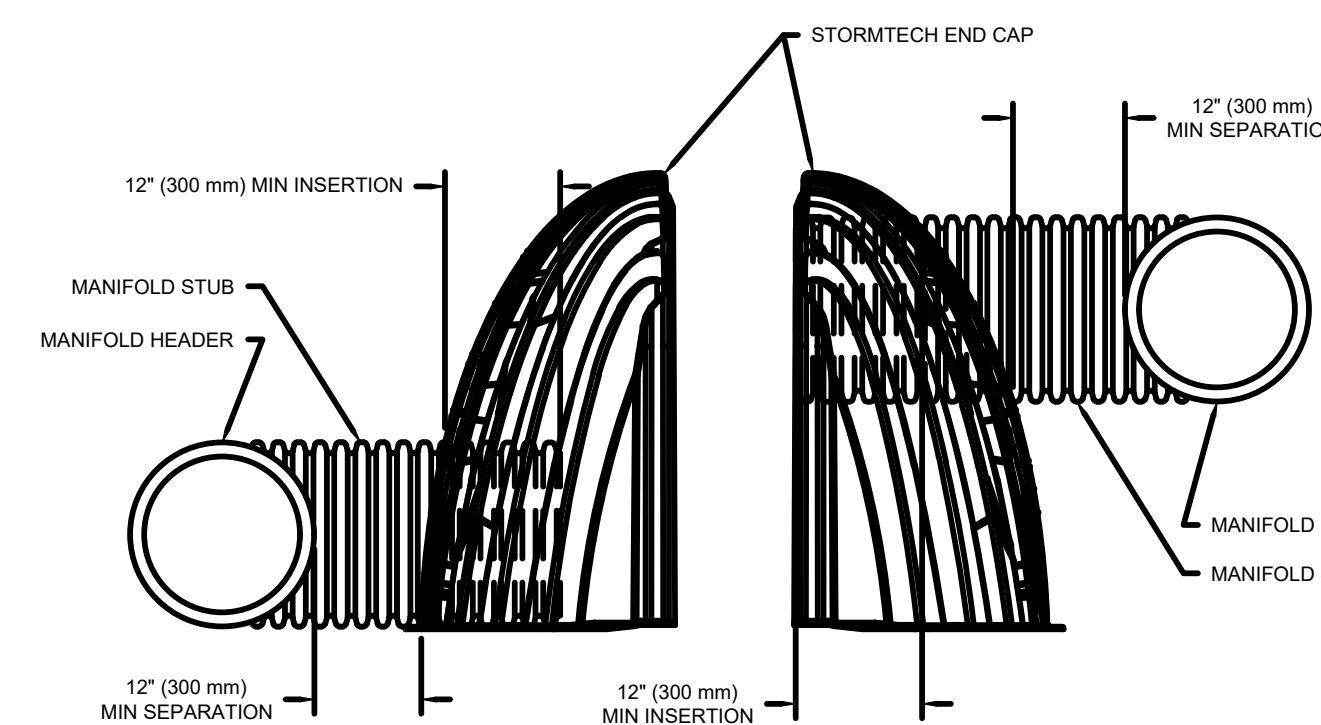
NOT FOR CONSTRUCTION: THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

1 STORMTECH MC-7200 CHAMBER SYSTEM

NOT TO SCALE



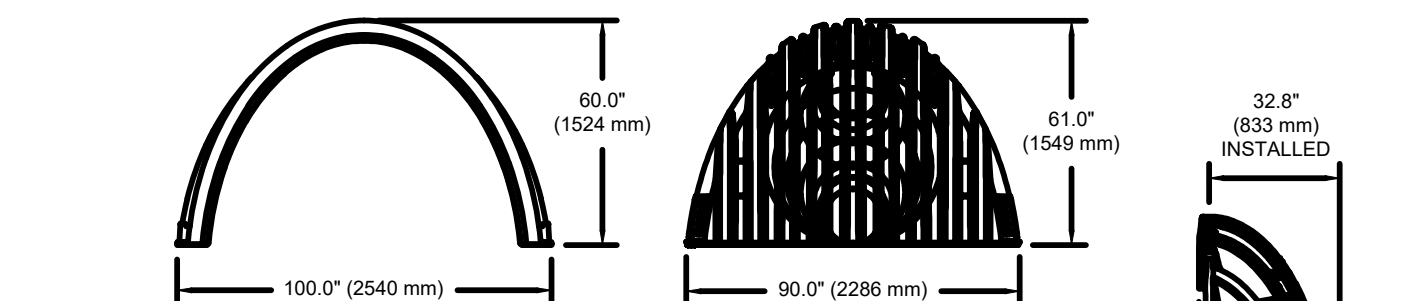
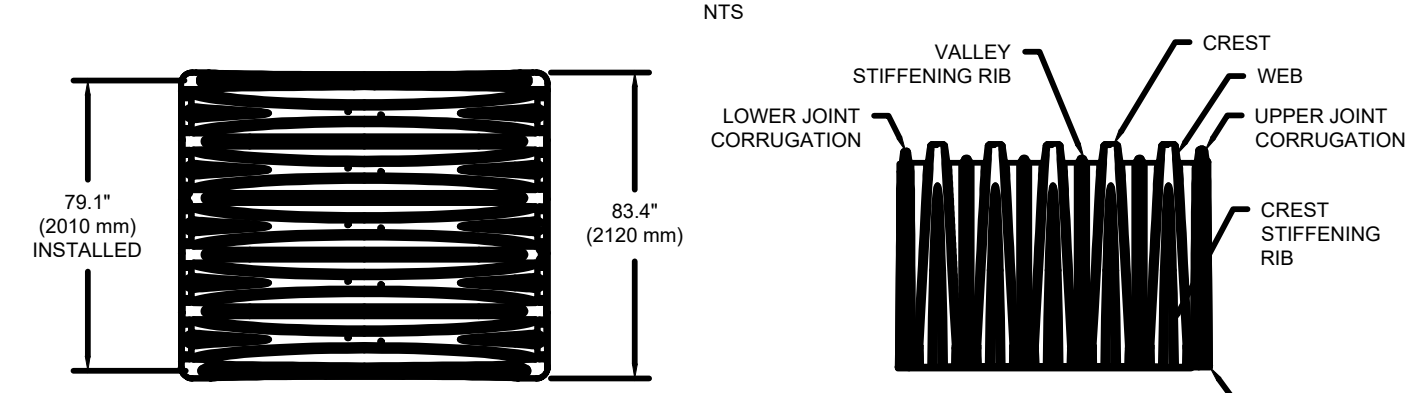
MC-SERIES END CAP INSERTION DETAIL



2 STORMTECH MC-7200 CHAMBER SYSTEM

NOT TO SCALE

MC-7200 TECHNICAL SPECIFICATION



NOMINAL CHAMBER SPECIFICATIONS		NOMINAL END CAP SPECIFICATIONS	
SIZE (W X H X INSTALLED LENGTH)	100.0" X 60.0" X 79.1" (2540 mm X 1524 mm X 2010 mm)	SIZE (W X H X INSTALLED LENGTH)	90.0" X 61.0" X 32.8" (2286 mm X 1549 mm X 833 mm)
CHAMBER STORAGE	175.9 CUBIC FEET (4.98 m³)	END CAP STORAGE	39.5 CUBIC FEET (1.12 m³)
MINIMUM INSTALLED STORAGE*	267.3 CUBIC FEET (7.56 m³)	MINIMUM INSTALLED STORAGE*	115.3 CUBIC FEET (3.26 m³)
WEIGHT (NOMINAL)	295 lbs.	WEIGHT (NOMINAL)	90 lbs.

*ASSUMES 12" (305 mm) STONE ABOVE, 6" (152 mm) STONE FOUNDATION AND BETWEEN CHAMBERS, 12" (305 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY.

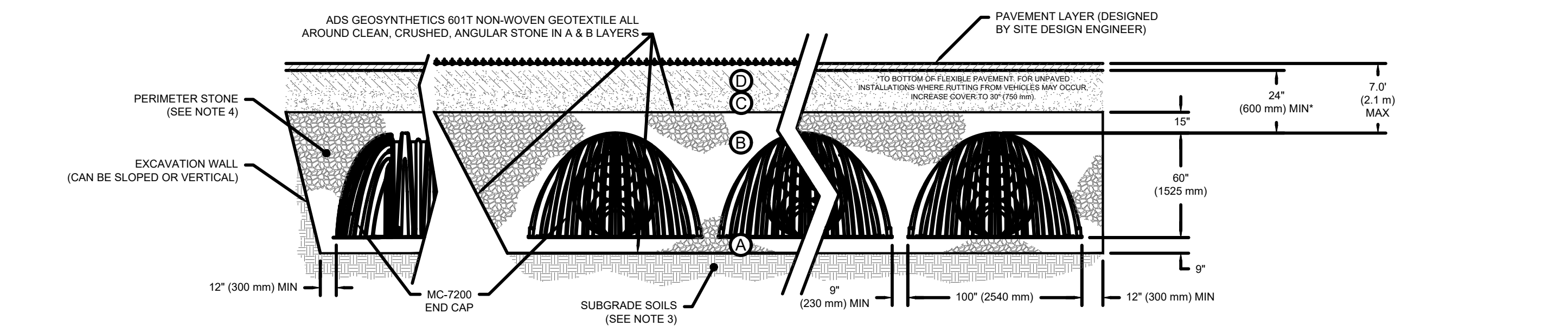
PART #	STUB	B	C
MC7200EPP06T	6" (150 mm)	42.54" (1081 mm)	---
MC7200EPP06B	---	---	0.86" (22 mm)
MC7200EPP08T	8" (200 mm)	40.50" (1029 mm)	---
MC7200EPP08B	---	---	1.01" (26 mm)
MC7200EPP10T	10" (250 mm)	38.37" (975 mm)	---
MC7200EPP10B	---	---	1.33" (34 mm)
MC7200EPP12T	12" (300 mm)	35.60" (907 mm)	---
MC7200EPP12B	---	---	1.55" (39 mm)
MC7200EPP15T	15" (375 mm)	32.72" (831 mm)	---
MC7200EPP15B	---	---	1.70" (43 mm)
MC7200EPP18T	---	29.36" (746 mm)	---
MC7200EPP18TW	18" (450 mm)	---	---
MC7200EPP18B	---	---	1.97" (50 mm)
MC7200EPP18BW	---	---	---
MC7200EPP24T	---	23.05" (585 mm)	---
MC7200EPP24TW	24" (600 mm)	---	---
MC7200EPP24B	---	---	2.26" (57 mm)
MC7200EPP24BW	---	---	---
MC7200EPP30BW	30" (750 mm)	---	2.95" (75 mm)
MC7200EPP36BW	36" (900 mm)	---	3.25" (83 mm)
MC7200EPP42BW	42" (1050 mm)	---	3.55" (90 mm)

CUSTOM PREFABRICATED INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-7200 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

ACCEPTABLE FILL MATERIALS: STORMTECH MC-7200 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE.	AASHTO M145 ¹ A-1, A-2, A-3 OR AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ¹ 3, 4
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ¹ 3, 4

- PLEASE NOTE:
- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
 - STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (200 mm) MAX LIFTS USING TWO FULL COVERS WITH A VIBRATORY COMPACTOR.
 - WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
 - ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

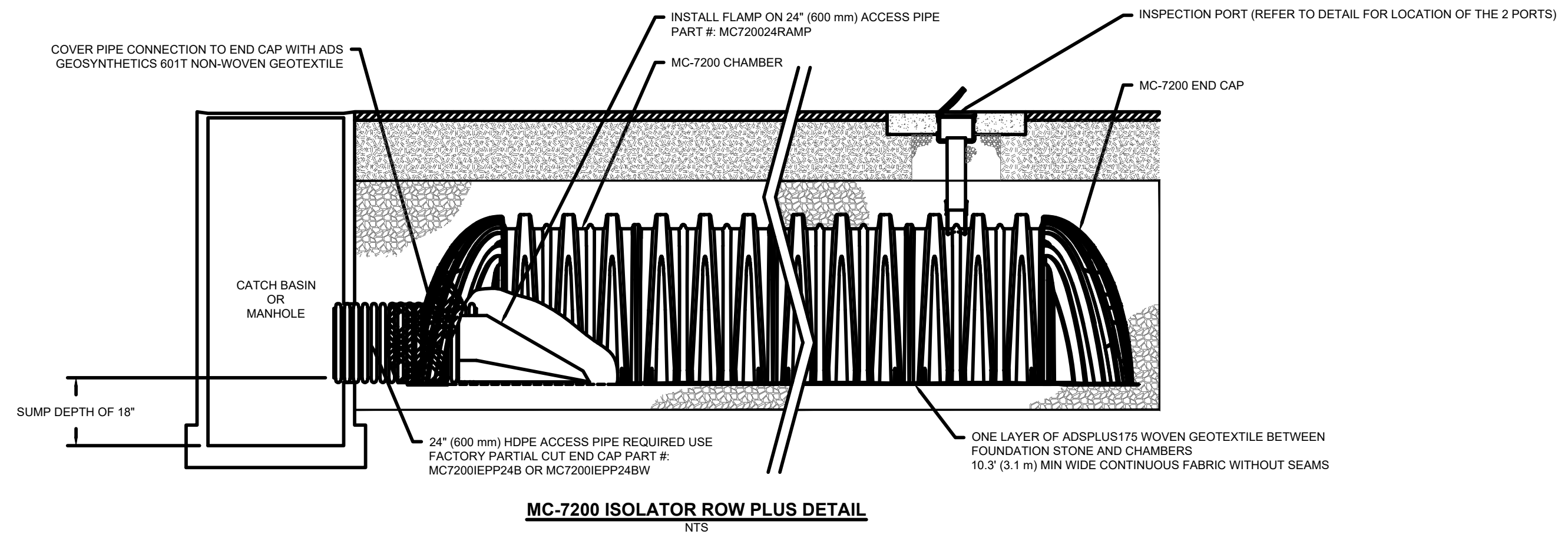


NOTES:

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F3418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". CHAMBER CLASSIFICATION 60x101
- MC-7200 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LBS/FT². THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418, AND TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

3 STORMTECH MC-7200 CHAMBER SYSTEM

NOT TO SCALE



INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- INSPECTION PORTS (IF PRESENT)
 - REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
 - USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 - LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR ROW PLUS ROWS
- REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
 - USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
 - MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 - FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
 - APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
 - VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



3 MC-7200 TECHNICAL SPECIFICATION

NOT TO SCALE

DATE: 08/02/2022
 THIRD SUBMITTAL: 07/19/2022
 SECOND SUBMITTAL: 05/24/2022
 FIRST SUBMITTAL: 05/24/2022

REVISIONS:

4121 NW URBANDALE DRIVE
 URBANDALE, IA 50322
 PHONE: (515) 369-4400

ENGINEER: GH, TECH: RL
 ENGINEER: EKO

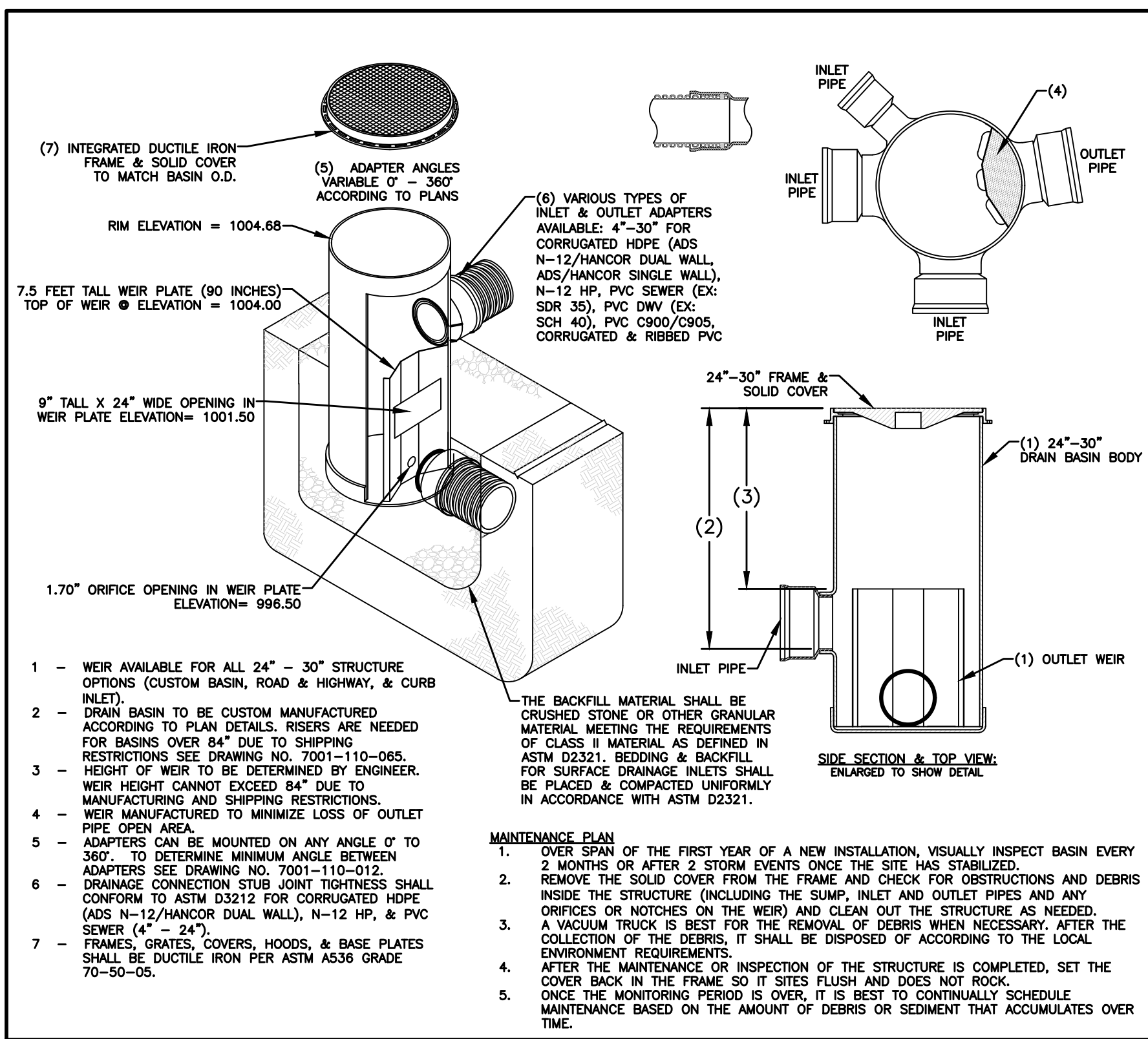
CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

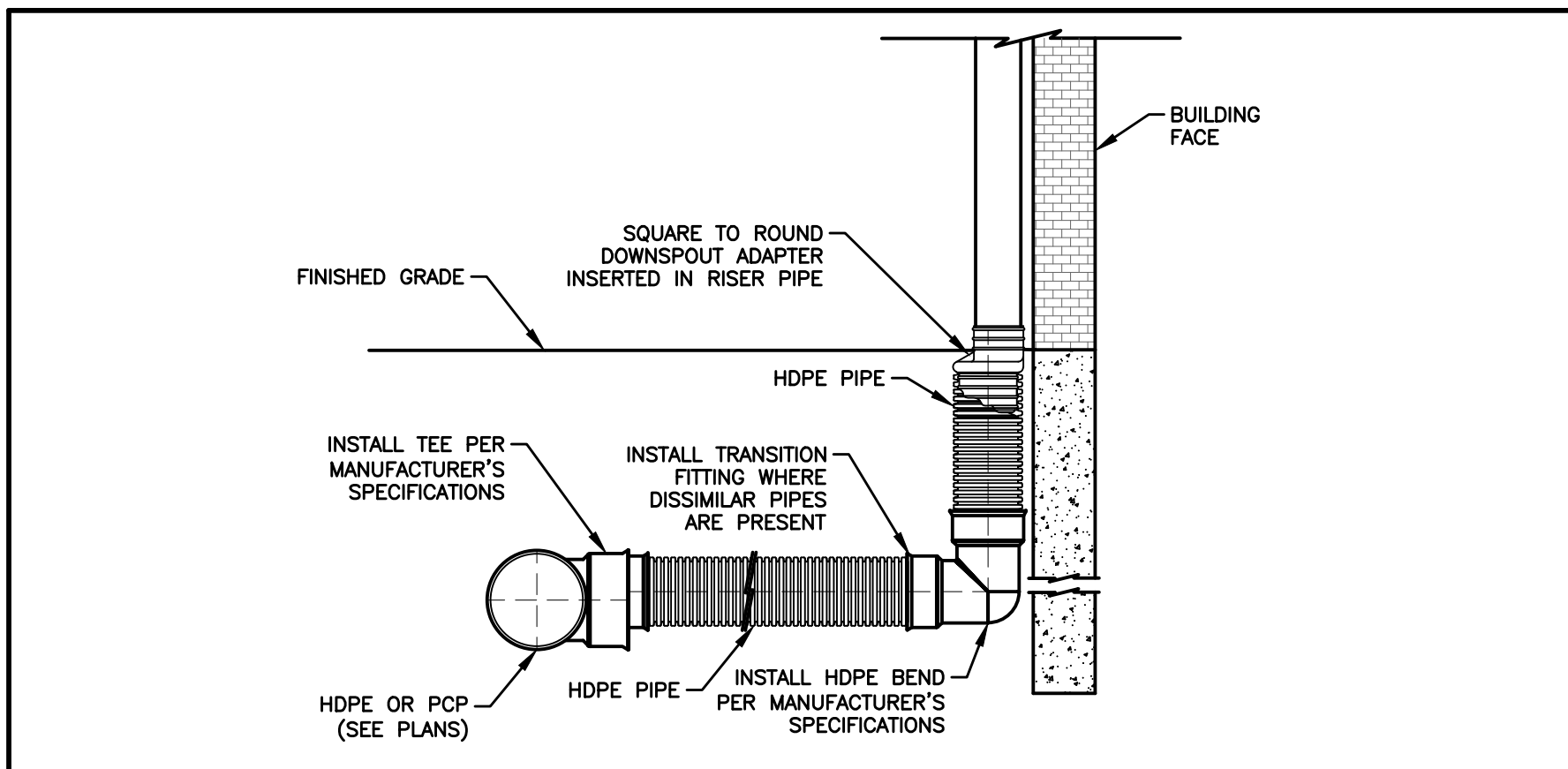
CASEY'S - STORE #4269
 DETAILS

600 NW 10TH STREET

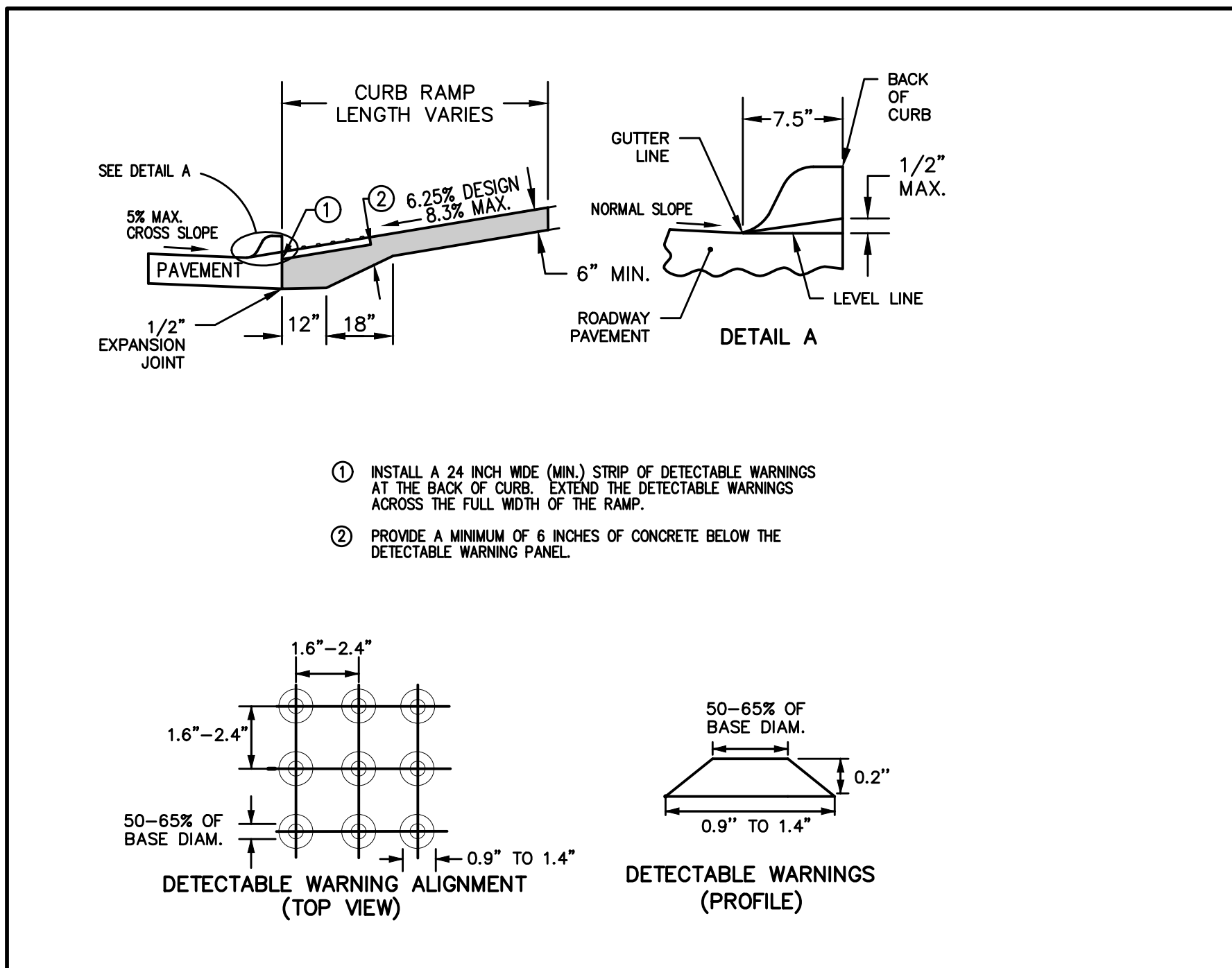
SHEET NUMBER:
C-604
 2202.055



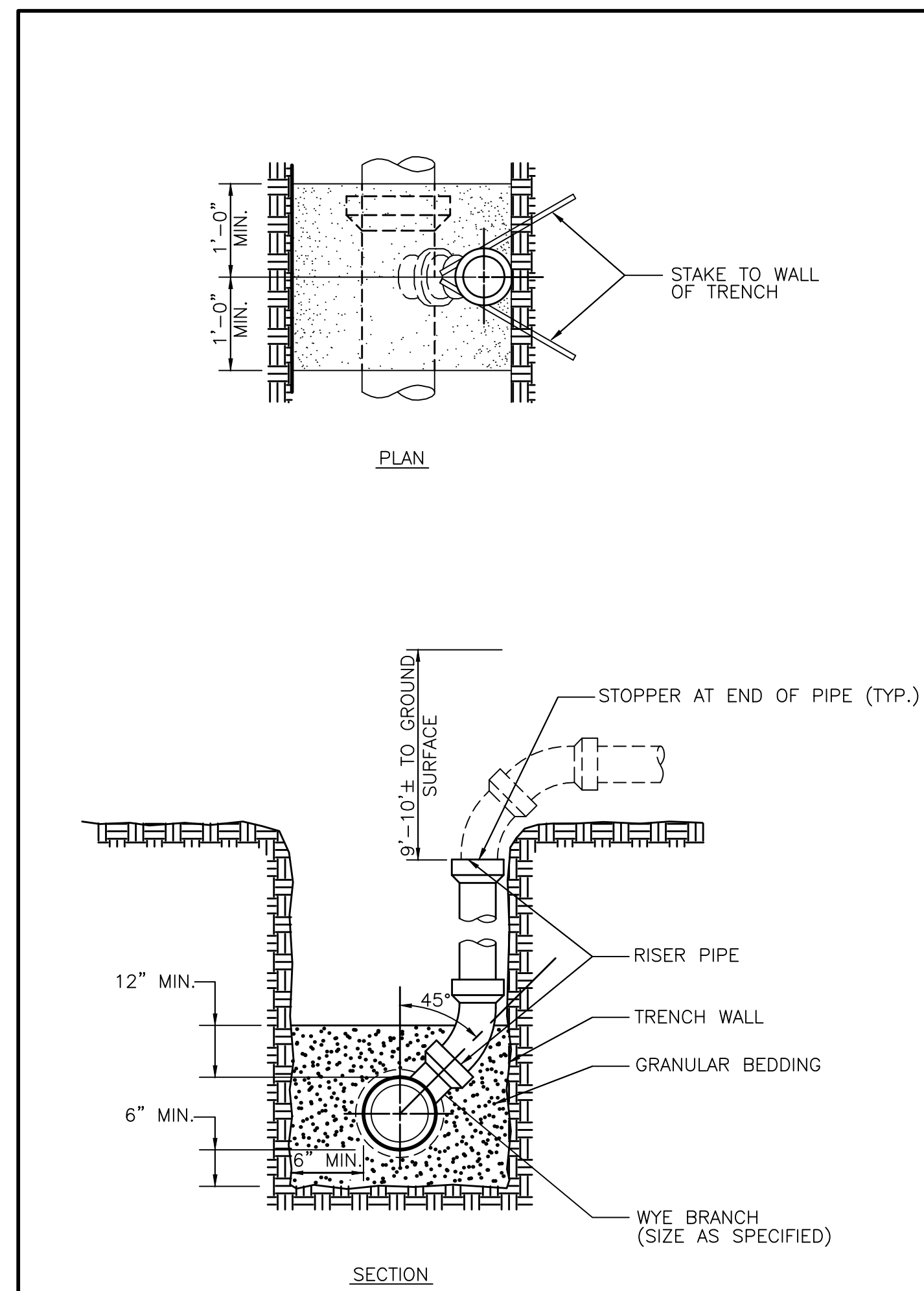
1 ST-1 NYLOPLAST DRAIN BASIN WITH WEIR DETAIL (PRIVATE)
NOT TO SCALE



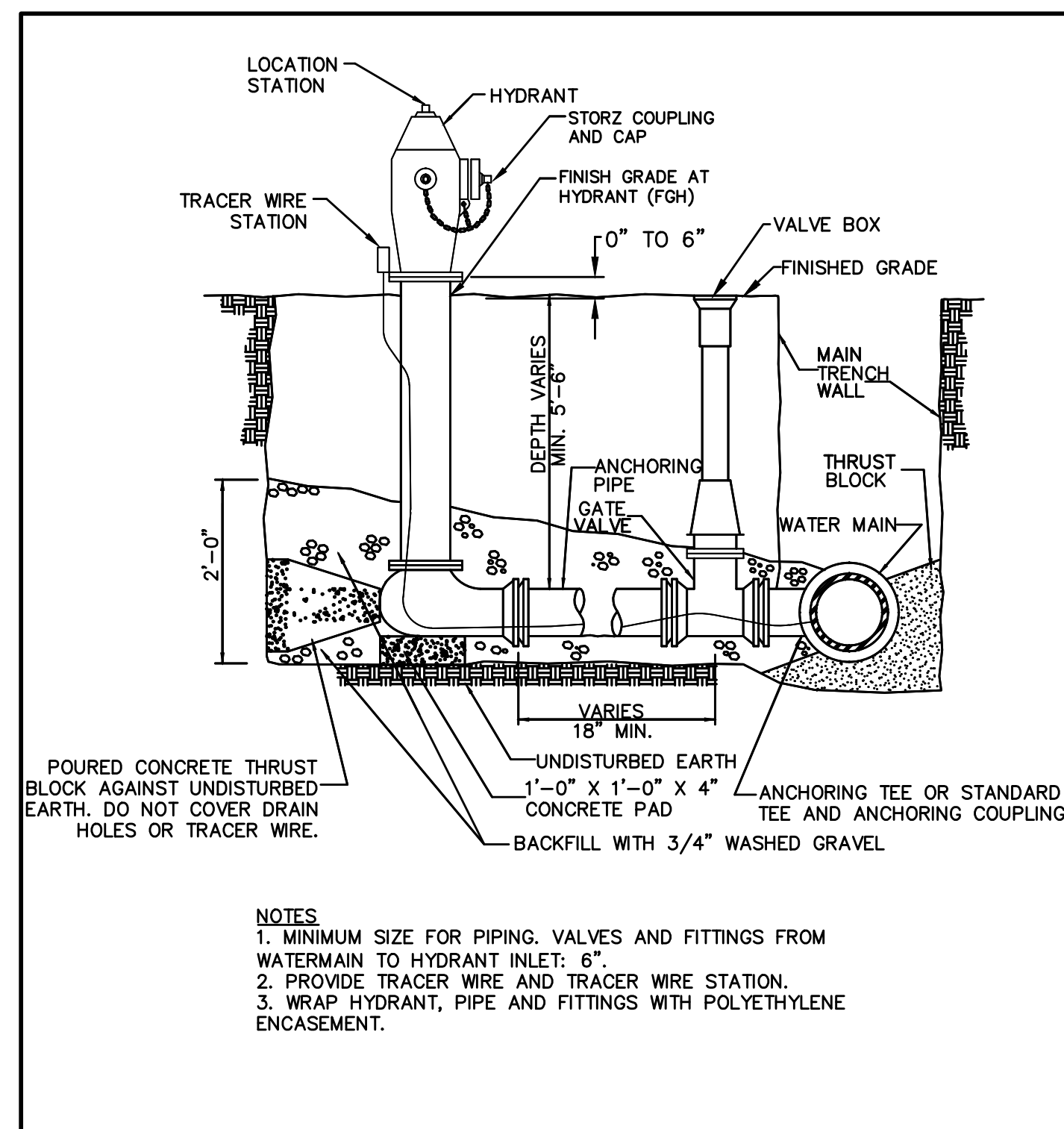
5 DOWNSPOUT CONNECTION WITH TEE
NOT TO SCALE



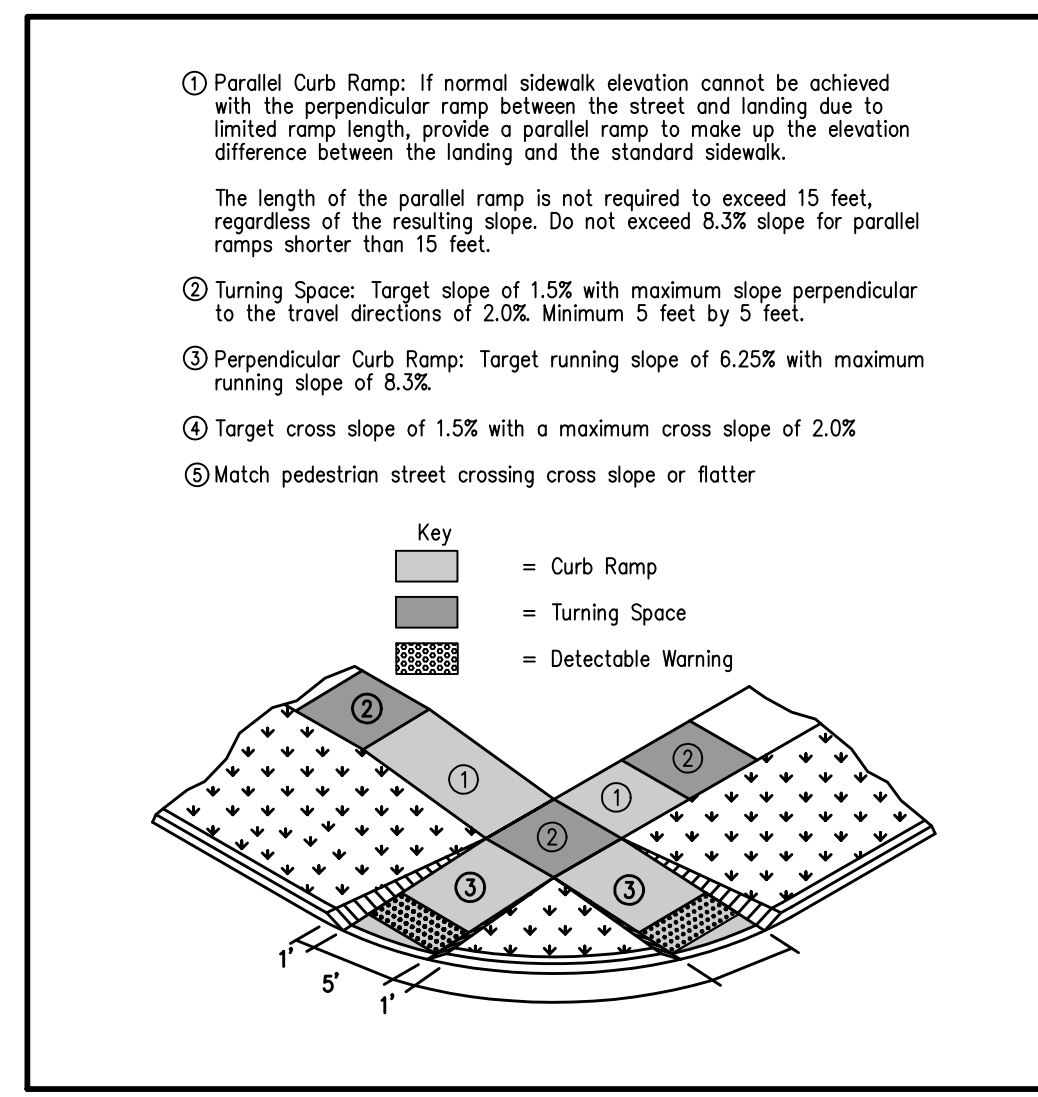
7 DETECTABLE WARNING DETAIL
NOT TO SCALE



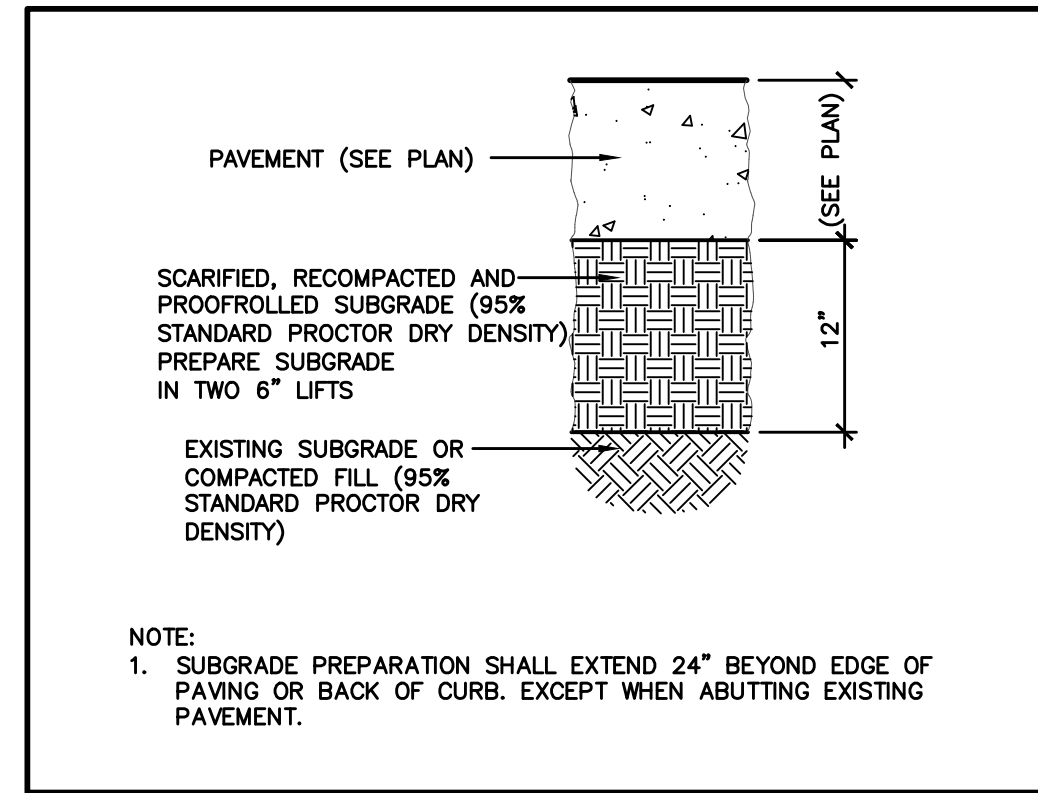
2 SANITARY SEWER SERVICE RISER
NOT TO SCALE



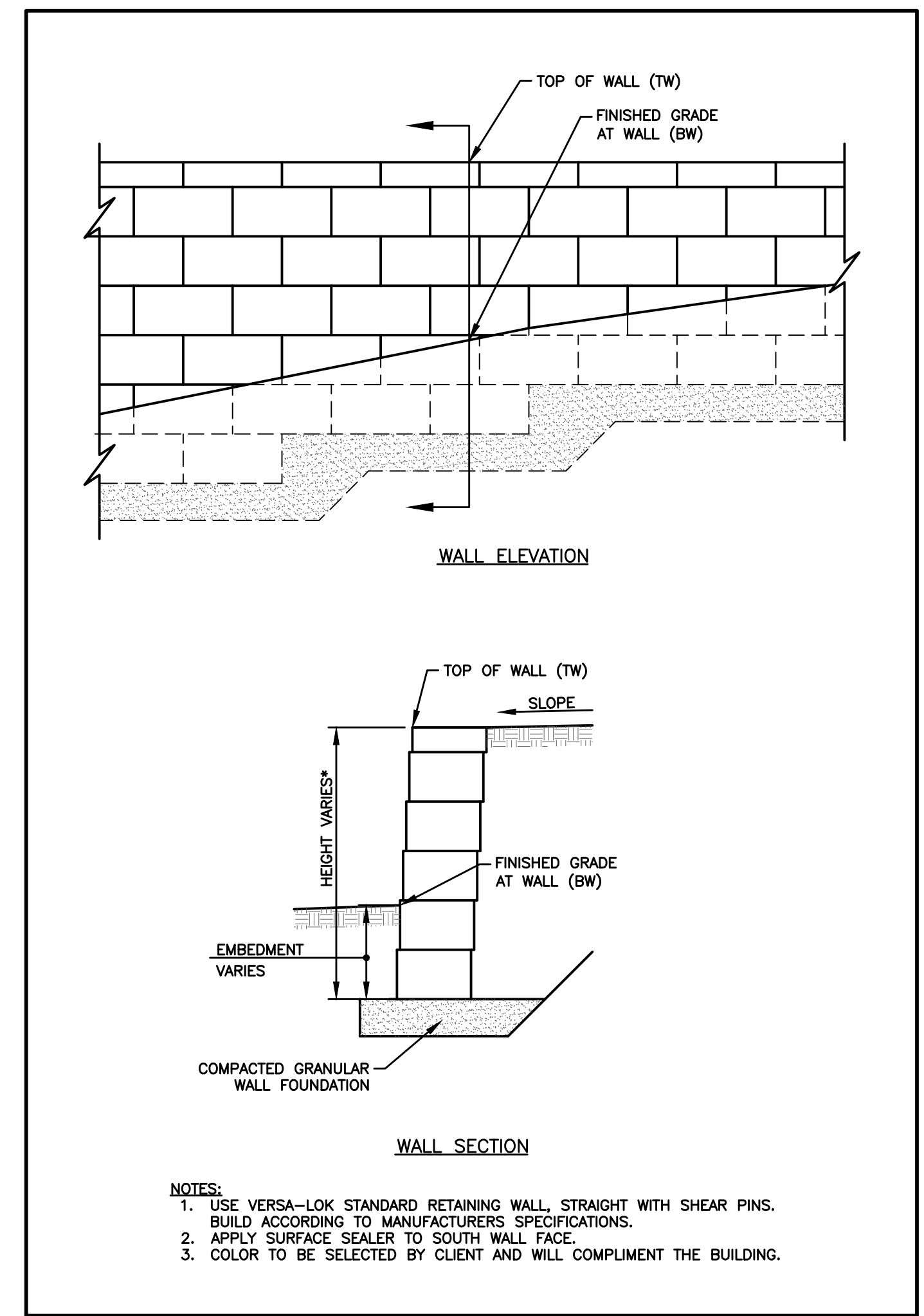
8 HYDRANT ASSEMBLY DETAIL
NOT TO SCALE



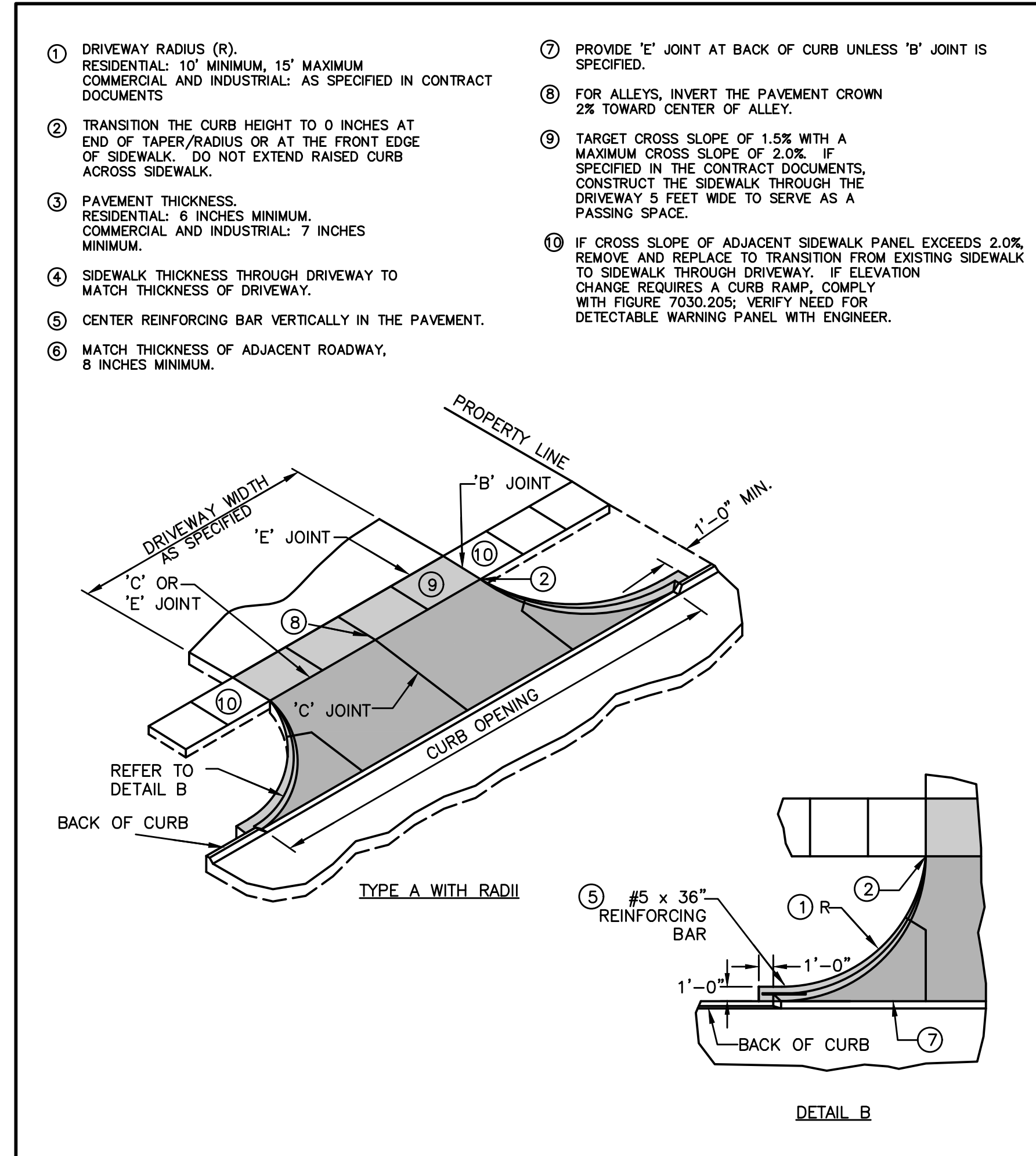
3 CURB RAMP FOR CLASS B OR C SIDEWALK
NOT TO SCALE



6 12\"/>



4 RETAINING WALL SPOT ELEVATION REFERENCE
NOT TO SCALE



9 CONCRETE DRIVEWAY TYPE A
NOT TO SCALE

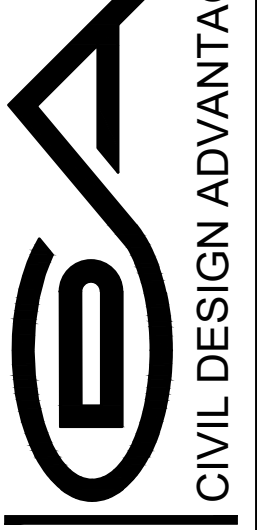
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 DATE: 8/2/2022 4:05 PM
 PLOTTED BY: GAE/MSH

REVISIONS	DATE	DESCRIPTION
08/02/2022		
07/19/2022		
05/24/2022		

THIRD SUBMITTAL
 SECOND SUBMITTAL
 FIRST SUBMITTAL

4121 NW URBANDALE DRIVE
 URBANDALE, IA 50322
 PHONE: (515) 369-4400

ENGINEER: GH, TECH: RL
 ENGINEER: EKO

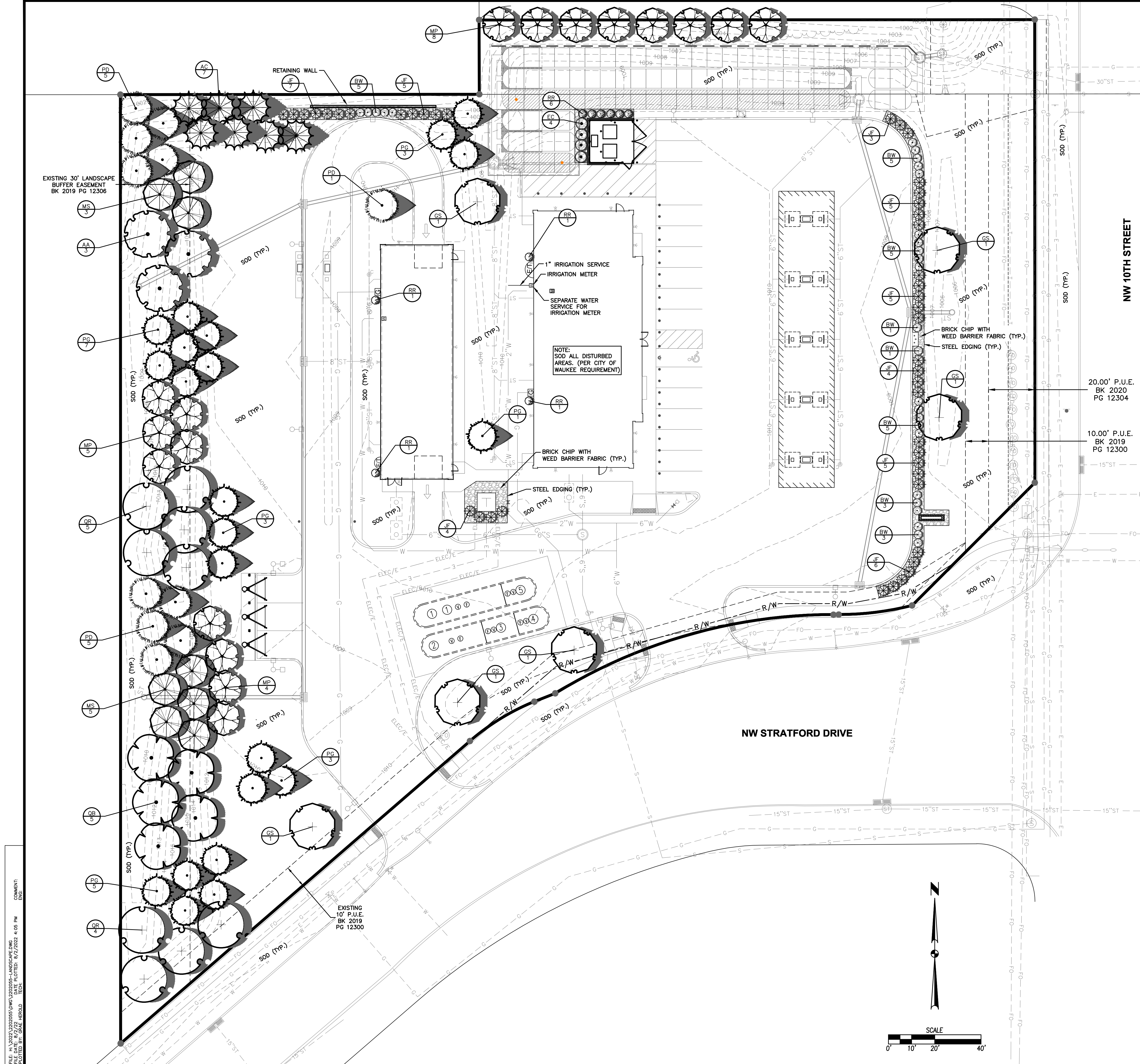


CIVIL DESIGN ADVANTAGE
 WAUKEE, IOWA

CASEY'S - STORE #4269
 DETAILS

600 NW 10TH STREET
 SHEET NUMBER:

C-605
 2202.055



NOTES

REFER TO SHEET C-002 FOR NOTES.

MINIMUM PLANTING REQUIREMENTS

- MINIMUM SIZE: THE MINIMUM SIZE FOR REQUIRED PLANTINGS, OTHER THAN THOSE IN REQUIRED BUFFERS, SHALL BE AS FOLLOWS:
 - DECIDUOUS OVERSTORY TREES SHALL BE A MINIMUM OF EIGHT (8) FEET IN HEIGHT.
 - EVERGREEN TREES SHALL BE A MINIMUM OF SIX (6) FEET IN HEIGHT.
 - DECIDUOUS ORNAMENTAL TREES SHALL BE A MINIMUM OF SIX (6) FEET IN HEIGHT.
- MINIMUM QUANTITY: THE MINIMUM NUMBER OF PLANTINGS PER SITE SHALL BE AS FOLLOWS:
 - A MINIMUM OF FIFTY PERCENT (50%) OF ALL REQUIRED TREES SHALL BE OVERSTORY SHADE TREES.
 - FOR ALL USES EXCEPT SINGLE-FAMILY ATTACHED AND DETACHED RESIDENTIAL DWELLINGS, A MINIMUM OF TWENTY FIVE PERCENT (25%) OF ALL REQUIRED TREES SHALL BE EVERGREEN TREES.

OPEN SPACE LANDSCAPE REQUIREMENTS

SITE AREA = 115,845 SF
 OPEN SPACE REQUIRED = 20% (23,169 SF)
 1 TREE AND 1 SHRUB PER 1,000 SF OF OPEN SPACE REQUIRED

TREES REQUIRED = 24
 SHRUBS REQUIRED = 24

TREES PROVIDED = 29
 SHRUBS PROVIDED = 86

OPEN SPACE PROVIDED = 55% (63,582 SF)

30' BUFFER REQUIREMENTS (WEST)

BUFFER MATERIAL REQUIREMENTS (PER 50 LINEAR FEET OF BUFFER)
 2 OVERSTORY, 3 EVERGREEN & 2 ORNAMENTAL

BUFFER LENGTH = 410'

REQUIRED:
 OVERSTORY TREES = 17
 EVERGREEN TREES = 25
 ORNAMENTAL TREES = 17

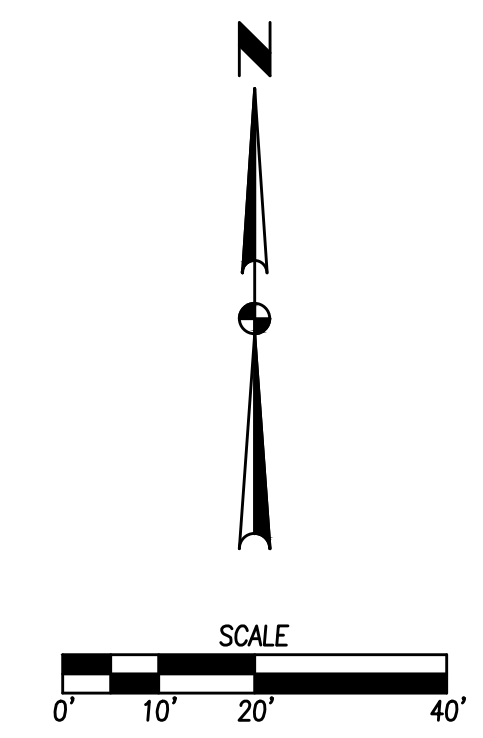
PROVIDED:
 OVERSTORY TREES = 17
 EVERGREEN TREES = 25
 ORNAMENTAL TREES = 17

PLANT SCHEDULE

EVERGREEN TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AC	7	White Fir	Abies concolor	B&B, 6' HEIGHT
PD	11	Black Hills White Spruce	Picea glauca 'Densata'	B&B, 6' HEIGHT
PG	22	Colorado Blue Spruce	Picea pungens 'Glauca'	B&B, 6' HEIGHT
ORNAMENTAL TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
MP	17	Prairifire Crab Apple	Malus x 'Prairifire'	B&B, 6' HEIGHT
MS	8	Spring Snow Crab Apple	Malus x 'Spring Snow'	B&B, 6' HEIGHT
OVERSTORY TREES	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
AA	3	Autumn Blaze Red Maple	Acer rubrum 'Autumn Blaze'	B&B, 8' HEIGHT
GS	6	Skyline Honey Locust	Gleditsia triacanthos 'Skyline'	B&B, 8' HEIGHT
QB	5	Swamp White Oak	Quercus bicolor	B&B, 8' HEIGHT
QR	9	Red Oak	Quercus rubra	B&B, 8' HEIGHT
SHRUBS	QTY	COMMON NAME	BOTANICAL NAME	CONDITION AND SIZE
BW	28	Wintergreen Boxwood	Buxus microphylla 'Wintergreen'	15" HT
EC	4	Compact Burning Bush	Euonymus alatus 'Compactus'	24" HT.
JF	44	Sea Green Juniper	Juniperus chinensis 'Sea Green'	24" HT.
RR	10	Fine Line Buckthorn	Rhamnus frangula 'Fine Line'	36" HT.

NOTE:
 ALL SOD AREAS ARE TO BE PERMANENTLY IRRIGATED.

FILE: N:\WORK\2022\05\05\CASEY'S STORES - LANDSCAPE.DWG
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DATE: 08/02/2022
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EA CIVIL DESIGN ADVANTAGE
 WAUKEE, IOWA

CASEY'S - STORE #4269
LANDSCAPE PLAN

600 NW 10TH STREET

SHEET NUMBER: **C-701**
 2202.055