# HERITAGE PLACE IN HISTORIC NAPERVILLE

140 N WRIGHT STREET NAPERVILLE, IL 60540 JOB NO. W20052.00 JULY 15, 2020 PRELIMINARY ENGINEERING

### INDEX TO DRAWINGS

SHEET 1 **COVER** 

SHEET 2 PLAT OF SURVEY

SHEET 3 **EXISTING CONDITIONS PLAN** 

SHEET 4 **GEOMETRY PLAN** 

SHEET 5 UTILITY PLAN

SHEET 6 **GRADING PLAN** 

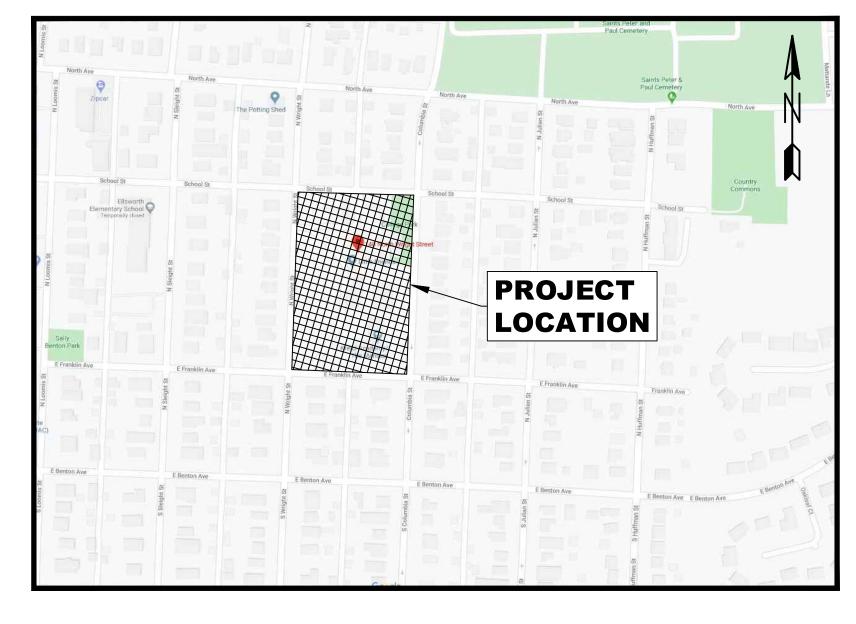
SHEET 7 **ADS DETAILS** 

SHEET 8 **ADS DETAILS** 

SHEET 9 **DETAILS** 

### PREPARED FOR:

RAM WEST CAPITAL LLC IN PARTNERSHIP WITH DJK CUSTOM HOMES **532 S WEBSTER STREET** NAPERVILLE, IL 60540 PH:(630) 369-1953



**LOCATION MAP** 

SITE BENCHMARKS ◆ CITY OF NAPERVILLE SURVEY MONUMENT STATION NUMBER: 1007 BERNSTEN 3D TOP SECURITY MONUMENT LOCATED AT

THE SOUTH SIDE OF THE "T" INTERSECTION OF CHARLES

STREET AND CHESHIRE LANE. ELEV.: 733.69 (NAVD 88)

SITE BENCHMARK (BM) #1 SOUTHWEST BONNET BOLT ON A FIRE HYDRANT LOCATED AT THE NORTHWEST CORNER OF THE INTERSECTION OF SCHOOL STREET AND WRIGHT STREET.

ELEV: 720.30 (NAVD 88)

SITE BENCHMARK (BM) #2 SOUTHWEST BONNÈT BOLT ON A FIRE HYDRANT LOCATED AT THE NORTHWEST CORNER OF THE INTERSECTION OF SCHOOL STREET AND COLUMBIA STREET.

ELEV: 724.89 (NAVD 88)

SITE BENCHMARK (BM) #3 NORTHWEST BONNÈT BOLT ON A FIRE HYDRANT LOCATED AT THE NORTHWEST CORNER OF THE INTERSECTION OF COLUMBIA STREET AND FRANKLIN AVENUE.

ELEV: 724.37 (NAVD 88)

SITE BENCHMARK (BM) #4 SOUTHWEST BONNET BOLT ON A FIRE HYDRANT LOCATED AT THE NORTHWEST CORNER OF THE INTERSECTION OF FRANKLIN AVENUE AND WRIGHT STREET.

ELEV: 719.96 (NAVD 88)



## **City of Naperville Survey Monument**

City of Naperville Transportation, Engineering, and Development (TED) Business Group 400 S. Eagle Street Naperville, IL 60540 Phone: 630-305-7001

Station No.: 705 **Date Established:** 07/12/1995

> Vertical 4th **Date Last Checked:** 11/15/2005

> > **NOTE**: The coordinates

Station Elevation: Naperville Field Checked: 10/09/2008 Note: Any and all parties utilizing the vertical elevation listed above should always check at least

one other monument.

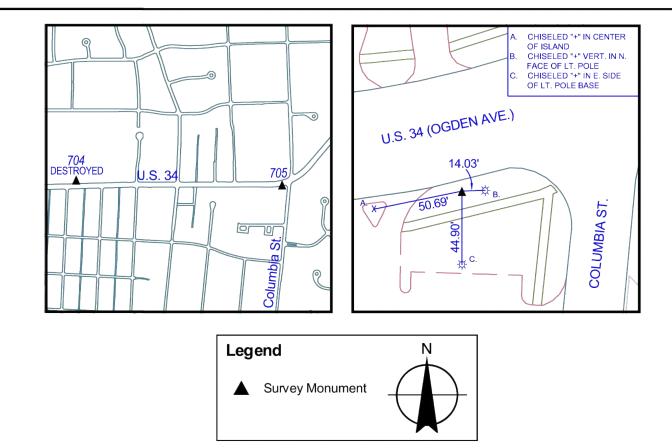
Horizontal Datum: NAD83 (2007) Illinois State Plane Transverse Mercator, East Zone

**East:** 1,037,790.39

**Order of Accuracy:** Horizontal 1st

shown are Illinois State Plane **<u>Lattitude:</u>** 41° 47′ 08.64678″ (N) **<u>Longitude:</u>** 088° 08′ 13.25503″

Bernsten 3D Top Security Monument. Consisting of a 9/16" Dia. Stainless Steel Datum Point On Threaded 9/16" x 4' Long Rod Totaling (8') In Length With Greased Top Security Sleeve Enclosed In Sand and 6" PVC Pipe With BMAC 6 Aluminum Access Cover.



For further data information please consult the National Geodetic Survey: www.ngs.noaa.gov

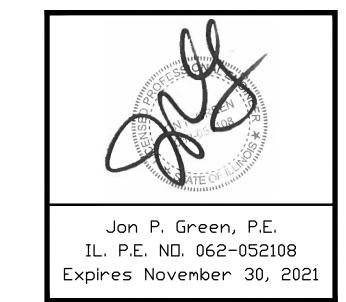




2416 GALEN DRIVE CHAMPAIGN, ILLINOIS 61821 PHONE (217) 351-6268 FAX (217) 355-1902

3S701 WEST AVENUE, SUITE 150 WARRENVILLE, ILLINOIS 60555 PHONE (630) 393-3060 FAX (630) 393-2152

10 S. RIVERSIDE PLAZA, SUITE 875 CHICAGO, ILLINOIS 60606 PHONE (312) 474-7841 FAX (312) 474-6099

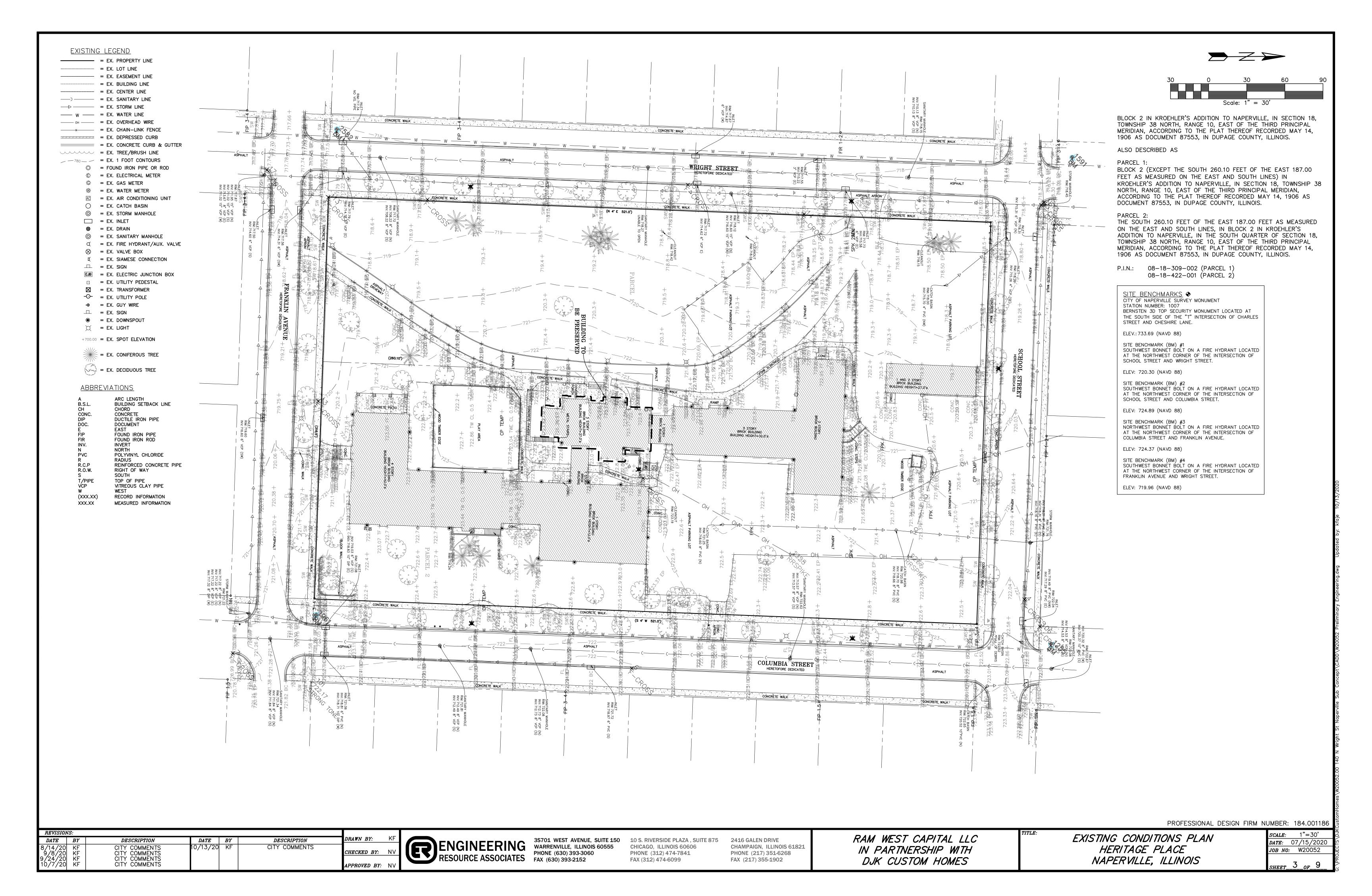


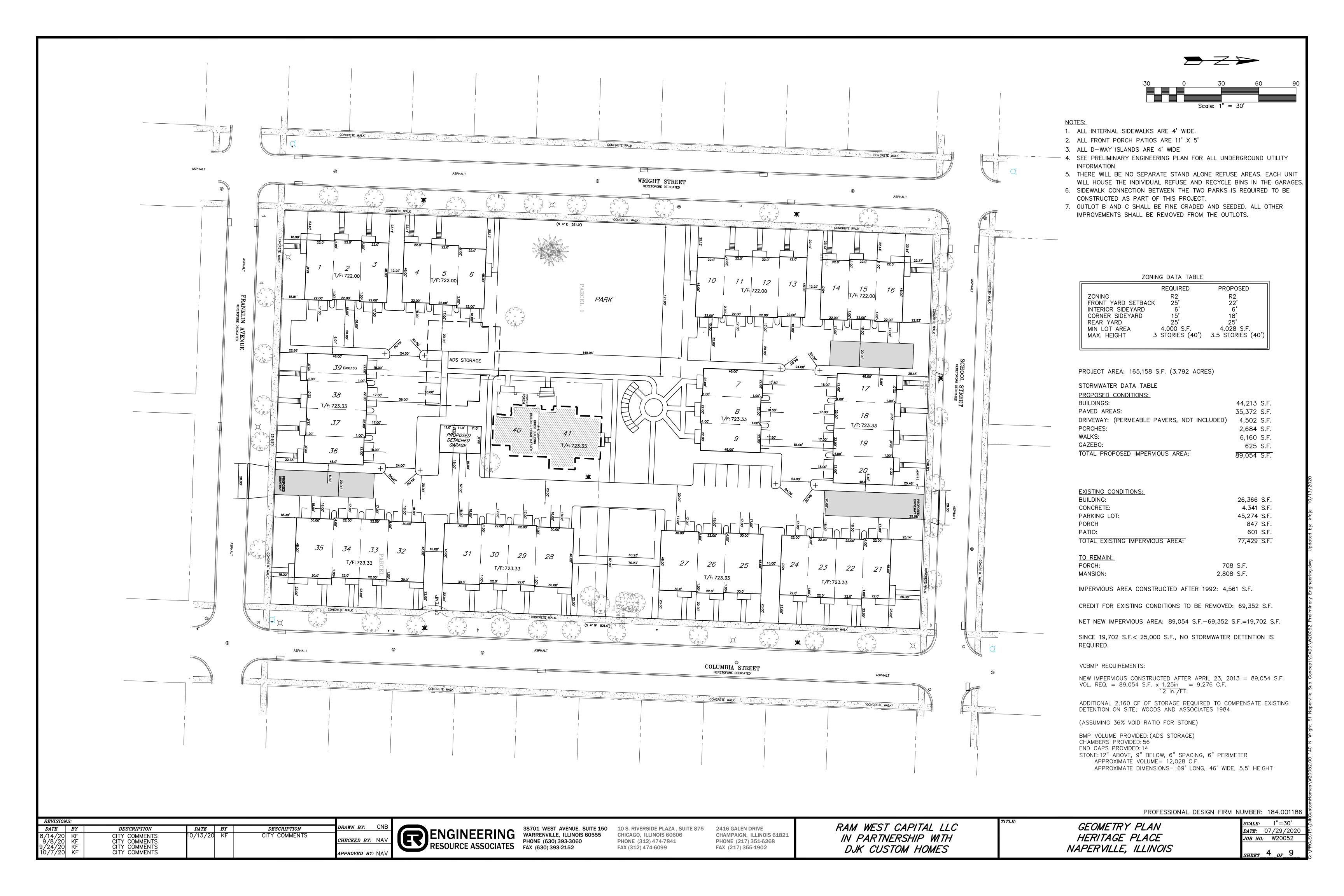
ERA JOB NO.: W20052.00 PLAN SET REVISED: OCTOBER 13, 2020 PLAN SET REVISED: OCTOBER 7, 2020 PLAN SET REVISED: SEPTEMBER 24, 2020 PLAN SET REVISED: SEPTEMBER 8, 2020 PLAN SET REVISED: AUGUST 14, 2020 ORIGINAL SUBMITTAL: JULY 15, 2020

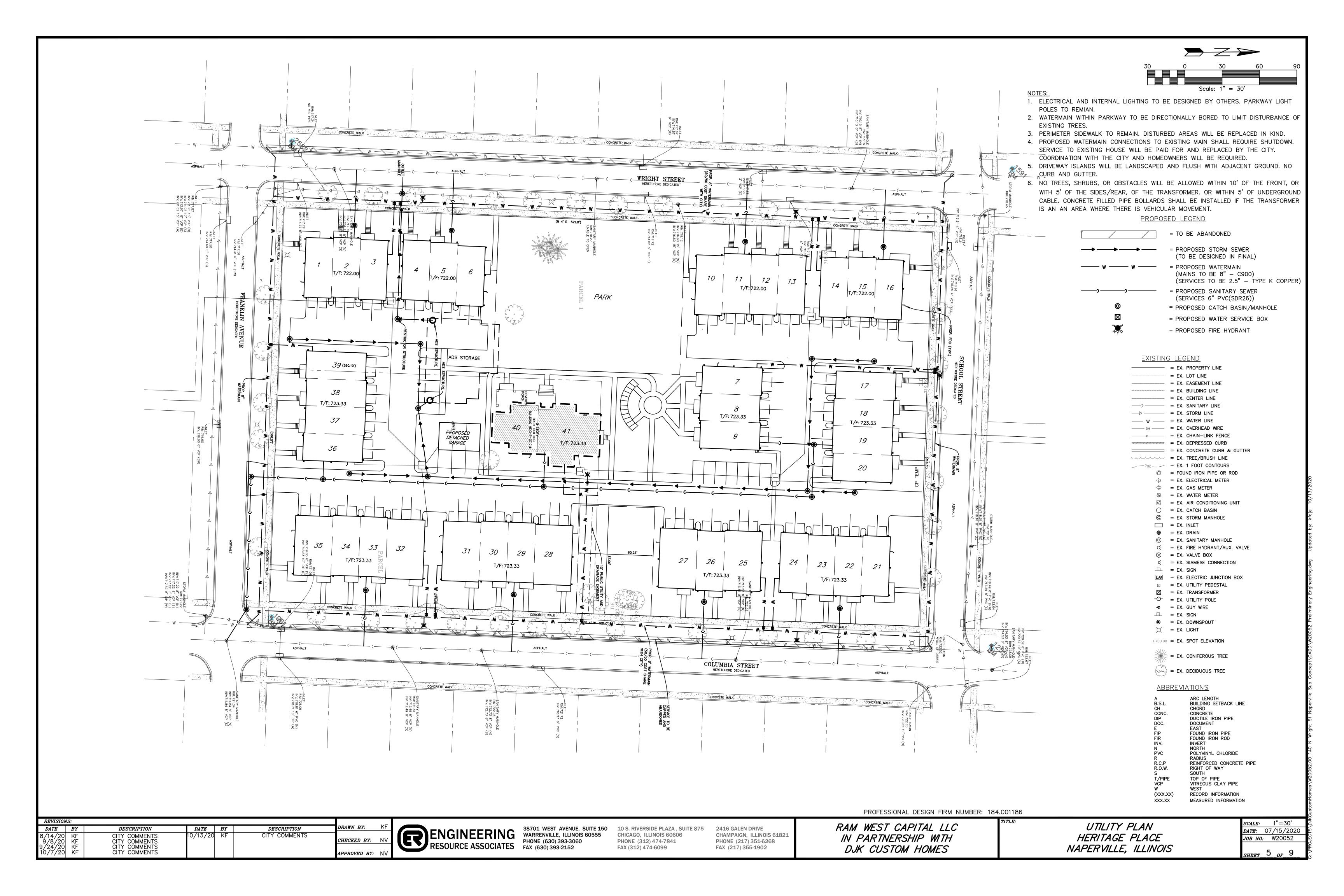
08-18-309-002 (PARCEL 1) 08-18-422-001 (PARCEL 2) PLAT OF SURVEY BLOCK 2 IN KROEHLER'S ADDITION TO NAPERVILLE, IN SECTION 18, TOWNSHIP 38 NORTH, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED MAY 14, 1906 AS DOCUMENT 87553, IN DUPAGE COUNTY, ILLINOIS. ALSO DESCRIBED AS PARCEL 1: BLOCK 2 (EXCEPT THE SOUTH 260.10 FEET OF THE EAST 187.00 FEET AS MEASURED ON THE EAST AND SOUTH LINES) IN KROEHLER'S ADDITION TO NAPERVILLE, IN SECTION 18, TOWNSHIP 38 NORTH, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, ÁCCORDING TO THE PLAT THEREOF RECORDED MAY 14, 1906 AS DOCUMENT 87553, IN DUPAGE COUNTY, ILLINOIS. PARCEL 2: THE SOUTH 260.10 FEET OF THE EAST 187.00 FEET AS MEASURED ON THE EAST AND SOUTH LINES, IN BLOCK 2 IN KROEHLER'S ADDITION TO NAPERVILLE, IN THE SOUTH QUARTER OF SECTION 18, TOWNSHIP 38 NORTH, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED MAY 14, 1906 AS DOCUMENT 87553, IN DUPAGE COUNTY, ILLINOIS. KROEHLER'S SUBDIVISION OF BLOCK 1 OF KROEHLER'S ADDITION TO NAPERVILLE **LEGEND** RECORDED SEPTEMBER 14, 1907 AS DOCUMENT 91648 = EX. PROPERTY LINE — = EX. LOT LINE LOT 5 -- = EX. EASEMENT LINE — = EX. BUILDING LINE LOT 6 - = EX. CENTER LINE LOT 5 — = EX. CHAIN-LINK FENCE = EX. DEPRESSED CURB CONCRETE WALK = EX. CONCRETE CURB & GUTTER CONCRETE WALK = FOUND IRON PIPE OR ROD = FOUND CUT CROSS FOUND 34" IRON PIPE SCHOOL STREET = EX. ELECTRICAL METER ASPHALT AT CORNER = EX. GAS METER (50' RIGHT-OF-WAY-) FORMERLY KNOWN AS MECHANIC STREET
HERETOFORE DEDICATED PER DOC. R1906-087553 = EX. WATER METER FOUND 34" IRON PIPE 0.16' W AND ON LINE = EX. AIR CONDITIONING UNIT CONC. APRON CONCRETE WALK = EX. CATCH BASIN S 88°00'47" E 316.59' (316.5') CÓNCRETE WÁLK = EX. STORM MANHOLE = EX. INLET 114.18' 23.04 = EX. DRAIN = EX. SANITARY MANHOLE PART OF = EX. FIRE HYDRANT/AUX. VALVE 1.04.
2 STORY
BUILDING
HEIGHT=27. LOT 1 = EX. VALVE BOX = EX. SIGN LOT 1 **ASPHALT** PARKING LOT = EX. UTILITY PEDESTAL = EX. UTILITY POLE PART OF = EX. GUY WIRE ASPHALT -Ф = EX. ELECTRIC JUNCTION BOX PARKING LOT LOT 1 WOOD TIMBER EDGE = EX. TRANSFORMER 114.07' ☐ = EX. LIGHT CONC. 180.04 A S LOT 2 <u>ABBREVIATIONS</u> ARC LENGTH
BUILDING SETBACK LINE
CHORD
CONCRETE
DOCUMENT 112.83' B.S.L. LOT 2 97.25' DOC. OF EAST FOUND IRON PIPE FOUND IRON ROD 3 STORY VILLAGE AS DOCUMENT NORTH RADIUS BRICK BUILDING LOT 3 112.89' RIGHT OF WAY R.O.W. ASPHALT SOUTH 97.15 (XXX.XX) RECORD INFORMATION LOT 3 STREET
-OF-WAY-)
PER DOC. R1886. XXX.XX MEASURED INFORMATION WRIGHT (66' RIGHT-DRE DEDICATED R LOT 4 ADDITION ASPHALT PARKING LOT LOT 4 CONC. APRON COLUMBIA S (66' RICHT-OF-ASPHALT PARKING LOT LOT 5 S 88°01'13" E\_ 187.00° 151 STORY: 59 BRICK 98 BUILDING LOT 5 EJB 61.42 37.23' CONC. PARCEL 1 LOT 6 Ø 1 STORY LOT 6 BRICK BUILDING
BUILDING HEIGHT=12.0 ± LOT 7 37.27 CONCRETE PAVERS

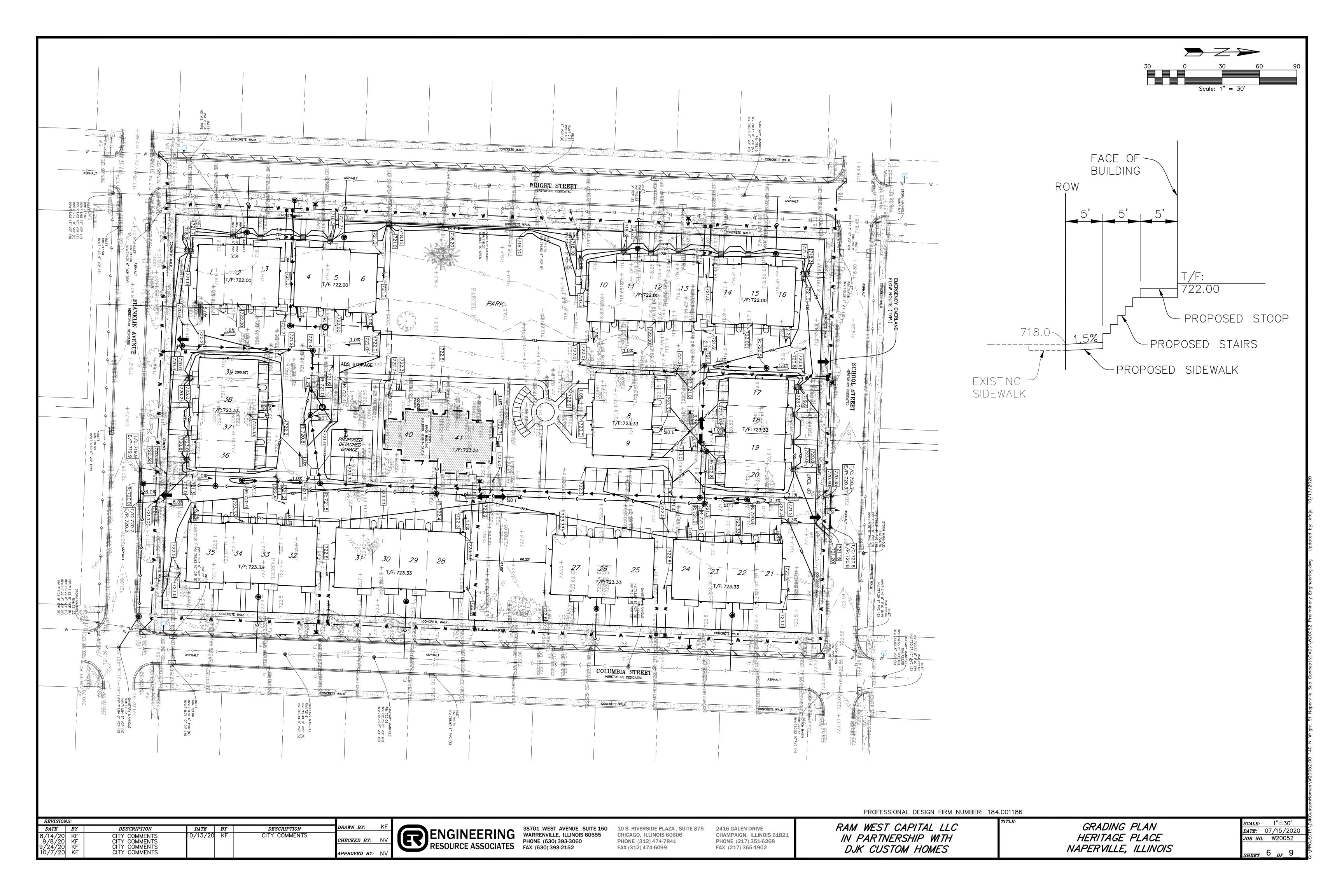
CONCRETE WALK LOT 7 4.60 CONC. STAIRS LOT 8 PLAY AREA LOT 8 2,45 WOOD TIMBER EDGE PARCEL 2 LOT 9 168.16' 1.04' 2.06' 44.04' 2.06' 1.04' 1.04' LOT 9 4 STORY BRICK BUILDING 5.95'-BUILDING HEIGHT=42.0'± LOT 10 168.32' 1.04 1.04 2.05' 5.96' 1.04' 25.97 9.99' 14.98' 1.04' 1.04' 1.04' 1.04' 60.23' LOT 10 BLOCK WALL~ (316.5')N 88°01'13" W 316.49 CONCRETE WALK CONGRETE WALK ASPHALT CONC. WALK APRON X FOUND CUT CROSS-AT CORNER ASPHALT FRANKLIN AVENUE FOUND 34" IRON PIPE (66' RIGHT-OF-WAY-)
HERETOFORE DEDICATED PER DOC. R1893-052284 0.06'S ASPHALT LOT 1 LOT 10 LOT 1 COLUMBIAN ADDITION TO THE VILLAGE OF NAPERVILLE RECORDED MAY 17, 1893 AS DOCUMENT 52284 LOT 1 STATE OF ILLINOIS COUNTY OF DUPAGE I, TIMOTHY B. MARTINEK, AN ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-003782, HEREBY CERTIFY THAT I HAVE SURVEYED THE ABOVE PROPERTY AND THAT THE PLAT HERON DRAWN IS A CORRECT REPRESENTATION OF SAID SURVEY. THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY. AREA SUMMARY **GENERAL NOTES** GIVEN UNDER MY HAND AND SEAL THIS, 6TH DAY OF AUGUST, 2020. 1. THE BEARINGS SHOWN ON THIS PLAT ARE BASED ON THE ILLINOIS STATE PLANE PARCEL 1: 116,519 SQUARE FEET (2.675 ACRES±) COORDINATE SYSTEM - EAST ZONE (NAD 83). PARCEL 2: 48,639 SQUARE FEET (1.117 ACRES±) CHECK LEGAL DESCRIPTION WITH DEED OR TITLE POLICY AND REPORT ANY DISCREPANCY IMMEDIATELY. BUILDING LINES AND EASEMENTS, IF ANY, SHOWN HEREON THY B. MARY TOTAL: 165,158 SQUARE FEET (3.792 ACRES±) ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-003782 ARE AS SHOWN ON THE RECORDED SUBDIVISION OR AS INDICATED. LICENSE EXPIRES NOVEMBER 30, 2020 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS ALL AREAS LISTED IN THE AREA SUMMARY TABLE ARE MORE OR LESS. DESIGN FIRM PROFESSIONAL LICENSE NO. 184.001186 LICENSE EXPIRES APRIL 30, 2021 4. ALL DISTANCES ARE SHOWN IN FEET AND DECIMAL PARTS THEREOF. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE FIELD WORK COMPLETED MAY, 8, 2020 OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES WHICH MAY AFFECT THE \*DOCUMENT NUMBERS REVISED AUGUST 6, 2020 BY CNB USE OR DEVELOPMENT OF THIS TRACT. TITLE: SCALE: 1"=30' CNB DRAWN BY: 3S701 WEST AVENUE, SUITE 150 10 S. RIVERSIDE PLAZA, SUITE 875 2416 GALEN DRIVE RAM WEST CAPITAL, LLC **ENGINEERING** PLAT OF SURVEY *DATE*: 05-15-20 WARRENVILLE, ILLINOIS 60555 CHICAGO, ILLINOIS 60606 CHAMPAIGN, ILLINOIS 61821 JOB NO: W20052.A0 IN PARTNERSHIP WITH CHECKED BY: TBM PHONE (630) 393-3060 HERITAGE PLACE PHONE (312) 474-7841 PHONE (217) 351-6268 RESOURCE ASSOCIATES FAX (630) 393-2152 FAX (312) 474-6099 FAX (217) 355-1902 DJK CUSTOM HOMES APPROVED BY: TBM SHEET\_ 1 OF

G:\PROJECTS\DJKCustomHomes\W20052.A0 140 N Wright St Naperville Sub POS+Topo\CADD\20052A0 PLAT OF SURVEY.dwg Updated by: cbacani 8/6/2020









PROJECT INFORMATION			
ENGINEERED PRODUCT MANAGER			
ADS SALES REP			
PROJECT NO.			



FOR STORMTECH INSTRUCTIONS, DOWNLOAD THE INSTALLATION AP

# HERITAGE PLACE 10.2.20

NAPERVILLE, IL

### MC-3500 STORMTECH CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH MC-3500.
- 2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES
- CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787. "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2)

MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.

- REQUIREMENTS FOR HANDLING AND INSTALLATION:
- TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING
- TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS • TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE
- THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER. • THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR
- DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE. THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
- 9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

### IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-3500 CHAMBER SYSTEM

- 1. STORMTECH MC-3500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- 2. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- 3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS
- STORMTECH RECOMMENDS 3 BACKFILL METHODS: STONESHOOTER LOCATED OFF THE CHAMBER BED
- BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR
- 4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS
- 5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- 6. MAINTAIN MINIMUM 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS
- 7. INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
- 8. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE MEETING THE AASHTO M43 DESIGNATION OF #3
- 9. STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
- 10. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- 11. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

### NOTES FOR CONSTRUCTION EQUIPMENT

- 1. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- 2. THE USE OF EQUIPMENT OVER MC-3500 CHAMBERS IS LIMITED:
  - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS. NO RUBBER TIRED LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE
  - WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
  - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD

3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

# ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
С	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP DF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE.  MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145¹ A-1, A-2-4, A-3  OR  AASHTO M43¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
В	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 <sup>1</sup> 3, 4	NO COMPACTION REQUIRED.
Α	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 <sup>1</sup> 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. <sup>2,3</sup>

- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE". STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
- WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGNS, CONTACT STORMTECH FOR
- ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

### PAVEMENT LAYER (DESIGNED ADS GEOSYNTHETICS 601T NON-WOVEN GEOTEXTILE ALL AROUND CLEAN, CRUSHED, ANGULAR STONE IN A & B LAYERS BY SITE DESIGN ENGINEER) \*TO BOTTOM OF FLEXIBLE PAVEMENT. FOR UNPAVED INSTALLATIONS WHERE RUTTING FROM VEHICLES MAY OCCUR, INCREASE COVER TO 30" (750 mm). PERIMETER STONE (450 mm) MIN<sup>3</sup> (SEE NOTE 6) 12" (300 mm) MIN EXCAVATION WALL (CAN BE SLOPED OR VERTICAL) (1140 mm) DEPTH OF STONE TO BE DETERMINED BY SITE DESIGN ENGINEER 9" (230 mm) MIN 6" (150 mm) MIN SUBGRADE SOILS END CAP (SEE NOTE 4)

APPROVED BY:

CITY COMMENTS

CITY COMMENT

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION
- MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTN F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
- TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
- TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

CITY COMMENTS CITY COMMENTS CITY COMMENTS

## STO1 WEST AVENUE, SUITE 150 WARRENVILLE, ILLINOIS 60555 PHONE (630) 393-3060 FAX (630) 393-2152

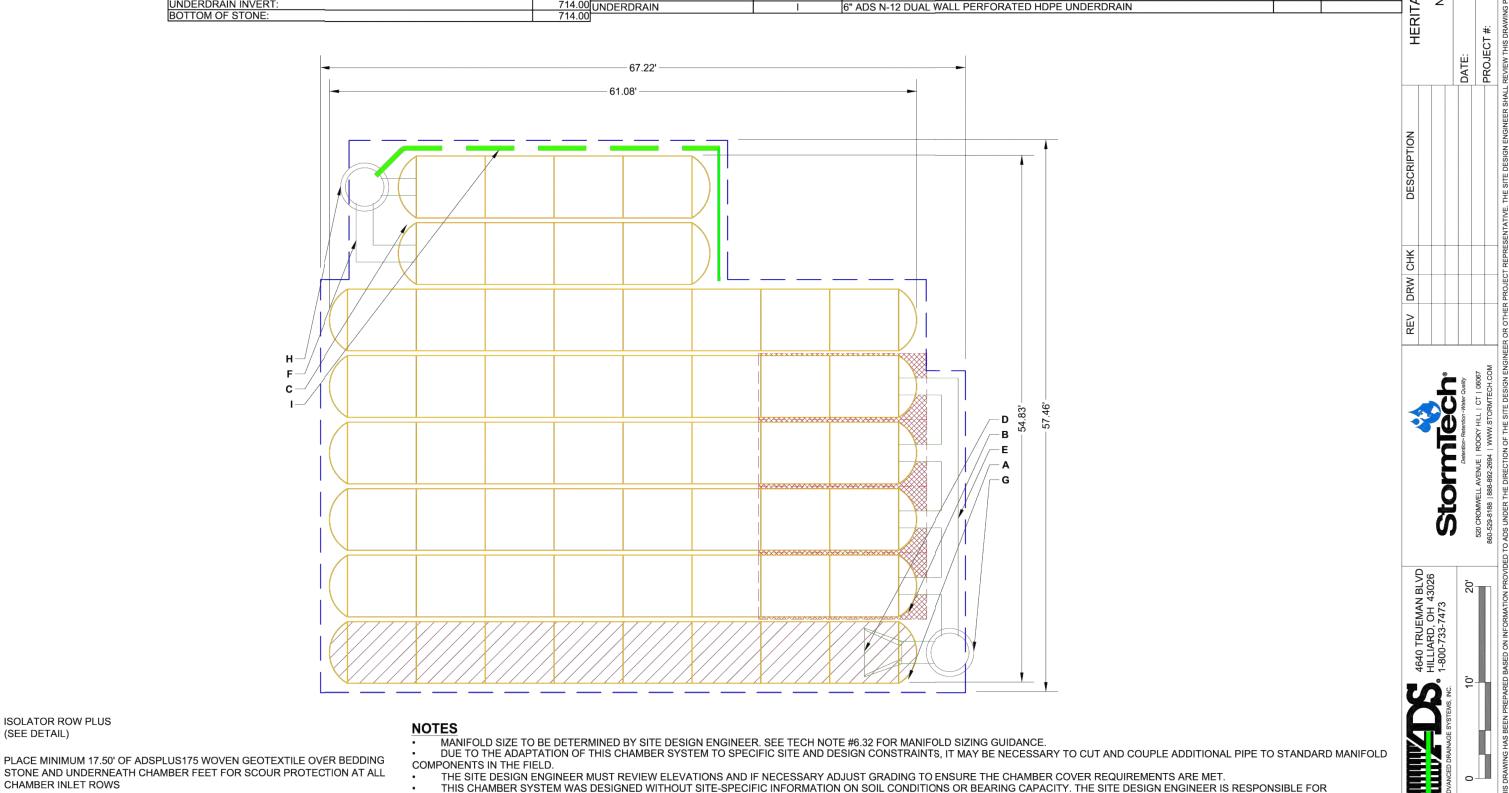
## STO1 WEST AVENUE, SUITE 150 CHICAGO, ILLINOIS 60606 PHONE (312) 474-7841 FAX (312) 474-6099

3 OF 5

2416 GALEN DRIVE CHAMPAIGN, ILLINOIS 61821 PHONE (217) 351-6268 FAX (217) 355-1902

RAM WEST CAPITAL LLC IN PARTNERSHIP WITH DJK CUSTOM HOMES

HERITAGE PLACE NAPERVILLE, ILLINOIS



THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS

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

DESCRIPTION
24" BOTTOM CORED END CAP, PART#: MC3500IEPP24BC / TYP OF ALL 24" BOTTOM

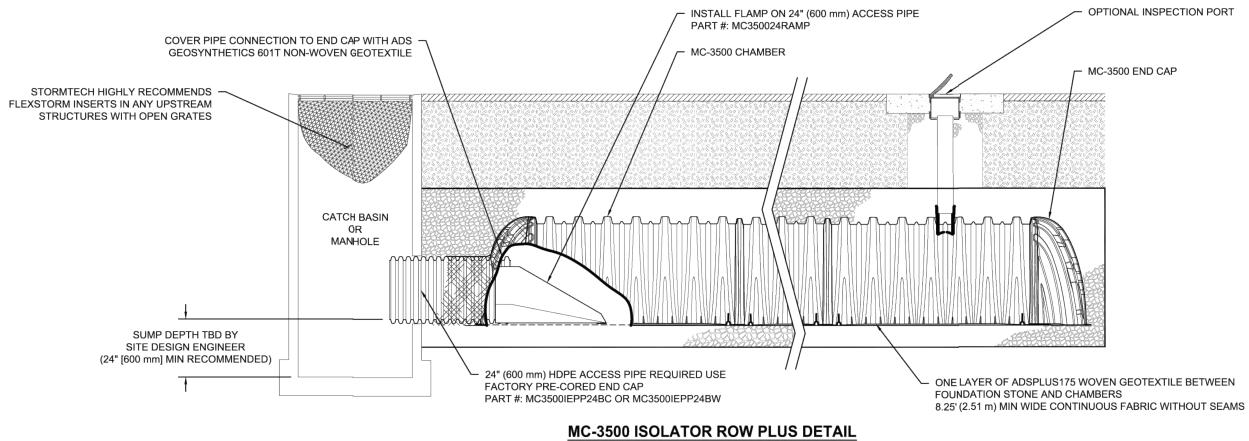
8" BOTTOM CORED END CAP, PART#: MC3500IEPP18BC / TYP OF ALL 18" BOTTOM

CONNECTIONS AND ISOLATOR PLUS ROWS 8" TOP CORED END CAP, PART#: MC3500IEPP18TC / TYP OF ALL 18" TO

8" x 18" TOP MANIFOLD, ADS N-12

8" x 18" BOTTOM MANIFOLD, ADS N-1

(DESIGN BY ENGINEER / PROVIDED BY OTHER OCS (DESIGN BY ENGINEER / PROVIDED BY OTHERS



### **INSPECTION & MAINTENANCE**

ISOLATOR ROW PLUS

CHAMBER INLET ROWS

(SEE DETAIL)

— BED LIMITS

- A. INSPECTION PORTS (IF PRESENT)
- A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
- A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)

PROPOSED ELEVATIONS

REFABRICATED END CAP

REFABRICATED END CAP

PREFABRICATED END CAP

MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED

MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)

INIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):

MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC

(PERIMETER STONE INCLUDED)

12098 (COVER STONE INCLUDED)

9.4 SYSTEM PERIMETER (ft

- A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3. B. ALL ISOLATOR PLUS ROWS B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
- MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY

A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED

- ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN C. VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

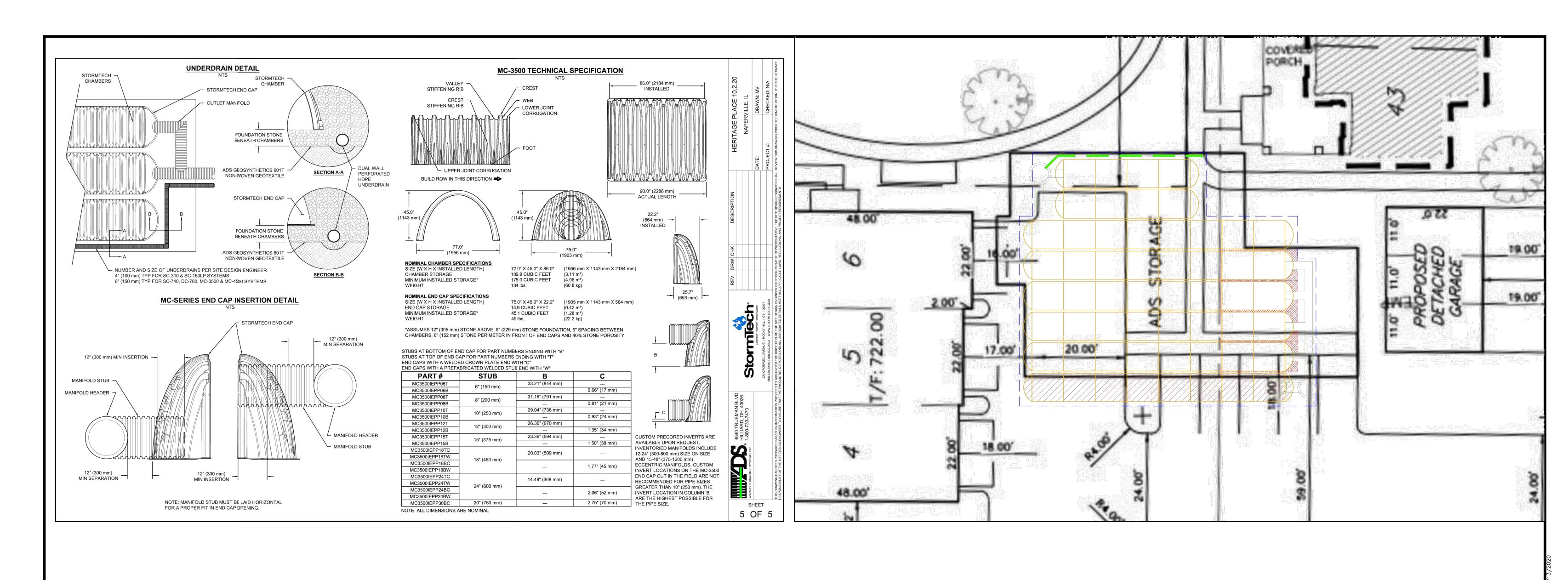
- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- 2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY

ADS DETAILS

OF *DATE:* 07/15/202 *јов No:* W20052

SHEET

2 OF 5



REVISIONS:

DESCRIPTION

CITY COMMENTS
CITY COMMENTS
CITY COMMENTS
CITY COMMENTS

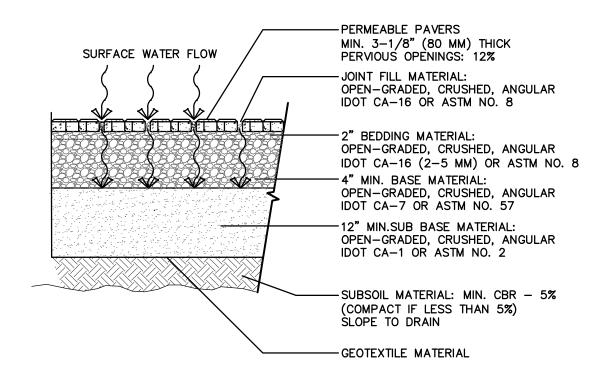
DESCRIPTION CITY COMMENTS APPROVED BY: N



2416 GALEN DRIVE CHAMPAIGN, ILLINOIS 61821 PHONE (217) 351-6268 FAX (217) 355-1902

RAM WEST CAPITAL LLC IN PARTNERSHIP WITH DJK CUSTOM HOMES

ADS DETAILS HERITAGE PLACE NAPERVILLE, ILLINOIS *DATE*: 07/15/2020 *JOB NO*: W20052



### PERMEABLE PAVER **DETAIL**

NOT TO SCALE

SP-22. PERMEABLE PAVER PAVEMENT, FULL DEPTH

PERMEABLE PAVER PAVEMENT shall consist of all materials, tools, equipment, cutting, cleanup and labor necessary to install the geo-technical fabric (needle-punched, non-woven), granular sub-base (CA-1), aggregate base course (CA-7), setting course (CA-16), permeable pavers, and crevice infill for permeable pavers as shown and called out for in plans and specifications.

### RELATED SECTIONS

- This work shall also conform to the following sections of the bid specifications proposal book: 1) Section 202 IDOT Standards and Specifications
  - Section 210 IDOT Standards and Specifications
  - B) Section 301 IDOT Standards and Specifications
  - 4) Section 351 IDOT Standards and Specifications 5) Section 606 IDOT Standards and Specifications

1) Use all means necessary to protect materials before, during, after delivery to the job site, and

to protect the installed work and materials of all other trades. 2) Deliver the materials to the job site and store in a safe area, out of the way of traffic, and shore

up off the ground surface. 3) In the event of damage, immediately make all repairs and replacements necessary to the approval of the ENGINEER or OWNER and at no additional cost to the OWNER.

The minimum material and physical properties set forth in ASTM -936, Standard Specification for Interlocking Concrete Paving Units. This includes the following requirements:

- 1) Colors & Finishes: Parking lot paver color shall be approved by the OWNER prior to installation, see Landscape Plans for detailed specifications. 2) Patterns: Field pattern shall be standard as provided by manufacturer with one row of
- soldier course pavers surrounding entire permeable paver area.
- 3) Dimensions: Field pavers shall measure approximately 10.25" x 10.25" x 3.25". 4) Pavers shall meet ADA compliance with no more than 1/2" gap.
- 5) Average compressive strength 8,000 psi (55 MPa) with no individual unit under 7,000 psi (50 MPa).
- 6) Average absorption of 5% with no unit greater than 7% when tested according to ASTM C-140.
- 7) Resistance to 50 freeze-thaw cycles, when tested according to ASTM C-67, with no breakage greater than 1.0% loss in dry weight of any individual unit. This test method shall be conducted not more than 12 months prior to delivery of units.
- 8) Surface course crevice fill shall be CA-16 or granite chips. 9) Setting course shall be 2" of CA-16.
- 10) 4" Compacted Aggregate Base Course (CA-7) under setting bed. 11) 12" Compacted Granular Sub-base Material (CA-1) under compacted aggregate base
- 12) Geo-technical Fabric (needle-punched, non-woven) for Ground Stabilization under compacted granular sub-base.

Stockpile all materials sufficiently in advance of need to ensure their availability in a timely manner for this work.

### CONSTRUCTION REQUIREMENTS

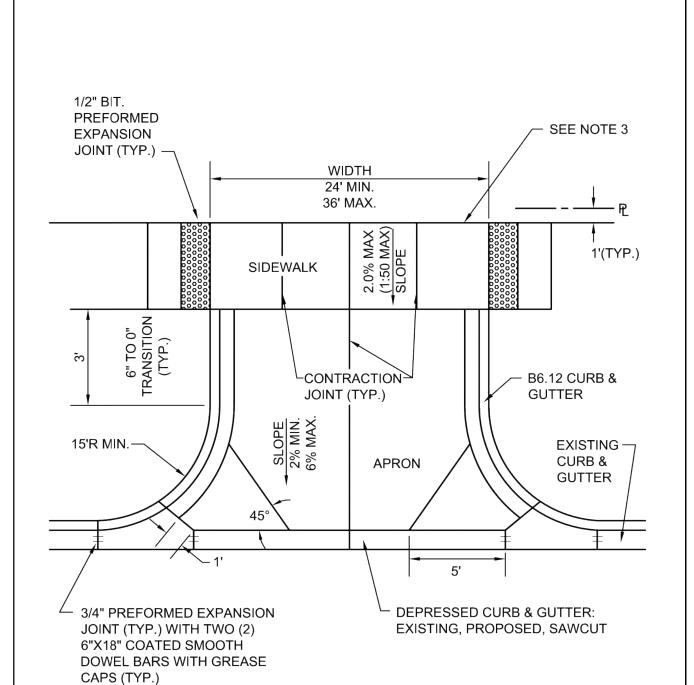
Install per manufacturer's recommendations and as detailed in the plans and specifications. Remove all debris and unsuitable materials from the jobsite upon completion. Clean and sweep paving surfaces when complete. Refill crevices as necessary after settlement period per manufacturer's recommendations.

The permeable pavers must be approved by the Project Representative prior to installation. Submit samples of the permeable pavers, literature, and build a minimum 3'x3' mockup that includes all required colors, finishes, patterns and infill material. In addition CONTRACTOR must provide 2 CY of extra of crevice infill upon completion of the project for the OWNER to utilize for

future needs. Delivery and stockpiling of the extra material to be coordinated with the Project Representative before final completion can be issued.

### BASIS OF PAYMENT

This work shall be measured and paid for separately at the contract unit price per square foot of PERMEABLE PAVER PAVEMENT, FULL DEPTH, which shall be payment in full for all materials, equipment, tools and labor necessary to install the subbase course, base course, setting bed (CA-16), permeable pavers, crevice infill, perform necessary cuts and cleanup, and blend the new permeable pavement with the existing permeable pavement.



- 1. ALL AGGREGATE SUB BASE SHALL BE MECHANICALLY COMPACTED.
- 2. SIDEWALK SHALL CONTINUE THROUGH DRIVEWAYS.
- 3. SIDEWALK THICKNESS ACROSS DRIVEWAYS SHALL BE A MINIMUM OF 8" PCC ON 4" AGGREGATE SUB BASE.
- 4. DETECTABLE WARNINGS SHALL ONLY BE INSTALLED AT DRIVEWAYS WITH
- PERMANENT TRAFFIC CONTROL DEVICES.
- SIDEWALK CONSTRUCTION SHALL FOLLOW APPLICABLE IDOT STANDARDS. 6. SIDEWALKS SHALL FOLLOW CURRENT ADA GUIDELINES.
- PAVEMENT 5 City of Naperville TYPICAL COMMERCIAL **STANDARD**

**DRIVEWAY DETAIL** 

REVISED: 01/01/2013 SHEET 1 OF 1



PITCH OUT GUTTER

WHERE SHOWN ON

MAINTAIN ASPHALT

**GUTTER FLAG** 

NOTES:

SURFACE 1/4" ABOVE

City of Naperville **B6.12 BARRIER CURB & GUTTER** STANDARD DETAIL REVISED: 01/01/2013 SHEET 1 OF 1

THAT WILL PROVIDE A MINIMUM 1" EXPANSION.

AND GUTTER, CENTERED OVER THE TRENCH.

PRIOR TO APPLICATION OF SEALANT.

6% 3"R.-

1. 3/4" PREFORMED BITUMINOUS EXPANSION JOINT WITH TWO (2) NUMBER 6

RADIUS POINTS AND BACK OF CUL-DE-SACS. WHEN EXPANSION JOINTS

COATED SMOOTH DOWEL BARS (3/4" DIA. X 18") WITH GREASE CAPS SHALL

BE PLACED EVERY 150', 10' EITHER SIDE OF DRAINAGE STRUCTURES, P.C.'S,

ARE CONSTRUCTED ADJACENT TO EXISTING CURB & GUTTER THE EXISTING

CURB SHALL BE DRILLED AND TWO (2) NUMBER 6 COATED SMOOTH DOWEL

BARS (3/4" X 18") GROUTED IN PLACE. GREASE CAPS SHALL BE PLACED ON

THE SIDE OF THE NEW CURB AND GUTTER SHALL HAVE A PINCHED STOP

3. SAWCUTS SHALL BE MADE WITHIN TWENTY-FOUR (24) HOURS AND SEALED

4. FOR CURB AND GUTTER CONSTRUCTED OVER UTILITY TRENCHES, TWO (2)

WITH A CITY APPROVED JOINT SEALANT. JOINTS SHALL BE CLEAN AND DRY

EPOXY COATED REINFORCING BARS (NO. 4) SHALL BE PLACED IN THE CURB

2. TOOLED CONTROL JOINTS OR SAWCUTS SHALL BE MADE EVERY 15'.

SLOPE

PAVEMENT 20 **590.20**  City of Naperville

DETAIL

REVISED: 01/01/2013

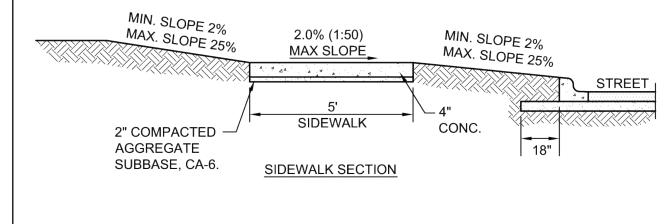
1-1/2"(DEPRESSED CURB)

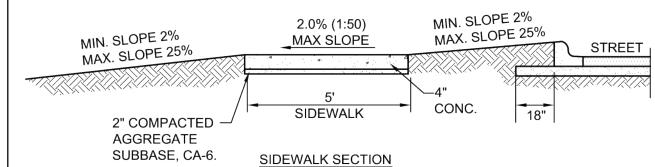
MINIMUM 4"

SUBBASE

COMPACTED

AGGREGATE





### NOTES:

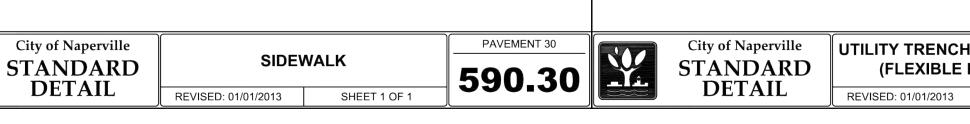
CONCRETE SHALL BE IDOT CLASS SI.

**DETAIL** 

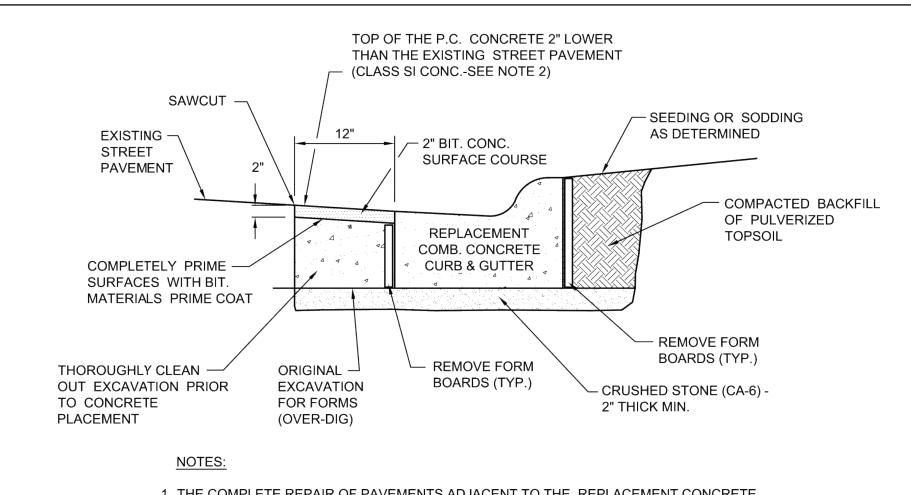
- MINIMUM SIDEWALK THICKNESS SHALL BE 4".
- SIDEWALK THICKNESS ACROSS DRIVEWAYS SHALL BE AT A MINIMUM 6" FOR RESIDENTIAL DRIVEWAYS AND 8" FOR COMMERCIAL DRIVEWAYS.
- MAXIMUM LONGITUDINAL SLOPE SHALL NOT EXCEED 5% (20:1). FOR ANY SLOPE IN EXCESS OF 5%, ALL REQUIREMENTS OF THE ILLINOIS ACCESSIBILITY CODE (LATEST EDITION) SHALL BE MET.
- MINIMUM TRANSVERSE SLOPE SHALL BE 1.0% (1:100). MAXIMUM TRANSVERSE SLOPE SHALL BE 2.0% (1:50).
- 6. A MINIMUM 2" AGGREGATE SUBBASE (CA-6) SHALL BE PROVIDED. (4" THROUGH
- COMMERCIAL DRIVEWAYS).
- AGGREGATE SUBBASE SHALL BE MECHANICALLY COMPACTED. ALL SIDEWALKS SHALL BE PROMPTLY BACKFILLED AND PROTECTED FROM DAMAGE.
- SIDEWALK CONSTRUCTION SHALL FOLLOW APPLICABLE IDOT STANDARDS.
- 10. SIDEWALKS SHALL FOLLOW CURRENT ADA GUIDELINES.

### - EXISTING SURFACE COURSE EXISTING BINDER COURSE EXISTING BASE COURSE NEW BITUMINOUS AGGREGATE MIXTURE (BAM 12" MIN.) OR P.C.C. CONCRETE, 8" MINIMUM HIGH-EARLY STRENGTH CONCRETE. NEW BITUMINOUS SURFACE COURSE CL 1, 2" MIN. $\rightarrow$ SAW CUT (TYP:) — SAWC 12" MIN. (TYP.) ELEV. SUBGRADE-TRENCH BACKFILL CA-6 TRENCH WALL UTILITY CONDUIT (TYP.)

- 1. THE TRENCH SHALL BE BACKFILLED WITH AGGREGATE (CA-6) AND COMPACTED TO 95% OF THE STANDARD PROCTOR DENSITY. TRENCH SPOILS OR EXCAVATED MATERIAL SHALL BE DISCARDED BY THE CONTRACTOR, AT HIS EXPENSE, AT DUMP SITES OR IN A SUITABLE FASHION AS APPROVED BY THE CITY ENGINEER.
- 2. PRIOR TO PLACING OF P.C.C. CONCRETE, THE EXPOSED EDGES OF ALL EXISTING PAVEMENT SHALL BE SAW CUT TO PROVIDE A SMOOTH, CLEAN EDGE, FREE OF LOOSE MATERIAL.
- 3. EXCAVATIONS SHALL BE PROTECTED BY BARRICADES WITH FLASHING LIGHTS. A 1" STEEL PLATE SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR AT LOCATIONS WHERE ADJUSTMENTS ARE LOCATED IN TRAVEL LANES UNTIL THE SURFACE RESTORATION IS COMPLETE. THE PLATE SHALL BE PROTECTED FROM SLIDING AND PROVIDED WITH BITUMINOUS RAMPS.
- 4. TRENCH TO BE COMPACTED IN CONFORMANCE WITH ARTICLE 603.08(METHOD 3) OF THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION

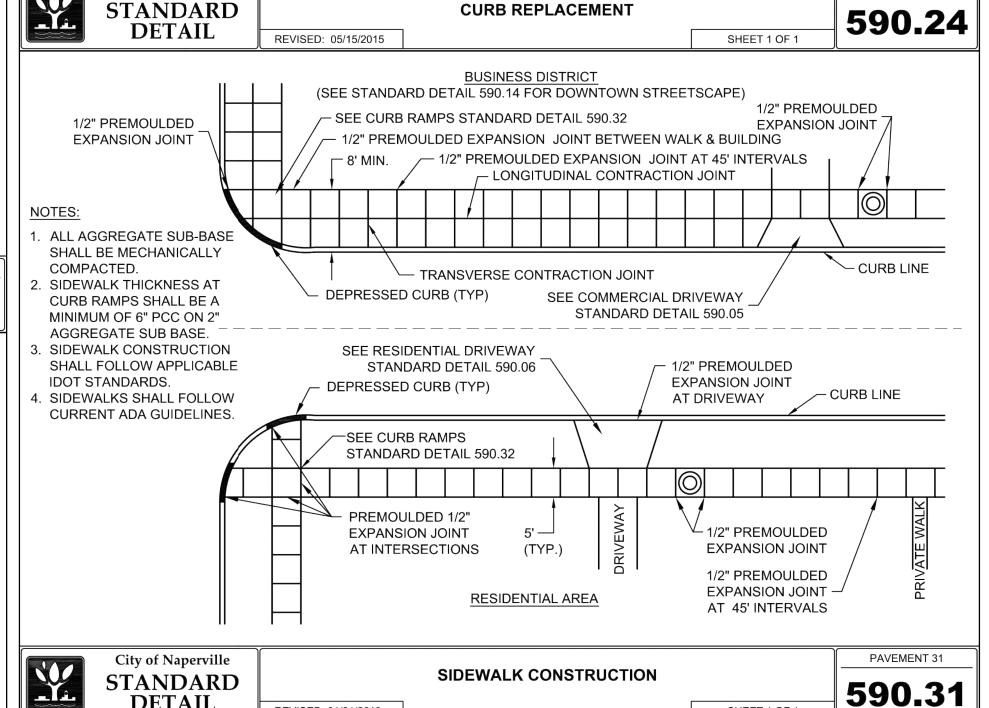


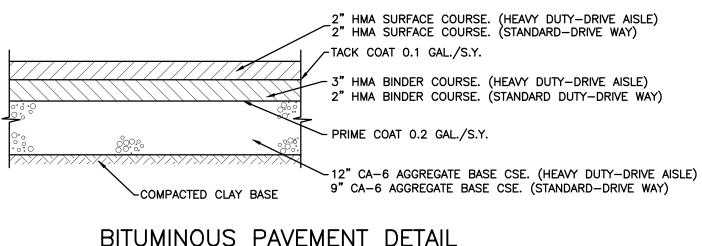
PAVEMENT 13 UTILITY TRENCH PAVING SECTION (FLEXIBLE PAVEMENTS) **590.13** SHEET 1 OF 1



1. THE COMPLETE REPAIR OF PAVEMENTS ADJACENT TO THE REPLACEMENT CONCRETE CURB AND GUTTER IS INCLUDED IN THE COST OF THE NEW CURB AND GUTTER.

2. CLASS SI CONCRETE SHALL BE POURED SEPARATELY FROM THE CURB ONCE THE FORM BOARDS HAVE BEEN REMOVED.





BITUMINOUS PAVEMENT DETAIL

NOTE: THE PAVEMENT DESIGN IS A RECOMMENDATION AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE SERVICES OF A SOILS ENGINEER TO CONFIRM PROPER SUBGRADE AND PAVEMENT DESIGN BASED ON SITE SPECIFIC CONDITIONS FOR PARKING LOT, CURBS, SIDEWALKS, BUILDING, ETC.

PROFESSIONAL DESIGN FIRM NUMBER: 184.001186

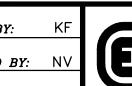
SHEET 1 OF 1

**DETAILS** HERITAGE PLACE NAPERVILLE, ILLINOIS

SCALE: N.T.S. *DATE:* 07/15/2020 *Joв No*: W20052

PAVEMENT 24

REVISIONS: DATE BY DESCRIPTION DESCRIPTION CITY COMMENTS 0/13/20 KF CITY COMMENTS CITY COMMENTS CITY COMMENTS CITY COMMENT



APPROVED BY: N



WARRENVILLE, ILLINOIS 60555 PHONE (630) 393-3060

3S701 WEST AVENUE, SUITE 150 10 S. RIVERSIDE PLAZA, SUITE 875 CHICAGO, ILLINOIS 60606 PHONE (312) 474-7841 FAX (312) 474-6099

2416 GALEN DRIVE CHAMPAIGN, ILLINOIS 61821 PHONE (217) 351-6268 FAX (217) 355-1902

RAM WEST CAPITAL LLC IN PARTNERSHIP WITH DJK CUSTOM HOMES