PROPOSED SELF STORAGE

401 W. GOLF ROAD
ARLINGTON HEIGHTS, IL 60005

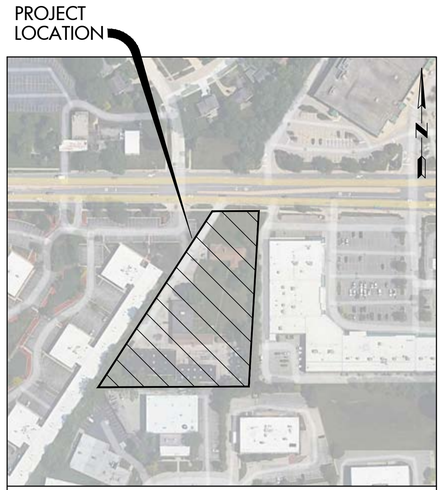
LEGEND

EXISTING	PROPOSED	DESCRIPTION
		LIGHT STANDARD/DOUBLE LIGHT STANDARD
		WATER VALVE VAULT
		WATER VALVE BOX
		FIRE HYDRANT
		BUFFALO BOX
		SANITARY MANHOLE
		FLARED END SECTION
		STORM INLET
		STORM CATCH BASIN
		STORM MANHOLE
		CLEANOUT
		STORM SEWER PIPE
		SANITARY SEWER PIPE
		COMBINED SEWER PIPE
W	W	WATER MAIN PIPE
FM	FM	FORCEMAIN PIPE
		STORM SEWER SERVICE
		SANITARY SEWER SERVICE
		WATER MAIN SERVICE
615.90 / 610.20	615.90 / 610.20	SANITARY RIM ELEVATION / SANITARY INVERT ELEVATION
616.50	616.50 / 28+00	WATER GRADE RING ELEVATION / WATER STATION LOCATION
615.90 / 606.20	615.90 / 606.20	STORM RIM ELEVATION / STORM INVERT ELEVATION
	XX	PROPOSED SANITARY STRUCTURE LABEL
	FH-XX	PROPOSED WATER STRUCTURE LABEL
	XX	PROPOSED STORM STRUCTURE LABEL
		PROPOSED RETAINING WALL
		CURB AND GUTTER
		DEPRESSED CURB AND GUTTER
		REVERSE CURB AND GUTTER
		SIDEWALK
		SWALE FLOW ARROW
		DRAINAGE ARROW
		OVERLAND FLOW
764	764	1 FOOT CONTOURS
		ACCESSIBLE CURB RAMP

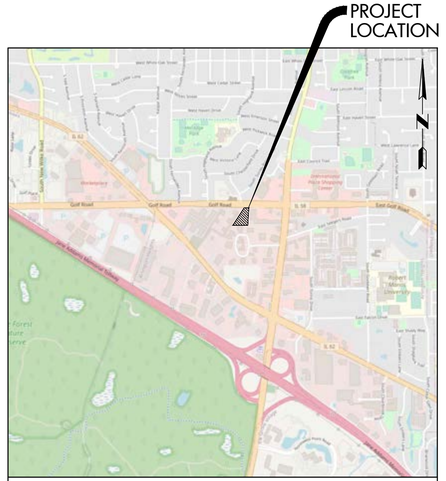
ABBREVIATIONS

ADJ	ADJUST	E	ELECTRIC	MH	STORM MANHOLE	RT	RIGHT
AGG.	AGGREGATE GRAVEL	E-E	EDGE TO EDGE	MIN.	MINIMUM	SAN	SANITARY SEWER
B.A.M.	BIT. AGG. MIXTURE	ELEV.	ELEVATION	NWL	NORMAL WATER LEVEL	SF	SQUARE FOOT
B-B	BACK TO BACK	E/P	EDGE OF PAVEMENT	OLID	OPEN LID	SHLD.	SHOULDER
B/P	BOTTOM OF PIPE	EX.	EXISTING	P.E.	PRIVATE ENTRANCE	SL	STREET LIGHT
B/WALL	GROUND AT BOTTOM OF WALL	F.E.	FIELD ENTRANCE	PERF.	PERFORATED	SMH	SANITARY MANHOLE
B.B.	BUFFALO BOX	F-F	FACE TO FACE	PC	POINT OF CURVE	ST	STORM SEWER
BIT.	BITUMINOUS CONCRETE	FF	FINISHED FLOOR	P.C.C.	PORTLAND CEMENT CONCRETE	STA.	STATION
BM	BENCHMARK	FES	FLARED END SECTION	PCC	POINT OF COMPOUND CURVE	STD	STANDARD
B.O.	BY OTHERS	FH	FIRE HYDRANT	PGL	PROFILE GRADE LINE	SW	SIDEWALK
C.E.	COMMERCIAL ENTRANCE	F/L	FLOW LINE	PI	POINT OF INTERSECTION	SY	SQUARE YARDS
CB	CATCH BASIN	FM	FORCE MAIN	PL	PROPERTY LINE	TBR	TO BE REMOVED
CL	CENTERLINE	G	GROUND	PP	POWER POLE	T	TELEPHONE
CLID	CLOSED LID	GAS	GAS	PROP.	PROPOSED	T-A	TYPE A
CMP	CORRUGATED METAL PIPE	G/F	GRADE AT FOUNDATION	PT	POINT OF TANGENCY	T/C	TOP OF CURB
CNTRL	CONTROL	GW	GUY WIRE	PVC	POLYVINYL CHLORIDE PIPE	T/F	TOP OF FOUNDATION
C.O.	CLEAN OUT	H.C.	HANDICAP	P.V.C.	POINT OF VERTICAL CURVE	T/P	TOP OF PIPE
CONC.	CONCRETE	HDWL	HEADWALL	PVI	POINT OF VERTICAL INTERSECTION	T/W	TOP OF WALK
CY	CUBIC YARD	HH	HANDHOLE	PVT	POINT OF VERTICAL TANGENCY	T/WALL	TOP OF WALL
D	DITCH	HWL	HIGH WATER LEVEL	P	PAVEMENT	TEMP	TEMPORARY
DIA.	DIAMETER	INL	INLET	R	RADIUS	TRANS	TRANSFORMER
DIP	DUCTILE IRON PIPE	INV.	INVERT	R.O.W.	RIGHT-OF-WAY	V.B.	VALVE BOX
DIWM	DUCTILE IRON WATER MAIN	IP	IRON PIPE	RCP	REINFORCED CONCRETE PIPE	V.V.	VALVE VAULT
DT	DRAIN TILE	MAX.	MAXIMUM	REM	REMOVAL	WL	WATER LEVEL
D.S.	DOWN SPOUT	MB	MAILBOX	RR	RAILROAD	WM	WATER MAIN

PRELIMINARY SITE DEVELOPMENT PLANS



AERIAL MAP N.T.S.



VICINITY MAP N.T.S.

INDEX OF DRAWINGS

DRAINAGE CERTIFICATE

TO THE BEST OF OUR KNOWLEDGE AND BELIEF, THE DRAIANGE OF SURFACE WATERS WILL NOT BE CHANGED BY THE PROPOSED DEVELOPMENT. IF ANY DRAINAGE PATTERNS WILL BE CHANGED, REASONABLE PROVISIONS HAVE BEEN MADE FOR THE COLLECTION AND DIVERSION OF SUCH SURFACE WATERS IN TO THE PUBLIC AREA, OR DRAINS APPROVED FOR THE USE BY THE MUNICIPAL ENGINEER, AND THAT SUCH SURFACE WATERS ARE PLANNED FOR IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES SO AS TO REDUCE THE LIKELIHOOD OF DAMAGES TO ADJOINING PROPERTIES.

_____
DESIGN ENGINEER

Call Before You Dig JULIE ILLINOIS ONE CALL SYSTEM

CONTACT JULIE AT 811
OR 800-892-0123

48 HOURS (2 working days) BEFORE YOU DIG

NOTE:
THE LOCATION, ELEVATION, SIZE, AND TYPES OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, ELEVATION, SIZE AND TYPES OF ALL EXISTING UTILITIES PRIOR TO COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

CIVWORKS Consulting, LLC
ILLINOIS PROFESSIONAL DESIGN FIRM NO. 184-005714

HOLLADAY PROPERTIES
Building Solutions Since 1952

REVISIONS

2	01-13-23	REVISED PER VILLAGE REVIEW
1	12-15-22	REVISED PER VILLAGE REVIEW

CIVWORKS Consulting, LLC
CIVIL ENGINEERS - PLANNERS - DEVELOPMENT CONSULTANTS
3343 N. NEVA AVENUE
CHICAGO, ILLINOIS 60634
Ph: (312) 637-9570
Fax: (312) 637-9454
E-mail: info@civworks.com
Web: www.civworks.com

SHEET TITLE: CIVIL ENGINEERING COVER SHEET

PROJECT: PROPOSED SELF STORAGE
401 W. GOLF ROAD, ARLINGTON HEIGHTS, IL 60005

PROJ. MGR.:	OP
DRAWN BY:	OP
FIRST ISSUE DATE:	11-11-2022
SCALE:	N.T.S.
SHEET NO.	C1.0
PROJ. NUMBER:	22013

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)

1 INCH = 30 FT

REVISIONS

2	01-13-23	REVISED PER VILLAGE REVIEW
1	12-15-22	REVISED PER VILLAGE REVIEW

CIVIL ENGINEERS - PLANNERS - DEVELOPMENT CONSULTANTS

CIVWORKS Consulting, LLC

3343 N. NEVA AVENUE
CHICAGO, ILLINOIS 60634
Ph: (312) 637-9570
Fax: (312) 637-9454
E-mail: info@civworks.com
Web: www.civworks.com

SHEET TITLE:

EXISTING CONDITIONS (BY OTHERS)

PROJECT:

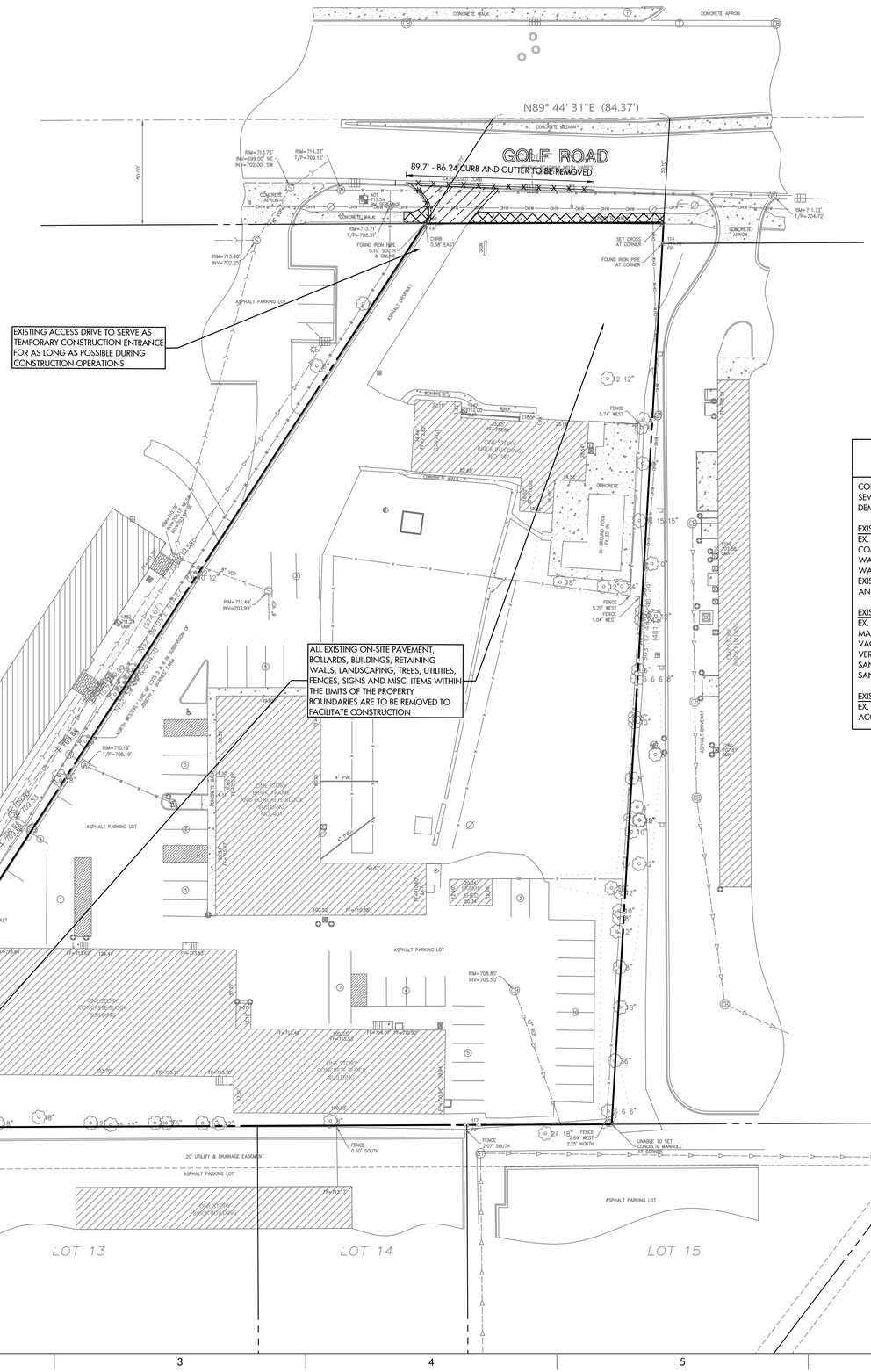
PROPOSED SELF STORAGE
401 W. GOLF ROAD, ARLINGTON HEIGHTS, IL 60005

PROJ. MGR.:	OP
DRAWN BY:	OP
FIRST ISSUE DATE:	11-11-2022
SCALE:	1"=30'

SHEET NO.

C2.0

PROJ. NUMBER: 22013



GRAPHIC SCALE

30 0 15 30 60

(IN FEET)

1 INCH = 30 FT

DEMOLITION LEGEND

- EX. CONCRETE PAVEMENT TO BE REMOVED
- EX. ASPHALT PAVEMENT TO BE REMOVED
- EX. CURB TO BE REMOVED

PUBLIC SIDEWALK REMOVAL NOTE

ADDITIONAL SIDEWALK REMOVAL AND REPLACEMENT MAY BE NECESSARY TO PROVIDE FOR A PROPER TRANSITION TO THE EXISTING SIDEWALK. THE LIMITS OF THE SIDEWALK REMOVAL AND REPLACEMENT WILL BE AT THE DISCRETION OF THE ENGINEERING INSPECTOR. THE SIDEWALK ALONG GOLF ROAD SHALL REMAIN INTACT AS LONG AS POSSIBLE DURING CONSTRUCTION AND SHALL NOT BE REMOVED UNTIL REPLACEMENT IS SCHEDULED IN ORDER TO MINIMIZE THE AMOUNT OF TIME THE SIDEWALK IS INACCESSIBLE TO PEDESTRIANS.

DEBRIS AND SPOIL MATERIAL STOCKPILE

DUE TO THE LIMITED SIZE OF SITE AND AVAILABLE STAGING AREAS, STOCKPILING OF DEBRIS, SPOIL MATERIALS, OR ANY OTHER ITEMS SHALL NOT BE ALLOWED. ALL DEBRIS, SPOIL MATERIALS OR ANY OTHER DEMOLISHED ITEMS SHALL BE IMMEDIATELY HAULED OFF-SITE AND DISPOSED OF BY THE DEMOLITION CONTRACTOR IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL LAWS.

EXISTING WATER AND SANITARY SEWER SERVICE REMOVAL AND ABANDONMENT NOTE

CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING WATER AND SANITARY SEWER SERVICES TO EACH EXISTING BUILDING PRIOR TO BEGINNING ANY DEMOLITION ON-SITE.

EXISTING WATER SERVICE REMOVAL

EX. WATER SERVICE LINE FROM BUILDING TO THE CONNECTION POINT SHALL BE COMPLETELY REMOVED. EX. CURB STOP SHALL BE COMPLETELY REMOVED. EX. WATER SERVICE TO BE DISCONNECTED AT THE POINT OF CONNECTION TO THE WATER MAIN. REMOVAL AND ABANDONMENT SHALL INCLUDE CLOSING OF THE EXISTING CORPORATION TOP, THE CUTTING AND REMOVAL OF THE SERVICE TUBE AND THE PLUGGING OF THE CORPORATION STOP WITH A BRASS PLUG.

EXISTING SANITARY SERVICE REMOVAL

EX. SANITARY SERVICE LINE FROM THE BUILDING TO THE EXISTING SANITARY MANHOLE SHALL BE COMPLETELY REMOVED. THE EXISTING INVERT SHALL BE VACATED AND BRICK AND MORTARED AS NEEDED. CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDITION OF THE MANHOLE AND EXISTING 6" OUTFLOW SANITARY SEWER TO ENSURE VIABILITY OF RE-USE OF THE STRUCTURE AND SANITARY LINE PRIOR TO STARTING CONSTRUCTION OR ORDERING MATERIALS.

EXISTING ON-SITE WELLS

EX. WELLS ON THE PROPERTY SHALL BE PROPERLY CAPPED AND ABANDONED IN ACCORDANCE WITH CURRENT HEALTH DEPARTMENT REGULATIONS.

DEMOLITION NOTES

1. ALL UTILITY COMPANIES ARE TO BE CONTACTED TO PERMIT MARKING THEIR FACILITIES BEFORE ANY WORK IS DONE ON THE SITE.
2. THE OWNER SHALL BE PROVIDED WITH COPIES OF ALL DEMOLITION PERMITS AND UTILITY INFORMATION PRIOR TO THE COMMENCEMENT OF THE WORK.
3. CONTRACTOR IS TO VERIFY THAT ALL EXISTING UTILITY SERVICE LINES HAVE BEEN SHUT OFF OR DISCONNECTED AT THEIR RESPECTIVE MAIN LINES BEFORE BEGINNING STRUCTURE AND PAVEMENT REMOVAL ON THE SITE.
4. THE EXTENT OF SITE DEMOLITION WORK IS AS SHOWN ON THE CONTRACT DOCUMENTS AND AS SPECIFIED HEREIN. FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND SERVICE NECESSARY TO COMPLETE THE WORK. DEMOLITION INCLUDES, BUT IS NOT LIMITED TO, REMOVAL AND DISPOSAL OFF-SITE OF THE FOLLOWING ITEMS:
   - ON-SITE PAVEMENT
   - DEBRIS FROM ALL DEMOLISHED STRUCTURES
   - ALL PAVEMENT TO BE REMOVED ADJACENT TO PAVEMENT THAT IS TO REMAIN SHALL BE SAWCUT FULL DEPTH AT THE EDGES PRIOR TO REMOVAL TO OBTAIN A "CLEAN" JOINT WHERE IT ABUTS NEW CURB OR PAVEMENT.

   CONTRACTOR MUST RECEIVE APPROVAL FROM AND GEOTECHNICAL ENGINEER FOR THE MATERIAL TYPE AND USE IF CONTRACTOR DESIRES TO REUSE DEMOLISHED SITE PAVEMENT OR EXISTING STONE SUBBASE AS STRUCTURAL FILL.
5. STRUCTURES TO BE DEMOLISHED SHALL BE VACATED AND DISCONTINUED FROM USE PRIOR TO START OF WORK. OWNER ASSUMES NO RESPONSIBILITY FOR ACTUAL CONDITION OF STRUCTURES TO BE DEMOLISHED. CONDITIONS EXISTING AT TIME OF INSPECTION FOR BIDDING PURPOSES WILL BE MAINTAINED BY OWNER IN SO FAR AS PRACTICABLE. HOWEVER, VARIATIONS WITHIN THE STRUCTURES MAY OCCUR BY OWNER'S REMOVAL AND SALVAGE OPERATIONS PRIOR TO START OF DEMOLITION WORK. ITEMS OF SALVAGEABLE VALUE TO CONTRACTOR MAY BE REMOVED FROM SITE AS WORK PROGRESSES AND AS APPROVED BY THE OWNER. SALVAGED ITEMS MUST BE TRANSPORTED FROM THE SITE AS THEY ARE REMOVED. STORAGE OR SALE OF REMOVED ITEMS ON SITE WILL NOT BE PERMITTED. THE USE OF EXPLOSIVES WILL NOT BE PERMITTED. CONDUCT DEMOLITION OPERATIONS AND REMOVAL OF DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS AND OTHER ADJACENT OCCUPIED OR USED FACILITIES. THE CONTRACTOR SHALL PROVIDE MAINTENANCE OF TRAFFIC TO PROVIDE SAFE PASSAGE FOR VEHICULAR AND PEDESTRIAN TRAFFIC. THIS INCLUDES APPROPRIATE SIGNAGE FOR CLOSING THE PUBLIC SIDEWALK, ROADWAY AND NECESSARY PARKING SPACES. ALL MAINTENANCE OF TRAFFIC SHALL BE APPROVED BY THE MUNICIPALITY.
6. EXISTING UTILITIES TO REMAIN ARE TO BE KEPT IN SERVICE AND PROTECTED AGAINST DAMAGE DURING DEMOLITION OPERATIONS. CONTRACTOR IS RESPONSIBLE FOR TURNING OFF, DISCONNECTING, AND SEALING INDICATED UTILITIES BEFORE STARTING DEMOLITION OPERATIONS. EXISTING UTILITIES TO BE ABANDONED ARE TO BE CAPPED AT BOTH ENDS AND FILLED WITH FA-1 OR APPROVED EQUAL. ALL UNDERGROUND UTILITIES TO BE REMOVED ARE TO BE BACKFILLED WITH ENGINEERED FILL OR SELECT EXCAVATED MATERIAL, AS APPROVED BY THE GEOTECHNICAL ENGINEER, TO 95% OF MODIFIED PROCTOR DENSITY WITHIN PAVED AREAS AND TO 90% OF MODIFIED PROCTOR DENSITY FOR GREEN SPACE AREAS, IN ACCORDANCE WITH THE EARTHWORK SPECIFICATIONS. ALL PRIVATE UTILITIES (ELECTRIC, CABLE, TELEPHONE, FIBER OPTIC, GAS) SHALL BE REMOVED AND RELOCATED PER THE UTILITY OWNER AND THE LOCAL MUNICIPALITY'S REQUIREMENTS.
7. UNDERGROUND UTILITIES SHOWN ARE BASED ON ATLASES AND AVAILABLE INFORMATION PRESENTED AT THE TIME OF SURVEY. CONTRACTOR SHOULD CALL "JULIE" (800-892-0123) TO COORDINATE FIELD LOCATIONS OF EXISTING UNDERGROUND UTILITIES BEFORE ORDERING MATERIALS OR COMMENCING CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY. CONTRACTOR SHALL LOCATE AND PROTECT EXISTING UNDERGROUND AND OVERHEAD UTILITIES DURING CONSTRUCTION. UTILITY PROTECTION SHALL BE COORDINATED WITH THE RESPECTIVE UTILITY OWNER AND AS DIRECTED BY THE GOVERNING MUNICIPALITY. DAMAGED CABLES/CONDUITS SHALL BE REPLACED IMMEDIATELY. ALL EXISTING STRUCTURES TO REMAIN SHALL BE PROTECTED THROUGHOUT THE CONSTRUCTION PROCESS. ALL DAMAGED STRUCTURES SHALL BE REPLACED IN-KIND AND THEIR REPLACEMENT COST SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. PROPER NOTIFICATION TO THE OWNERS OF THE EXISTING UTILITIES SHALL BE MADE AT LEAST 48 HOURS BEFORE CONSTRUCTION COMMENCES.
8. USE WATER SPRINKLING, TEMPORARY ENCLOSURES, AND OTHER SUITABLE METHODS TO LIMIT DUST AND DIRT RISING AND SCATTERING IN THE AIR TO THE LOWEST LEVEL. COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION. SEE EROSION CONTROL SHEETS FOR FURTHER EROSION CONTROL REQUIREMENTS.
9. REMOVE FROM SITE DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM DEMOLITION OPERATIONS. BURNING OF REMOVED MATERIALS WILL NOT BE PERMITTED ON SITE. TRANSPORT MATERIALS REMOVED AND DISPOSE OF OFF-SITE IN A LEGAL MANNER.
10. ALL EXISTING BUILDINGS, FOUNDATIONS, UTILITIES, AND LANDSCAPING AND OTHER IMPROVEMENTS ON ADJACENT PROPERTIES SHALL BE PROTECTED AT ALL TIMES DURING DEMOLITION AND CONSTRUCTION WORK. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE AND INSTALL ANY MATERIALS, EQUIPMENT, AND/OR MANPOWER NECESSARY TO ACCOMPLISH THIS.
11. ALL ABANDONED SEWERS SHALL BE PLUGGED AT BOTH ENDS WITH A MINIMUM 2-FOOT LONG NON-SHRINK CONCRETE PLUG.

REVISIONS

2	01-13-23	REVISED PER VILLAGE REVIEW
1	12-15-22	REVISED PER VILLAGE REVIEW

CIVIL ENGINEERS - PLANNERS - DEVELOPMENT CONSULTANTS

CIVWORKS Consulting, LLC

3343 N. NEVA AVENUE
CHICAGO, ILLINOIS 60634
Ph: (312) 637-9570
Fax: (312) 637-9454
E-mail: info@civworks.com
Web: www.civworks.com

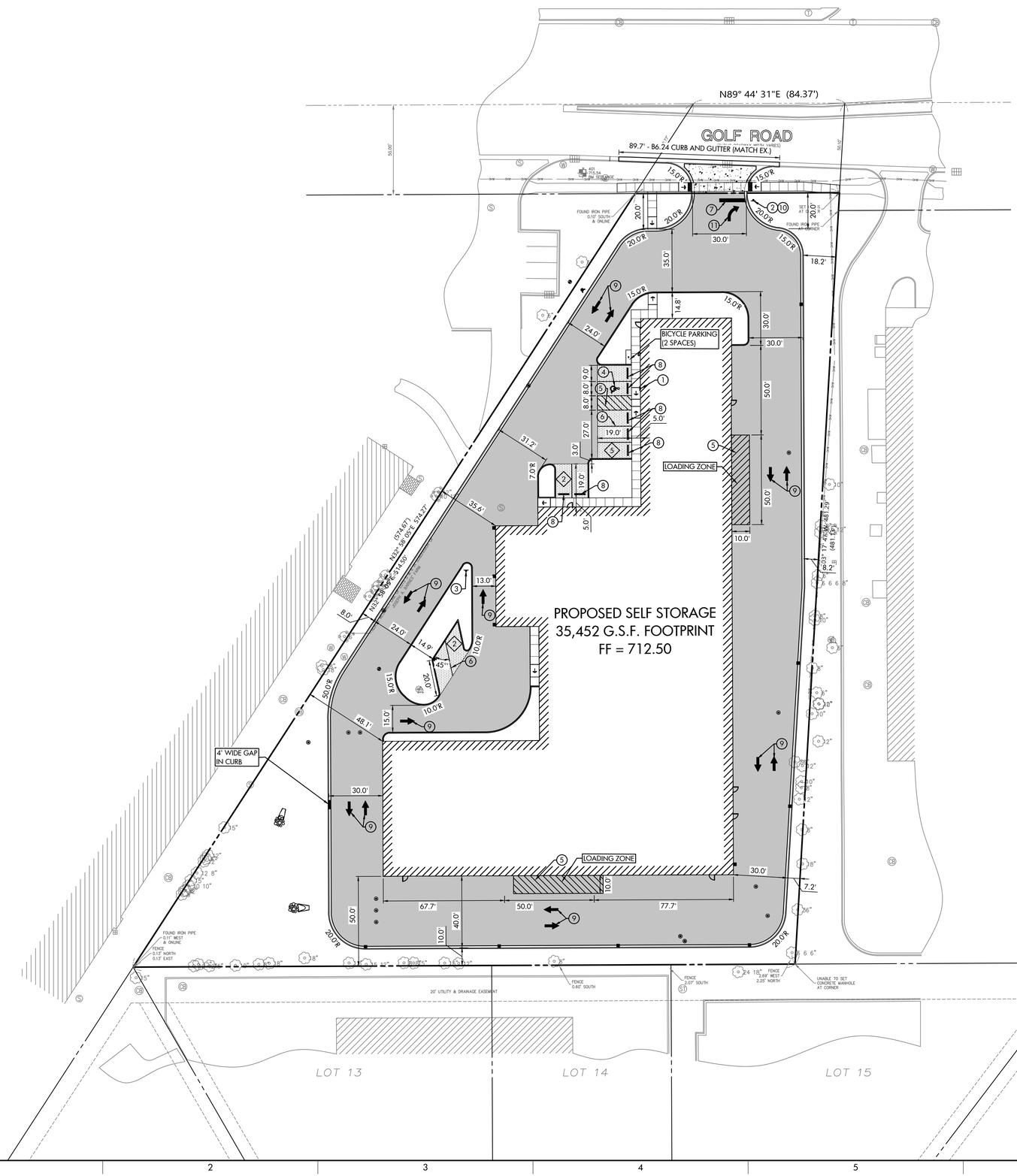
SHEET TITLE: SITE DEMOLITION PLAN

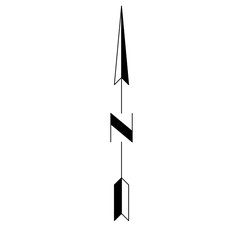
PROJECT: PROPOSED SELF STORAGE
401 W. GOLF ROAD, ARLINGTON HEIGHTS, IL 60005

PROJ. MGR.:	OP
DRAWN BY:	OP
FIRST ISSUE DATE:	11-11-2022
SCALE:	1"=30'

SHEET NO.
C2.1

PROJ. NUMBER: 22013





SITE DATA

TOTAL SITE AREA = 2.387 AC

PROPOSED BUILDING AREA = 35,452 S.F. FOOTPRINT

PARKING PROVIDED =
REGULAR PARKING PROVIDED = 8 SPACES
HANDICAP PARKING PROVIDED = 1 SPACES

TOTAL PARKING PROVIDED = 9 SPACES

SITE PLAN KEYED NOTES

1. R7-8 HANDICAP PARKING SIGN (12"X18") WITH $250 FINE (MOUNTED ON BUILDING WALL)
2. R1-1 STOP SIGN (30"X30")
3. R5-1 DO NOT ENTER SIGN (30"X30")
4. HANDICAP SYMBOL PER LATEST ADA STANDARDS
5. 4" SOLID YELLOW AT 24" C-C AT 45 DEGREES
6. 4" SOLID YELLOW STRIPE (TYP)
7. 24" WIDE WHITE STOP BAR (INSTALLED 4' BEFORE WALK)
8. RUBBERFORM 100% POST-CONSUMER RECYCLED RUBBER WHEEL STOPS. PRODUCT NO. RF-PWS38YLW
9. YELLOW DIRECTIONAL ARROW (TYP)
10. R3-5 RIGHT TURN ONLY SIGN (30"X36")
11. WHITE RIGHT TURN ONLY ARROW

GENERAL NOTES

1. ALL DIMENSIONS AND CURB RADII ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL CURB SHALL BE B6.12 AROUND THE PERIMETER AND 6" HIGH BARRIER CURB ALONG THE BUILDING UNLESS OTHERWISE NOTED.
3. SIDEWALK ALONG THE PERIMETER OF THE BUILDING SHALL BE COMBINATION SIDEWALK AND BARRIER CURB AND SHALL BE MONOLITHICALLY CAST ACCORDING TO THE DETAIL ON SHEET C6.2.
4. ALL RADII ARE 3.0' UNLESS OTHERWISE NOTED.
5. ALL SITE SIGNAGE SHALL BE IN CONFORMANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) STANDARDS, LATEST EDITION.
6. PARKING SPACES SHALL BE ANGLED AT 90° TO THE ASSOCIATED DRIVE AISLE UNLESS OTHERWISE NOTED.
7. DETECTABLE WARNING STRIPS WITH TRUNCATED DOMES ON ALL CURB RAMPS SHALL CONSIST OF CONTRASTING COLOR TO ADJACENT PAVEMENT COLOR PER IDOT REGULATIONS, PREFERRED COLOR IS RED (FEDERAL COLOR STANDARD 30166)
8. REFER TO ARCHITECTURAL AND SIGNAGE PLANS FOR ANY ADDITIONAL SITE SIGNAGE AND PAVEMENT MARKINGS.
9. ALL TRAFFIC SIGNS SHALL BE INSTALLED AT 7' HIGH MEASURED FROM THE GROUND ELEVATION TO THE BOTTOM OF SIGN.
10. ALL SIDEWALK SHALL MEET PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG).

SITE PAVING LEGEND

HEAVY DUTY ASPHALT PAVEMENT
2.0" BITUMINOUS SURFACE COURSE, HOT MIX ASPHALT, MIX D, N50
7.25" BITUMINOUS BINDER COURSE, HOT MIX ASPHALT, IL-19, N50
4" AGGREGATE BASE COURSE, TYPE B (IDOT GRAD CA-6)

LIGHT DUTY ASPHALT PAVEMENT
2.0" BITUMINOUS SURFACE COURSE, HOT MIX ASPHALT, MIX D, N50
2.5" BITUMINOUS BINDER COURSE, HOT MIX ASPHALT, IL-19, N50
8" AGGREGATE BASE COURSE, TYPE B (IDOT GRAD CA-6)

CONCRETE PAVEMENT
8" P.C. CONCRETE PAVEMENT
6x6 - W2.9 x W2.9 WWF @ MIDPOINT OF CONCRETE THICKNESS
4" AGGREGATE BASE (CA-6)

SIDEWALK PAVEMENT
5" P.C. CONCRETE PAVEMENT (THICKEN TO 8" AT DRIVEWAYS)
4" AGGREGATE BASE (CA-6)

REVISIONS

2	01-13-23	REVISED PER VILLAGE REVIEW
1	12-15-22	REVISED PER VILLAGE REVIEW

CIVIL ENGINEERS - PLANNERS - DEVELOPMENT CONSULTANTS
CIVWORKS Consulting, LLC
3343 N. NEVA AVENUE
CHICAGO, ILLINOIS 60634
Ph: (312) 637-9570
Fax: (312) 637-9454
E-mail: info@civworks.com
Web: www.civworks.com

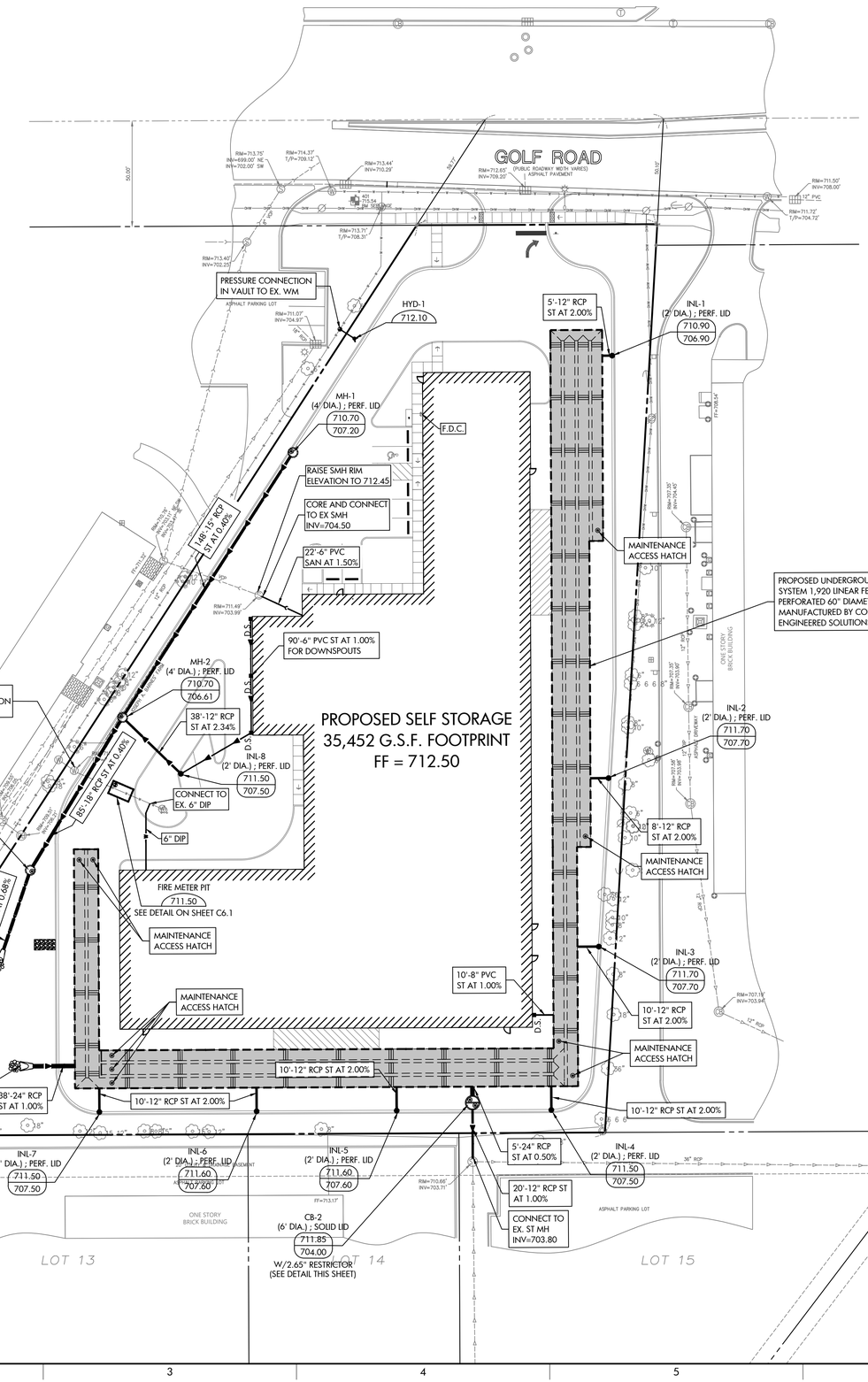
SHEET TITLE: SITE DIMENSIONAL AND PAVING PLAN

PROJECT: PROPOSED SELF STORAGE
401 W. GOLF ROAD, ARLINGTON HEIGHTS, IL 60005

PROJ. MGR.:	OP
DRAWN BY:	OP
FIRST ISSUE DATE:	11-11-2022
SCALE:	1"=30'

SHEET NO.
C3.0

PROJ. NUMBER: 22013



NOTE:
THE LOCATION, ELEVATION, SIZE, AND TYPES OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, ELEVATION, SIZE AND TYPES OF ALL EXISTING UTILITIES PRIOR TO COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 INCH = 30 FT

GENERAL UTILITY NOTES

1. EXISTING UTILITY INFORMATION SHOWN IS BASED ON BEST AVAILABLE RECORDS AT THIS TIME. THE CONTRACTOR SHALL FIELD VERIFY LOCATION, SIZE AND DEPTH BEFORE ORDERING ANY MATERIAL, OR BEGINNING ANY PROPOSED CONSTRUCTION.
2. DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
3. FRAMES AND GRATES ARE AS FOLLOWS UNLESS OTHERWISE NOTED:
   F&SL IN OPEN SPACE AND PAVEMENT: EJIW 1022-2 WITH TYPE M1 GRATE (NEENAH R2502-A)
   F&PL IN OPEN SPACE: EJIW 6527 WITH TYPE M1 GRATE (NEENAH R-2502-A)
   F&PL IN PAVEMENT: NEENAH R-2504-D (OR APPROVED EQUAL)

   F&PL ALONG STANDARD CURB LINE: EJIW 7000 WITH TYPE T1 BACK AND TYPE M1 GRATE (NEENAH R-3281-A); FOR B6-12 APPLICATIONS, WIDEN GUTTER SECTION TO ACCOMODATE THE LARGER GRATE SECTION.

   F&PL ALONG DEPRESSED CURB LINE: EJIW 7000 WITH TYPE M3 FLAT GRATE

   EJIW = EAST JORDAN IRON WORKS
   F&SL = FRAME AND SOLID LID
   F&PL = FRAME AND PERFORATED LID
4. SEE LANDSCAPE PLANS FOR PROPOSED TREE LOCATIONS.
5. UTILITY CROSSINGS BETWEEN WET UTILITIES (WATER, SANITARY, STORM) AND DRY UTILITIES (GAS, ELECTRIC, TELEPHONE, TELE-COMMUNICATIONS) SHALL BE COORDINATED BETWEEN THE CONTRACTOR AND THE UTILITY COMPANIES TO ACCOMMODATE THE DESIGN OF THE WET UTILITY.
6. SEE ARCHITECTURAL AND PLUMBING PLANS FOR INVERT AND EXACT ENTRY LOCATION OF ALL BUILDING SERVICES.
7. THE ROUTING FOR TELEPHONE, ELECTRIC AND GAS SERVICE IF SHOWN IS FOR SCHEMATIC PURPOSES ONLY. THE CONTRACTOR SHALL CONTACT THE INDIVIDUAL UTILITY COMPANIES TO DETERMINE ACTUAL ROUTE AND COORDINATE THEIR CONSTRUCTION.
8. DRY UTILITY CONDUITS SHALL MAINTAIN 5 FT. OF HORIZONTAL SEPARATION FROM OTHER UTILITIES EXCEPT AT CROSSINGS.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL UTILITY PIPE CLEANING PRIOR TO UTILITY BEING PUT INTO SERVICE.
10. CONTRACTOR SHALL PROVIDE WATER MAIN PROTECTION IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION.
11. STRUCTURE ADJUSTMENTS SHALL BE ACCOMPLISHED USING ADJUSTING RINGS UP TO A MAXIMUM OF 8". STRUCTURE ADJUSTMENTS OF MORE THAN 12" IN HEIGHT SHALL BE ACCOMPLISHED BY REMOVING THE STRUCTURE TOP AND INSTALLING A NEW BARREL SECTION OF SUFFICIENT HEIGHT TO LIMIT THE REQUIRED ADJUSTING RING HEIGHT TO 8" OR LESS.
12. NEW DIP WATER SERVICE LINES SHALL BE PRESSURE TESTED AND CHLORINATED IN ACCORDANCE WITH APPLICABLE REQUIREMENTS.
13. ALL DIP WATER MAIN 4" AND LARGER SHALL BE CLASS 52 DIP.
14. CONCRETE STORM SEWER LINES CROSSING OVER OR WITHIN 10' OF WATER MAIN SHALL BE RCP PIPE WITH C-361 O-RING GASKET JOINTS. SANITARY LINES CROSSING OVER OR WITHIN 10' OF WATER MAIN SHALL BE PVC SDR-26PR WATER MAIN QUALITY PIPE OR BE ENCASED IN A STEEL CASING PIPE FOR A MINIMUM OF 10-FT ON EACH SIDE OF THE WATER MAIN.

STORM WATER MANAGEMENT SUMMARY

TOTAL SITE AREA = 2.387 AC

PROPOSED PERVIOUS AREA = 0.533 AC
PROPOSED IMPERVIOUS AREA = 1.854 AC

VILLAGE REQUIRED DETENTION VOLUME = 40,068 C.F.

MWRDGC REQUIRED VOLUME CONTROL STORAGE = 6,752 C.F.

TOTAL STORAGE VOLUME REQUIRED = 46,820 C.F.

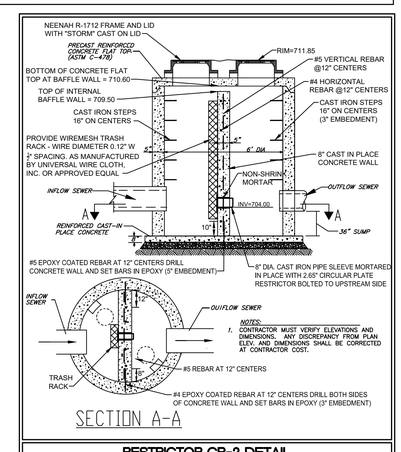
REQUIRED DETENTION VOLUME WILL BE PROVIDED BY THE PROPOSED UNDERGROUND DETENTION SYSTEM, STORM STRUCTURES AND STORM PIPING.

TOTAL DETENTION VOLUME PROVIDED =
37,680 C.F. (IN PERF. PIPE) + 4,155 C.F. (IN STONE ENCASEMENT) = 41,835 C.F.

VOLUME CONTROL STORAGE WILL BE PROVIDED BY THE PROPOSED NATURALIZED BASIN AT THE SOUTHWEST CORNER OF THE SITE AND STONE ENCASEMENT BELOW PERVIOUS PIPES.

VOLUME CONTROL STORAGE PROVIDED BY BASIN = 6,125 C.F.

TOTAL STORAGE VOLUME PROVIDED BY PROJECT = 47,960 C.F



RESTRICTOR CB-2 DETAIL

REVISIONS

2	01-13-23	REVISED PER VILLAGE REVIEW
1	12-15-22	REVISED PER VILLAGE REVIEW

CIVIL ENGINEERS - PLANNERS - DEVELOPMENT CONSULTANTS
CIVWORKS Consulting, LLC
3343 N. NEVA AVENUE
CHICAGO, ILLINOIS 60634
Ph: (312) 637-9570
Fax: (312) 637-9454
E-mail: info@civworks.com
Web: www.civworks.com

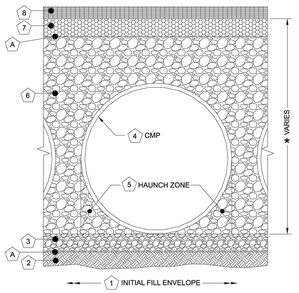
SHEET TITLE: SITE UTILITY PLAN

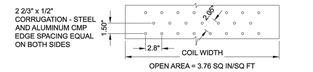
PROJECT: PROPOSED SELF STORAGE
401 W. GOLF ROAD, ARLINGTON HEIGHTS, IL 60005

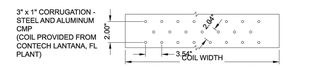
PROJ. MGR.:	OP
DRAWN BY:	OP
FIRST ISSUE DATE:	11-11-2022
SCALE:	1"=30'

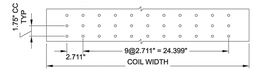
SHEET NO.
C4.0

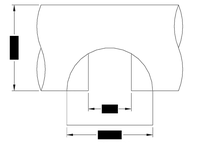
PROJ. NUMBER: 22013

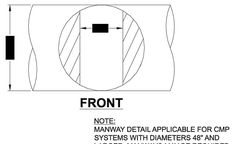


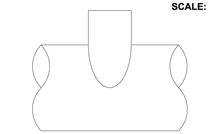


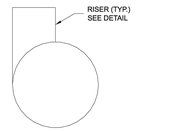


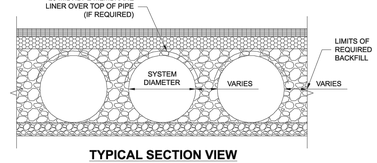


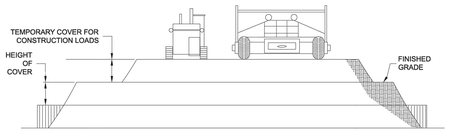


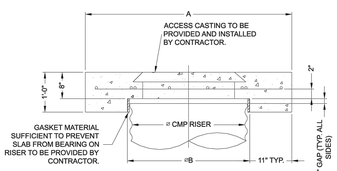


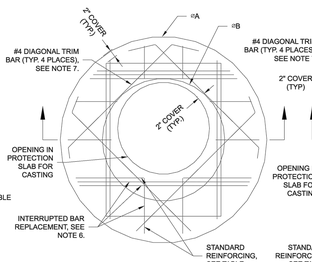


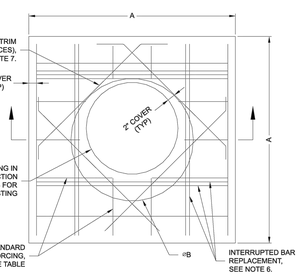


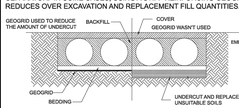


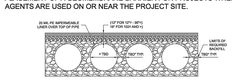


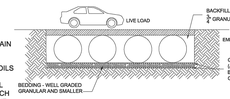


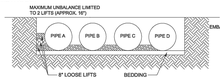


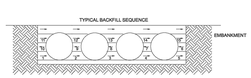


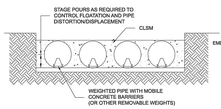


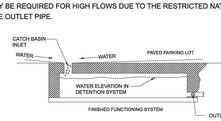












PROJECT SUMMARY

CALCULATION DETAILS
- LOADING = HS20 & HS25
- APPROX. LINEAR FOOTAGE = 1,920 lf.

STORAGE SUMMARY
- STORAGE VOLUME REQUIRED = 40,068 CF
- PIPE STORAGE VOLUME = 37,680 CF
- BACKFILL STORAGE VOLUME = 4,155 CF
- TOTAL STORAGE PROVIDED = 41,835 CF

PIPE DETAILS
- DIAMETER = 60"
- CORRUGATION = 5x1
- GAGE = 16
- COATING = ALT2
- WALL TYPE = PERFORATED
- BARREL SPACING = 18"

BACKFILL DETAILS
- WIDTH AT ENDS = 6 IN
- ABOVE PIPE = 0 IN.
- WIDTH AT SIDES = 6 IN
- BELOW PIPE = 12 IN

NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE $2\frac{2}{3}$" x $\frac{1}{2}$" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- BAND TYPE TO BE DETERMINED UPON FINAL DESIGN.
- THE PROJECT SUMMARY IS REFLECTIVE OF THE DYODS DESIGN, QUANTITIES ARE APPROX. AND SHOULD BE VERIFIED UPON FINAL DESIGN AND APPROVAL. FOR EXAMPLE, TOTAL EXCAVATION DOES NOT CONSIDER ALL VARIABLES SUCH AS SHORING AND ONLY ACCOUNTS FOR MATERIAL WITHIN THE ESTIMATED EXCAVATION FOOTPRINT.
- THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.

DATE	REVISION DESCRIPTION	BY

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

60" CMP Detention System
Arlington Heights, IL
DETENTION SYSTEM

PROJECT No.: 5560
SEQ. No.: 13896
DATE:
DESIGNED: DYO
DRAWN: DYO
CHECKED: DYO
APPROVED: DYO
SHEET NO.: D1

	Infiltration Systems - CMP Infiltration & CMP Perforated Drainage Pipe			
	Material Location	Description	Material Designation	Designation
8	Rigid or Flexible Pavement (if applicable)			
7	Road Base (if applicable			
A	Geotextile Layer	Non-Woven Geotextile	CONTECH C-40 or C-45	Engineer Decision for consideration to prevent soil migration into varying soil types. Wrap the trench only.
6	Backfill	Infiltration pipe systems have a pipe perforation sized of 3/8" diameter. An open graded, free draining stone, with a particle size of ½" – 2 ½" diameter is recommended.	AASHTO M 145-A-1 or AASHTO M 43 - 3, 4	Material shall be worked into the pipe haunches by means of shovel-slicing, rodding, air-tamper, vibratory rod, or other effective methods. Compaction of all placed fill material is necessary and shall be considered adequate when no further yielding of the material is observed under the compactor, or under foot, and the Project Engineer or his representative is satisfied with the level of compaction"
3	Bedding Stone	Well graded granular bedding material w/maximum particle size of 3"	AASHTO M43 - 3,357,4,467, 5, 56, 57	For soil aggregates larger than 3/8" a dedicated bedding layer is not required for CMP. Pipe may be placed on the trench bottom comprised of native suitable well graded & granular material. For Arch pipes it is recommended to be shaped to a relatively flat bottom or fine-grade the foundation to a slight v-shape. Soil aggregates less than 3/8" and unsuitable material should be over-excavated and re-placed with a 4"-6" layer of well graded & granular stone per the material designation.
A	Geotextile Layer	None	None	Contech does not recommend geotextiles be placed under the invert of Infilitration systems due to the propensity for geotextiles to clog over time.
*	Note: The listed AASHTO designations are for gradation only. The stone must also be angular and clean.			

1 MINIMUM WIDTH DEPENDS ON SITE CONDITIONS AND ENGINEERING JUDGEMENT.

FOUNDATION/BEDDING PREPARATION

2 PRIOR TO PLACING THE BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, THEY SHALL BE REMOVED AND BROUGHT BACK TO THE GRADE WITH A FILL MATERIAL AS APPROVED BY THE ENGINEER.

5 HAUNCH ZONE MATERIAL SHALL BE PLACED AND UNIFORMLY COMPACTED WITHOUT SOFT SPOTS.

BACKFILL
MATERIAL SHALL BE PLACED IN 8"-10" MAXIMUM LIFTS. INADEQUATE COMPACTION CAN LEAD TO EXCESSIVE DEFLECTIONS WITHIN THE SYSTEM AND SETTLEMENT OF THE SOILS OVER THE SYSTEM. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO-LIFT DIFFERENTIAL BETWEEN THE SIDES OF ANY PIPE IN THE SYSTEM AT ALL TIMES DURING THE BACKFILL PROCESS. BACKFILL SHALL BE ADVANCED ALONG THE LENGTH OF THE SYSTEM AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING ON ANY PIPES IN THE SYSTEM.

EQUIPMENT USED TO PLACE AND COMPACT THE BACKFILL SHALL BE OF A SIZE AND TYPE SO AS NOT TO DISTORT, DAMAGE, OR DISPLACE THE PIPE. ATTENTION MUST BE GIVEN TO PROVIDING ADEQUATE MINIMUM COVER FOR SUCH EQUIPMENT. MAINTAIN BALANCED LOADING ON ALL PIPES IN THE SYSTEM DURING ALL SUCH OPERATIONS.

OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS. REFER TO TYPICAL BACKFILL DETAIL FOR MATERIAL REQUIRED.

NOTES:

1. PERFORATIONS MEET AASHTO AND ASTM SPECIFICATIONS.
2. PERFORATION OPEN AREA PER SQUARE FOOT OF PIPE IS BASED ON THE NOMINAL DIAMETER AND LENGTH OF PIPE.
3. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
4. ALL HOLES ⌀3/8".

TYPICAL PERFORATION DETAIL

SCALE: N.T.S.

TYPICAL MANWAY DETAIL

SCALE: N.T.S.

NOTE:
MANWAY DETAIL APPLICABLE FOR CMP SYSTEMS WITH DIAMETERS 48" AND LARGER. MANWAYS MAY BE REQUIRED ON SMALLER SYSTEMS DEPENDING ON ACTUAL SITE SPECIFIC CONDITIONS.

TYPICAL RISER DETAIL

SCALE: N.T.S.

NOTE:
LADDERS ARE OPTIONAL AND ARE NOT REQUIRED FOR ALL SYSTEMS.

TYPICAL SECTION VIEW

LINER OVER ROWS
SCALE: N.T.S.

NOTE: IF SALTING AGENTS FOR SNOW AND ICE REMOVAL ARE USED ON OR NEAR THE PROJECT, AN HDPE MEMBRANE LINER IS RECOMMENDED WITH THE SYSTEM. THE IMPERMEABLE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM A CHANGE IN THE SURROUNDING ENVIRONMENT OVER A PERIOD OF TIME. PLEASE REFER TO THE CORRUGATED METAL PIPE DETENTION DESIGN GUIDE FOR ADDITIONAL INFORMATION.

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX
CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

60" CMP Detention System
Arlington Heights, IL
DETENTION SYSTEM

PROJECT No.: 5560
SEQ. No.: 13896
DATE:
DESIGNED: DYO
DRAWN: DYO
CHECKED: DYO
APPROVED: DYO
SHEET NO.: D2

CONSTRUCTION LOADS

FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (kips)			
	18-50	50-75	75-110	110-150
	MINIMUM COVER (FT)			
12-42	2.0	2.5	3.0	3.0
48-72	3.0	3.0	3.5	4.0
78-120	3.0	3.5	4.0	4.0
126-144	3.5	4.0	4.5	4.5

*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

CONSTRUCTION LOADING DIAGRAM

SCALE: N.T.S.

SPECIFICATION FOR DESIGNED DETENTION SYSTEM:

SCOPE
THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE DESIGNED DETENTION SYSTEM DETAILED IN THE PROJECT PLANS.

MATERIAL
THE MATERIAL SHALL CONFORM TO THE APPLICABLE REQUIREMENTS LISTED BELOW:

ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-274 OR ASTM A-92.

THE GALVANIZED STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-218 OR ASTM A-929.

THE POLYMER COATED STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-246 OR ASTM A-742.

THE ALUMINUM COILS SHALL CONFORM TO THE APPLICABLE OF AASHTO M-197 OR ASTM B-744.

CONSTRUCTION LOADS
CONSTRUCTION LOADS MAY BE HIGHER THAN FINAL LOADS. FOLLOW THE MANUFACTURER'S OR NCSPA GUIDELINES.

PIPE
THE PIPE SHALL BE MANUFACTURED IN ACCORDANCE TO THE APPLICABLE REQUIREMENTS LISTED BELOW:

ALUMINIZED TYPE 2: AASHTO M-36 OR ASTM A-760

GALVANIZED: AASHTO M-36 OR ASTM A-760

APPLICABLE
POLYMER COATED: AASHTO M-245 OR ASTM A-762

ALUMINUM: AASHTO M-196 OR ASTM B-745
APPLICABLE

HANDLING AND ASSEMBLY
SHALL BE IN ACCORDANCE WITH NCSP'S (NATIONAL CORRUGATED STEEL
APPLICABLE
PIPE ASSOCIATION) FOR ALUMINIZED TYPE 2, GALVANIZED OR POLYMER COATED STEEL. SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR ALUMINUM PIPE.
REQUIREMENTS

INSTALLATION
SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II DIVISION II OR ASTM A-798 (FOR ALUMINIZED TYPE 2, GALVANIZED OR POLYMER COATED STEEL) OR ASTM B-788 (FOR ALUMINUM PIPE) AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS THE CONTRACTOR SHOULD DISCUSS AND RESOLVE WITH THE SITE ENGINEER.

IT IS ALWAYS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.

SECTION VIEW

⌀ CMP RISER	A	⌀ B	REINFORCING	**BEARING PRESSURE (PSF)
24"	⌀ 4' 4'X4'	26"	#5 @ 12" OCEW #5 @ 12" OCEW	2,410 1,780
30"	⌀ 4'-6" 4'-6" X 4'-6"	32"	#5 @ 12" OCEW #5 @ 12" OCEW	2,120 1,530
36"	⌀ 5' 5' X 5'	38"	#5 @ 10" OCEW #5 @ 10" OCEW	1,890 1,350
42"	⌀ 5'-6" 5'-6" X 5'-6"	44"	#5 @ 10" OCEW #5 @ 9" OCEW	1,720 1,210
48"	⌀ 6' 6' X 6'	50"	#5 @ 9" OCEW #5 @ 8" OCEW	1,600 1,100

REINFORCING TABLE

** ASSUMED SOIL BEARING CAPACITY

ROUND OPTION PLAN VIEW

SQUARE OPTION PLAN VIEW

NOTES:

1. DESIGN IN ACCORDANCE WITH AASHTO, 17th EDITION.
2. DESIGN LOAD HS25.
3. EARTH COVER = 1' MAX.
4. CONCRETE STRENGTH = 3,500 psi
5. REINFORCING STEEL = ASTM A615, GRADE 60.
6. PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.
7. TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING, BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
8. PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
9. DETAIL DESIGN BY DELTA ENGINEERING, BINGHAMTON, NY.

MANHOLE CAP DETAIL

SCALE: N.T.S.

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX
CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

60" CMP Detention System
Arlington Heights, IL
DETENTION SYSTEM

PROJECT No.: 5560
SEQ. No.: 13896
DATE:
DESIGNED: DYO
DRAWN: DYO
CHECKED: DYO
APPROVED: DYO
SHEET NO.: D3

CMP DETENTION INSTALLATION GUIDE

PROPER INSTALLATION OF A FLEXIBLE UNDERGROUND DETENTION SYSTEM WILL ENSURE LONG-TERM PERFORMANCE. THE CONFIGURATION OF THESE SYSTEMS OFTEN REQUIRES SPECIAL CONSTRUCTION PRACTICES THAT DIFFER FROM CONVENTIONAL FLEXIBLE PIPE CONSTRUCTION. CONTECH ENGINEERED SOLUTIONS STRONGLY SUGGESTS SCHEDULING A PRE-CONSTRUCTION MEETING WITH YOUR LOCAL SALES ENGINEER TO DETERMINE IF ADDITIONAL MEASURES, NOT COVERED IN THIS GUIDE, ARE APPROPRIATE FOR YOUR SITE.

FOUNDATION

CONSTRUCT A FOUNDATION THAT CAN SUPPORT THE DESIGN LOADING APPLIED BY THE PIPE AND ADJACENT BACKFILL WEIGHT AS WELL AS MAINTAIN ITS INTEGRITY DURING CONSTRUCTION.

IF SOFT OR UNSUITABLE SOILS ARE ENCOUNTERED, REMOVE THE POOR SOILS DOWN TO A SUITABLE DEPTH AND THEN BUILD UP TO THE APPROPRIATE ELEVATION WITH A COMPETENT BACKFILL MATERIAL. THE STRUCTURAL FILL MATERIAL GRADATION SHOULD NOT ALLOW THE MIGRATION OF FINES, WHICH CAN CAUSE SETTLEMENT OF THE DETENTION SYSTEM OR PAVEMENT ABOVE. IF THE STRUCTURAL FILL MATERIAL IS NOT COMPATIBLE WITH THE UNDERLYING SOILS AN ENGINEERING FABRIC SHOULD BE USED AS A SEPARATOR. IN SOME CASES, USING A STIFF REINFORCING GEOGRID REDUCES OVER EXCAVATION AND REPLACEMENT FILL QUANTITIES.

GRADE THE FOUNDATION SUBGRADE TO A UNIFORM OR SLIGHTLY SLOPING GRADE. IF THE SUBGRADE IS CLAY OR RELATIVELY NON-POROUS AND THE CONSTRUCTION SEQUENCE WILL LAST FOR AN EXTENDED PERIOD OF TIME, IT IS BEST TO SLOPE THE GRADE TO ONE END OF THE SYSTEM. THIS WILL ALLOW EXCESS WATER TO DRAIN QUICKLY, PREVENTING SATURATION OF THE SUBGRADE.

GEOMEMBRANE BARRIER

A SITE'S RESISTIVITY MAY CHANGE OVER TIME WHEN VARIOUS TYPES OF SALTING AGENTS ARE USED, SUCH AS ROAD SALTS FOR DEICING AGENTS. IF SALTING AGENTS ARE USED ON OR NEAR THE PROJECT SITE, A GEOMEMBRANE BARRIER IS RECOMMENDED WITH THE SYSTEM. THE GEOMEMBRANE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM THE USE OF SUCH AGENTS INCLUDING PREMATURE CORROSION AND REDUCED ACTUAL SERVICE LIFE.

THE PROJECT'S ENGINEER OF RECORD IS TO EVALUATE WHETHER SALTING AGENTS WILL BE USED ON OR NEAR THE PROJECT SITE, AND USE HIS/HER BEST JUDGEMENT TO DETERMINE IF ANY ADDITIONAL PROTECTIVE MEASURES ARE REQUIRED. BELOW IS A TYPICAL DETAIL SHOWING THE PLACEMENT OF A GEOMEMBRANE BARRIER FOR PROJECTS WHERE SALTING AGENTS ARE USED ON OR NEAR THE PROJECT SITE.

IN-SITU TRENCH WALL

IF EXCAVATION IS REQUIRED, THE TRENCH WALL NEEDS TO BE CAPABLE OF SUPPORTING THE LOAD THAT THE PIPE SHEDS AS THE SYSTEM IS LOADED. IF SOILS ARE NOT CAPABLE OF SUPPORTING THESE LOADS, THE PIPE CAN DEFLECT. PERFORM A SIMPLE SOIL PRESSURE CHECK USING THE APPLIED LOADS TO DETERMINE THE LIMITS OF EXCAVATION BEYOND THE SPRING LINE OF THE OUTER MOST PIPES.

IN MOST CASES THE REQUIREMENTS FOR A SAFE WORK ENVIRONMENT AND PROPER BACKFILL PLACEMENT AND COMPACTION TAKE CARE OF THIS CONCERN.

BACKFILL PLACEMENT

MATERIAL SHALL BE WORKED INTO THE PIPE HAUNCHES BY MEANS OF SHOVEL-SLICING, RODDING, AIR TAMPER, VIBRATORY ROD, OR OTHER EFFECTIVE METHODS.

IF AASHTO T99 PROCEDURES ARE DETERMINED INFEASIBLE BY THE GEOTECHNICAL ENGINEER OF RECORD, COMPACTION IS CONSIDERED ADEQUATE WHEN NO FURTHER YIELDING OF THE MATERIAL IS OBSERVED UNDER THE COMPACTOR, OR UNDER FOOT, AND THE GEOTECHNICAL ENGINEER OF RECORD (OR REPRESENTATIVE THEREOF) IS SATISFIED WITH THE LEVEL OF COMPACTION.

FOR LARGE SYSTEMS, CONVEYOR SYSTEMS, BACKHOES WITH LONG REACHES OR DRAGLINES WITH STONE BUCKETS MAY BE USED TO PLACE BACKFILL. ONCE MINIMUM COVER FOR CONSTRUCTION LOADING ACROSS THE ENTIRE WIDTH OF THE SYSTEM IS REACHED, ADVANCE THE EQUIPMENT TO THE END OF THE RECENTLY PLACED FILL, AND BEGIN THE SEQUENCE AGAIN UNTIL THE SYSTEM IS COMPLETELY BACKFILLED. THIS TYPE OF CONSTRUCTION SEQUENCE PROVIDES ROOM FOR STOCKPILED BACKFILL DIRECTLY BEHIND THE BACKHOE, AS WELL AS THE MOVEMENT OF CONSTRUCTION TRAFFIC. MATERIAL STOCKPILES ON TOP OF THE BACKFILLED DETENTION SYSTEM SHOULD BE LIMITED TO 8- TO 10-FEET HIGH AND MUST PROVIDE BALANCED LOADING ACROSS ALL BARRELS. TO DETERMINE THE PROPER COVER OVER THE PIPES TO ALLOW THE MOVEMENT OF CONSTRUCTION EQUIPMENT SEE TABLE 1, OR CONTACT YOUR LOCAL CONTECH SALES ENGINEER.

WHEN FLOWABLE FILL IS USED, YOU MUST PREVENT PIPE FLOATATION. TYPICALLY, SMALL LIFTS ARE PLACED BETWEEN THE PIPES AND THEN ALLOWED TO SET-UP PRIOR TO THE PLACEMENT OF THE NEXT LIFT. THE ALLOWABLE THICKNESS OF THE CLSM LIFT IS A FUNCTION OF A PROPER BALANCE BETWEEN THE UPLIFT FORCE OF THE CLSM, THE OPPOSING WEIGHT OF THE PIPE, AND THE EFFECT OF OTHER RESTRAINING MEASURES. THE PIPE CAN CARRY LIMITED FLUID PRESSURE WITHOUT PIPE DISTORTION OR DISPLACEMENT, WHICH ALSO AFFECTS THE CLSM LIFT THICKNESS. YOUR LOCAL CONTECH SALES ENGINEER CAN HELP DETERMINE THE PROPER LIFT THICKNESS.

CONSTRUCTION LOADING

TYPICALLY, THE MINIMUM COVER SPECIFIED FOR A PROJECT ASSUMES H-20 LIVE LOAD. BECAUSE CONSTRUCTION LOADS OFTEN EXCEED DESIGN LIVE LOADS, INCREASED TEMPORARY MINIMUM COVER REQUIREMENTS ARE NECESSARY. SINCE CONSTRUCTION EQUIPMENT VARIES FROM JOB TO JOB, IT IS BEST TO ADDRESS EQUIPMENT SPECIFIC MINIMUM COVER REQUIREMENTS WITH YOUR LOCAL CONTECH SALES ENGINEER DURING YOUR PRE-CONSTRUCTION MEETING.

ADDITIONAL CONSIDERATIONS

BECAUSE MOST SYSTEMS ARE CONSTRUCTED BELOW-GRADE, RAINFALL CAN RAPIDLY FILL THE EXCAVATION; POTENTIALLY CAUSING FLOATATION AND MOVEMENT OF THE PREVIOUSLY PLACED PIPES. TO HELP MITIGATE POTENTIAL PROBLEMS, IT IS BEST TO START THE INSTALLATION AT THE DOWNSTREAM END WITH THE OUTLET ALREADY CONSTRUCTED TO ALLOW A ROUTE FOR THE WATER TO ESCAPE. TEMPORARY DIVERSION MEASURES MAY BE REQUIRED FOR HIGH FLOWS DUE TO THE RESTRICTED NATURE OF THE OUTLET PIPE.

CMP DETENTION SYSTEM INSPECTION AND MAINTENANCE

UNDERGROUND STORMWATER DETENTION AND INFILTRATION SYSTEMS MUST BE INSPECTED AND MAINTAINED AT REGULAR INTERVALS FOR PURPOSES OF PERFORMANCE AND LONGEVITY.

INSPECTION

INSPECTION IS THE KEY TO EFFECTIVE MAINTENANCE OF CMP DETENTION SYSTEMS AND IS EASILY PERFORMED. CONTECH RECOMMENDS ONGOING, ANNUAL INSPECTIONS. SITES WITH HIGH TRASH LOAD OR SMALL OUTLET CONTROL ORIFICES MAY NEED MORE FREQUENT INSPECTIONS. THE RATE AT WHICH THE SYSTEM COLLECTS POLLUTANTS WILL DEPEND MORE ON SITE SPECIFIC ACTIVITIES RATHER THAN THE SIZE OR CONFIGURATION OF THE SYSTEM.

INSPECTIONS SHOULD BE PERFORMED MORE OFTEN IN EQUIPMENT WASHDOWN AREAS, IN CLIMATES WHERE SANDING AND/OR SALTING OPERATIONS TAKE PLACE, AND IN OTHER VARIOUS INSTANCES IN WHICH ONE WOULD EXPECT HIGHER ACCUMULATIONS OF SEDIMENT OR ABRASIVE/ CORROSIVE CONDITIONS. A RECORD OF EACH INSPECTION IS TO BE MAINTAINED FOR THE LIFE OF THE SYSTEM

MAINTENANCE

CMP DETENTION SYSTEMS SHOULD BE CLEANED WHEN AN INSPECTION REVEALS ACCUMULATED SEDIMENT OR TRASH IS CLOGGING THE DISCHARGE ORIFICE.

ACCUMULATED SEDIMENT AND TRASH CAN TYPICALLY BE EVACUATED THROUGH THE MANHOLE OVER THE OUTLET ORIFICE. IF MAINTENANCE IS NOT PERFORMED AS RECOMMENDED, SEDIMENT AND TRASH MAY ACCUMULATE IN FRONT OF THE OUTLET ORIFICE. MANHOLE COVERS SHOULD BE SECURELY SEATED FOLLOWING CLEANING ACTIVITIES. CONTECH SUGGESTS THAT ALL SYSTEMS BE DESIGNED WITH AN ACCESS/INSPECTION MANHOLE SITUATED AT OR NEAR THE INLET AND THE OUTLET ORIFICE. SHOULD IT BE NECESSARY TO GET INSIDE THE SYSTEM TO PERFORM MAINTENANCE ACTIVITIES, ALL APPROPRIATE PRECAUTIONS REGARDING CONFINED SPACE ENTRY AND OSHA REGULATIONS SHOULD BE FOLLOWED.

ANNUAL INSPECTIONS ARE BEST PRACTICE FOR ALL UNDERGROUND SYSTEMS. DURING THIS INSPECTION, IF EVIDENCE OF SALTING/DE-ICING AGENTS IS OBSERVED WITHIN THE SYSTEM, IT IS BEST PRACTICE FOR THE SYSTEM TO BE RINSED, INCLUDING ABOVE THE SPRING LINE SOON AFTER THE SPRING THAW AS PART OF THE MAINTENANCE PROGRAM FOR THE SYSTEM.

MAINTAINING AN UNDERGROUND DETENTION OR INFILTRATION SYSTEM IS EASIEST WHEN THERE IS NO FLOW ENTERING THE SYSTEM. FOR THIS REASON, IT IS A GOOD IDEA TO SCHEDULE THE CLEANOUT DURING DRY WEATHER.

THE FOREGOING INSPECTION AND MAINTENANCE EFFORTS HELP ENSURE UNDERGROUND PIPE SYSTEMS USED FOR STORMWATER STORAGE CONTINUE TO FUNCTION AS INTENDED BY IDENTIFYING RECOMMENDED REGULAR INSPECTION AND MAINTENANCE PRACTICES. INSPECTION AND MAINTENANCE RELATED TO THE STRUCTURAL INTEGRITY OF THE PIPE OR THE SOUNDNESS OF PIPE JOINT CONNECTIONS IS BEYOND THE SCOPE OF THIS GUIDE.

MARK	DATE	REVISION DESCRIPTION	BY

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX
CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

60" CMP Detention System
Arlington Heights, IL
DETENTION SYSTEM

PROJECT No.: 5560
SEQ. No.: 13896
DATE:
DESIGNED: DYO
DRAWN: DYO
CHECKED: DYO
APPROVED: DYO
SHEET NO.: D4

REVISIONS

2	01-13-23	REVISED PER VILLAGE REVIEW
1	12-15-22	REVISED PER VILLAGE REVIEW

CIVIL ENGINEERS - PLANNERS - DEVELOPMENT CONSULTANTS
CIVWORKS
Consulting, LLC
3343 N. NEVA AVENUE
CHICAGO, ILLINOIS 60634
Ph: (312) 637-9570
Fax: (312) 637-9454
E-mail: info@civworks.com
Web: www.civworks.com
ILLINOIS PROFESSIONAL DESIGN FIRM NO. 184-005714

SHEET TITLE:
CONTECH STORAGE SYSTEM TYPICAL DETAILS

PROJECT:
PROPOSED SELF STORAGE
401 W. GOLF ROAD, ARLINGTON HEIGHTS, IL 60005

PROJ. MGR.: OP
DRAWN BY: OP
FIRST ISSUE DATE: 11-11-2022
SCALE: N.T.S.
SHEET NO.
C4.1
PROJ. NUMBER: 22013

CONTECH
ENGINEERED SOLUTIONS

Contech® CMP Detention & Infiltration Maintenance Guide

CONTECH
CMP DETENTION SYSTEMS

Contech® CMP Detention

Maintenance

Underground storm water detention and retention systems should be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects pollutants will depend more heavily on site activities than the size or configuration of the system.

Inspection

Inspection is the key to effective maintenance and is easily performed. CONTECH recommends ongoing quarterly inspections of the accumulated sediment. Sediment deposition and transport may vary from year to year and quarterly inspections will help insure that systems are cleaned out at the appropriate time. Inspections should be performed more often in the winter months in climates where sanding operations may lead to rapid accumulations, or in equipment washdown areas. It is very useful to keep a record of each inspection. A sample inspection log is included for your use.

Systems should be cleaned when inspection reveals that accumulated sediment or trash is clogging the discharge orifice. CONTECH suggests that all systems be designed with an access/inspection manhole situated at or near the inlet and the outlet orifice. Should it be necessary to get inside the system to perform maintenance activities, all appropriate precautions regarding confined space entry and OSHA regulations should be followed.

Cleaning

Maintaining an underground detention or retention system is easiest when there is no flow entering the system. For this reason, it is a good idea to schedule the cleanout during dry weather.

Accumulated sediment and trash can typically be evacuated through the manhole over the outlet orifice. If maintenance is not performed as recommended, sediment and trash may accumulate in front of the outlet orifice. Manhole covers should be securely seated following cleaning activities.

Inspection & Maintenance Log Sample Template

_____" Diameter System			Location: Anywhere, USA		
Date	Depth of Sediment	Accumulated Trash	Maintenance Performed	Maintenance Personnel	Comments
12/01/10	2"	None	Removed Sediment	B. Johnson	Installed
03/01/11	1"	Some	Removed Sediment and Trash	B. Johnson	Swept parking lot
06/01/11	0"	None	None		
09/01/11	0"	Heavy	Removed Trash	S. Riley	
12/01/11	1"	None	Removed Sediment	S. Riley	
04/01/12	0"	None	None	S. Riley	
04/15/01	2	Some	Removed Sediment and Trash	ACE Environmental Services	

CONTECH
CMP DETENTION SYSTEMS

Support

Drawings and specifications are available at www.ContechES.com.

Site-specific support is available from our engineers.

CONTECH
ENGINEERED SOLUTIONS
800.338.1122
www.ContechES.com

REVISIONS

2	01-13-23	REVISED PER VILLAGE REVIEW
1	12-15-22	REVISED PER VILLAGE REVIEW

CIVIL ENGINEERS - PLANNERS - DEVELOPMENT CONSULTANTS
3343 N. NEVA AVENUE
CHICAGO, ILLINOIS 60634
Ph: (312) 637-9570
Fax: (312) 637-9454
E-mail: info@civworks.com
Web: www.civworks.com
CIVWORKS CONSULTING, LLC

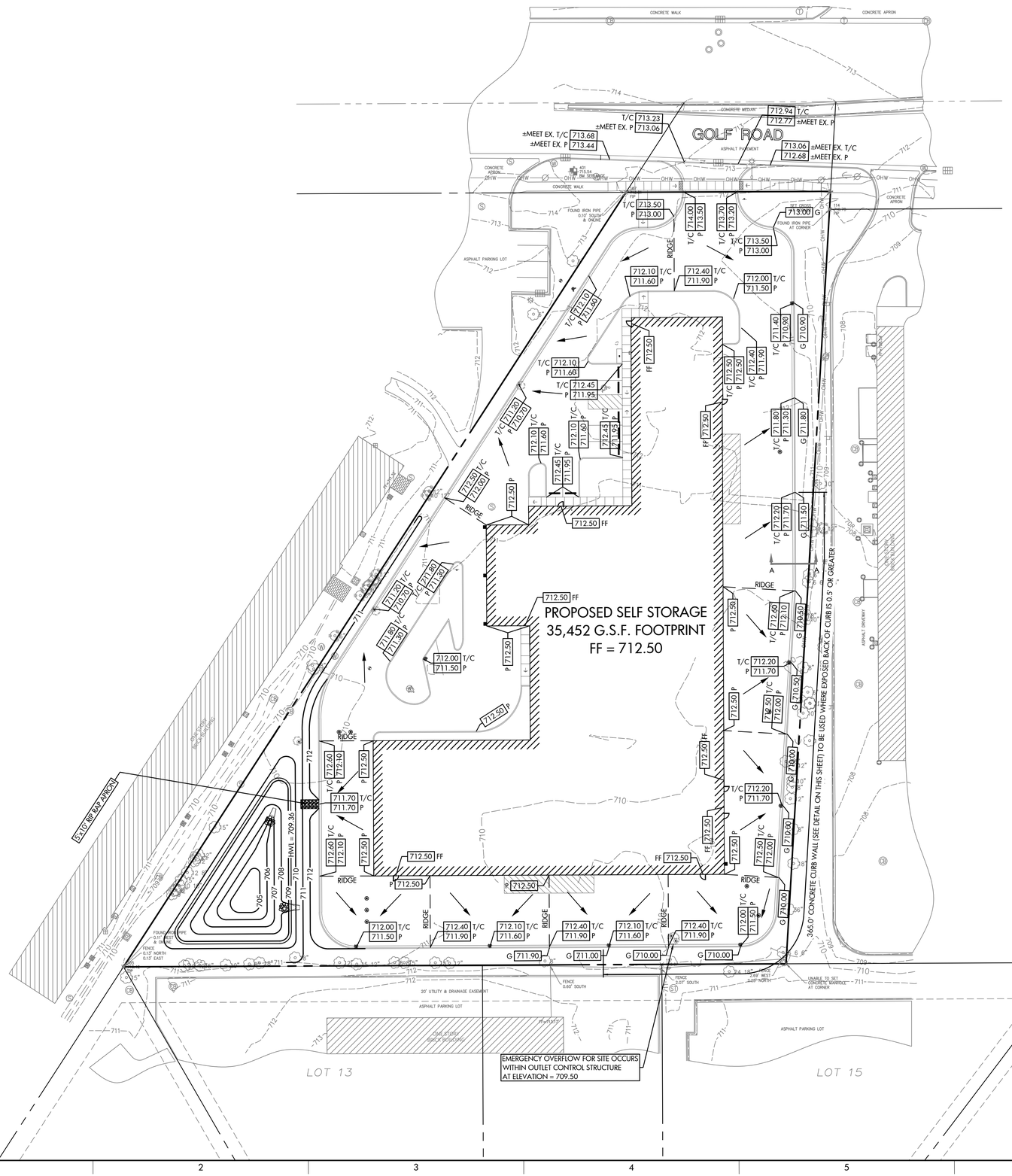
SHEET TITLE:
CONTECH STORAGE SYSTEM
INSPECTION AND MAINTENANCE GUIDELINES

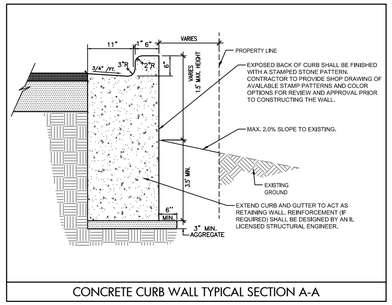
PROJECT:
PROPOSED SELF STORAGE
401 W. GOLF ROAD, ARLINGTON HEIGHTS, IL 60005

PROJ. MGR.:	OP
DRAWN BY:	OP
FIRST ISSUE DATE:	11-11-2022
SCALE:	N.T.S.

SHEET NO.
C4.2

PROJ. NUMBER: 22013





CONCRETE CURB WALL TYPICAL SECTION A-A

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)

1 INCH = 30 FT

N

EROSION CONTROL LEGEND

SF — SILT FENCE OR SEDIMENT CONTROL LOGS

INLET FILTER BASKET

SITE RESTORATION NOTES

1. ALL RESTORATION WITHIN THE LIMITS OF THE RIGHT-OF-WAY SHALL BE COMPLETED WITH TOPSOIL AND SOD.
2. AREAS TO BE GRADED AND PREPARED FOR SEEDING OR SOD SHALL HAVE A MINIMUM OF FOUR (4) INCHES OF TOPSOIL.

GRADING NOTES

1. ALL PAVEMENT SPOT GRADE ELEVATIONS AND RIM ELEVATIONS WITHIN OR ALONG CURB REFER TO EDGE OF PAVEMENT ELEVATIONS UNLESS OTHERWISE NOTED.
2. ALL ELEVATIONS SHOWN DEPICT FINISHED GRADE UNLESS OTHERWISE NOTED. SUBTRACT TOPSOIL THICKNESS OR PAVEMENT SECTION TO ESTABLISH SUBGRADE ELEVATIONS.
3. PROVIDE 1.50% MAX (1.00% MIN) CROSS SLOPE AND 5.00% MAX LONGITUDINAL SLOPE ON ALL SIDEWALKS. ALWAYS MAINTAIN POSITIVE DRAINAGE AWAY FROM BUILDING.
4. EXISTING TOPOGRAPHIC SURVEY WAS PREPARED BY OTHERS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND BEFORE ORDERING MATERIALS. THE CONTRACTOR SHALL PROMPTLY NOTIFY THE CIVIL ENGINEER OF ANY DISCREPANCIES.
5. SEE LANDSCAPE PLANS FOR MORE INFORMATION ON SITE LANDSCAPING.

SUGGESTED CONSTRUCTION SEQUENCE

1. INSTALL SILT FENCE OR SEDIMENT CONTROL LOGS AT LOCATIONS AS INDICATED ON THE PLANS.
2. CONSTRUCT TEMPORARY STABILIZED CONSTRUCTION ENTRANCE.
3. SITE DEMOLITION, BUILDING AND EXISTING PAVEMENT REMOVAL AND EXCESS MATERIAL HAUL OFF.
4. CUT AND FILL SITE TO SUB-GRADE.
5. CONSTRUCT UNDERGROUND IMPROVEMENTS; SANITARY SEWER, WATERMAIN, STORM SEWER, DETENTION ETC. INSTALL INLET PROTECTION IN AND AROUND DRAINAGE STRUCTURES AS THEY ARE CONSTRUCTED
6. CONSTRUCT PARKING LOT AND BUILDING IMPROVEMENTS PER PLAN.
7. COMPLETE TOPSOIL PLACEMENT AND PERMANENT SEEDING/SODDING AND LANDSCAPING.
8. REMOVE AND PROPERLY DISPOSE OF TEMPORARY EROSION CONTROL MEASURES.

EROSION AND SEDIMENT CONTROL NOTES

1. CONTRACTOR TO INSTALL CONSTRUCTION ENTRANCE AND SILT FENCE PRIOR TO COMMENCEMENT OF ANY LAND DISTURBANCE ON THE SITE. CONTRACTOR TO MAINTAIN CONSTRUCTION ENTRANCE AND SILT FENCE AS SHOWN AND INSTALL ADDITIONAL SILT FENCE WHEREVER NECESSARY THROUGHOUT CONSTRUCTION ACTIVITIES TO MINIMIZE SOIL EROSION.
2. ALL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE CHECKED FOR STABILITY AND OPERATION AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCH OR GREATER OR EQUIVALENT SNOWFALL. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED. RECORDS OF THESE REQUIRED INSPECTIONS SHALL BE KEPT ON-SITE AT ALL TIMES THROUGHOUT CONSTRUCTION FOR REVIEW BY GOVERNMENTAL AGENCY INSPECTORS AS PER IEPA STANDARDS.
3. ALL SEDIMENT AND EROSION CONTROL MEASURES IN AND AROUND THE PROPOSED IMPROVEMENTS ARE TO REMAIN IN PLACE AND TO BE MAINTAINED THROUGHOUT CONSTRUCTION ACTIVITIES UNTIL THE PROPOSED IMPROVEMENTS ARE COMPLETED AND THE SITE ADEQUATELY STABILIZED PER IEPA STANDARDS.
4. SEDIMENT AND EROSION CONTROL DEVICES SHALL BE FUNCTIONAL BEFORE LAND IS OTHERWISE DISTURBED ON THE SITE.
5. THE SURFACE OF STRIPPED AREAS SHALL BE PERMANENTLY OR TEMPORARILY PROTECTED FROM SOIL EROSION WITHIN 7 DAYS AFTER FINAL GRADE IS REACHED. STRIPPED AREAS NOT AT FINAL GRADE THAT WILL REMAIN UNDISTURBED FOR MORE THAN 7 DAYS AFTER INITIAL DISTURBANCE SHALL BE PROTECTED FROM EROSION.
6. IF A STOCKPILE IS TO REMAIN IN PLACE FOR MORE THAN 3 DAYS, THEN SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSTALLED DURING CONSTRUCTION.
7. OFF-SITE STORM SEWER INLETS SHALL BE PROTECTED WITH SEDIMENT TRAPPING OR FILTER CONTROL DEVICES DURING CONSTRUCTION.
8. WATER PUMPED OR OTHERWISE DISCHARGED FROM THE SITE DURING CONSTRUCTION DEWATERING SHALL BE FILTERED.
9. ANY SOIL, MUD OR DEBRIS WASHED, TRACKED OR DEPOSITED ONTO A PUBLIC OR PRIVATE ROADWAY SHALL BE REMOVED BEFORE THE END OF EACH WORK DAY.
10. VEHICULAR ACCESS TO THE SITE SHALL BE RESTRICTED TO A GRAVEL DRIVE, SAID GRAVEL DRIVE SHALL BE INSTALLED WITHIN 3 DAYS OF EXISTING PAVEMENT REMOVAL AND BEFORE ANY NEW CONSTRUCTION BEGINS AT THE SITE.
11. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY THE MUNICIPALITY AS CONSTRUCTION PROGRESSES.
12. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL STABILIZATION IS ACHIEVED. TRAPPED SEDIMENT AND OTHER DISTURBED SOILS RESULTING FROM TEMPORARY MEASURES SHALL BE PROPERLY DISPOSED OF PRIOR TO PERMANENT STABILIZATION.

REVISIONS

2	01-13-23	REVISED PER VILLAGE REVIEW
1	12-15-22	REVISED PER VILLAGE REVIEW

CIVIL ENGINEERS - PLANNERS - DEVELOPMENT CONSULTANTS
CIVWORKS Consulting, LLC
3343 N. NEVA AVENUE
CHICAGO, ILLINOIS 60634
Ph: (312) 637-9570
Fax: (312) 637-9454
E-mail: info@civworks.com
Web: www.civworks.com

SHEET TITLE: SITE GRADING AND EROSION CONTROL PLAN

PROJECT: PROPOSED SELF STORAGE
401 W. GOLF ROAD, ARLINGTON HEIGHTS, IL 60005

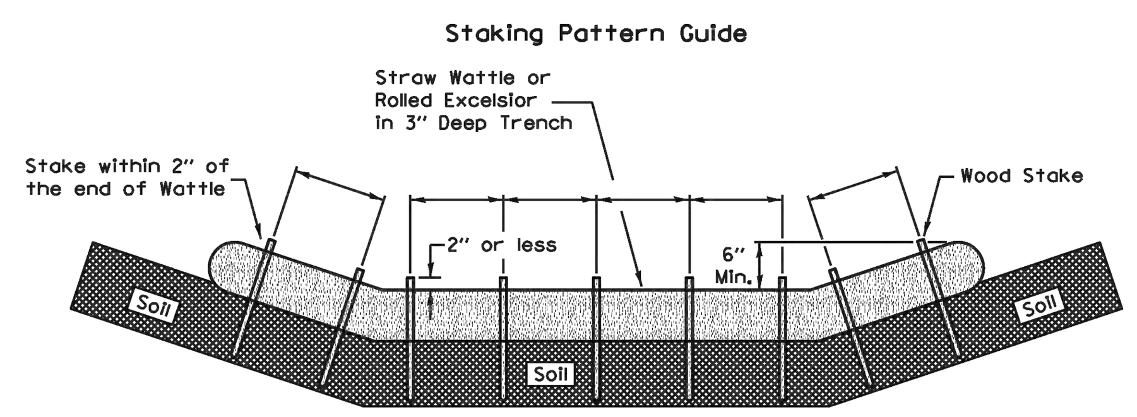
PROJ. MGR.:	OP
DRAWN BY:	OP
FIRST ISSUE DATE:	11-11-2022
SCALE:	1"=30'

SHEET NO.
C5.0

PROJ. NUMBER: 22013

ROLLED EROSION CONTROL PRODUCTS

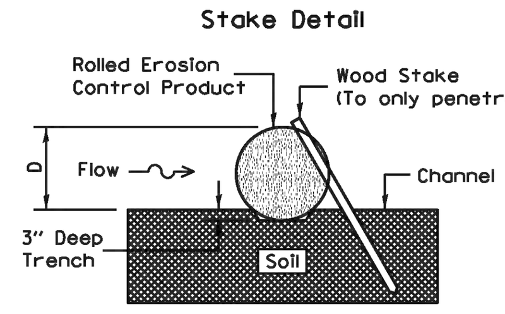
Staking Pattern Guide



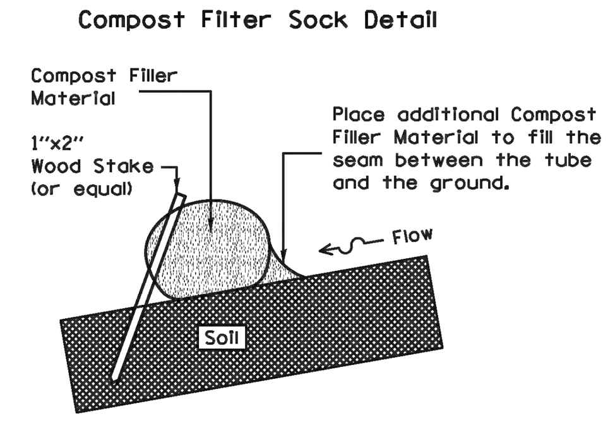
Notes:

1. Overlap minimum is the diameter of the roll.
2. 4' spacing for wattles.
3. 2' spacing for rolled excelsior.
4. Or space according to manufacturer's specifications.

Stake Detail



Compost Filter Sock Detail



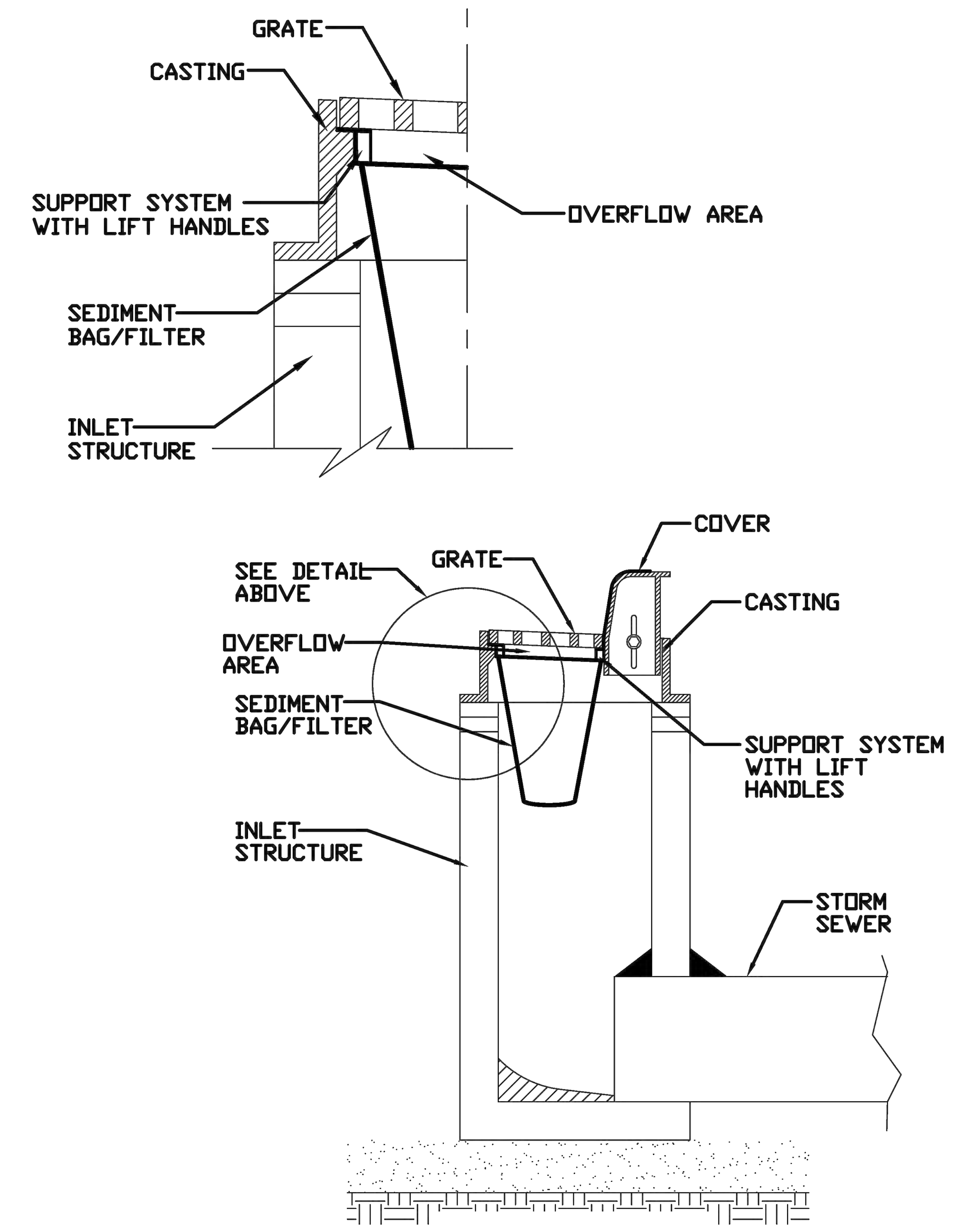
When compost filter sock ditch check is used, place a compost berm upstream of the filter sock (see IUM 805). A trench is not required.

Notes:

1. Drawings are not to scale.
2. Ends of wattles or rolled excelsior shall be turned at least 6" upslope.
3. Recommended stakes are 1 1/8" wide x 1 1/8" thick x 30" long
4. Stakes shall not extend above the straw wattle more than 2".
5. Spacing: The toe of the upstream ditch check shall create a horizontal line with the top of the downstream ditch check.
6. When compost filter sock ditch check is used, place a compost berm upstream of the filter sock (see IUM 805). A trench is not required.

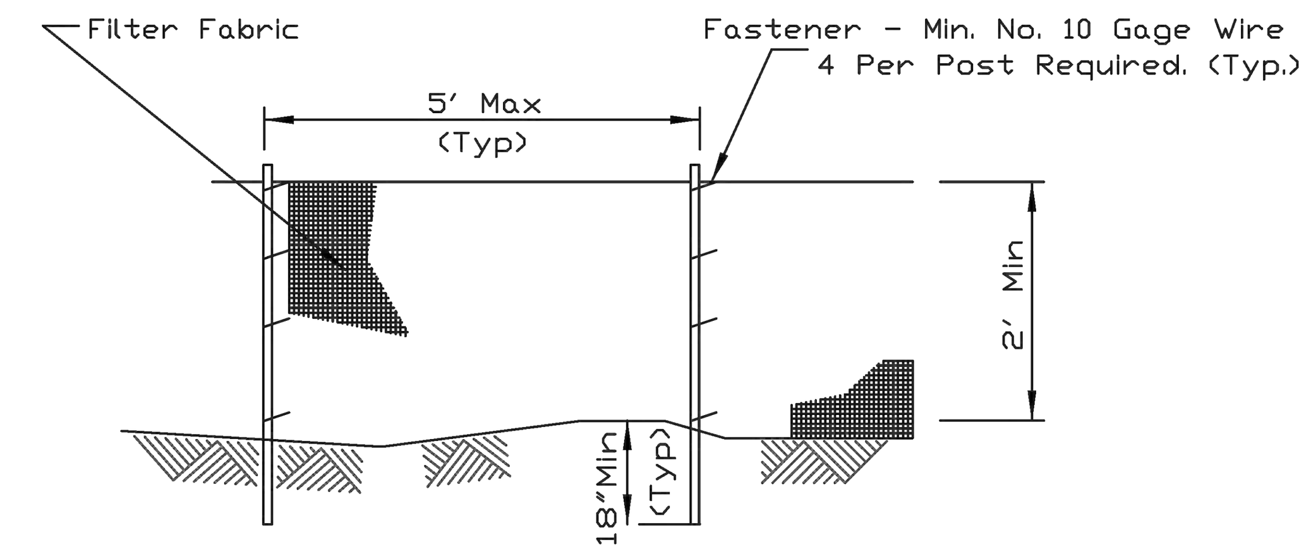
REFERENCE		STANDARD DWG. NO. IUM-514
Project		SHEET 1 OF 1
Designed	Date	DATE 8-19-11
Checked	Date	
Approved	Date	

INLET PROTECTION - PAVED AREAS DROP-IN PROTECTION

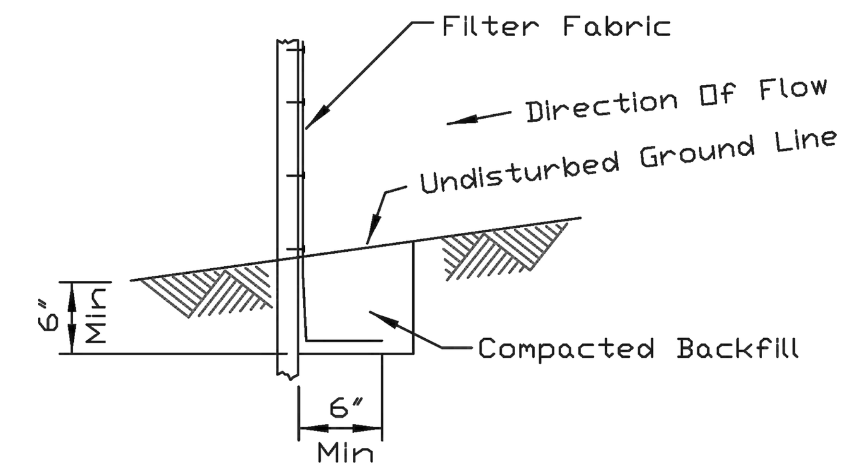


REFERENCE		STANDARD DWG. NO. IUM-561D
Project		SHEET 1 OF 1
Designed	Date	DATE 01-11-11
Checked	Date	
Approved	Date	

SILT FENCE PLAN



ELEVATION

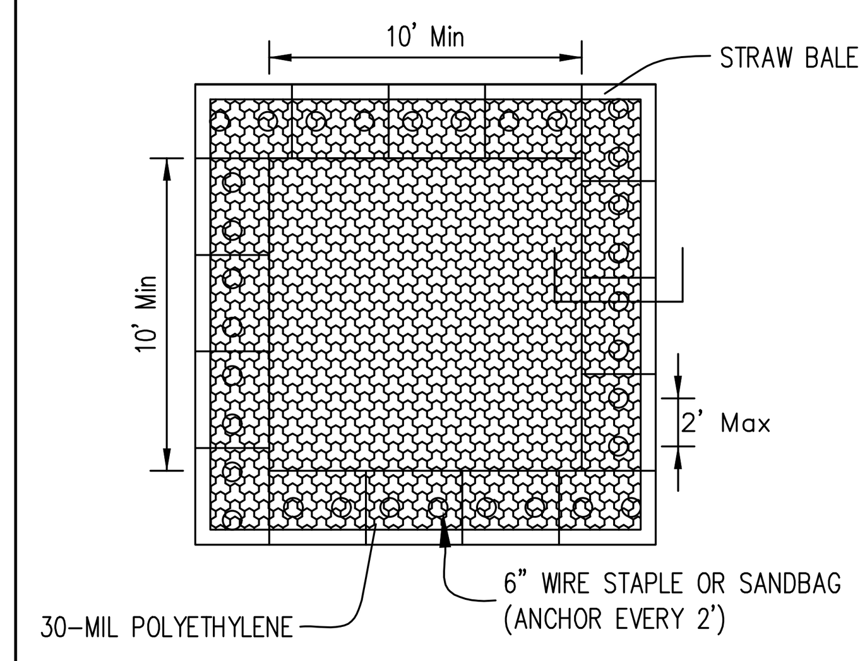


FABRIC ANCHOR DETAIL

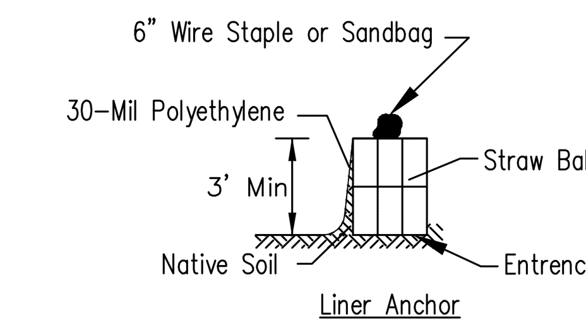
NOTES:
1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class I with equivalent opening size of at least 30 for nonwoven and 40 for woven.
3. Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 3.0 sq. in.

REFERENCE		STANDARD DWG. NO. IUM-620A
Project		SHEET 1 OF 2
Designed	Date	DATE 3-16-12
Checked	Date	
Approved	Date	

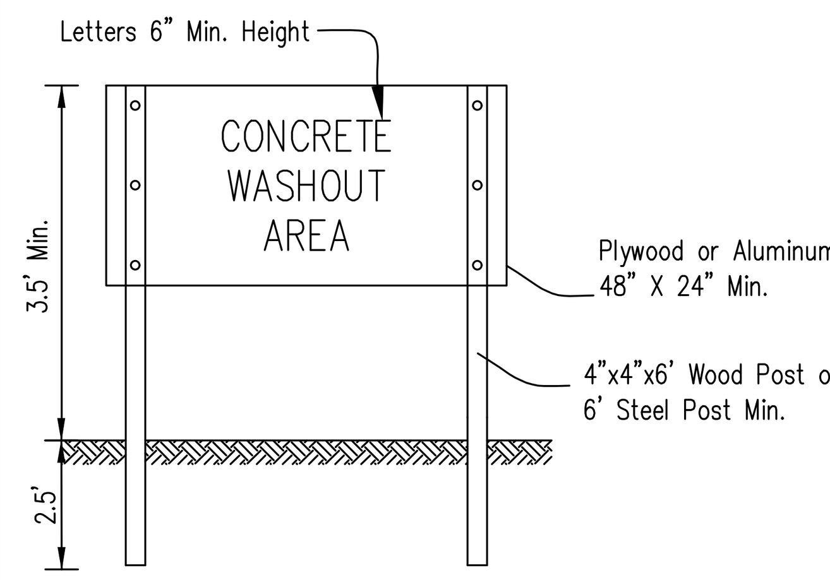
TEMPORARY CONCRETE WASHOUT FACILITY – STRAW BALE



PLAN VIEW



STRAW BALE ANCHOR SECTIONS



SIGN DETAIL

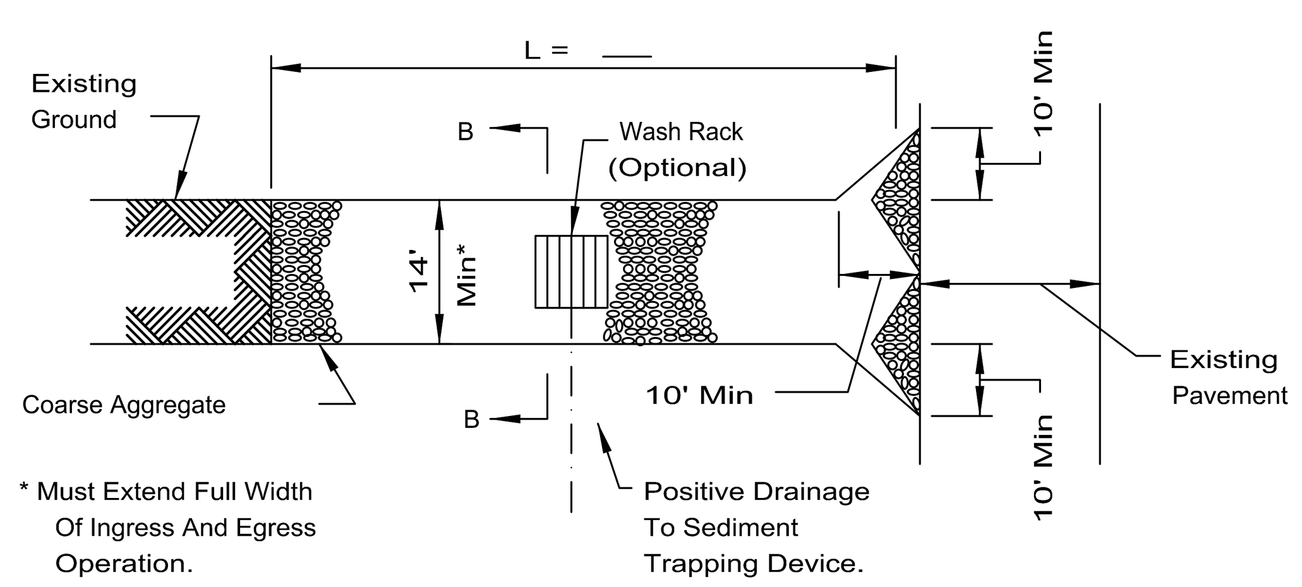
NOTES:

1. Maintaining temporary concrete washout facilities shall include removing and disposing of hardend concrete and/or slurry and returning the facilities to a functional condition.
2. Facility shall be cleaned or reconstructed in a new area once washout becomes two-thirds full.
3. Each straw bale is to be staked in place using (2) 2"x2"x4' wooden stakes.
4. Facility shall also be used for mortar/masonry washout purposes.

TEMPORARY CONCRETE WASHOUT FACILITY – STRAW BALE

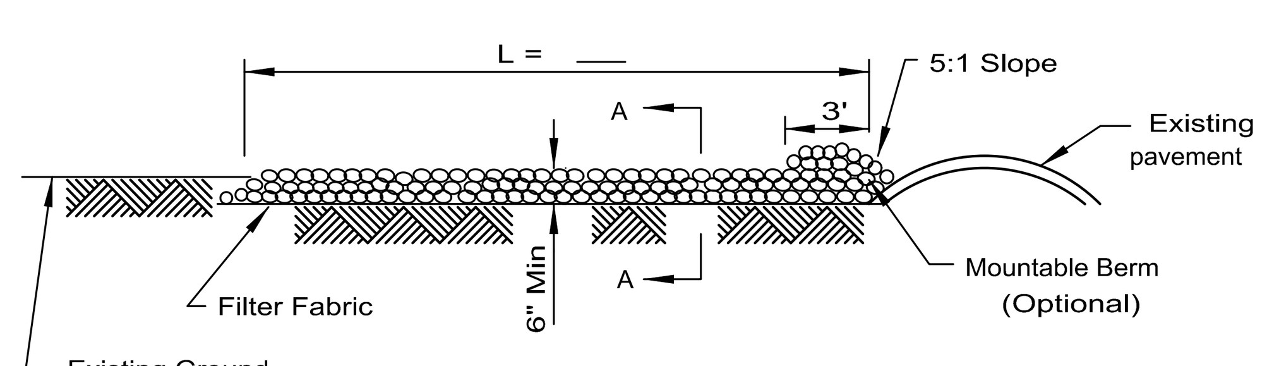
Designed / Drawn / Checked / Approved — Date 6/08

STABILIZED CONSTRUCTION ENTRANCE PLAN



* Must Extend Full Width Of Ingress And Egress Operation.

PLAN VIEW

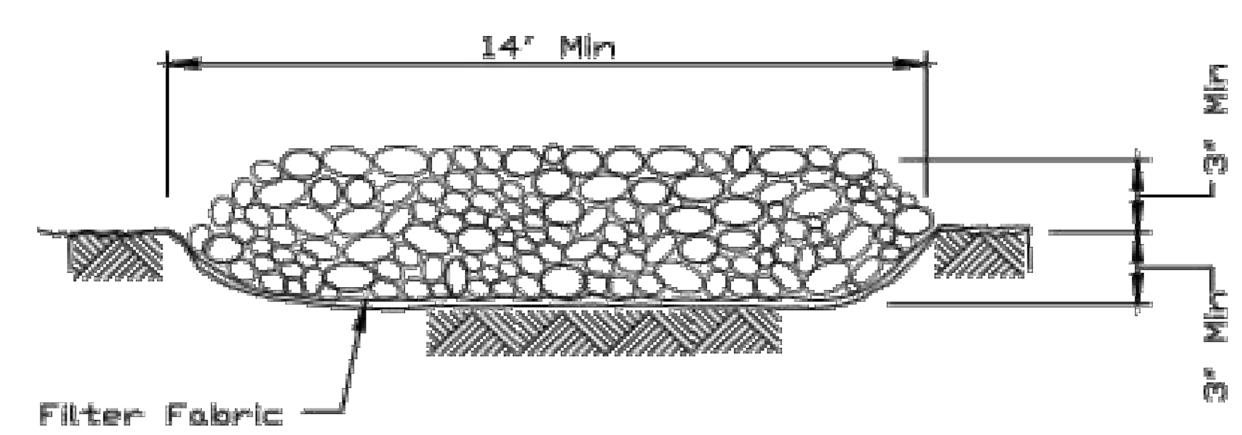


SIDE ELEVATION

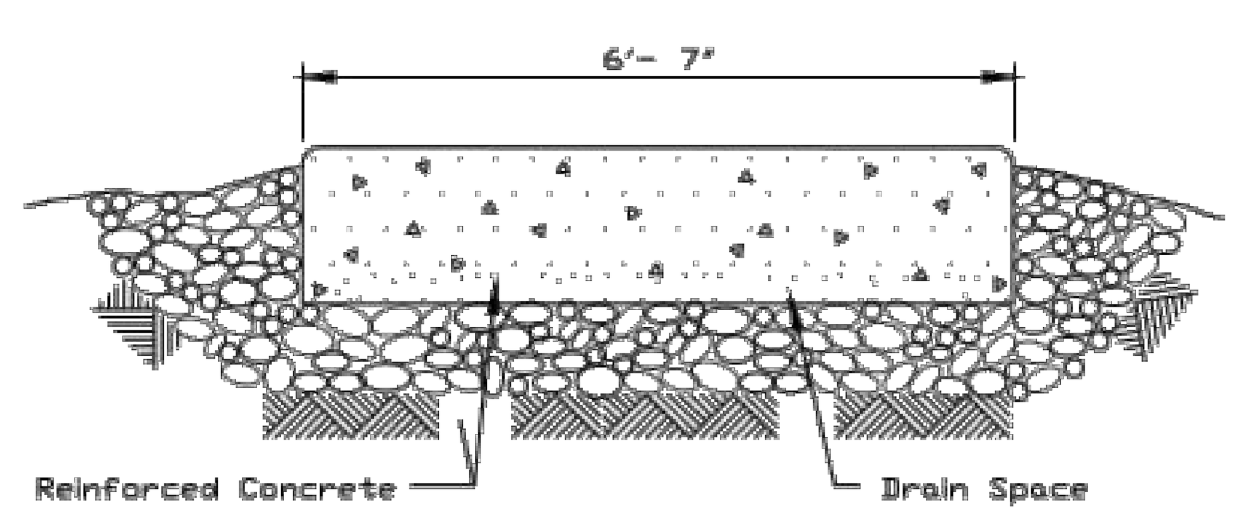
NOTES:
1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table I or 2, Class , or and shall be placed over the cleared area prior to the placing of rock.
2. Rock or reclaimed concrete shall meet one of the following IDOT coarse aggregate gradation, CA-1, CA-2, CA-3 or CA-4 and be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class compaction.
3. Any drainage facilities required because of washing shall be constructed according to manufacturers specifications.
4. If wash racks are used they shall be installed according to the manufacturer's specifications.

REFERENCE	NRCS Natural Resources Conservation Service	STANDARD DWG. NO. IL-630
Project		SHEET 1 OF 2
Designed	Date	DATE 8-18-94
Checked	Date	
Approved	Date	

STABILIZED CONSTRUCTION ENTRANCE PLAN



SECTION A-A



SECTION B-B

REFERENCE	NRCS Natural Resources Conservation Service	STANDARD DWG. NO. IL-630
Project		SHEET 2 OF 2
Designed	Date	DATE 8-18-94
Checked	Date	
Approved	Date	

1. THE EXCAVATING AND UNDERGROUND CONTRACTOR SHALL BE RESPONSIBLE FOR THE INITIAL CONSTRUCTION OF THE EROSION CONTROL MEASURES SHOWN IN THE PLAN, AND SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF SAID FACILITIES UNTIL THE COMPLETION OF HIS FINAL GRADING OPERATIONS AFTER CONSTRUCTION OF THOSE IMPROVEMENTS IN HIS CONTRACT. THE CONTRACTOR'S EROSION CONTROL MAINTENANCE RESPONSIBILITIES SHALL BE EXCLUSIVE OF THE CONSTRUCTION WARRANTY AND/OR GUARANTEE PERIOD.
2. ALL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE CHECKED FOR STABILITY AND OPERATION AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCH OR GREATER OR EQUIVALENT SNOWFALL. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
3. SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT TRAPS WHEN THE STORAGE CAPACITY HAS BEEN APPROXIMATELY 50% FILLED.
4. SEDIMENT SHALL BE REMOVED FROM BEHIND THE SILT FENCE WHEN IT BECOMES APPROXIMATELY 0.5' DEEP AT THE FENCE. THE SILT FENCE SHALL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER.
5. ALL SEEDED AREAS WILL BE FERTILIZED, RE-SEEDED AS NECESSARY, AND MULCHED AS REQUIRED TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
6. AFTER CONSTRUCTION AND UPON FINAL SITE STABILIZATION, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL DEVICES AND TURN OVER MAINTENANCE OF THE PERMANENT EROSION CONTROL MEASURES TO THE OWNER.
7. AFTER CONSTRUCTION, THE OWNER SHALL MAINTAIN ALL PERMANENT CONTROL DEVICES IN ORDER TO PREVENT EROSION.

RECOMMENDED EROSION CONTROL MAINTENANCE SCHEDULE

REVISIONS

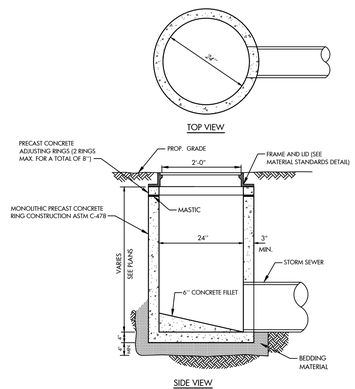
No.	Date	Description
2	01-13-23	REVISED PER VILLAGE REVIEW
1	12-15-22	REVISED PER VILLAGE REVIEW

CIVIL ENGINEERS - PLANNERS - DEVELOPMENT CONSULTANTS
CivWorks Consulting, LLC
3343 N. NEVA AVENUE
CHICAGO, ILLINOIS 60634
Ph: (312) 637-9570
Fax: (312) 637-9454
E-mail: info@civworks.com
Web: www.civworks.com
ILLINOIS PROFESSIONAL DESIGN FIRM NO. 184-005714

SHEET TITLE: SOIL EROSION AND SEDIMENT CONTROL DETAILS

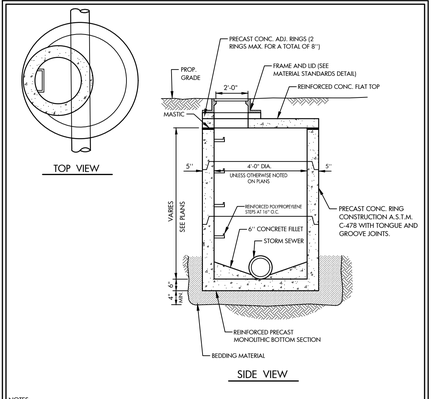
PROJECT: PROPOSED SELF STORAGE
401 W. GOLF ROAD, ARLINGTON HEIGHTS, IL 60005

PROJ. MGR.:	OP
DRAWN BY:	OP
FIRST ISSUE DATE:	11-11-2022
SCALE:	N.T.S.
SHEET NO.	C6.0
PROJ. NUMBER:	22013



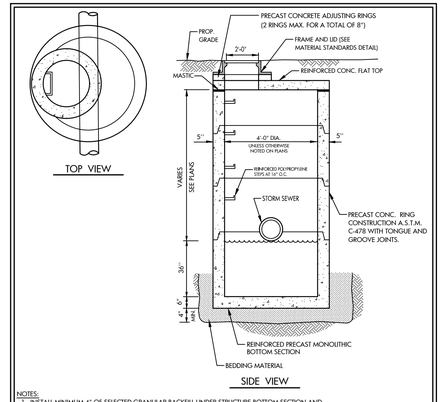
NOTES:
1. INSTALL MINIMUM 4" OF SELECTED GRANULAR BACKFILL UNDER STRUCTURE BOTTOM SECTION AND FILL ENTIRE EXCAVATION ALL AROUND STRUCTURE UP TO C.L. OF PIPE WITH BEDDING MATERIAL.
2. PIPE OPENINGS SHALL BE CAST INTO WALL.
3. STRUCTURE FRAME, ADJUSTING RINGS, AND ALL CONCRETE SECTIONS SHALL BE SET ON AND SEALED WITH BITUMINOUS MASTIC JOINT MATERIAL.
4. FILL LUG HOLES WITH BITUMINOUS JOINING COMPOUND.

INLET DETAIL



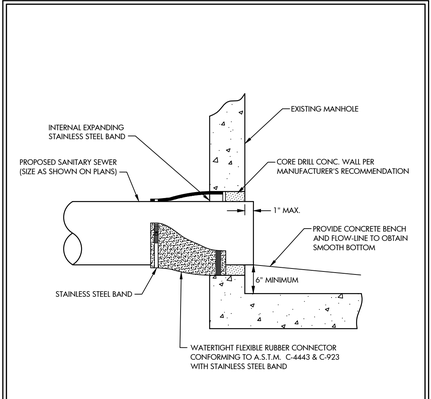
NOTES:
1. INSTALL MINIMUM 4" OF SELECTED GRANULAR BACKFILL UNDER STRUCTURE BOTTOM SECTION AND FILL ENTIRE EXCAVATION ALL AROUND STRUCTURE UP TO C.L. OF PIPE WITH BEDDING MATERIAL.
2. PIPE OPENINGS SHALL BE CAST INTO WALL.
3. STRUCTURE FRAME, ADJUSTING RINGS, AND ALL CONCRETE SECTIONS SHALL BE SET ON AND SEALED WITH BITUMINOUS MASTIC JOINT MATERIAL.
4. FILL LUG HOLES WITH BITUMINOUS JOINING COMPOUND.
5. USE PRECAST OFFSET CONE INSTEAD OF FLAT TOP FOR MANHOLE GREATER THAN 6' DEEP.
6. ALL JOINTS SHALL BE MORTARED ON INTERIOR OF MANHOLE.
7. PROVIDE A RUBBER BOOT CONFORMING TO ASTM C-923 FOR ALL SEWER CONNECTIONS TO STRUCTURE.

STORM MANHOLE DETAIL

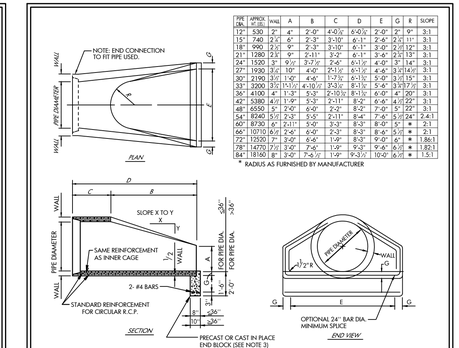


NOTES:
1. INSTALL MINIMUM 4" OF SELECTED GRANULAR BACKFILL UNDER STRUCTURE BOTTOM SECTION AND FILL ENTIRE EXCAVATION ALL AROUND STRUCTURE UP TO C.L. OF PIPE WITH BEDDING MATERIAL.
2. PIPE OPENINGS SHALL BE CAST INTO WALL.
3. STRUCTURE FRAME, ADJUSTING RINGS, AND ALL CONCRETE SECTIONS SHALL BE SET ON AND SEALED WITH BITUMINOUS MASTIC JOINT MATERIAL.
4. FILL LUG HOLES WITH BITUMINOUS JOINING COMPOUND.
5. USE PRECAST OFFSET CONE INSTEAD OF FLAT TOP FOR CATCHBASINS GREATER THAN 6' DEEP ABOVE WATER LEVEL.
6. ALL JOINTS SHALL BE MORTARED ON INTERIOR OF MANHOLE.
7. PROVIDE A RUBBER BOOT CONFORMING TO ASTM C-923 FOR ALL SEWER CONNECTIONS TO STRUCTURE.

CATCH BASIN DETAIL



PIPE CONNECTION TO EXISTING MANHOLE DETAIL

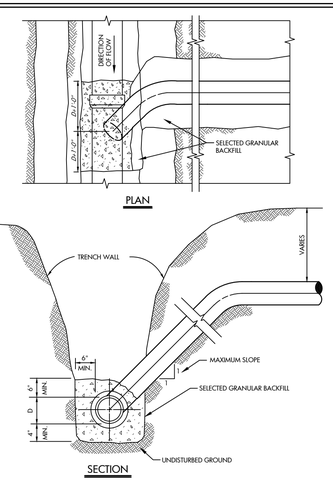


PIPE DIA.	APPROX. WT. (lb)	WALL	A	B	C	D	E	G	R	SLOPE
12"	530	2"	4"	2'-0"	4'-0½"	6'-0½"	2'-0"	2"	9"	3:1
15"	740	2½"	6"	2'-3"	3'-10"	6'-1"	2'-6"	2.0"	11"	3:1
18"	990	2½"	9"	2'-3"	3'-10"	6'-1"	3'-0"	2.0"	12"	3:1
21"	1280	2½"	9"	2'-11"	3'-2"	6'-1"	3'-6"	2.5"	13"	3:1
24"	1500	3"	9½"	3'-7½"	2'-6"	6'-1½"	4'-0"	3"	14"	3:1
27"	1930	3½"	10"	4'-0"	2'-1½"	6'-1½"	4'-6"	3.0"	14.5"	3:1
30"	2190	3½"	11½"	4'-4½"	1'-7½"	6'-1½"	5'-0"	3.0"	15"	3:1
33"	2200	3½"	11-1½"	4'-10½"	1'-3½"	8'-1½"	5'-6"	3.5"	17½"	3:1
36"	4100	4"	11'-3"	5'-3"	2'-10½"	8'-1½"	6'-0"	4"	20"	3:1
42"	5380	4½"	11'-9"	5'-3"	2'-11"	8'-2"	6'-6"	4.0"	22"	3:1
48"	6550	5"	12'-0"	6'-0"	2'-2"	8'-2"	7'-0"	5"	22"	3:1
54"	8240	5½"	2'-3"	5'-5"	2'-11"	8'-4"	7'-6"	5.5"	24"	2.4:1
60"	8730	6"	2'-11"	5'-0"	3'-3"	8'-5"	8'-0"	5"	*	2:1
66"	10710	6½"	2'-6"	6'-0"	2'-3"	8'-3"	8'-6"	5.5"	*	2:1
72"	12520	7"	3'-0"	6'-6"	1'-9"	8'-3"	9'-0"	6"	*	1.86:1
78"	14770	7½"	3'-0"	7'-0"	1'-9"	9'-3"	9'-6"	6"	*	1.83:1
84"	18160	8"	3'-0"	7'-6"	1'-9"	9'-3½"	10'-0"	6.5"	*	1.5:1

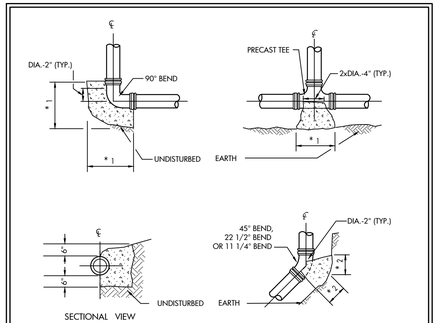
* RADIUS AS FURNISHED BY MANUFACTURER

NOTES:
1. PRECAST CONCRETE FLARED END SECTIONS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-170 CLASS III, WALL B REINFORCED CONCRETE PIPE.
2. PRECAST CONCRETE FLARED END SECTION FOR PIPE DIAMETER REQUIRED SHALL BE AS INDICATED ON DETAIL PLAN FOR EACH INDIVIDUAL INSTALLATION.
3. THE END BLOCK SHALL BE PLACED PRIOR TO THE INSTALLATION OF THE FLARED END SECTION. THE END BLOCK SHALL BE CONSTRUCTED IN ACCORDANCE WITH IDOT STANDARD SPECIFICATIONS.
4. ALL FLARED END SECTIONS SHALL HAVE GRATINGS AS PER IDOT STANDARD.
5. PROVIDE CLAY DAM UNDER COLLAR AND AROUND UPSTREAM END OF FES AND FIRST PIPE THE FULL WIDTH OF TRENCH AND 10 FEET LONG AT LOCATIONS WHERE THEY DISCHARGE INTO A DETENTION BASIN.

CONCRETE FLARED END SECTION



SERVICE RISER CONNECTION

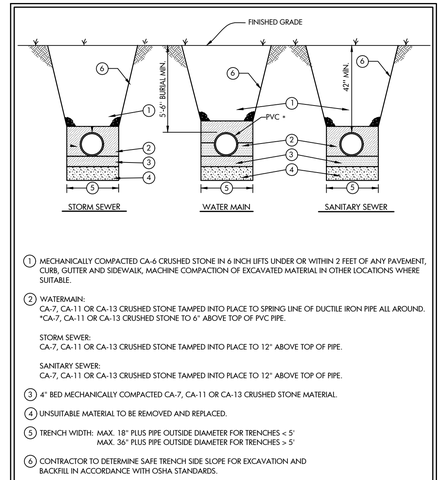


NOTES:
1. BLOCKING SHALL BE APPLIED FOR ALL TEES, PLUG, CAPS, AND 11-1/4" OR MORE BENDS BEARING CAPACITY OF 2000 P.S.F.
2. THRUST BLOCKS TO BE CLASS "SI" CONCRETE.
3. BEARING AREAS OF UNDISTURBED EARTH SHALL HAVE A MINIMUM ALLOWABLE BEARING CAPACITY OF 2000 P.S.F.
4. BEARING AREA OF SOIL BASED ON 65 P.S.I. WATERMAIN PRESSURE.

*1. 1'-9" MIN. FOR 12" OR SMALLER DIA.
2'-9" MIN. FOR 16" DIA.
4'-0" MIN. FOR 24" DIA.

*2. 1'-3" MIN. FOR 12" OR SMALLER DIA.
2'-0" MIN. FOR 16" DIA.
2'-10" MIN. FOR 20" DIA.

THRUST BLOCKING DETAIL

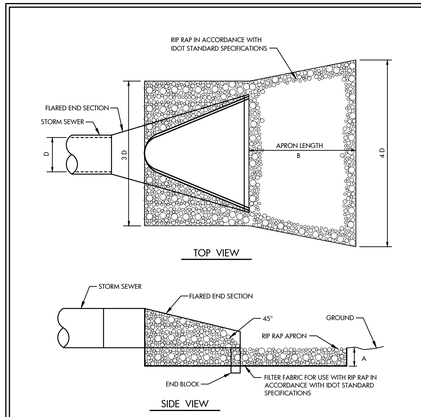


1. MECHANICALLY COMPACTED CA-6 CRUSHED STONE IN 6 INCH LIFTS UNDER OR WITHIN 2 FEET OF ANY PAVEMENT, CURB, GUTTER AND SIDEWALK, MACHINE COMPACTION OF EXCAVATED MATERIAL IN OTHER LOCATIONS WHERE SUITABLE.
2. WATERMAIN:
   CA-7, CA-11 OR CA-13 CRUSHED STONE TAMPED INTO PLACE TO SPRING LINE OF DUCTILE IRON PIPE ALL AROUND.
   *CA-7, CA-11 OR CA-13 CRUSHED STONE TO 6" ABOVE TOP OF PVC PIPE.

   STORM SEWER:
   CA-7, CA-11 OR CA-13 CRUSHED STONE TAMPED INTO PLACE TO 12" ABOVE TOP OF PIPE.

   SANITARY SEWER:
   CA-7, CA-11 OR CA-13 CRUSHED STONE TAMPED INTO PLACE TO 12" ABOVE TOP OF PIPE.
3. 4" BED MECHANICALLY COMPACTED CA-7, CA-11 OR CA-13 CRUSHED STONE MATERIAL.
4. UNSUITABLE MATERIAL TO BE REMOVED AND REPLACED.
5. TRENCH WIDTH: MAX. 18" PLUS PIPE OUTSIDE DIAMETER FOR TRENCHES < 5'
   MAX. 36" PLUS PIPE OUTSIDE DIAMETER FOR TRENCHES > 5'
6. CONTRACTOR TO DETERMINE SAFE TRENCH SIDE SLOPE FOR EXCAVATION AND BACKFILL IN ACCORDANCE WITH OSHA STANDARDS.

PIPE BEDDING DETAIL



RIP-RAP

PIPE DIAMETER (IN.) D	STONE RIP-RAP						BEDDING	
	QUALITY DESIGNATION	GRADATION NUMBER	MINIMUM THICKNESS (IN.) A	MINIMUM LENGTH (FT.) B	WEIGHT RANGE (#)	WEIGHT AVERAGE (#)	SIZE AVERAGE (IN.)	GRADATION NUMBER	MINIMUM THICKNESS (IN.) C
12	B	3	12''	12'	1-50	10	4.5''	N/A	N/A
15	B	3	14''	14'	1-50	10	4.5''	N/A	N/A
18	B	4	16''	16'	1-50	40	7''	1 or CA-3	6''
21	B	4	18''	18'	1-150	40	7''	1 or CA-3	6''
24	B	4	20''	20'	1-150	40	7''	1 or CA-3	6''
30	B	4	22''	22'	1-150	40	7''	1 or CA-3	6''
36	B	5	24''	24'	3-400	90	10''	1 or CA-3	8''
42	B	5	26''	26'	3-400	90	10''	1 or CA-3	8''
48	B	6	28''	28'	6-600	170	12''	2 or CA-1	10''
54	B	6	32''	32'	6-600	170	12''	2 or CA-1	10''
60	B	6	36''	36'	6-600	170	12''	2 or CA-1	10''
72	B	6	44''	44'	6-600	170	12''	2 or CA-1	10''

NOTE:
1. FOR PIPE SIZE 72'' AND LARGER A SPECIAL DESIGN OF RIP-RAP OR APRON IS REQUIRED.
2. GRADATION REFER TO I.D.O.T. SPECIFICATIONS AND STANDARDS.

STONE RIP RAP DETAIL

STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION.

41-2.01 PROTECTION OF WATER MAIN AND WATER SERVICE LINES

41-2.01A GENERAL

Water mains and water service lines shall be protected from sanitary sewers, storm sewers, combined sewers, house sewer service connections and drains as follows:

41-2.01B HORIZONTAL SEPARATION - WATER MAINS AND SEWERS

(1.) Water mains shall be located at least ten (10) feet (3.1 m) horizontally from any existing or proposed drain, storm sewer, sanitary sewer, combined sewer or sewer service connection.

(2.) Water mains may be located closer than ten (10) feet (3.1 m) to a sewer line when:

(a) local conditions prevent a lateral separation of ten (10) feet (3.1 m); and

(b) the water main invert is at least eighteen (18) inches (460 mm) above the crown of the sewer; and

(c) the water main is either in a separate trench or in the same trench on an undisturbed earth shelf located to one side of the sewer.

(3.) When it is impossible to meet (1) or (2) above, both the water main and drain or sewer shall be constructed of slip-on or mechanical joint cast or ductile iron pipe, prestressed concrete pipe, or PVC pipe equivalent to water main standards of construction. The drain or sewer shall be pressure tested to the maximum expected surcharge head before backfilling. See Standard Drawing No. 18.

STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION.

41-2.01C VERTICAL SEPARATION - WATER MAINS AND SEWERS

(1.) A water main shall be separated from a sewer so that its invert is a minimum of eighteen (18) inches (460mm) above the crown of the drain or sewer whenever water mains cross storm sewers, sanitary sewers or sewer service connections. The vertical separation shall be maintained for that portion of the water main located within ten (10) feet (3.1m) horizontally of any sewer or drain crossed. A length of water main pipe shall be centered over the sewer to be crossed with joints equidistant from the sewer or drain.

(2.) Both the water main and sewer shall be constructed of slip-on or mechanical joint cast or ductile iron pipe, prestressed concrete pipe, or PVC pipe equivalent to water main standards of construction when: (a) it is impossible to obtain the proper vertical separation as described in (1) above; or (b) the water main passes under a sewer or drain.

(3.) A vertical separation of eighteen (18) inches (460 mm) between the invert of the sewer or drain and the crown of the water main shall be maintained where a water main crosses under a sewer. Support the sewer or drain lines to prevent settling and breaking the main, as shown on the Plans or as approved by the ENGINEER.

(4.) Construction shall extend on each side of the crossing until the perpendicular distance from the water main to the sewer or drain line is at least ten (10) feet (3.1 m) See Standard Drawings No. 20-23.

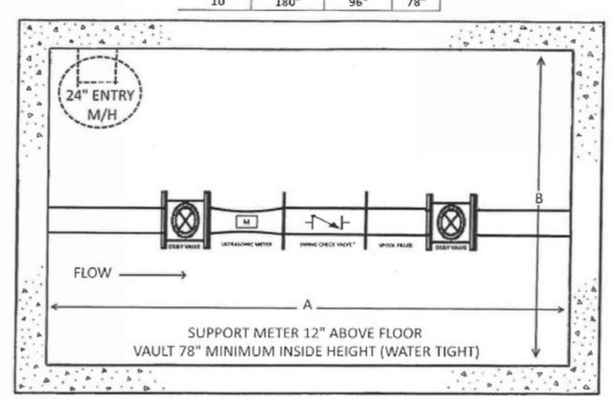
WATER AND SEWER SEPARATION REQUIREMENTS (HORIZONTAL AND VERTICAL SEPARATION)

NOTES:
1. FOR ALL DEPTHS OF COVER LESS THAN TWO (2) FEET, PIPE MUST BE SCHEDULE 40 PVC. FOR DEPTHS OF COVER GREATER THAN TWO (2) FEET REFER TO SPECIFICATIONS FOR ALLOWABLE PIPE TYPES.
2. A WATERTIGHT CONNECTION SHALL BE MAINTAINED WITH ANY TRANSITION FROM SCHEDULE 40 PVC PIPE TO ANY OTHER PIPE TYPE.

DOWNSPOUT COLLECTOR DETAIL

VILLAGE OF ARLINGTON HEIGHTS WATER METER PIT SPECIFICATIONS

METER SIZE	LENGTH "A"	WIDTH "B"	HEIGHT
3"	120"	60"	78"
4"	120"	60"	78"
6"	120"	72"	78"
8"	144"	84"	78"
10"	180"	96"	78"



* SWING CHECK VALVE IS ONLY NEEDED WITH INTERCONNECTED MULTIPLE METER PITS TO PREVENT REVERSE FLOW.
SWING CHECKS SHOULD BE SMITH COOPER BRAND OR EQUIVALENT QUALITY AND FLOW CHARACTERISTICS. UPDATED 4-13-2022 MG

REVISIONS

2	01-13-23	REVISED PER VILLAGE REVIEW
1	12-15-22	REVISED PER VILLAGE REVIEW

CIVIL ENGINEERS - PLANNERS - DEVELOPMENT CONSULTANTS
CIVWORKS Consulting, LLC
3343 N. NEVA AVENUE
CHICAGO, ILLINOIS 60634
Ph: (312) 637-9570
Fax: (312) 637-9454
E-mail: info@civworks.com
Web: www.civworks.com

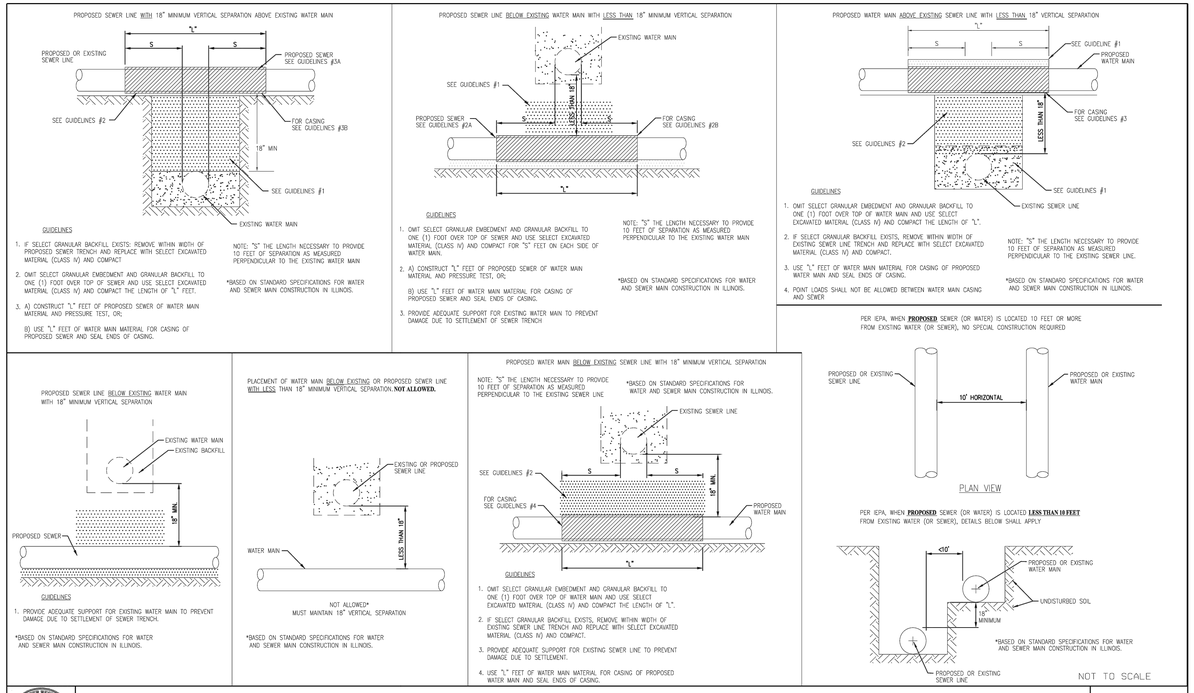
SHEET TITLE: SITE CONSTRUCTION DETAILS - 1

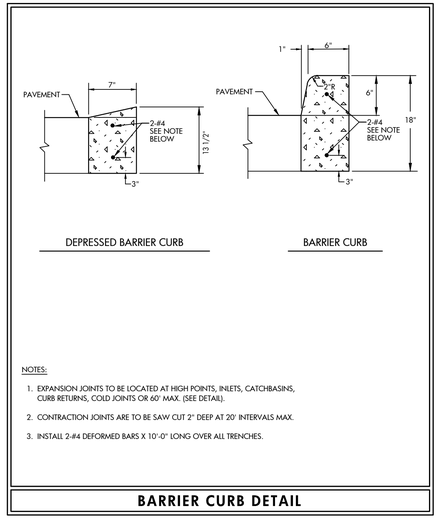
PROJECT: PROPOSED SELF STORAGE
401 W. GOLF ROAD, ARLINGTON HEIGHTS, IL 60005

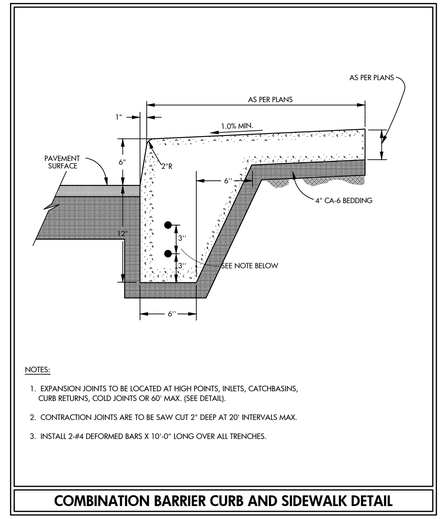
PROJ. MGR.:	OP
DRAWN BY:	OP
FIRST ISSUE DATE:	11-11-2022
SCALE:	N.T.S.

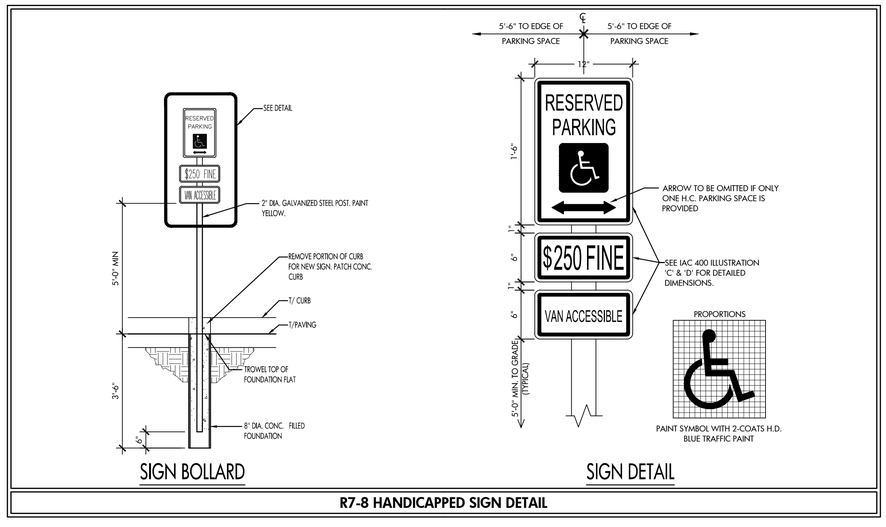
SHEET NO. C6.1

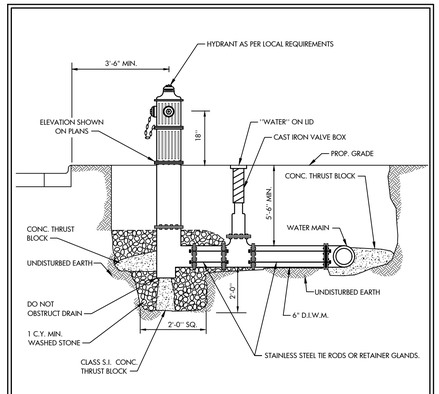
PROJ. NUMBER: 22013

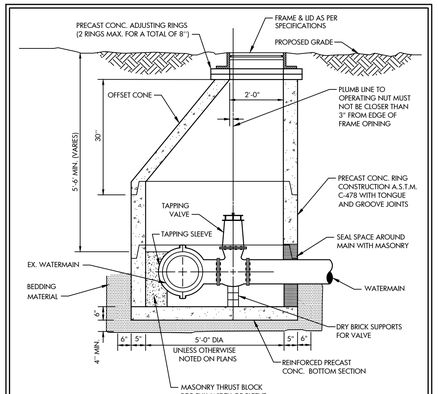


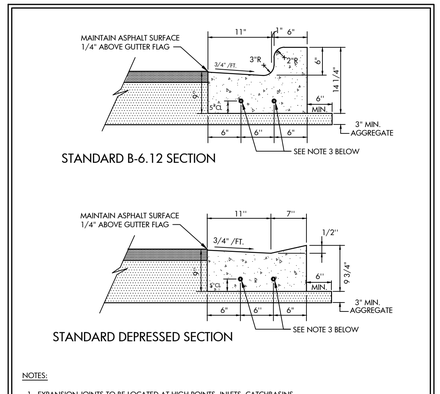


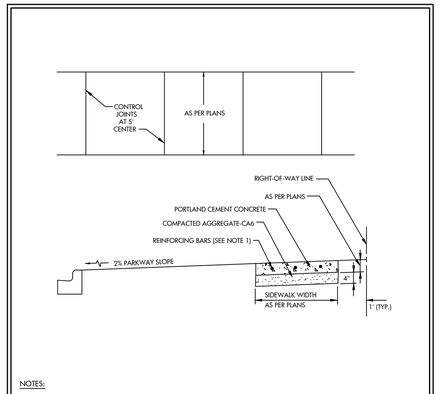


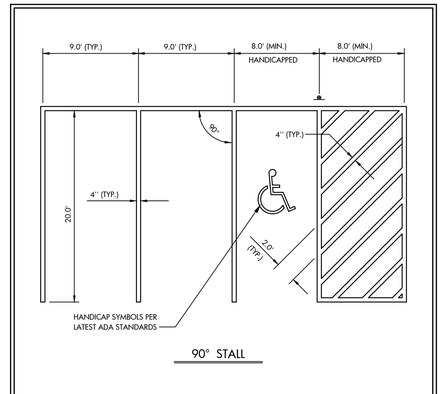












REVISIONS

2	01-13-23	REVISED PER VILLAGE REVIEW
1	12-15-22	REVISED PER VILLAGE REVIEW

CIVIL ENGINEERS - PLANNERS - DEVELOPMENT CONSULTANTS
CivWorks Consulting, LLC
3343 N. NEVA AVENUE
CHICAGO, ILLINOIS 60634
Ph: (312) 637-9570
Fax: (312) 637-9454
E-mail: info@civworks.com
Web: www.civworks.com

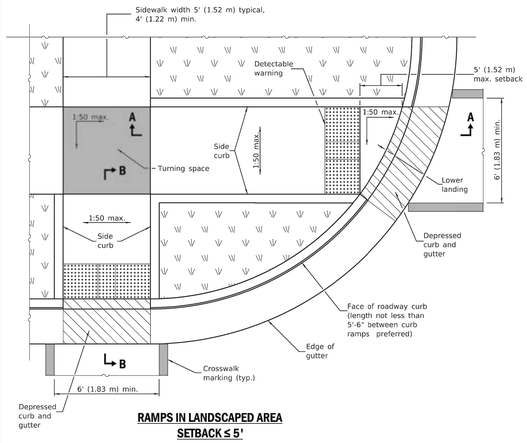
SHEET TITLE: SITE CONSTRUCTION DETAILS - 2

PROJECT: PROPOSED SELF STORAGE
401 W. GOLF ROAD, ARLINGTON HEIGHTS, IL 60005

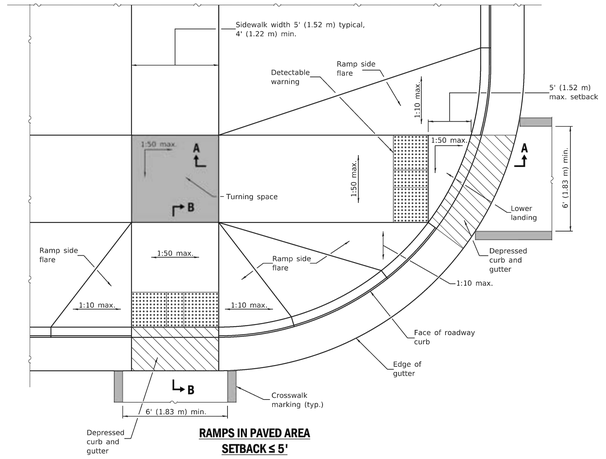
PROJ. MGR.:	OP
DRAWN BY:	OP
FIRST ISSUE DATE:	11-11-2022
SCALE:	N.T.S.

SHEET NO.
C6.2

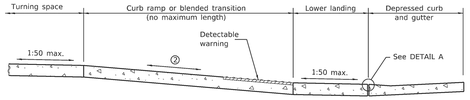
PROJ. NUMBER: 22013



RAMPS IN LANDSCAPED AREA
SETBACK ≤ 5'

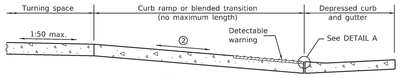


RAMPS IN PAVED AREA
SETBACK ≤ 5'



SECTION A-A

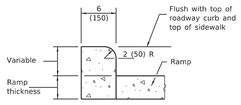
② The running slope of a curb ramp shall be 1:20 min. and 1:12 max. The running slope of a blended transition shall be 1:20 max.



SECTION B-B

② The running slope of a curb ramp shall be 1:20 min. and 1:12 max. The running slope of a blended transition shall be 1:20 max.

DETAIL A



SIDE CURB DETAIL

See Sheet 2 for GENERAL NOTES.

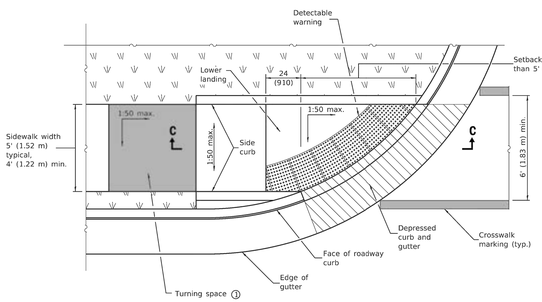
DATE	REVISIONS
1-1-19	Removed "15-foot rule", added
	"Blended transitions" and placement
	tolerances for detectable warnings.
1-1-18	Omitted diagonal slope at
	turning spaces and lower
	landings.

PERPENDICULAR CURB RAMPS FOR SIDEWALKS

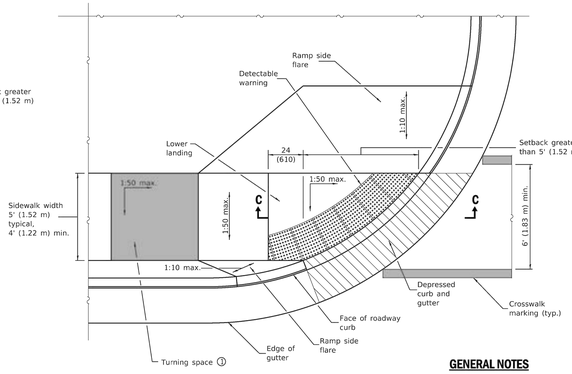
(Sheet 1 of 2)

STANDARD 424001-11

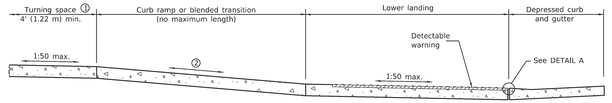
Illinois Department of Transportation
PASSED January 1, 2019 — ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2019 — ENGINEER OF DESIGN AND ENVIRONMENT
BDDXD 1-1-19



RAMP IN LANDSCAPED AREA
SETBACK > 5'



RAMP IN PAVED AREA
SETBACK > 5'



SECTION C-C

① This turning space not required for blended transitions.

② The running slope of a curb ramp shall be 1:20 min. and 1:12 max. The running slope of a blended transition shall be 1:20 max.

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

Where the turning space is constrained on a side opposite a ramp, the minimum length of the turning space in the direction of the ramp-run shall be 5' (1.52 m).

Where 1:50 maximum slope is shown, 1:64 is preferred.

Detectable warnings are shown in their ideal locations but the following placement tolerances are allowed.

Side Border - Detectable warnings should extend the full width of the walking surface (excluding flared sides) but a border along each side up to 2 in. (50 mm) in width is allowed.

Curb Set-Back - Detectable warnings located at the back of curb should closely align with the curb but a gap up to 6 in. (150 mm) behind the curb is allowed.

See Standard 606001 for details of depressed curb adjacent to curb ramp.

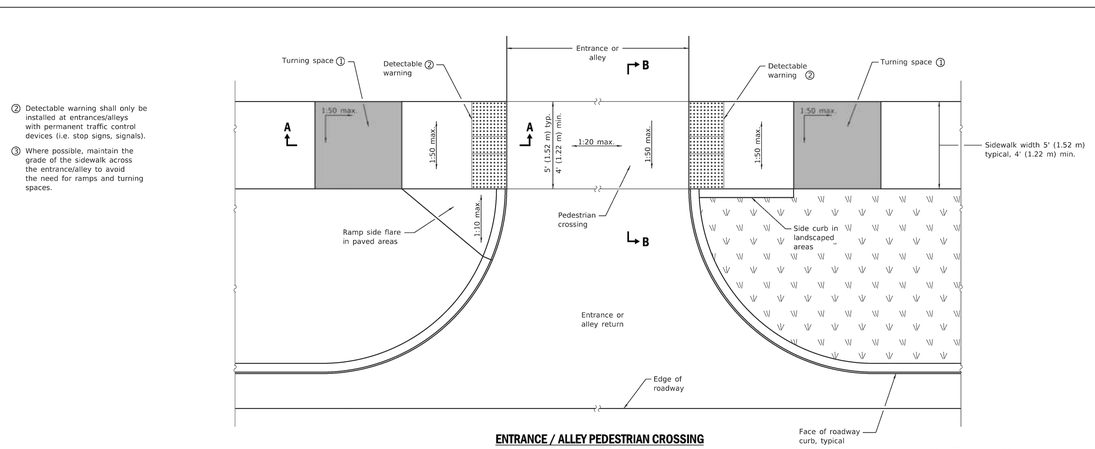
All dimensions are in inches (millimeters) unless otherwise shown.

PERPENDICULAR CURB RAMPS FOR SIDEWALKS

(Sheet 2 of 2)

STANDARD 424001-11

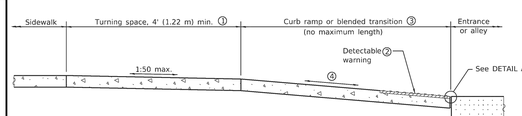
Illinois Department of Transportation
PASSED January 1, 2019 — ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2019 — ENGINEER OF DESIGN AND ENVIRONMENT
BDDXD 1-1-19



② Detectable warning shall only be installed at entrances/alleys with permanent traffic control devices (i.e. stop signs, signals).

③ Where possible, maintain the grade of the sidewalk across the entrance/alley to avoid the need for ramps and turning spaces.

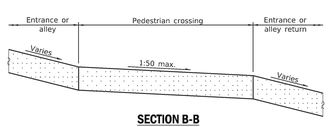
ENTRANCE / ALLEY PEDESTRIAN CROSSING



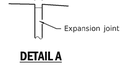
SECTION A-A

① Turning space not required for blended transitions.

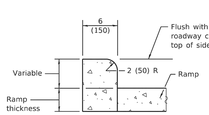
④ The running slope of a curb ramp shall be 1:20 min and 1:12 max. The running slope of a blended transition shall be 1:20 max.



SECTION B-B



DETAIL A



SIDE CURB DETAIL

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

Where 1:50 maximum slope is shown, 1:64 is preferred.

Detectable warnings are shown in their ideal locations but the following placement tolerances are allowed.

Side Border - Detectable warnings should extend the full width of the walking surface (excluding flared sides) but a border along each side up to 2 in. (50 mm) in width is allowed.

Curb Set-Back - Detectable warnings located at the back of curb should closely align with the curb but a gap up to 6 in. (150 mm) behind the curb is allowed.

All dimensions are in inches (millimeters) unless otherwise shown.

DATE	REVISIONS
1-1-19	Added blended transitions and
	placement tolerances for
	detectable warnings.
1-1-18	Omitted diagonal slope at
	upper landings.

ENTRANCE / ALLEY PEDESTRIAN CROSSINGS

STANDARD 424026-03

REVISIONS		
2	01-13-23	REVISED PER VILLAGE REVIEW
1	12-15-22	REVISED PER VILLAGE REVIEW

CIVIL ENGINEERS - PLANNERS - DEVELOPMENT CONSULTANTS
CIVWORKS Consulting, LLC
3343 N. NEVA AVENUE
CHICAGO, ILLINOIS 60634
Ph: (312) 637-9570
Fax: (312) 637-9454
E-mail: info@civworks.com
Web: www.civworks.com

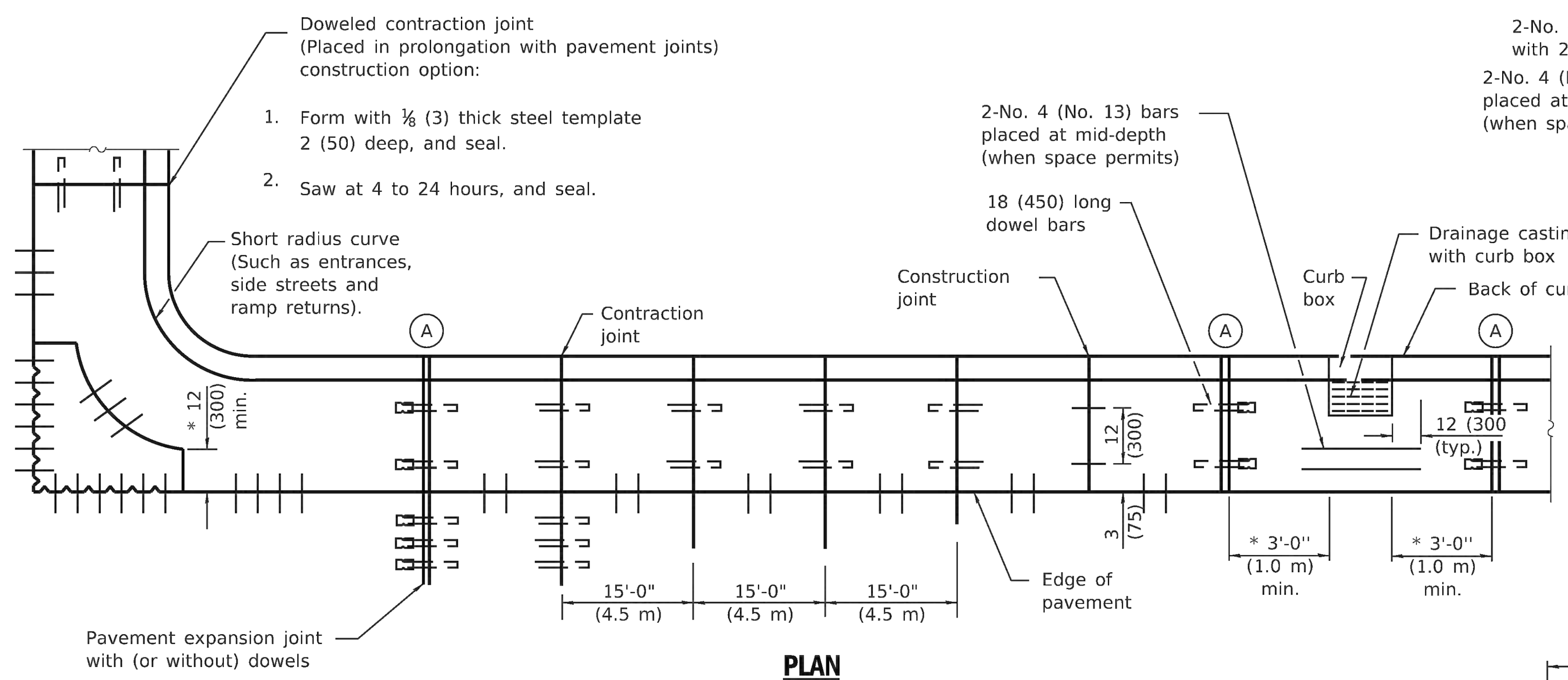
SHEET TITLE: SITE CONSTRUCTION DETAILS - 3

PROJECT: PROPOSED SELF STORAGE
401 W. GOLF ROAD, ARLINGTON HEIGHTS, IL 60005

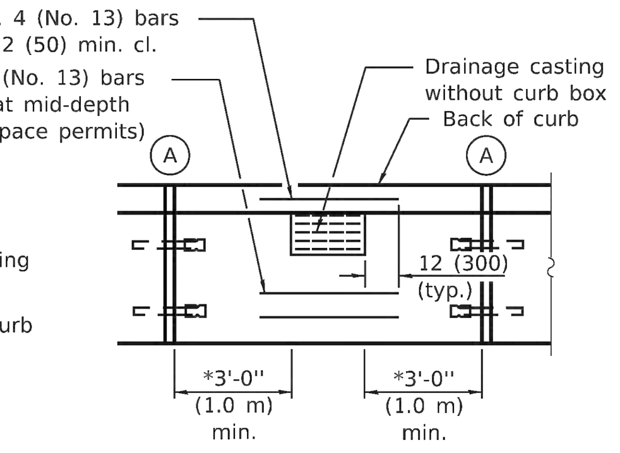
PROJ. MGR.:	OP
DRAWN BY:	OP
FIRST ISSUE DATE:	11-11-2022
SCALE:	N.T.S.

SHEET NO.
C6.3

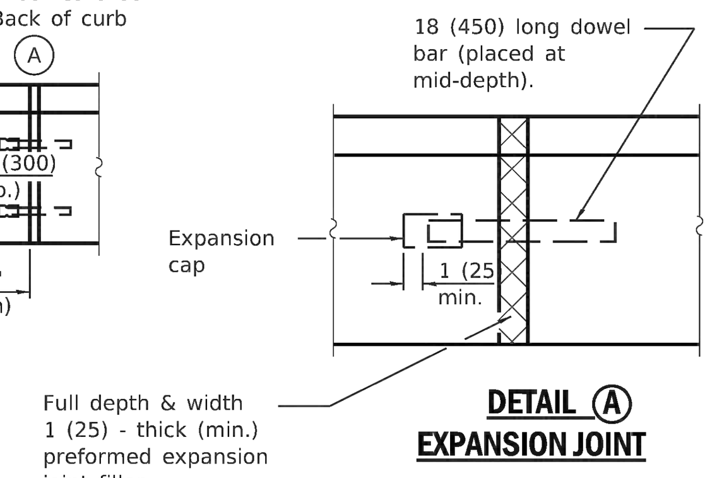
PROJ. NUMBER: 22013



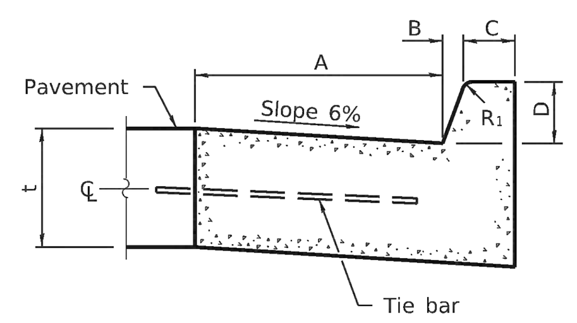
PLAN
ADJACENT TO PCC PAVEMENT OR PCC BASE COURSE



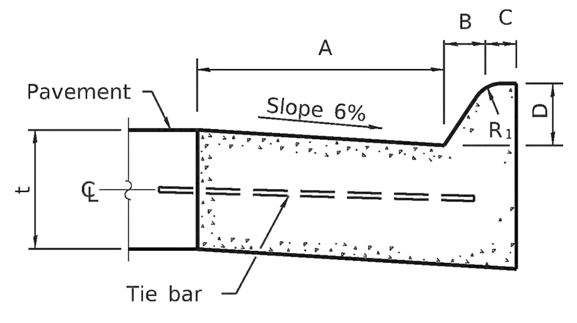
* This dimension shall be adjusted to align with joint on the adjacent pavement



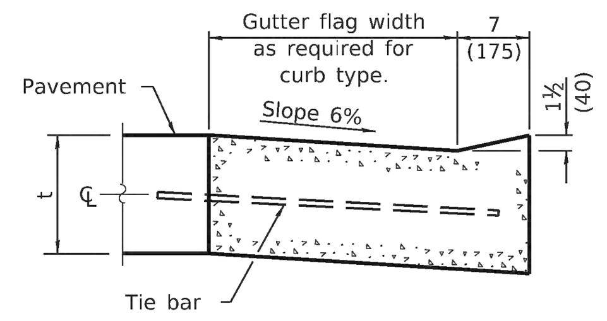
DETAIL Ⓐ
EXPANSION JOINT



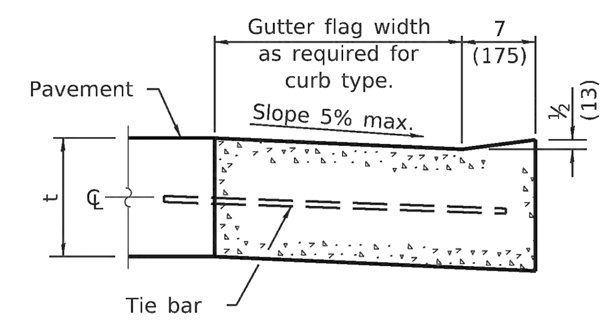
BARRIER CURB



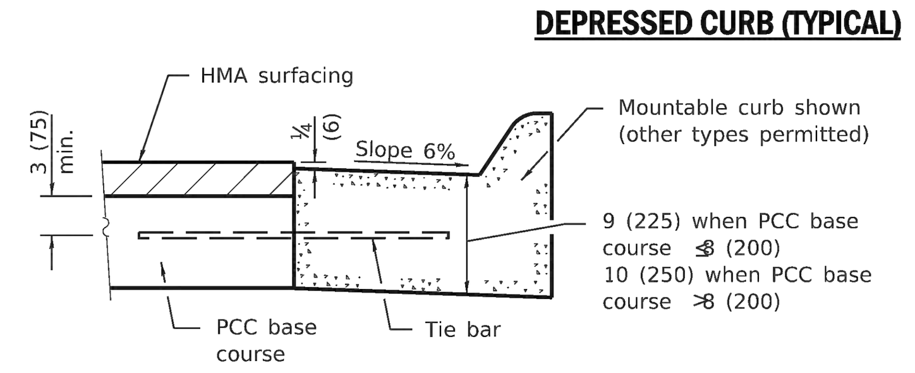
MOUNTABLE CURB



DEPRESSED CURB (TYPICAL)



DEPRESSED CURB ADJACENT TO CURB RAMP ACCESSIBLE TO THE DISABLED

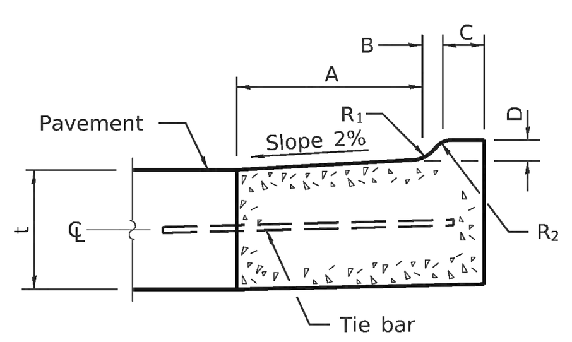


ADJACENT TO PCC BASE COURSE WITH HMA SURFACING

TABLE OF DIMENSIONS BARRIER CURB					
TYPE	A	B	C	D	R_1
B-6.06 ✱ (B-15.15)	6 (150)	1 (25)	6 (150)	6 (150)	1 (25)
B-6.12 (B-15.3)	12 (300)	1 (25)	6 (150)	6 (150)	1 (25)
B-6.18 (B-15.45)	18 (450)	1 (25)	6 (150)	6 (150)	1 (25)
B-6.24 (B-15.60)	24 (600)	1 (25)	6 (150)	6 (150)	1 (25)
B-9.12 (B-22.30)	12 (300)	2 (50)	5 (125)	9 (225)	1 (25)
B-9.18 (B-22.45)	18 (450)	2 (50)	5 (125)	9 (225)	1 (25)
B-9.24 (B-22.60)	24 (600)	2 (50)	5 (125)	9 (225)	1 (25)

✱ For corner islands only.

TABLE OF DIMENSIONS MOUNTABLE CURB						
TYPE	A	B	C	D	R_1	R_2
M-2.06 (M-5.15)	6 (150)	2 (50)	4 (100)	2 (50)	3 (75)	2 (50)
M-2.12 (M-5.30)	12 (300)	2 (50)	4 (100)	2 (50)	3 (75)	2 (50)
M-4.06 (M-10.15)	6 (150)	4 (100)	3 (75)	4 (100)	3 (75)	NA
M-4.12 (M-10.30)	12 (300)	4 (100)	3 (75)	4 (100)	3 (75)	NA
M-4.18 (M-10.45)	18 (450)	4 (100)	3 (75)	4 (100)	3 (75)	NA
M-4.24 (M-10.60)	24 (600)	4 (100)	3 (75)	4 (100)	3 (75)	NA
M-6.06 (M-15.15)	6 (150)	6 (150)	2 (50)	6 (150)	2 (50)	NA
M-6.12 (M-15.30)	12 (300)	6 (150)	2 (50)	6 (150)	2 (50)	NA
M-6.18 (M-15.45)	18 (450)	6 (150)	2 (50)	6 (150)	2 (50)	NA
M-6.24 (M-15.60)	24 (600)	6 (150)	2 (50)	6 (150)	2 (50)	NA



M-2.06 (M-5.15) and M-2.12 (M-5.30)

GENERAL NOTES

The bottom slope of combination curb and gutter constructed adjacent to pcc pavement shall be the same slope as the subbase or 6% when subbase is omitted.

t = Thickness of pavement.

Longitudinal joint tie bars shall be No. 6 (No. 19) at 36 (900) centers in accordance with details for longitudinal construction joint shown on Standard 420001.

A minimum clearance of 2 (50) between the end of the tie bar and the back of the curb shall be maintained.

The dowel bars shown in contraction joints will only be required for monolithic construction.

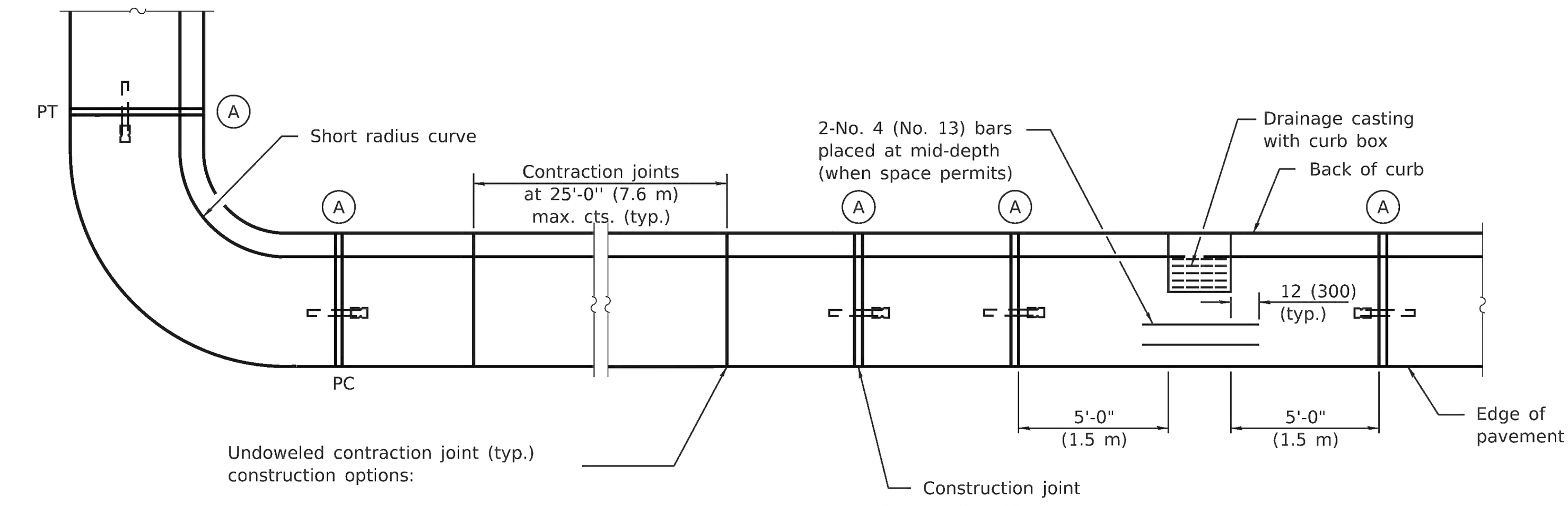
See Standard 606301 for details of corner islands.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation
PASSED January 1, 2018 — ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2018 — ENGINEER OF DESIGN AND ENVIRONMENT
ISSUED 1-1-97

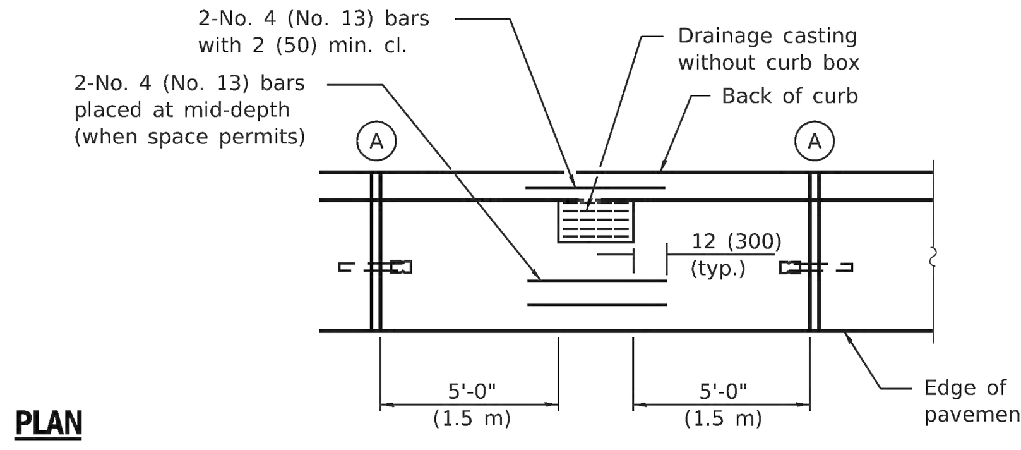
DATE	REVISIONS
1-1-18	Revised General Note for tie bar spacing to 36 (900) cts.
1-1-15	Added B-6.06 (B-15.15) barrier curb and gutter to table (corner islands only).

CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
(Sheet 1 of 2)
STANDARD 606001-07

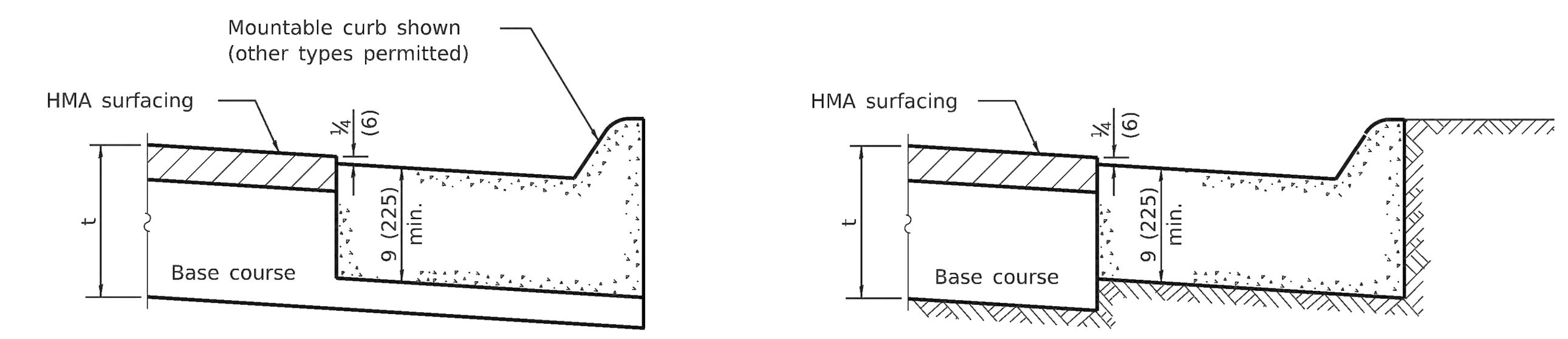


Undoweled contraction joint (typ.) construction options:

1. Form with ⅛ (3) thick steel template 2 (50) deep, and seal.
2. Saw 2 (50) deep at 4 to 24 hours, and seal.
3. Insert ⅜ (20) thick preformed joint filler full depth and width.



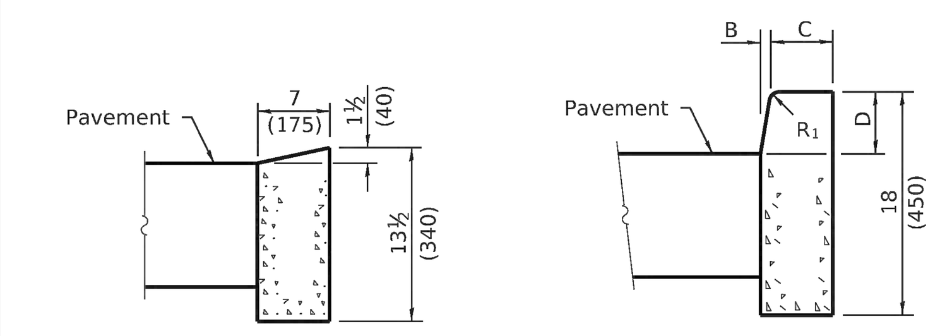
PLAN



ON DISTURBED SUBGRADE

ON UNDISTURBED SUBGRADE

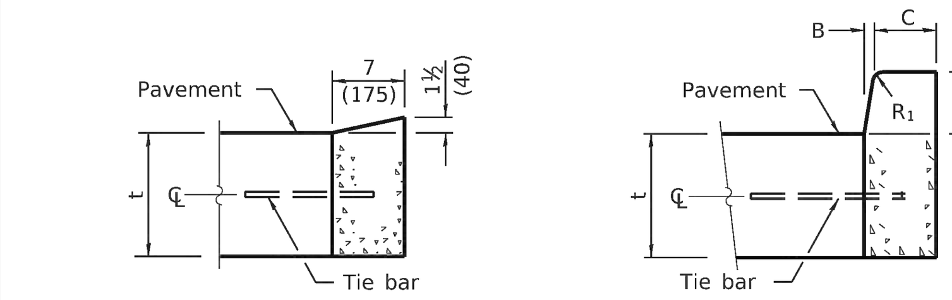
ADJACENT TO FLEXIBLE PAVEMENT



DEPRESSED CURB

BARRIER CURB

ADJACENT TO FLEXIBLE PAVEMENT



DEPRESSED CURB

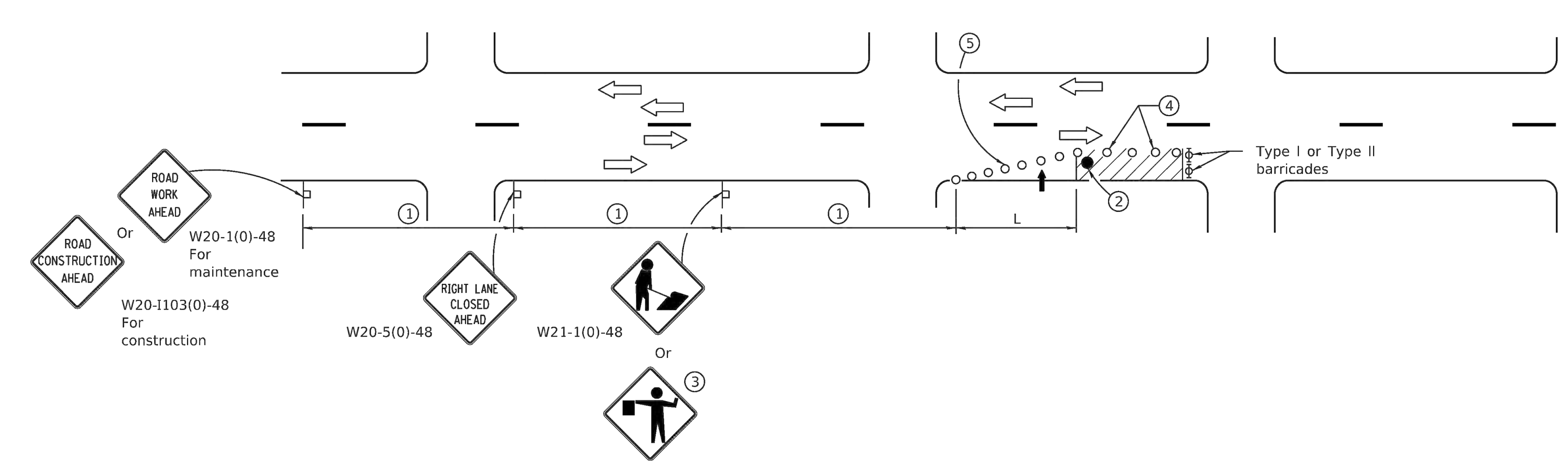
BARRIER CURB

ADJACENT TO PCC PAVEMENT OR PCC BASE COURSE

CONCRETE CURB TYPE B

Illinois Department of Transportation
PASSED January 1, 2018 — ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2018 — ENGINEER OF DESIGN AND ENVIRONMENT
ISSUED 1-1-97

CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
(Sheet 2 of 2)
STANDARD 606001-07



SIGN SPACING	
Posted Speed	Sign Spacing
55	500' (150 m)
50-45	350' (100 m)
<45	200' (60 m)

SYMBOLS

- Arrow board
- Cone, drum or barricade
- Sign on portable or permanent support
- Work area
- Barricade or drum with flashing light
- Flagger with traffic control sign.

① Refer to SIGN SPACING TABLE for distances.

② Required for speeds > 40 mph.

③ Use flagger sign only when flagger is present.

④ Cones at 25' (8 m) centers for 250' (75 m). Additional cones may be placed at 50' (15 m) centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.

⑤ Cones, drums or barricades at 20' (6 m) centers in taper.

GENERAL NOTES

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement requiring the closure of one traffic lane in an Urban area.

Calculate L as follows:

SPEED LIMIT	FORMULAS English	(Metric)
40 mph (70 km/h) or less:	$L=\frac{WS^2}{60}$	$L=\frac{WS^2}{150}$
45 mph (80 km/h) or greater:	L=(W)(S)	L=0.65(W)(S)

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation
PASSED January 1, 2015 — ENGINEER OF SAFETY ENGINEERING
APPROVED January 1, 2015 — ENGINEER OF DESIGN AND ENVIRONMENT
ISSUED 1-1-97

DATE	REVISIONS
1-1-15	Renamed standard. Moved case on Sheet 2 to new Highway Standard.
1-1-14	Revised workers sign number to agree with current MUTCD.

URBAN SINGLE LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
STANDARD 701606-10

REVISIONS		
2	01-13-23	REVISED PER VILLAGE REVIEW
1	12-15-22	REVISED PER VILLAGE REVIEW

CIVIL ENGINEERS - PLANNERS - DEVELOPMENT CONSULTANTS
CivWorks Consulting, LLC
3343 N. NEVA AVENUE
CHICAGO, ILLINOIS 60634
Ph: (312) 637-9370
Fax: (312) 637-9454
E-mail: info@civworks.com
Web: www.civworks.com

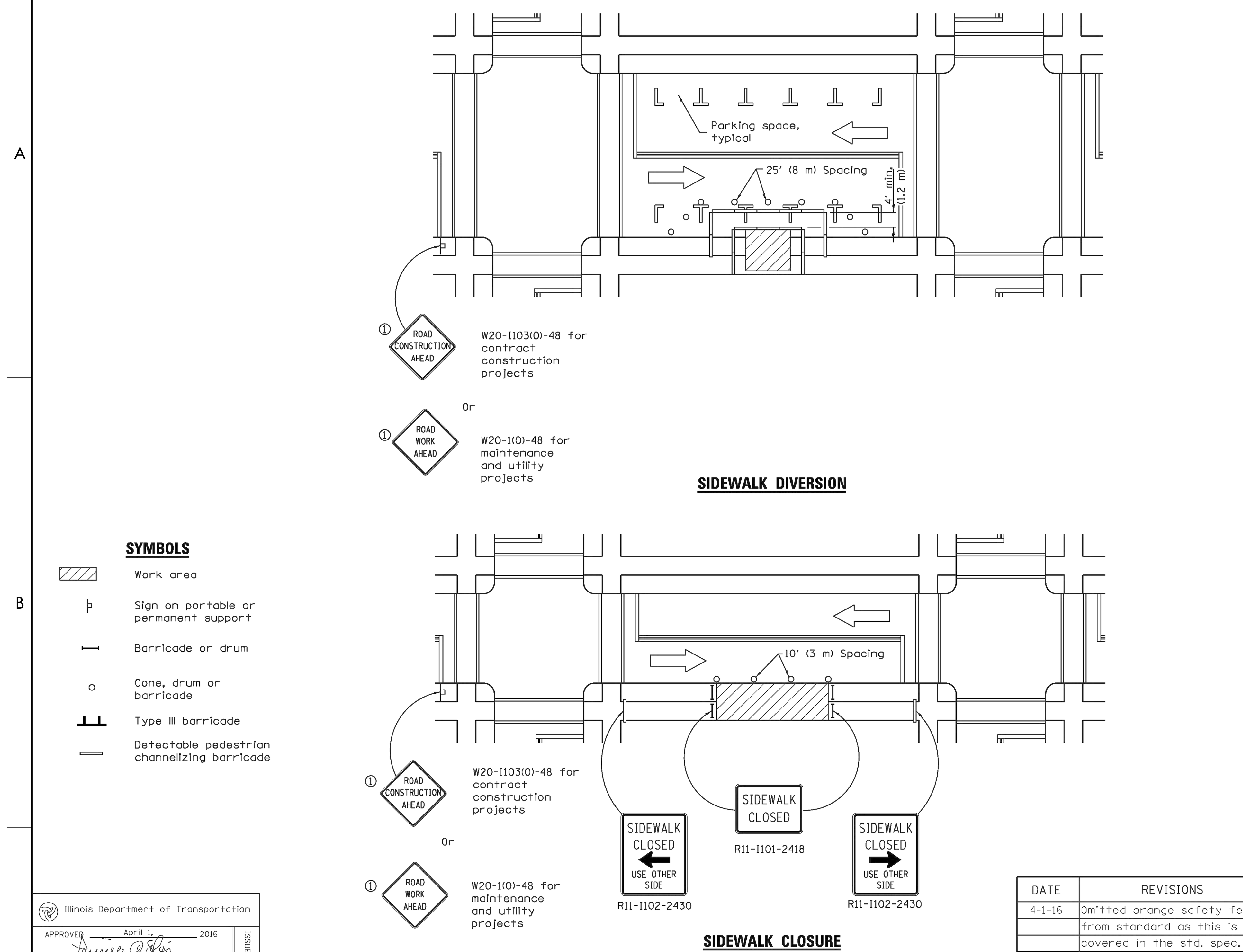
SHEET TITLE: SITE CONSTRUCTION DETAILS - 4

PROJECT: PROPOSED SELF STORAGE
401 W. GOLF ROAD, ARLINGTON HEIGHTS, IL 60005

PROJ. MGR.:	OP
DRAWN BY:	OP
FIRST ISSUE DATE:	11-11-2022
SCALE:	N.T.S.

SHEET NO.
C6.4

PROJ. NUMBER: 22013



① Omit whenever duplicated by road work traffic control.

GENERAL NOTES

This Standard is used where, at any time, pedestrian traffic must be rerouted due to work being performed.

This Standard must be used in conjunction with other Traffic Control & Protection Standards when roadway traffic is affected.

Temporary facilities shall be detectable and accessible.

The temporary pedestrian facilities shall be provided on the same side of the closed facilities whenever possible.

The SIDEWALK CLOSED / USE OTHER SIDE sign shall be placed at the nearest crosswalk or intersection to each end of the closure. Where the closure occurs at a corner, the signs shall be erected on the corners across the street from the closure. The SIDEWALK CLOSED signs shall be used at the ends of the actual closures.

Type III barricades and R11-2-4830 signs shall be positioned as shown in "ROAD CLOSED TO ALL TRAFFIC" detail on Standard 701901.

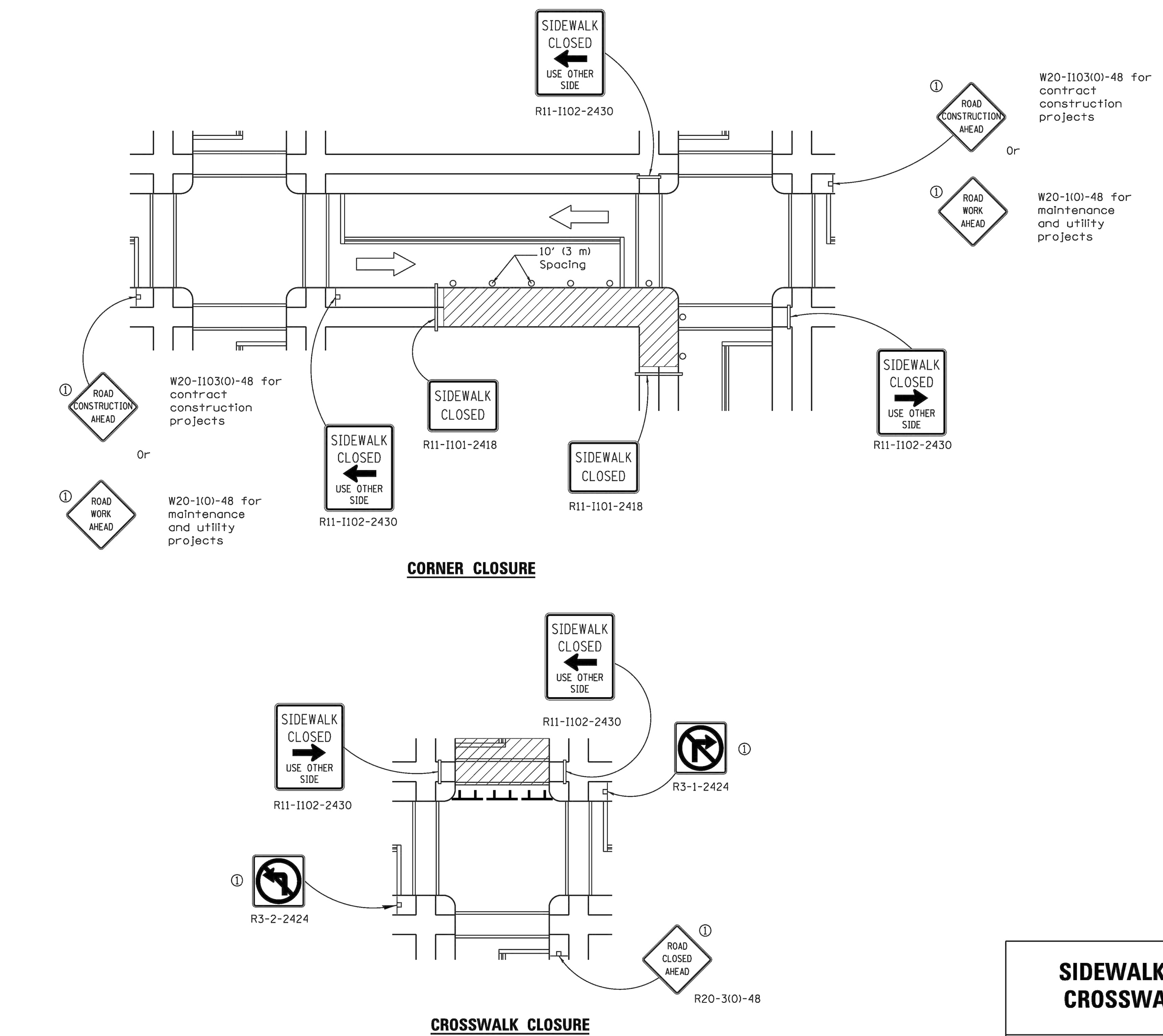
All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation
APPROVED April 1, 2016 — ENGINEER OF SAFETY ENGINEERING
APPROVED April 1, 2016 — ENGINEER OF DESIGN AND ENVIRONMENT

DATE	REVISIONS
4-1-16	Omitted orange safety fence from standard as this is covered in the std. spec.
1-1-12	Added SIDEWALK DIVERSION. Modified appearance of plan views. Renamed Std.

SIDEWALK, CORNER OR CROSSWALK CLOSURE (Sheet 1 of 2)

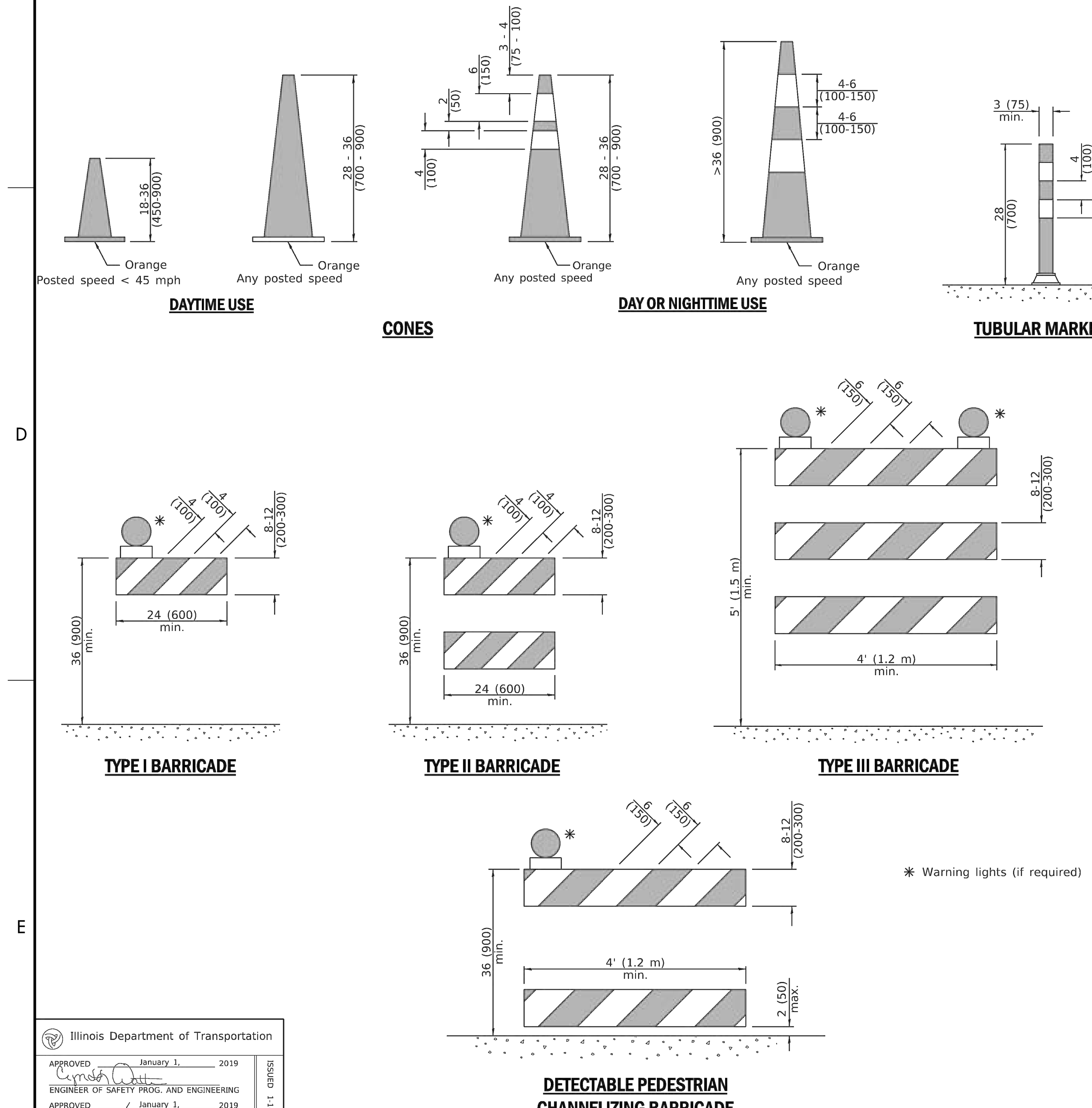
STANDARD 701801-06



Illinois Department of Transportation
APPROVED April 1, 2016 — ENGINEER OF SAFETY ENGINEERING
APPROVED April 1, 2016 — ENGINEER OF DESIGN AND ENVIRONMENT

SIDEWALK, CORNER OR CROSSWALK CLOSURE (Sheet 2 of 2)

STANDARD 701801-06



✱ Warning lights (if required)

GENERAL NOTES

All heights shown shall be measured above the pavement surface.

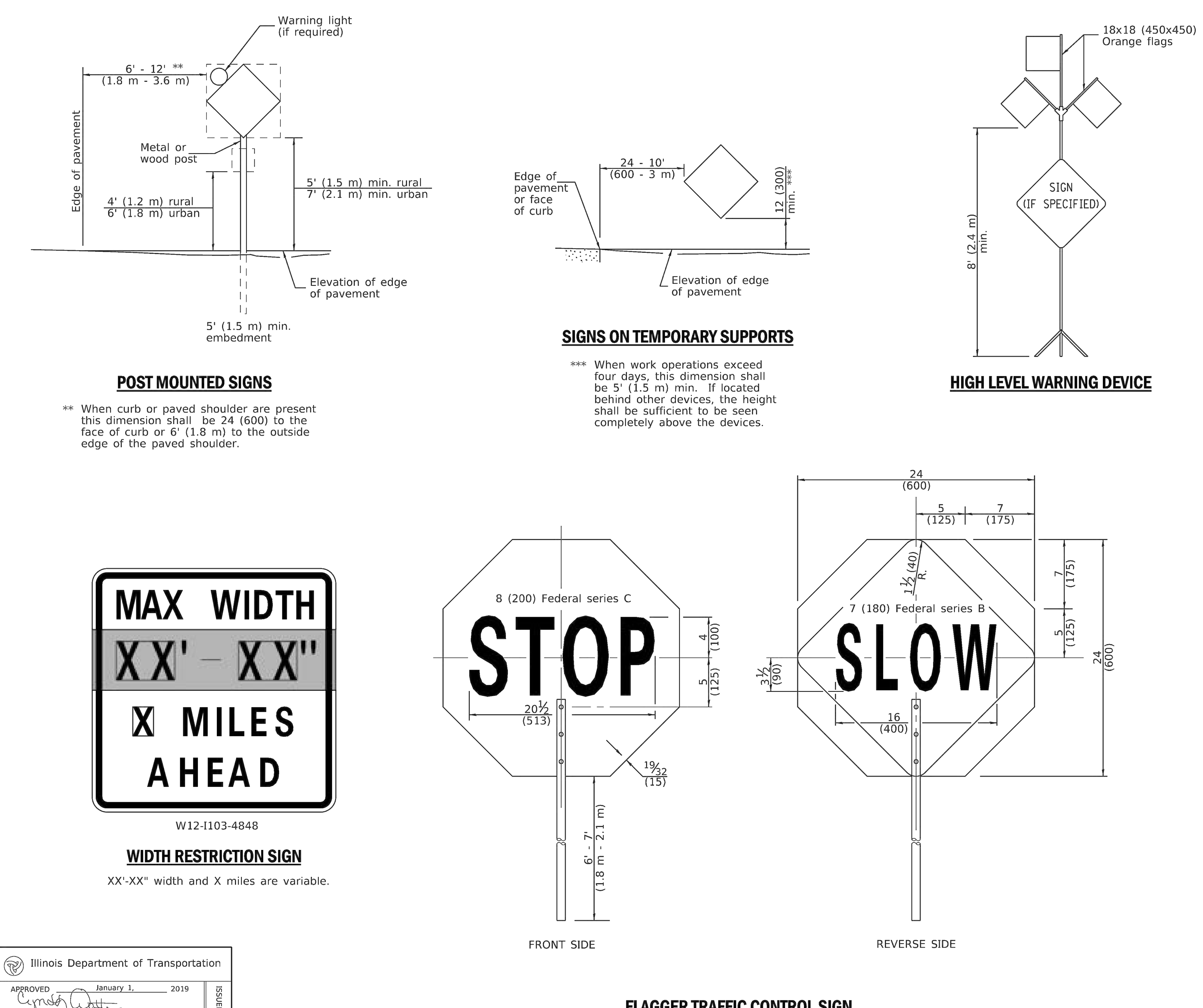
All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation
APPROVED January 1, 2019 — ENGINEER OF SAFETY PROG. AND ENGINEERING
APPROVED January 1, 2019 — ENGINEER OF DESIGN AND ENVIRONMENT

DATE	REVISIONS
1-1-19	Revised cone usage and added cones >36" (900 m) height.
1-1-18	Revised END WORK ZONE SPEED LIMIT sign from orange to white background.

TRAFFIC CONTROL DEVICES (Sheet 1 of 3)

STANDARD 701901-08



** When curb or paved shoulder are present this dimension shall be 24 (600) to the face of curb or 6' (1.8 m) to the outside edge of the paved shoulder.

*** When work operations exceed four days, this dimension shall be 5' (1.5 m) min. If located behind other devices, the height shall be sufficient to be seen completely above the devices.

XX'-XX" width and X miles are variable.

ROAD CONSTRUCTION NEXT X MILES — G20-I104(0)-6036

END CONSTRUCTION — G20-I105(0)-6024

This signing is required for all projects 2 miles (3200 m) or more in length.

ROAD CONSTRUCTION NEXT X MILES sign shall be placed 500' (150 m) in advance of project limits.

END CONSTRUCTION sign shall be erected at the end of the job unless another job is within 2 miles (3200 m).

Dual sign displays shall be utilized on multi-lane highways.

WORK LIMIT SIGNING

WORK ZONE — W21-II15(0)-3618
SPEED LIMIT XX — R2-1-3648
PHOTO ENFORCED — R10-I108p-3618 ****
$XXX FINE MINIMUM — R2-I106p-3618

Sign assembly as shown on Standards or as allowed by District Operations.

END WORK ZONE SPEED LIMIT — G20-I103-6036

This sign shall be used when the above sign assembly is used.

HIGHWAY CONSTRUCTION SPEED ZONE SIGNS

**** R10-I108p shall only be used along roadways under the juristiction of the State.

Illinois Department of Transportation
APPROVED January 1, 2019 — ENGINEER OF SAFETY PROG. AND ENGINEERING
APPROVED January 1, 2019 — ENGINEER OF DESIGN AND ENVIRONMENT

TRAFFIC CONTROL DEVICES (Sheet 2 of 3)

STANDARD 701901-08

REVISIONS

2	01-13-23	REVISED PER VILLAGE REVIEW
1	12-15-22	REVISED PER VILLAGE REVIEW

CIVIL ENGINEERS - PLANNERS - DEVELOPMENT CONSULTANTS
CivWorks Consulting, LLC
3343 N. NEVA AVENUE
CHICAGO, ILLINOIS 60634
Ph: (312) 637-9370
Fax: (312) 637-9454
E-mail: info@civworks.com
Web: www.civworks.com

SHEET TITLE: SITE CONSTRUCTION DETAILS - 5

PROJECT: PROPOSED SELF STORAGE, 401 W. GOLF ROAD, ARLINGTON HEIGHTS, IL 60005

PROJ. MGR.:	OP
DRAWN BY:	OP
FIRST ISSUE DATE:	11-11-2022
SCALE:	N.T.S.

SHEET NO. C6.5

PROJ. NUMBER: 22013

GENERAL CONDITIONS

DEFINITION OF TERMS

a. "CLIENT" shall mean Holladay Properties, LLC, which is the person or entity with whom CivWorks Consulting, LLC has contracted with to prepare Civil Engineering PLANS and SPECIFICATIONS.

b. "ENGINEER" shall mean CivWorks Consulting, LLC, a Civil Engineering consultant on the subject project.

c. "PLANS and SPECIFICATIONS" shall mean the Civil Engineering PLANS and SPECIFICATIONS prepared by the ENGINEER, which may be a part of the contract documents for the subject project.

d. "CONTRACTOR" shall mean any person or entity performing any work described in the PLANS and SPECIFICATIONS.

e. "JURISDICTIONAL GOVERNMENTAL ENTITY" shall mean any municipal, county, state or federal unit of government from whom an approval, permit and/or review is required for any aspect of the subject project.

INTENT OF THE CONTRACT DOCUMENTS

The intention of the PLANS and SPECIFICATIONS is to set forth certain requirements of performance, type of equipment and structures, and standards of materials and construction. They may also identify labor and materials, equipment and transportation necessary for the proper execution of the work but are not intended to be infinitely determined so as to include minor items obviously required as part of the work. The PLANS and SPECIFICATIONS require new material and equipment unless otherwise indicated, and to require complete performance of the work in spite of omissions of specific references to any minor component part. It is not intended, however, that materials or work not covered by or properly inferred from any heading, branch, class or trade of the SPECIFICATIONS shall be supplied unless distinctly so noted. Materials or work described in words, which so applied have a well-known technical or trade meaning, shall be held to refer to such recognized standards.

INTERPRETATION OF PLANS AND SPECIFICATIONS

a. The CLIENT and/or CONTRACTOR shall promptly report any errors or ambiguities in the PLANS and SPECIFICATIONS to the ENGINEER. Questions as to meaning of PLANS and SPECIFICATIONS shall be interpreted by the ENGINEER, whose decision shall be final and binding on all parties concerned.

b. The ENGINEER will provide the CLIENT with such information as may be required to show revised or additional details of construction.

c. Should any discrepancies or conflicts on the PLANS or SPECIFICATIONS be discovered either prior to or after award of the contract, the ENGINEER's attention shall be called to the same before the work is begun thereon and the proper corrections made. Neither the CLIENT nor the CONTRACTOR may take advantage of any error or omissions in the PLANS and SPECIFICATIONS. The ENGINEER will provide information when errors or omissions are discovered.

GOVERNING BODIES

All works herein proposed shall be completed in accordance with all requirements of any JURISDICTIONAL GOVERNMENTAL ENTITY, and all such pertinent laws, directives, ordinances and the like shall be considered to be a part of these SPECIFICATIONS. If a discrepancy is noted between the PLANS and SPECIFICATIONS and requirements of any JURISDICTIONAL GOVERNMENTAL ENTITY, the CONTRACTOR shall immediately notify the ENGINEER in writing.

LOCATION OF UNDERGROUND FACILITIES

When the PLANS and SPECIFICATIONS include information pertaining to the location of existing underground facilities, such information represents only the opinion of the ENGINEER as to the approximate location of such utilities. At the locations wherein detailed positions of these facilities become necessary to the new construction, the CONTRACTOR shall furnish all labor and tools to either verify and substantiate the location or definitely establish the position of the facilities. The ENGINEER assumes no responsibility whatever with respect to the sufficiency or accuracy of the information shown on the PLANS and SPECIFICATIONS relative to the location of underground facilities.

It shall be the CONTRACTOR's responsibility prior to construction, to notify all Utility Companies of the intentions to begin construction and to verify the actual location of all such facilities. The CONTRACTOR shall also obtain from the respective Utility Companies the working schedules for removing or adjusting these facilities.

UNSUITABLE SOILS

The PLANS have been prepared by the ENGINEER based on the assumption that all soils on the project are suitable to support the proposed improvements shown. The CONTRACTOR shall immediately notify the ENGINEER if he discovers or encounters an obstruction that prevents the installation of the improvement according to the line and grades shown on the PLANS.

PROTECTION OF TREES

All trees that are not to be removed shall be protected from damage. Trees shall not be removed unless requested to do so in writing by the CLIENT.

NOTIFICATION OF UTILITY COMPANIES

The CONTRACTOR shall notify all applicable Jurisdictional Governmental Entities or utility companies, i.e., electric, telephone, gas and cable TV prior to beginning any construction so that said entity or company can establish the location of underground pipes, conduits or cables adjoining or crossing proposed construction.

SOIL BORING DATA

Copies of results of soil boring and reports, if such borings were taken by the CLIENT in the vicinity of the proposed construction site, should be made available by the CLIENT to the CONTRACTOR. These borings are presented for whatever purpose the CONTRACTOR chooses to make of them. The ENGINEER makes no representation or warranty regarding the number, location, spacing or depth of borings taken, nor of the accuracy or reliability of the information given in the results thereof.

Further, the ENGINEER does not assume responsibility for the possibility that during construction, the soil and groundwater condition may be different than indicated. Neither does the ENGINEER assume responsibility for variations of soil and groundwater at location between borings. The CONTRACTOR is required to make its own borings, explorations and observations to determine soil and ground-water conditions.

TRAFFIC CONTROL

The CONTRACTOR shall provide when required by any JURISDICTIONAL GOVERNMENTAL ENTITY, all signs, equipment, and personnel necessary to provide for safe and efficient traffic flow in all areas where the work will interrupt, interfere or cause to change in any form, the conditions of traffic flow that existed prior to the commencement of any portions of the work. The CLIENT may, at his discretion, require the CONTRACTOR to furnish traffic control under these or other circumstances where in his opinion it is necessary for the protection of life and property. The need for traffic control shall be anticipated by the CLIENT.

UTILITY POLES

It shall be the responsibility of the CONTRACTOR to arrange for the relocation or bracing of existing utility poles that may be within the working limits of this contract. It is expressly understood that all work and costs connected with the maintenance of these utility poles, their temporary relocations, etc., shall be the responsibility of the CLIENT or the CONTRACTOR.

RESTORATION

Restoration of damage to public or private property outside the limits of this project and of all existing roads and rights-of-way and easements shall be completed in accordance with the applicable sections of the Standard Specifications for Road and Bridge Construction, Department of Transportation, State of Illinois, latest edition.

It is the intent of these SPECIFICATIONS that clean-up and final restoration shall be performed immediately upon completion of each phase of the work so that these areas will be restored as nearly as possible to their original condition or better, and shall include but not be limited to, restoration of maintained lawns and rights-of-way, roadways, driveways, sidewalks, ditches, bushes, hedges, trees, shrubs, fences, mailboxes, sewers, drain tiles, water mains, etc.

ROAD CLEANING

The CONTRACTOR shall maintain roadways adjoining the project site free from mud and debris at all times. If mud and/or debris is carried onto the roadways from vehicles entering onto the highway from either the CONTRACTOR's trucks, his employees' vehicles, or his material suppliers, the CONTRACTOR shall immediately remove said mud and/or debris.

DETAILED SPECIFICATIONS

I. EXCAVATION AND GRADING

A. STANDARDS

This work shall be completed in conformance with the applicable sections of the Standard Specifications for Road and Bridge Construction, Department of Transportation, State of Illinois, latest edition.

B. GENERAL

EARTHWORK CALCULATIONS AND CROSS SECTIONS

The CONTRACTOR understands that any earthwork calculations, quantities or cross sections that have been furnished by the ENGINEER are for information only and are provided without any guarantee by the CLIENT or ENGINEER whatsoever as to their sufficiency or accuracy. CONTRACTOR warrants that he has performed his own subsurface investigations as necessary and his own calculations and cross sections to determine site soil conditions and earthwork volumes.

C. EXCAVATION AND EMBANKMENT

DEMOLITION

(a) CONTRACTOR shall perform all demolition work in accordance with all applicable Federal, State and local requirements.

(b) The CONTRACTOR shall coordinate all demolition with the JURISDICTIONAL GOVERNING ENTITY and CLIENT to ensure protection and maintenance of sanitary sewer and water utilities as necessary and to provide stormwater conveyance until new facilities are constructed, tested and placed into operation.

(c) CONTRACTOR shall develop and implement a daily program of dust control and shall submit and obtain JURISDICTIONAL GOVERNING ENTITY approval of dust control procedures prior to demolition of any structures. Modification of dust control procedures shall be performed by the CONTRACTOR to the satisfaction of the JURISDICTIONAL GOVERNING ENTITY as requested.

(d) All asphalt pavement curb and gutter and miscellaneous structures shall be demolished by the CONTRACTOR and disposed of as approved by CLIENT.

(e) All existing sewers outside the building as indicated on the PLANS to be abandoned shall be removed from the site and disposed of by the CONTRACTOR.

(f) Voids left by any item removed under any proposed building, pavement or walk or within 24" thereof shall be filled and compacted with suitable materials by the CONTRACTOR.

(g) All fire access lanes within the project area shall remain in service, clean of debris, and accessible for use by emergency vehicles.

(h) Any existing wells encountered shall be exposed and sealed 3' below proposed finish grade by the CONTRACTOR in accordance with Section 920.120 of the Illinois Water Well Construction Code, Department of Public Health, Latest Edition, and all applicable local rules and regulations.

(i) Any existing septic tanks and grease traps encountered shall have all liquids and solids removed and disposed of by a licensed commercial hauler in accordance with Governmental Jurisdictional Entity regulations, and the tank and grease traps shall then be filled with suitable materials or removed from the site and disposed of by the CONTRACTOR.

(j) Any material containing asbestos found within existing structures shall be removed from the site and disposed of off-site by the CONTRACTOR in accordance with County, State and Federal regulations.

CLEARING, GRUBBING AND TREE REMOVAL

The site shall be cleared, grubbed, and trees and stumps removed where designated on the PLANS. Trees designated to remain shall be protected from damage.

TOPSOIL STRIPPING

Upon completion of demolition, clearing, grubbing and tree removal, all topsoil shall be stripped from under all buildings and pavements areas, and other areas necessary to complete the work. Topsoil stripped shall be placed in stockpiles in locations as designated by the CLIENT.

TOPSOIL RESPREAD

Upon completion of parking lot improvements and installation of underground utilities a minimum of six inches (6") of topsoil shall be respread over all onsite areas which are disturbed by earthwork construction, except building pads and pavements, which shall be kept free from topsoil.

EXCAVATION AND EMBANKMENT (FILL)

Upon completion of topsoil stripping, all excavation and embankments shall be completed as shown on the PLANS. All suitable excavated materials shall be hauled, placed (moisture conditioned if necessary) and compacted in the embankment areas. The CONTRACTOR shall include all dewatering, temporary ditching and culverts necessary to complete the excavation and embankment.

Specifically included in the scope of Excavation and Embankments is grading and shaping of all cut or fill areas including swales and ditches; handling of sewer spoil, etc., and all work required to provide positive drainage at the end of each working day and upon completion of a section.

The CONTRACTOR shall be responsible for the excavation of all swales and ditches and for the excavation or filling of the parking lot within the work limits to within ±0.1 feet of the proposed subgrade elevations indicated on the PLANS. He shall be responsible for obtaining compaction in accordance with the minimum values listed in the table below for all embankments unless more stringent values are listed in the soils report, and to use any method approved by the CLIENT necessary to obtain this compaction (i.e., soil fabric or any undercutting that may be required). All existing materials are assumed to have a California Bearing Ratio (CBR) of 3.0.

Type Material	Percent Compaction Standard	Pavement & Floor Slabs	Grass Areas
Sandy Soils	Modified Proctor	95%	90%
Clayey Soils	Standard Proctor	95%	90%

unless approved otherwise in the soils report or by the CLIENT.

The CONTRACTOR shall notify the CLIENT if proper compaction cannot be obtained so that the CLIENT may determine what remedial measures may be needed.

A soils testing firm employed by the CLIENT shall determine which soils are unsuitable. Materials in their natural state being defined as unsuitable that would be suitable material if moisture conditioned, shall be conditioned by the CONTRACTOR and used as suitable embankment material or hauled from the site.

For purposes of definition, unsuitable material shall be as follows unless determined otherwise by the Soils Engineer:

a. Any soil whose optimum moisture content exceeds 25%.
b. Any cohesive soil with a unconfined compressive strength of 1.5 tons per square foot or less.
c. Any soil whose silt content exceeds 60% by weight.
d. Any soil whose maximum density is less than 100 pounds per cubic foot.
e. Any soil containing organic, deleterious, or hazardous material.

Upon completion of excavation and shaping of the water retention areas, all silt seams and granular or sandy soils shall be removed to a minimum depth of three feet below the subgrade and replaced with an impermeable clay liner, including adjacent to and under storm sewer inlets and outlets. It is the intent of these PLANS and SPECIFICATIONS that the CONTRACTOR shall prepare the lake bottoms, side slopes, and compaction thereof so that the lakes will maintain the proposed normal water level and that leakage does not exceed ½ inch per week.

Ditches and swales are to be excavated to the lines and grades indicated on the PLANS. All suitable materials excavated from the ditches shall be used in construction of the embankments.

The CONTRACTOR shall notify the CLIENT immediately upon encountering groundwater during excavation. If in the opinion of the CLIENT or the JURISDICTIONAL GOVERNING ENTITY this condition necessitates the installation of perforated drain tile bedded in washed gravel or open storm sewer joints wrapped with fabric, the CONTRACTOR shall install same.

During excavation and embankment, grades may be adjusted to provide an overall site earthwork balance. The CONTRACTOR shall cooperate fully with the CLIENT in adjustment of grades, construction methods and placement of material to meet the above goals and shall immediately advise CLIENT if he believes that the earthwork will not balance.

It is the intent of these PLANS that storm waters falling on the site be diverted into sedimentation / lake / detention basins during construction. The CONTRACTOR shall construct and maintain any temporary ditches or swales that are necessary to accomplish this prior to beginning mass excavation.

EROSION CONTROL

Suitable erosion control practices shall be maintained by the CONTRACTOR in accordance with Illinois Urban Manual and all applicable Soil Erosion and Sedimentation Control ordinances and the PLANS.

UNDERCUTTING DURING EARTHWORK

If the subgrade cannot be dried adequately by discing as outlined above for placement of material to planned grades and if the CLIENT determines that the subgrade does not meet the standards set forth above, the CLIENT may require undercutting.

II. UNDERGROUND IMPROVEMENTS

A. GENERAL

STANDARDS

All underground improvements shall be constructed and tested in accordance with the Standard Specifications for Water and Sewer Main Construction in Illinois, latest edition, The Standard Specifications for Road and Bridge Construction, Department of Transportation, State of Illinois and the City of Arlington Heights Water Main, Sanitary Sewer and Storm Sewer Requirements. In the event of conflicting guidelines, the more restrictive shall govern.

SELECTED GRANULAR BACKFILL

Selected Granular Backfill shall be required for all sewer and water main trenches lying under existing or proposed streets, driveways, parking lots and within 24" thereof, and where noted on PLANS. All material placed in such trenches shall be in accordance with the above standards.l

MANHOLES, CATCH BASIN, & INLETS

All Manholes, Catch Basins, and Inlets shall be constructed of reinforced precast concrete ring construction with tongue and groove joints in conformance with the latest revision of ASTM designation C-478. All joints between sections and frames (except sanitary manholes, see Section IIB Manholes, below) shall be sealed with mastic type bituminous jointing compound. CONTRACTOR shall remove all excess mastic on inside of structure and butter joints with mortar. Manholes are to have offset cones except that no cone shall be used on storm manholes 6'-0" deep or less in which case a reinforced concrete flat top section shall be used, and Valve Vaults shall have concentric cones. Only concrete adjustment rings will be permitted where necessary and shall be limited to two adjustment rings totaling not more than 8" in height. All manholes and catch basin steps shall be copolymer polypropylene with continuous ½" steel reinforcement as manufactured by MA Industries, or approved equal.

HORIZONTAL AND VERTICAL SEPARATION OF WATER AND SEWER MAINS

Horizontal and vertical separation of water and sewer mains shall be in accordance with Standard Specifications for Water and Sewer Construction in Illinois Section 41-2.01B and 41-2.01C and Standard Drawing 18, 19, 20, 21, 22, 23 and 24.

STRUCTURE ADJUSTMENTS

Structures shall be adjusted to the finished grade as shown on PLANS.

B. SANITARY SEWERS AND APPURTENANCES

SANITARY SEWER PIPE

Sanitary sewer pipe including building services, shall conform to the following:

(a) Polyvinyl Chloride (PVC) Sewer Pipe shall be SDR 26, complying with ASTM D2241, 160 psi pressure pipe push-on bell and spigot type joints with rubber ring seal gasket ASTM D3139.

Sanitary sewers shall include bedding and backfilling.

MANHOLES

Manholes shall be constructed in conformance with Section IIA Manholes, etc. above. The concrete base and bottom section shall be constructed of precast reinforced concrete monolithically cast sections including benches, pipe connection and invert flow lines. Manhole frame and lids shall be East Jordan Iron Works (EJIW) Catalog Number 1022-2 with Heavy Duty Solid Cover (minimum assembled weight of 300 lbs. or approved equal, with lids imprinted "SANITARY", and recessed pick holes. Manhole joints between adjustment rings and frames and between manhole sections shall be set on preformed plastic gasket consisting of a homogeneous blend of refined hydrocarbon resins and plasticizing compounds reinforced with inert mineral filler to provide a water tight seal. All pipe connection openings shall be precast with resilient rubber water tight pipe sleeves. A 10" elastomeric band (chimney seal, Wrapid Seal Manhole Encapsulation System or approved equal) shall be installed extending from the manhole top to the manhole frame as shown on detail. Manholes shall include steps, frame & grate, bedding, and trench backfill.

BEDDING

Bedding shall be placed as shown on the detail.

TESTING

Sanitary sewers shall be air tested and tested for deflection in accordance with the requirements of Section 31-1.1 "TESTING AND INSPECTION FOR ACCEPTANCE OF SANITARY SEWERS" of the Standard Specifications for Water and Sewer Main Construction in Illinois or the JURISDICTIONAL GOVERNING ENTITY, whichever is more restrictive. In addition, a televised inspection of the completed sanitary sewers shall be conducted and a copy of the videotape and report furnished to the JURISDICTIONAL GOVERNING ENTITY.

All sanitary manholes are to be tested for water tightness in accordance with ASTM C969-94-"Standard Practice for Infiltration and Exfiltration Acceptance Testing of Installed Precast Concrete Pipe Sewer Lines", Vol. 04.05 or ASTM C1244-93-"Standard Test Method for Concrete Sewer Manholes by the Negative Pressure (Vacuum) Test", Vol. 04-05.

SERVICES

A wye branch or "tee" and sanitary service line, properly plugged and sealed shall be constructed as shown on the PLANS. The ends of all services shall be marked with a 4"x4" post extending 36" above grade and painted red. The CONTRACTOR shall keep accurate records of all Wye or Tee locations as measured from the downstream manhole as well as the service lengths and furnish same to CLIENT.

RISERS

Risers shall be constructed in locations as shown on the PLANS and according to the detail.

TELEVISION INSPECTION

Upon completion of construction a television inspection of the sanitary sewer system shall be performed on all portions of the sewer if required by the JURISDICTIONAL GOVERNING ENTITY. Videotapes and written report of all television inspections shall be provided to the CLIENT. The form of report and type and format of the videotape shall be approved by the JURISDICTIONAL GOVERNING ENTITY.

All sewers and appurtenances shall be cleaned prior to inspection and testing required by this section.

All defects and corrective work required as the result of television inspection shall be performed by the CONTRACTOR without delay. All dips, cracks, leaks, improperly sealed joints and departures from approved grades and alignment shall be repaired by removing and replacing the involved sections of pipe. Upon completion thereof, the sewer shall be retested and such further inspection made as may appear warranted by the CLIENT.

MISCELLANEOUS

a. All abandoned sanitary sewers shall be plugged at both ends with 2-ft long non-shrink concrete or mortar plugs.

b. All floor drains shall be connected to the sanitary sewer.

C. WATER MAINS AND APPURTENANCES

WATER MAIN PIPE (3" AND LARGER)

Water main pipe shall conform to the following:

(a) Ductile iron cement lined pipe conforming to the latest revision of ANSI SPECIFICATIONS A21 Class 52 with 150 psi working pressure or American Water Works Association Specification (AWWA), C150 or ASTM C296 with "push on" type joints.

Installation shall be in accordance with AWWA C603. All water main fittings shall be mechanical joint cast iron ANSI Specification A21.10 or compact ductile iron fittings (AWWA C-153) with 250 psi working pressure.

Poured or monolithic concrete thrust blocks are required to brace all tees, plugs, caps, and bends of 11 1/4 degree deflection or greater. Minimum cover for all water mains, including services, shall be 5'-6" from the finished grade. Water main shall include bedding and backfilling.

VALVES AND VAULTS

Valve and vaults shall be constructed in conformance with Section IIA Manholes, etc. above. Frame and lids shall be East Jordan Iron Works (EJIW) Catalog Number 1022-2 with Heavy Duty Solid Cover (minimum assembled weight of 300 lbs. or approved equal, with lids imprinted with the word "WATER". Valves shall be non-rising stem and shall close by turning clockwise. All valves shall be resilient wedge gate or ball valves conforming to the latest revision of AWWA Specification C500 with a rated working pressure of 200 psi in accordance with JURISDICTIONAL GOVERNING ENTITY requirements, except that butterfly valves shall be constructed on all water mains 16" diameter and larger. Valve vaults shall include valve, frame and grate, bedding, and trench backfill, if required.

VALVES AND BOXES

Valves and boxes shall be constructed in conformance with the standard detail. Valve boxes shall be Minneapolis style extension screw type having lids imprinted with the letters "Water" and shall close by turning clockwise. All valves shall be resilient wedge gate or ball valve conforming to the latest revision of AWWA Specification C500 with a rated working pressure of 200 psi in accordance with JURISDICTIONAL GOVERNING ENTITY requirements, except that butterfly valves shall be constructed on all water mains 16" diameter and larger.

TAP, STOPS AND BOX

The CONTRACTOR shall determine from the JURISDICTIONAL GOVERNING ENTITY as to the exact style, type, and manufacture of Corporation stops, ground key stops and services boxes preferred by the JURISDICTIONAL GOVERNING ENTITY and shall furnish same.

FIRE HYDRANTS

All Fire Hydrants on new water main shall be new Waterous Pacer Model WB-67 Fire Hydrants painted red.

SMALL WATER SERVICES (2" DIAMETER OR LESS)

Water services shall be type K copper size as shown on PLANS, and constructed where shown on the PLANS. The ends of all services shall be marked with a 4"x4" post extending 36" above grade and painted blue. The CONTRACTOR shall keep accurate records of tap locations and service box locations, as well as the service lengths and furnish same to CLIENT. Water services shall include bedding and trench backfill.

DISINFECTION

Disinfections shall meet all of the requirements of the State of Illinois, Environmental Protection Agency, Public Water Supplies Division. The safe quality of the water supply shall be demonstrated by bacteriological analysis of samples collected at sampling taps on at least two consecutive days following disinfection of the mains and copies of the said report submitted to the JURISDICTIONAL GOVERNING ENTITY and the CLIENT.

PRESSURE TEST

Allowable leakage, test pressure and duration shall be as per the requirements of the JURISDICTIONAL GOVERNING ENTITY.

PRESSURE CONNECTION TO EXISTING WATER MAIN

The CONTRACTOR shall maintain system pressure on existing water main at all times. Existing water main shall be located and material excavated, and valve basin slab and main supports installed. The existing water main shall be cleaned and the exterior disinfected prior to making the tap (all materials used shall conform to AWWA C110).

BEDDING

Bedding shall be placed as shown on the detail.

D. STORM SEWERS AND APPURTENANCES

STORM SEWER PIPE

Storm sewer pipe shall conform to the following:

(a) Polyvinyl Chloride (PVC) Pipe: ASTM D3034, rated SDR 21, continually marked with manufacturer's name, pipe size, cell classification, SDR rating. Joints shall conform to ASTM D3212.

(b) Reinforced concrete pipe minimum Class IV in conformance with the latest revision of ASTM designation C-76 pipe with C443 joints.

Storm sewer shall include bedding and trench backfill.

MANHOLES, INLETS & CATCH BASINS

Manholes, Inlets and Catch Basins shall be constructed in conformance with Section IIA Manholes, etc. above. Frames and lids shall be East Jordan Iron Works (EJIW) Catalog Number 1022-2 with Heavy Duty Solid Cover (minimum assembled weight of 300 lbs. or approved equal, with lids imprinted with the word "STORM" and a "DUMP NO WASTE DRAINS TO CREEK" emblem. All frames and grates shall be provided such that the flange fully covers the opening plus 2" of the structure as a minimum. Manholes shall include steps, frame & grate, bedding and trench backfill.

BEDDING

Bedding shall be placed as shown on the detail.

MISCELLANEOUS

(a) All existing field drainage tile or storm sewers encountered or damaged during construction shall either be restored to their original condition, properly rerouted and/or connected to the storm sewer system.

(b) Footing drains shall be connected to sump pumps or discharged directly into storm sewers. Footing drains or drainage tile shall not be connected to the sanitary sewer.

III. ROADWAY AND PARKING LOT IMPROVEMENTS

STANDARDS

Work shall be completed in accordance with the applicable sections of the Standard Specifications for Road and Bridge Construction, Department of Transportation, State of Illinois, latest edition.

SUBGRADE PREPARATION

The CONTRACTOR shall be responsible for all subgrade compaction and preparation to ±0.1-foot of the proposed subgrade elevation with the average subgrade elevation to be within ±0.02-feet of the proposed subgrade grade elevation.

BITUMINOUS BASE COURSE

Bituminous base course shall be installed where shown on the PLANS and shall have a Marshall stability of 750 or greater.

AGGREGATE BASE COURSE TYPE 'B'

Compacted aggregate base course type "B" shall be constructed using IDOT Type CA6 materials and shall be placed where shown on the PLANS.

BITUMINOUS CONCRETE, BINDER AND SURFACE COURSE

Bituminous pavement shall consist of bituminous concrete binder and surface courses (IDOT) Class I, to the compacted thickness as shown on the PLANS. The base course shall be cleaned and primed in accordance with the JURISDICTIONAL GOVERNING ENTITY. The bituminous concrete surface course shall be placed after the base course has gone through one winter season, as directed by the CLIENT. Prior to the placement of the bituminous concrete surface, the JURISDICTIONAL GOVERNING ENTITY shall examine the completed pavement, including curb and gutter, and all failures shall be corrected by the CONTRACTOR.

SIDEWALKS

Concrete sidewalks shall be constructed to width and thickness as shown on the PLANS. Sidewalks shall be thickened to a minimum of 8" at all driveways. All sidewalks shall be IDOT Class SI concrete, on aggregate base as shown on the detail. A ¾" expansion joint shall be provided when meeting existing sidewalk.

CURB AND GUTTER

Curb and gutter shall be as per the detail shown on the PLANS, which shall include compacted aggregate base course under the curb and gutter. All contraction and expansion joints shall be constructed as per the detail.

CONCRETE PAVEMENTS

Concrete pavements shall be constructed as shown on the PLANS. Slabs shall be constructed on an aggregate base course Type B. Driveway entrance aprons shall be constructed with 6"x6" - W2.9xW2.9 welded wire fabric on an aggregate base course Type B. The CONTRACTOR shall sawcut joints in concrete pavements immediately after installation.

CONCRETE CURB REMOVAL AND REPLACEMENT

The CONTRACTOR shall saw cut and remove the existing concrete curb where shown on the PLANS and install a curb of similar cross section and pavement to that removed (or depressed curb and gutter if shown on the PLANS). Upon completion of the curb all voids, if any, between the existing pavement and the new curb shall be filled with concrete to within 2" of the final surface, which is to be filled with bituminous pavement. The area behind the curb shall be filled and compacted with embankment material within 6" of the top of the new curb. The CONTRACTOR shall then restore the remaining 6" to its original condition (i.e., sod, gravel, topsoil). Where proposed curb connects to an existing curb, the existing curb shall be saw cut and then two 18" long x ⅝" (#6) dowel bars shall be drilled and installed 9" into the existing and proposed curb. Bars shall be installed in a location similar to the expansion joint in the curb.

PROOF ROLLING

The CONTRACTOR shall provide a fully loaded vehicle, size approved by the CLIENT or JURISDICTIONAL GOVERNING ENTITY if required. Proof rolling shall be observed by the CLIENT and JURISDICTIONAL GOVERNING ENTITY. It shall be at the CLIENT's option which of the following methods of proof rolling is to be completed:

(a) If the base course is proof-rolled and passes, then the binder course and the surface course may be placed without further proof rolling.

(b) If the binder course is placed it will be proof-rolled when the CLIENT requests and the surface course shall not be applied until the binder course passes a proper proof rolling.

In any case, the base course and/or the binder course shall be repaired before proceeding to the next step.

PAVEMENT MARKING - PAINT

The CONTRACTOR shall furnish and apply painted marking lines, letters & symbols of the patterns, sizes and colors where shown on the PLANS. Paint shall be as follows:

Federal SPECIFICATIONS and Standards:

1. A-A-2886A Paint, Traffic, Solvent Based (supercedes FS TT-P-85E and FS-TT-P-115F, Type I).

American Association of State Highway and Transportation (AASHTO)

1. AASHTO M248 Ready-Mixed White and Yellow Traffic Paints

PAVEMENT MARKING - THERMOPLASTIC

The CONTRACTOR shall furnish and apply extruded thermoplastic pavement marking lines, letters and symbols of the patterns, sizes and colors where shown on the PLANS. Thermoplastic pavement marking shall be installed in accordance with the IDOT Standard Specifications.

INSURANCE AND LEGAL

HOLD HARMLESS

To the fullest extent permitted by law, the CONTRACTOR shall waive any right of contribution and shall indemnify and hold harmless the ENGINEER, its agents, employees and consultants from and against all claims, damages, losses and expenses, including but not limited to, attorneys' fees and economic or consequential damages, arising out of or resulting from or in connection with the performance of their work. However, this indemnity agreement shall not require the CONTRACTOR to indemnify the ENGINEER, it s consultants, agents or employees against its own negligence.

Claims, damages, losses and expenses as these words are used in the Agreement shall be construed to include, but not be limited to (1) injury or damage consequent upon the failure of or use or misuse of any hoist, rigging, blocking, scaffolding or any and all other kinds of items of equipment, whether or not the same be owned, furnished or loaned by the CONTRACTOR; (2) all attorneys' fees and costs incurred in bringing an action to enforce the provisions of this indemnity or any other indemnity; and (3) time expended by the party being indemnified and their employees, at their usual rates plus costs or travel, long distance telephone and reproduction of documents.

Only to the extent necessary to prevent this provision from being void under Statute 740 ILCS 35/1, this indemnity agreement shall not require the CONTRACTOR to indemnify the ENGINEER, its consultants, agents or employees against its own negligence.

INSURANCE

CONTRACTOR will purchase insurance to protect the ENGINEER and its consultants, agents, and employees from any claims for bodily injuries or property damage arising out of the construction work, including but not limited to naming the ENGINEER and its consultants, agents and employees as additional named insureds under the CONTRACTOR'S general liability policy applicable to the project, which must contain a clause stating that it is primary coverage for the ENGINEER with ENGINEER'S other applicable coverage to be considered excess.

THIRD PARTY BENEFICIARY

The ENGINEER is intended to be a third party beneficiary of the construction contract.

REVISIONS

2	01-13-23	REVISED PER VILLAGE REVIEW
1	12-15-22	REVISED PER VILLAGE REVIEW

CIVIL ENGINEERS - PLANNERS - DEVELOPMENT CONSULTANTS
CIVWORKS Consulting, LLC
3343 N. NEVA AVENUE
CHICAGO, ILLINOIS 60634
Ph: (312) 637-9570
Fax: (312) 637-9454
E-mail: info@civworks.com
Web: www.civworks.com

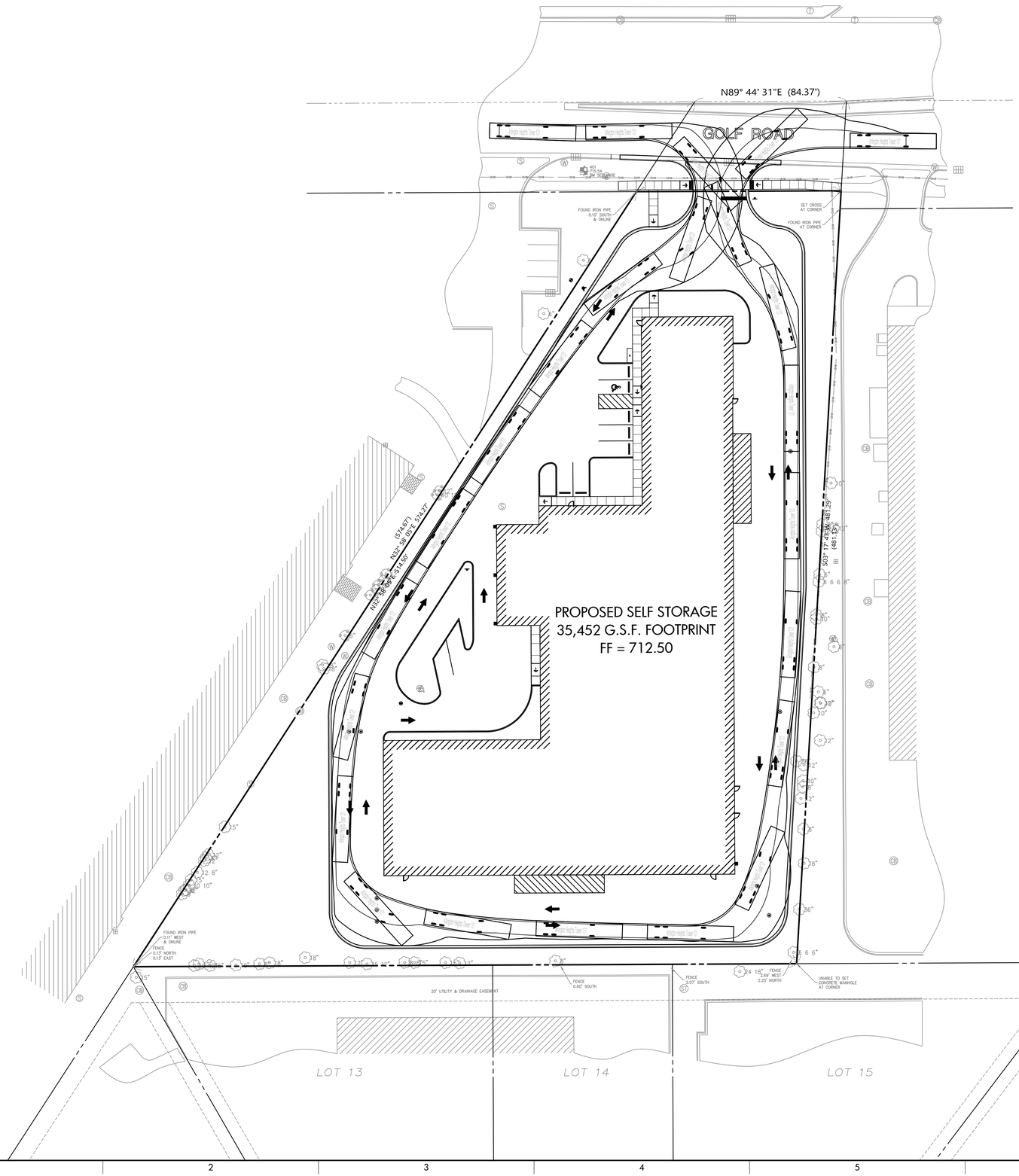
SHEET TITLE: GENERAL CONDITIONS AND DETAILED SPECIFICATIONS

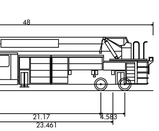
PROJECT: PROPOSED SELF STORAGE
401 W. GOLF ROAD, ARLINGTON HEIGHTS, IL 60005

PROJ. MGR.:	OP
DRAWN BY:	OP
FIRST ISSUE DATE:	11-11-2022
SCALE:	N.T.S.

SHEET NO.
C7.0

PROJ. NUMBER: 22013





Arlington Heights Tower 131	
Overall Length	48.000ft
Overall Width	8.500ft
Overall Body Height	11.67ft
Min Body Ground Clearance	0.671ft
Track Width	6.910ft
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	43.610ft

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 INCH = 30 FT

REVISIONS

1	12-15-22	REVISED PER VILLAGE REVIEW

CIVIL ENGINEERS - PLANNERS - DEVELOPMENT CONSULTANTS
CIVWORKS Consulting, LLC
3343 N. NEVA AVENUE
CHICAGO, ILLINOIS 60634
Ph: (312) 637-9570
Fax: (312) 637-9454
E-mail: info@civworks.com
Web: www.civworks.com

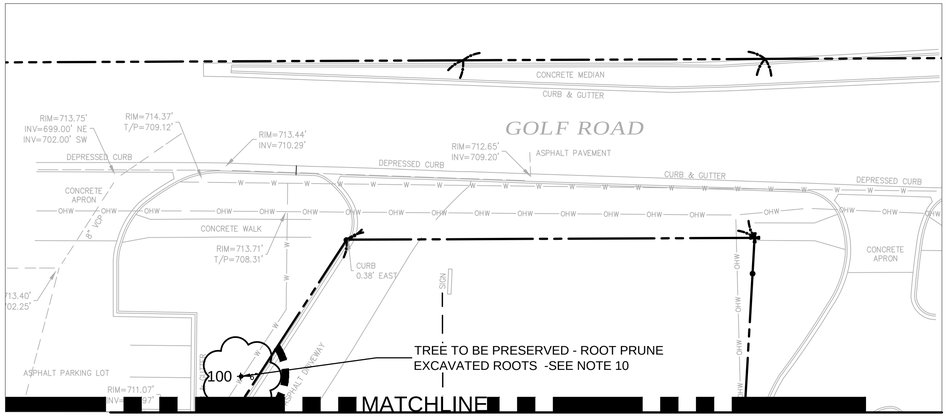
SHEET TITLE: FIRE TRUCK TURN EXHIBIT

PROJECT: PROPOSED SELF STORAGE
401 W. GOLF ROAD, ARLINGTON HEIGHTS, IL 60005

PROJ. MGR.:	OP
DRAWN BY:	OP
FIRST ISSUE DATE:	11-11-2022
SCALE:	1"=30'

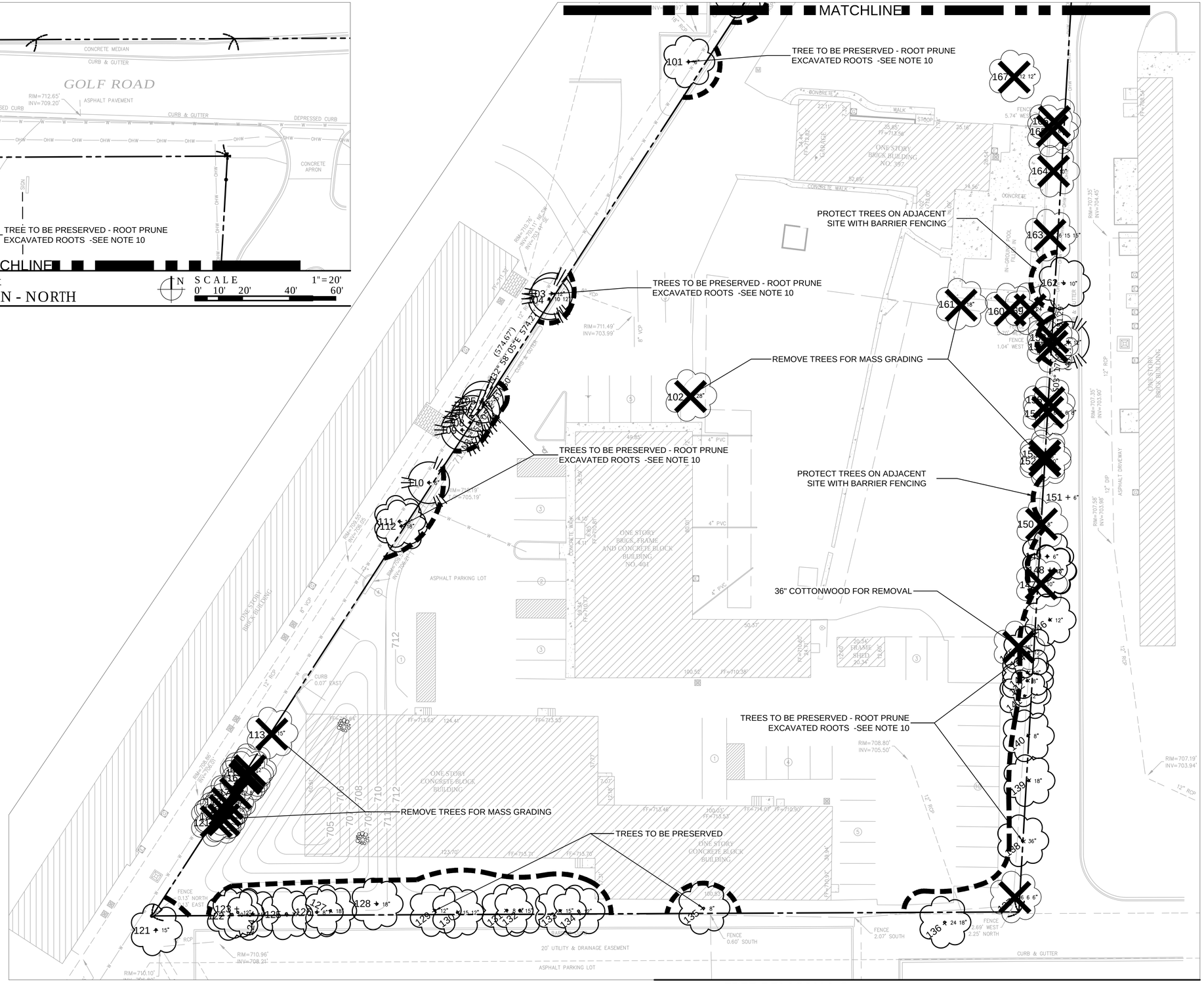
SHEET NO.
TR1.0

PROJ. NUMBER: 22013



2 TREE REMOVAL & PROTECTION PLAN - NORTH

N SCALE 1"=20'
0' 10' 20' 40' 60'



1 TREE REMOVAL & PROTECTION PLAN - SOUTH

N SCALE 1"=20'
0' 10' 20' 40' 60'

TREE PROTECTION & REMOVAL LEGEND

- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- BARRIER FENCING TO BE INSTALLED

LG Workshop,LLC
Landscape Architecture
Site Planning
Illustration
2324 W. Armitage Avenue
Chicago, IL 60647
ph. 773.697.4388
www.LGWLA.com

SEAL

LICENSED LANDSCAPE ARCHITECT
LARRY C. GLASSCOCK JR
157-001000
STATE OF ILLINOIS

EXPIRES 08/2023

PROJECT TEAM

CIVIL ENGINEER:

CivWorks Consulting, LLC

PROJECT NAME

Storage Facility

401 W. Golf Rd.
Arlington Heights, IL

DRAWING ISSUED

NO.	TITLE	DATE
	Issued for Review	11/30/2022
1.	Per Village Comments	12/15/2022
2.	Per Village Comments	01/13/2023

SET TYPE
LANDSCAPE PLANS

PROJECT NUMBER
2211034

DATE
11-22-2022

DRAWN BY:	APPROVED BY:
LCG	LCG

SHEET TITLE
TREE PROTECTION & REMOVAL PLAN

SHEET NUMBER
L1.0

SURVEY OF EXISTING TREES

TREE #	SIZE	SCIENTIFIC NAME	COMMON NAME	BEST 1 CONDITION	COMMENTS
100	6"	MALUS SSP	CRABAPPLE	4	OFFSITE - PRESERVE
101	6"	MALUS SSP	CRABAPPLE	4	OFFSITE - PRESERVE
102	22"	QUERCUS RUBRA	RED OAK	5	REMOVE FOR DEVEL.
103	12"	JUNIPERUS CHIN.	JUNIPER	5	OFFSITE - PRESERVE
104	12,10"	JUNIPERUS CHIN.	JUNIPER	5	OFFSITE - PRESERVE
105	12"	JUNIPERUS CHIN.	JUNIPER	5	OFFSITE - PRESERVE
106	8"	JUNIPERUS CHIN.	JUNIPER	4	OFFSITE - PRESERVE
107	10"	ACER NEGUNDO	BOX ELDER	4	OFF SITE, PROTECT
108	8"	JUNIPERUS SSP.	JUNIPER SSP.	2	OFF SITE, PROTECT
109	6"	JUNIPERUS CHIN.	JUNIPER	5	OFF SITE, PROTECT
110	6"	JUNIPERUS CHIN.	JUNIPER	4	OFF SITE, PROTECT
111	18"	POPULUS SSP	COTTONWOOD	2	REMOVE FOR GRAD.
112	18"	POPULUS SSP	COTTONWOOD	2	REMOVE FOR GRAD.
113	15"	POPULUS SSP	COTTONWOOD	2	REMOVE FOR GRAD.
114	12"	POPULUS SSP	COTTONWOOD	2	REMOVE FOR GRAD.
115	6"	POPULUS SSP	COTTONWOOD	2	REMOVE FOR GRAD.
116	12"	ACER NEGUNDO	BOX ELDER	2	REMOVE FOR GRAD.
117	12,8"	DEAD TRUNK		0	REMOVE
118	15"	POPULUS SSP.	COTTONWOOD	3	REMOVE FOR GRAD.
119	10,10"	DEAD TRUNK		0	REMOVE
120	12"	POPULUS SSP	COTTONWOOD	2	REMOVE FOR GRAD.
121	8"	UNIDENTIFIED		3	OFF SITE - PROTECT
122	10"	ULMUS PUMILA	SIBERIAN ELM	2	PROTECT
123	12"	ULMUS PUMILA	SIBERIAN ELM	3	PROTECT
124	15"	ULMUS PUMILA	SIBERIAN ELM	2	PROTECT
125	10"	POPULUS SSP	COTTONWOOD	3	PROTECT
126	8"	ULMUS PUMILA	SIBERIAN ELM	2	PROTECT
127	18"	POPULUS SSP	COTTONWOOD	3	PROTECT
128	18"	ULMUS PUMILA	SIBERIAN ELM	2	PROTECT
129	12"	POPULUS SSP	COTTONWOOD	3	PROTECT
130	12,15"	POPULUS SSP	COTTONWOOD	3	PROTECT
131	8"	POPULUS SSP	COTTONWOOD	4	PROTECT
132	15"	ULMUS PUMILA	SIBERIAN ELM	3	PROTECT
133	15"	ACER NEGUNDO	BOX ELDER	2	PROTECT

TREE SURVEY PERFORMED VIA GOOGLE STREETVIEW AND CLIENT PHOTOS. MOST OF THE TREES IN THE BOUNDARY TREE LINE ARE WEED TREES, WITH SEVERAL DESIRABLE BIRCH AND OAK TO BE REMOVED FROM THE CENTER OF THE SITE.

TREE #	SIZE	SCIENTIFIC NAME	COMMON NAME	BEST 1 CONDITION	COMMENTS
134	12"	ACER NEGUNDO	BOX ELDER	3	PROTECT
135	8"	UNIDENTIFIED	UNIDENTIFIED	4	PROTECT
136	24,18"	UNIDENTIFIED	UNIDENTIFIED	4	PROTECT
137	6,6,6"	RHAMNUS	BUCKTHORN	0	REMOVE
138	36"	ULMUS PUMILA	SIBERIAN ELM	3	REMOVE FOR DEVEL.
139	18"	CELTIS OCCIDENTALIS	COMMON HACKBERRY	4	PROTECT
140	8"	POPULUS SSP	COTTON WOOD	3	PROTECT
141	12"	POPULUS SSP	COTTON WOOD	2	PROTECT
142	8"	POPULUS SSP	COTTON WOOD	2	PROTECT
143	10"	POPULUS SSP	COTTON WOOD	2	PROTECT
144	12"	POPULUS SSP	COTTON WOOD	2	PROTECT
145	36"	POPULUS SSP	COTTON WOOD	2	REMOVE FOR DEVEL
146	12"	POPULUS SSP	COTTON WOOD	2	PROTECT
147	10"	POPULUS SSP	COTTON WOOD	2	REMOVE FOR DEVEL.
148	12,10"	POPULUS SSP	COTTON WOOD	2	REMOVE FOR DEVEL.
149	6"	MORUS ALBA	MULBERRY	2	REMOVE FOR DEVEL.
150	8"	POPULUS SSP	COTTONWOOD	2	REMOVE FOR DEVEL.
151	6"	POPULUS SSP	COTTONWOOD	2	OFF SITE, PROTECT
152	10"	POPULUS SSP	COTTONWOOD	3	REMOVE FOR DEVEL.
153	8"	POPULUS SSP	COTTONWOOD	3	REMOVE FOR DEVEL.
154	6,6,6,8"	MORUS ALBA	MULBERRY	3	REMOVE FOR DEVEL.
155	6"	DEAD STUMP		0	REMOVE
156	24"	PINUS STROBUS	WHITE PINE	3	REMOVE FOR DEVEL.
157	12"	ACER NEGUNDO	BOX ELDER	1	OFF SITE, PROTECT.
158	8"	DEAD STUMP		0	REMOVE
159	24"	PINUS STROBUS	WHITE PINE	3	REMOVE FOR DEVEL.
160	12"	ACER NEGUNDO	BOX ELDER	1	REMOVE FOR DEVEL.
161	18"	BETULA ALLEGHANIENSIS	YELLOW BIRCH	4	REMOVE FOR DEVEL.
162	10"	ACER NEGUNDO	BOX ELDER	1	OFF SITE, PROTECT.
163	36,10,15	DEAD STUMP		1	REMOVE
164	10"	ACER NEGUNDO	BOX ELDER	1	REMOVE FOR DEVEL.
165	6"	DEAD STUMP		0	REMOVE
166	6"	PYRUS SSP.	PEAR	3	REMOVE FOR DEVEL.
167	12"/12"	BETULA ALLEGHANIENSIS	YELLOW BIRCH	4	REMOVE FOR DEVEL.

TREE REPLACEMENT SCHEDULE - ALL TREES

SIZE OF EXISTING TREE	NUMBER OF REPLACEMENT TREES	QTY. REMOVED	QTY. REQUIRED
36"	8	2	16
30-35"	7	0	0
26-29"	6	1	6
20-25"	5	5	25
13-19"	4	5	20
8-12"	3	10	30
3-7"	2	3	6
TOTAL TREES		26	103

TREE REPLACEMENT SCHEDULE PREFERRED - ALL NON-WEED TREES

SIZE OF EXISTING TREE	NUMBER OF REPLACEMENT TREES	QTY. REMOVED	QTY. REQUIRED
36"	8	0	0
30-35"	7	0	0
26-29"	6	0	0
20-25"	5	3	15
13-19"	4	1	0
8-12"	3	0	0
3-7"	2	1	2
TOTAL TREES		4	17

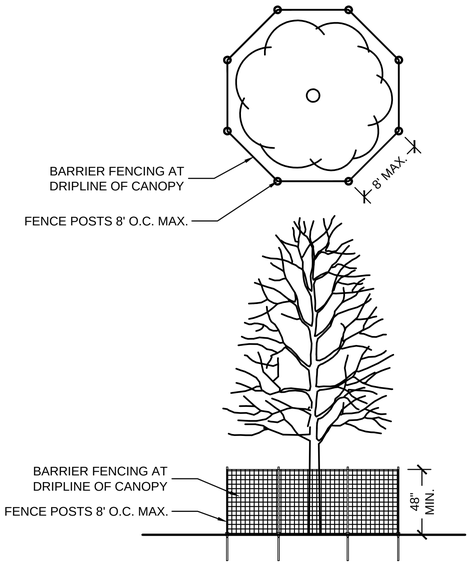
TOTAL REPLACEMENT TREES (4" CAL.) TO BE PLANTED ON-SITE 26

TREE PROTECTION & REMOVAL NOTES

1. CONTRACTOR SHALL OBTAIN ALL NECESSARY STATE AND LOCAL PERMITS AND PERMISSIONS TO PRUNE, REMOVE, AND/OR TRANSPLANT ANY TREES ON SITE.
2. DEAD AND DYING MATERIAL ON THE SITE SHALL BE REMOVED OR PRUNED. MATERIALS NOT LABELED ON THE PROTECTION PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR REMEDIATION.
3. DURING CONSTRUCTION EXISTING TREES OVER FOUR INCHES IN CALIPER SHALL BE PROTECTED WITH BARRIER FENCING.
4. BARRIER SHALL BE CONSTRUCTED OF A MIN. 3' TALL SNOW FENCE OR SIMILAR AND SUPPORT POSTS MIN. 6' O.C. AND SHALL BE ERECTED ONE FOOT BEYOND THE DRIP LINE OFF ALL EXISTING TREES ON SITE AND ADJACENT SITES TO REMAIN.
5. BARRIER FENCING SHOWN ON THE PLAN IS APPROXIMATE. CONTRACTOR SHALL ADJUST LOCATION OF BARRIER TO POSITION OUTLINED IN COMMENT 4.
6. NO EXCESS SOIL OR ADDITIONAL FILL, BUILDING MATERIALS OR DEBRIS SHALL BE PLACED WITHIN THE PROTECTIVE BARRIER.
7. NO VEHICLES OR HEAVY MACHINERY SHALL BE ALLOWED TO WORK WITHIN THE BARRIER AREA.
8. NO ATTACHMENTS OR WIRES, OTHER THAN PROTECTIVE GUY WIRES, SHALL BE ATTACHED TO ANY OF THE TREES WHICH ARE WITHIN PROTECTIVE BARRIER.
9. STUMPS OR TREE REMAINS NOT TO BE FULLY EXCAVATED SHALL BE REMOVED. A STUMP GRINDER SHALL BE USED TO REMOVE ALL REMAINING ROOTS AND WOODY MATERIAL. WITHIN A 24" RADIUS OF THE TREE TRUNK TO MIN. 6" BELOW GRADE. DISTURBED AREA SHALL BE BACKFILLED WITH COMPACTED TOPSOIL TO MEET SURROUNDING GRADES.
10. ROOT PRUNING. IF SOIL UNDER TREE CANOPIES IS TO BE EXCAVATED BELOW EXISTING SUBGRADE LEVEL, A LICENSED ARBORIST SHALL BE ON-SITE TO PERFORM ROOT PRUNING ON ANY ROOTS EXPOSED BY EXCAVATION LARGER THAN 1-1/2" IN DIAMETER. IF ROOTS LARGER THAN 2" IN DIAMETER, CROWN OF TREE SHALL BE PRUNED TO COMPENSATE FOR THE ROOT LOSS.

EXISTING VEGETATION DESCRIPTION

THE PROJECT SITE CONSISTS OF A VACANT RESIDENTIAL / COMMERCIAL SITE. BOUNDARY TREES ALONG THE PROPERTY LINES CONSIST OF MAINLY LARGE WEED TREES AND STUMPS. SEVERAL NICE SPECIMENS ARE INCLUDED IN THE CENTER OF THE SITE INCLUDING; BIRCH, A RED OAK, JUNIPERS AND CRABAPPLES ARE IN GOOD CONDITION.



1 TREE PRESERVATION FENCING DETAIL — NOT TO SCALE

LG Workshop, LLC
Landscape Architecture
Site Planning
Illustration
2324 W. Armitage Avenue
Chicago, IL 60647
ph. 773.697.4388
www.LGWLA.com

SEAL

LICENSED LANDSCAPE ARCHITECT — LARRY C. GLASSCOCK JR. 157-001000 — STATE OF ILLINOIS

EXPIRES 08/2023

PROJECT TEAM

CIVIL ENGINEER:

CivWorks Consulting, LLC

PROJECT NAME

Storage Facility

401 W. Golf Rd.
Arlington Heights, IL

DRAWING ISSUED

NO.	TITLE	DATE
	Issued for Review	11/30/2022
1.	Per Village Comments	12/15/2022
2.	Per Village Comments	01/13/2023

SET TYPE
LANDSCAPE PLANS

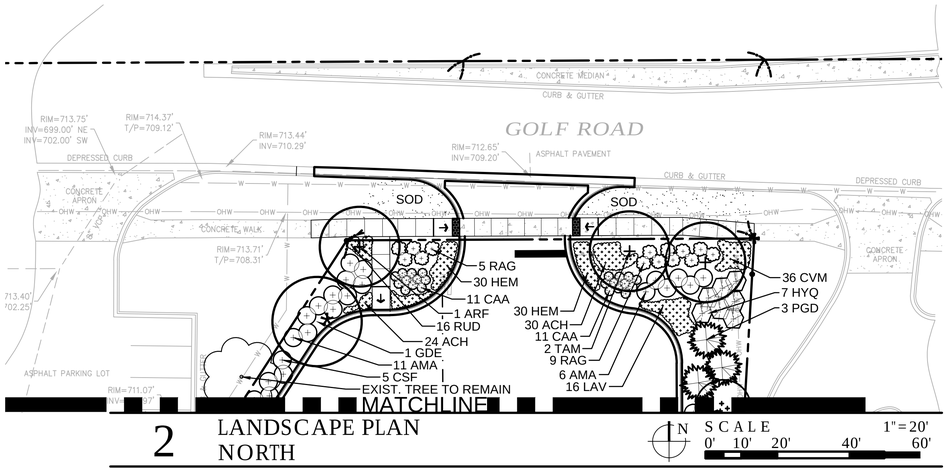
PROJECT NUMBER
2211034

DATE
11-22-2022

DRAWN BY: LCG | APPROVED BY: LCG

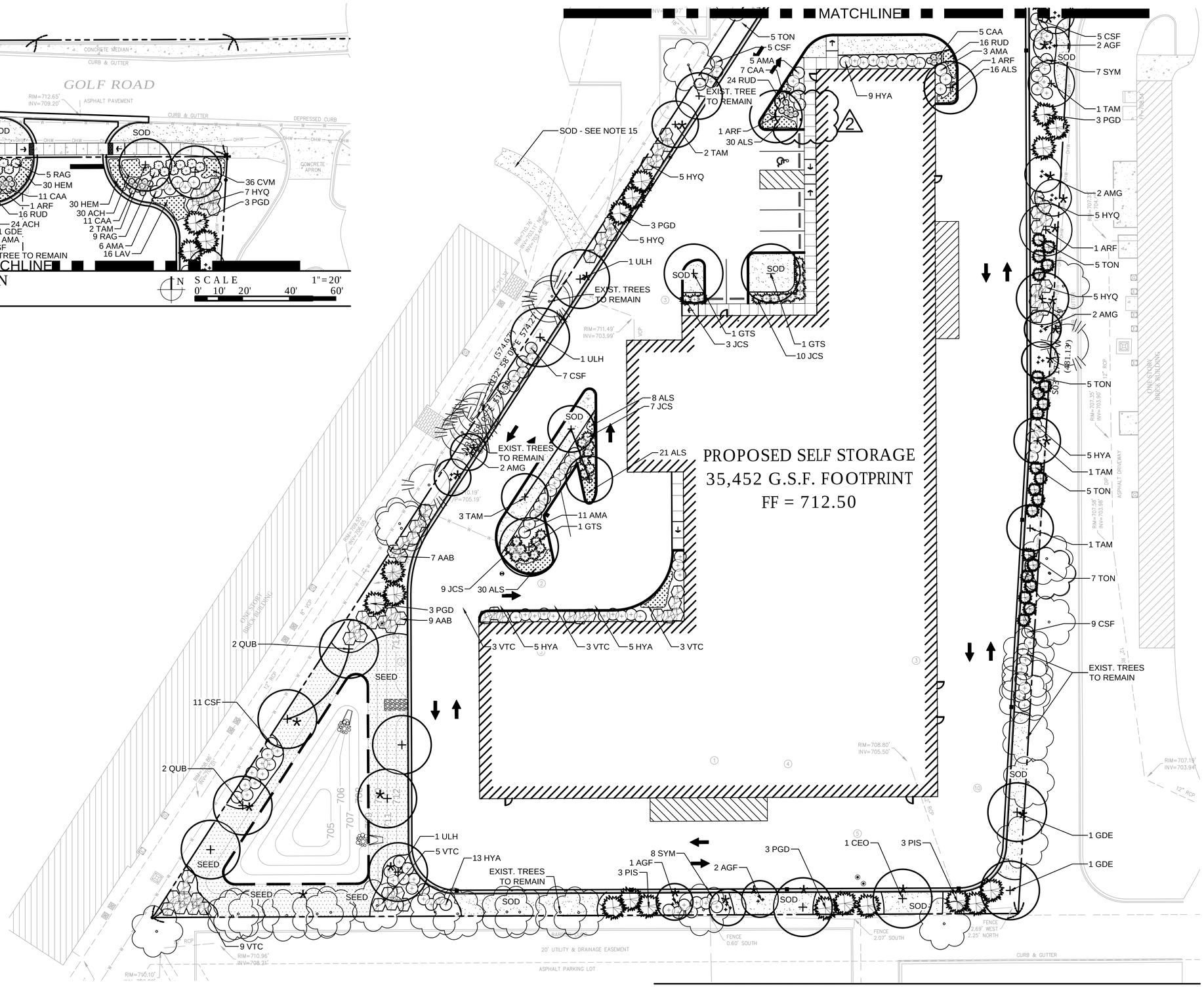
SHEET TITLE
TREE PROTECTION & REMOVAL PLAN

SHEET NUMBER
L1.1



2 LANDSCAPE PLAN NORTH

SCALE 1"=20'
0' 10' 20' 40' 60'



1 LANDSCAPE PLAN SOUTH

SCALE 1"=20'
0' 10' 20' 40' 60'

LANDSCAPE LEGEND

- EXISTING TREE
- PROPOSED SHADE TREE
- PROPOSED EVERGREEN TREE
- PROPOSED ORNAMENTAL TREE
- PROPOSED LARGE SHRUB
- PROPOSED MEDIUM SHRUB
- PROPOSED EVERGREEN SHRUB
- PROPOSED LOW SHRUB
- PROPOSED ORNAMENTAL GRASS
- PROPOSED PERENNIAL PLANTING
- SODDED LAWN
- SEEDED LAWN
- REPLACEMENT TREE FOR REMOVALS

LG Workshop, LLC
Landscape Architecture
Site Planning
Illustration
2324 W. Armitage Avenue
Chicago, IL 60647
ph. 773.697.4388
www.LGWLA.com

SEAL

LICENSED LANDSCAPE ARCHITECT
LARRY C. GLASSCOCK JR
157-001000
STATE OF ILLINOIS
EXPIRES 08/2023

PROJECT TEAM

CIVIL ENGINEER:
CivWorks Consulting, LLC

PROJECT NAME

Storage Facility

401 W. Golf Rd.
Arlington Heights, IL

DRAWING ISSUED

NO.	TITLE	DATE
	Issued for Review	11/30/2022
1.	Per Village Comments	12/15/2022
2.	Per Village Comments	01/13/2023

SET TYPE
LANDSCAPE PLANS

PROJECT NUMBER
2211034

DATE
11-22-2022

DRAWN BY:	APPROVED BY:
LCG	LCG

SHEET TITLE

LANDSCAPE PLAN

SHEET NUMBER

L2.0

LANDSCAPE NOTES

1. CONTRACTOR SHALL OBTAIN ALL NECESSARY LOCAL PERMITS AND PERMISSIONS TO INSTALL THE PROPOSED IMPROVEMENTS

2. ALL LANDSCAPE MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE VILLAGE OF ARLINGTON HEIGHTS LANDSCAPING CODES AND ZONING ORDINANCES.

3. PRIOR TO COMMENCING ANY WORK, CONTRACTOR SHALL HAVE DIGGERS HOTLINE LOCATE AND MARK ALL UNDERGROUND UTILITY FACILITIES AND LINES.

4. ALL PLANT MATERIALS (EXCEPT FOR GROUNDCOVER, ANNUALS, AND PERENNIALS) SHALL BE BALLED AND BURLAPPED STOCK AND MEET CURRENT STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S STANDARD FOR NURSERY STOCK (ANSI 260.1-1986) OR EQUAL. PLANT MATERIALS MUST BE SUPPLIED WITHIN A 150 MILE RADIUS OF PROJECT SITE WITHIN NORTHEAST ILLINOIS. CONTRACTOR MAY SUBSTITUTE CONTAINER STOCK FOR SHRUBS IF SIZES ARE EQUAL TO SPECIFIED B&B STOCK, WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT.

5. IF SPECIFIED PLANTS ARE NOT AVAILABLE AT THE TIME OF ORDERING, PLANTS WITH SIMILAR WHOLESALE VALUE AND LANDSCAPE CHARACTERISTICS MAY BE SUBSTITUTED UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT AND VILLAGE STAFF.

6. SOIL IN GROUNDCOVER BEDS SHALL BE AMENDED USING 2 INCHES OF MUSHROOM COMPOST INCORPORATED INTO THE TOP 4 INCHES OF SOIL.

7. DISTURBED AREAS TO RECEIVE SOD SHALL BE TILLED TO 6" DEPTH AND FINE GRADED TO PROVIDE SMOOTH BASE SURFACE. IF EXISTING SOIL IS A MAJORITY OF CLAY OR UNSUITABLE, 2" OF FINE GRADED TOPSOIL SHALL BE ADDED PRIOR TO TILLING. EXISTING SOD AREAS SHALL HAVE TURF REMOVED WITH AUTOMATED SODCUTTER OR HAND SPACE TO REMOVE ALL BLADES AND ROOTS. 1" OF FIND GRADED TOPSOIL SHALL BE TILLED AND GRADED.

8. TREE AND SHRUB BACKFILL MIXTURE SHALL BE 2 PARTS EXIST. NATIVE TOPSOIL AND 1 PART SPHAGNUM PEAT MOSS W/ DECOMPOSED MANURE.

9. ALL SHRUB BEDS AND INDIVIDUAL TREE PLANTINGS, UNLESS OTHERWISE NOTED, SHALL RECEIVE A 4 INCH LAYER OF SHREDDED HARDWOOD MULCH. ALL GROUNDCOVER, ANNUAL AND PERENNIAL BEDS SHALL RECEIVE A 2 INCH LAYER OF THE SAME MULCH MATERIAL. COSTS FOR MULCH SHALL BE CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF PLANTINGS.

10. NURSERY TAGS (SPECIES, SIZE) FOR ALL SHADE TREES SHALL REMAIN ATTACHED TO TREES UNTIL FINAL APPROVAL FROM MUNICIPALITY.

11. THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE OWNER A BONDED WRITTEN ONE-YEAR WARRANTY AGREEMENT (BEGINNING ON THE OWNER'S POSSESSION DATE). THIS AGREEMENT SHALL COVER MAINTENANCE, REPAIR, AND REPLACEMENT OF ALL DEAD OR DAMAGED LANDSCAPING TO PRESERVE THE SAME QUANTITY AND QUALITY AS INITIALLY APPROVED.

12. CONTRACTOR SHALL PROVIDE A SEPARATE ESTIMATE FOR AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM FOR COMPLETE EFFECTIVE COVERAGE OF ALL LAWN AREAS AND SHRUB BEDS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL AND APPLY FOR ALL NECESSARY PERMITS PRIOR TO COMMENCING WORK. IRRIGATION PLANS SHALL INCLUDE HUNTER PRO-C CONTROLLER W/WIRELESS SOLAR SYNC STATION AND HUNTER SPRAYHEADS AND NOZZLES. IRRIGATION WORK SHALL BE WARRANTY ALL LABOR AND MATERIALS FOR 1 FULL YEAR AFTER INSTALLATION AND TESTING.

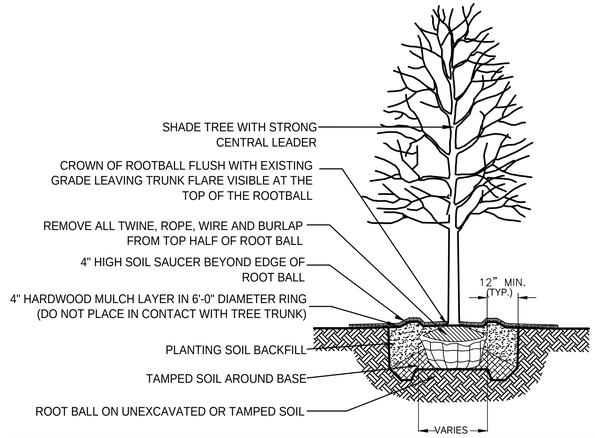
13. TREES AND SHRUBS SHALL NOT BE LOCATED CLOSER THAN TEN (10) FEET TO FIRE HYDRANTS, TRANSFORMERS OR OTHER ABOVE GROUND UTILITIES. ANY DISCREPANCY ON THE PLAN RELATED TO THESE PROXIMATE UTILITIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR RESOLUTION.

14. ADJACENT DRIVEWAY. GC SHALL APPROACH OWNER OF NEIGHBORING PROPERTY TO REQUEST PERMISSION TO REMOVE DRIVEWAY AND REPLACE WITH SOD. - INSTALL PER NOTE 7 ABOVE.

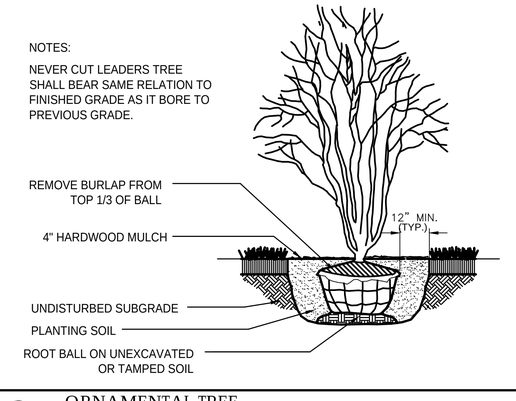
PLANT LIST

SYM	SIZE	QTY	BOTANICAL NAME	COMMON NAME	COMMENT
DECIDUOUS SHADE TREES					
ARF	4.0" cal.	7	Acer rubrum 'Frank Jr.'	Redpointe Red Maple	B&B
CEO	4.0" cal.	4	Celtis occidentalis	Common Hackberry	B&B
GDE	4.0" cal.	3	Gymnocladus dioicus 'Espresso'	Espresso Kentucky Coffeetree	B&B
GTS	4.0" cal.	1	Gleditsia triacanthos 'Shademaster'	Shademaster Honeylocust	B&B
TAM	4.0" cal.	8	Tilia americana 'MckSentry'	American Sentry Linden	B&B
ULH	4.0" cal.	5	Ulmus 'Heritage'	Heritage Elm	B&B
ORNAMENTAL TREES					
AGF	8' multi.	5	Acer ginnala 'Flame'	Flame Amur Maple	B&B
AMG	8' multi..	6	Amelanchier x grandiflora.	Shadblow Serviceberry	B&B
EVERGREEN TREES					
PGD	8' HT.	15	Picea glauca 'Densata'	Black Hills Spruce	B&B
PIS	8' HT.	6	Pinus strobus	White Pine	B&B
TON	6' HT.	27	Thuja occidentalis 'Nigra'	Dark Green Arborvitae	B&B
DECIDUOUS SHRUBS					
AAB	36" ht.	16	Aronia arbutifolia 'Brilliantissima'	Brilliant Red Chokeberry	B&B
AMA	24" ht.	36	Aronia melanocarpa 'Elata'	Elata Chokeberry	B&B
CSF	24" ht.	42	Cornus stolonifera 'Farrow'	Arctic Fire Redtwig Dogwood	B&B
HYA	24" ht.	39	Hydrangea arbor. 'annabelle'	Annabelle Hydrangea	B&B
HYQ	36" ht.	27	Hydrangea quercifolia 'Alice'	Alice Oakleaf Hydrangea	B&B
RAG	18" w.	14	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac	B&B
SYM	24" ht.	15	Syringa patula 'Miss Kim'	Miss Kim Korean Lilac	B&B
VTC	36" ht.	25	Viburnum trilobum 'Alfredo'	Alfredo American Cranberrybush	B&B
EVERGREEN SHRUBS					
JCS	24" ht.	29	Juniperus chinensis 'Sea Green'	Sea Green Juniper	B&B
ORNAMENTAL GRASSES					
CAA	#3 cont.	34	Calamagrostis acutifolia 'Strictus'	Strictus Feather Reed Grass	
GROUNDCOVER / PERENNIALS					
ACH	#1 cont.	54	Achillea Millefolium 'Paprika'	Paprika Yarrow	18" O.C.
ALS	#1 cont.	105	Allium 'summer beauty'	Summer Beauty Wild Onion	18" O.C.
CVM	#1 cont.	36	Coreopsis verticillata 'Moonbeam'	Moonbeam Coreopsis	18" O.C.
HEM	#1 cont.	60	Hemerocallis x 'Stella de oro'	stella de oro daylily	18" O.C.
LAV	#1 cont.	16	Lavendula 'Munstead strain'	Munstead English Lavender	24" O.C.
RUD	#1 cont.	56	Rudbeckia fulgida 'Goldsturm'	Goldsturm Black-Eyed Susan	18" O.C.
SOD	sq. yd.	450	Sodded Lawn		
SEED	sq. yd.	440	Seeded Native detention - See Below		

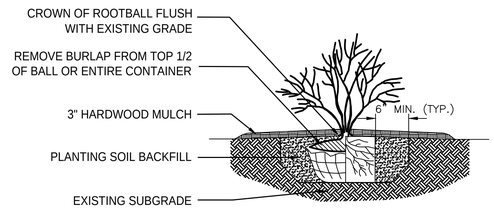
SEEDED NATIVE DETENTION TO BE SEDGE GHETTO TNG SEED MIX AVAILABLE THROUGH GENESIS NURSERY INC. TAMPICO, IL. 1-877-817-5325. INSTALL PER MANUFACTURERS RECOMMENDATIONS AND SEED RATE. TREAT ALL SLOPES WITH SC150BN OR SIMILAR EROSION CONTROL BLANKET.



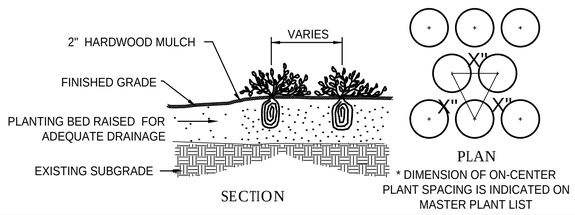
1 SHADE TREE PLANTING DETAIL — NOT TO SCALE



2 ORNAMENTAL TREE PLANTING DETAIL — NOT TO SCALE



3 SHRUB PLANTING DETAIL — NOT TO SCALE



4 PERENNIAL / ANNUAL PLANTING DETAIL — NOT TO SCALE

LG Workshop, LLC
Landscape Architecture
Site Planning
Illustration
2324 W. Armitage Avenue
Chicago, IL 60647
ph. 773.697.4388
www.LGWLA.com

SEAL

LICENSED LANDSCAPE ARCHITECT — LARRY C. GLASSCOCK JR. 157-001000 — STATE OF ILLINOIS

EXPIRES 08/2023

PROJECT TEAM

CIVIL ENGINEER:

CivWorks Consulting, LLC

PROJECT NAME

Storage Facility

401 W. Golf Rd.
Arlington Heights, IL

DRAWING ISSUED

NO.	TITLE	DATE
	Issued for Review	11/30/2022
1.	Per Village Comments	12/15/2022
2.	Per Village Comments	01/13/2023

SET TYPE
LANDSCAPE PLANS

PROJECT NUMBER
2211034

DATE
11-22-2022

DRAWN BY: LCG | APPROVED BY: LCG

SHEET TITLE
LANDSCAPE PLAN / DETAILS & NOTES

SHEET NUMBER
L3.0