

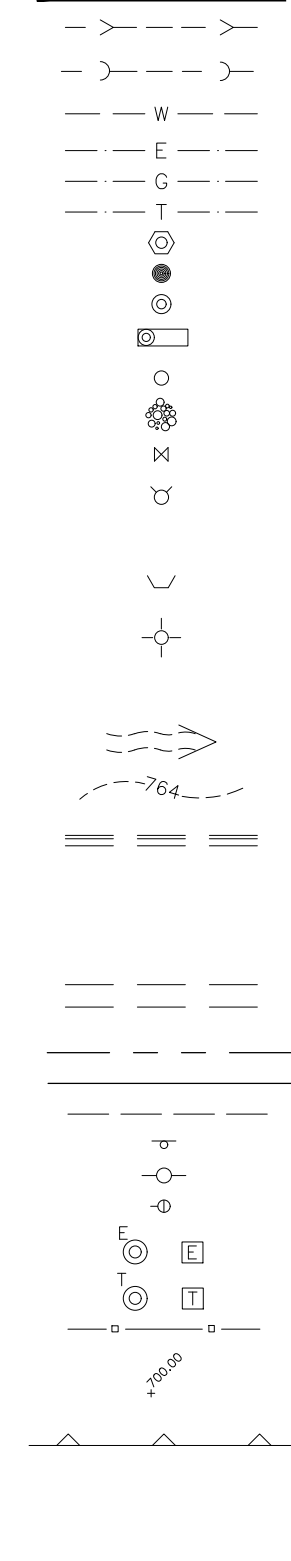
PRELIMINARY ENGINEERING FOR SPRINGS AT EASTMARK

SOUTHEAST CORNER OF E WARNER RD AND S ELLSWORTH RD CITY OF MESA, AZ

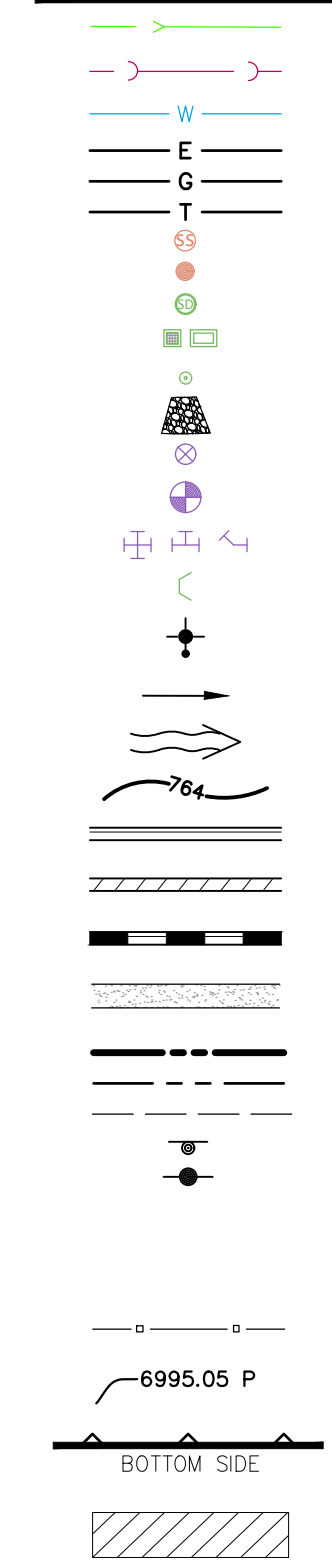
PROJECT LOCATION

STANDARD SYMBOLS

EXISTING



PROPOSED

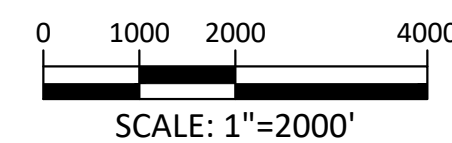


ABBREVIATIONS:

AC	ACRES	INL	INLET	RT	RIGHT
ADJ	ADJUST	INV	INVERT	RW	RAW WATER
AGG	AGGREGATE GRAVEL	LF	LINEAR FEET	SAN	SANITARY SEWER
BC	BACK OF CURB	LP	LOW POINT	SD	STORM DRAIN
BOP	BOTTOM OF PIPE	LT	LEFT	SDMH	STORM DRAIN MANHOLE
BVC	BEGIN VERTICAL CURVE	MAX	MAXIMUM	SF	SQUARE FOOT
BW	BACK OF WALK	MH	MANHOLE	SHT	SHEET
CL	CENTERLINE	MIN	MINIMUM	SSCO	SANITARY SEWER CLEANOUT
CMP	CORRUGATED METAL PIPE	NTS	NOT TO SCALE	SSMH	SANITARY SEWER MANHOLE
CONC	CONCRETE	OS	OFFSET FROM CENTERLINE	STA	STATION
CY	CUBIC YARD	P	PAVEMENT	STD	STANDARD
D	DITCH	PC	POINT OF CURVE	SW	SIDEWALK
DIA	DIAMETER	PCC	POINT OF COMPOUND CURVE	SY	SQUARE YARDS
DIP	DUCTILE IRON PIPE	PI	POINT OF INTERSECTION	T	TELEPHONE
ELEV	ELEVATION	PL	PROPERTY LINE	TB	THRUST BLOCK
EP	EDGE OF PAVEMENT	PP	POWER POLE	TBR	TO BE REMOVED
EVC	END VERTICAL CURVE	PROP	PROPOSED	TC	TOP OF CURB
EX	EXISTING	PT	POINT OF TANGENCY	TEMP	TEMPORARY
FES	FLARED END SECTION	PUE	PUBLIC UTILITY EASEMENT	IF	TOP OF FOUNDATION
F.F.	FINISHED FLOOR	PUFE	PUBLIC UTILITY FACILITY EASEMENT	TOP	TOP OF PIPE
FG	FINISHED GRADE	PVC	POLYVINYL CHLORIDE PIPE	TRANS	TRANSFORMER
FL	FLOW LINE	PVC	POINT OF VERTICAL CURVATURE	TW	TOP OF WALL
FM	FORCE MAIN	PVI	POINT OF VERTICAL INTERSECTION	TYP	TYPICAL
G/F	GRADE AT FOUNDATION	PVT	POINT OF VERTICAL TANGENCY	VB	VALVE BOX
GV	GATE VALVE	R	RADIUS	VV	VALVE VAULT
HDPE	HIGH DENSITY POLYETHYLENE	RCP	REINFORCED CONCRETE PIPE	WLE	WATER LINE EASEMENT
HP	HIGH POINT	REM	REMOVAL	WM	WATER MAIN
HWL	HIGH WATER LEVEL	ROW	RIGHT-OF-WAY	WSE	WATER SURFACE ELEVATION
HYD	HYDRANT	RR	RAILROAD	YD	YARD DRAIN



LOCATION MAP



NOTES:

- THE BOUNDARY LINES AND TOPOGRAPHY FOR THIS PROJECT ARE BASED ON A SURVEY PREPARED BY BOWMAN CONSULTING DATED JULY 10, 2020. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY MANHARD CONSULTING AND THE CLIENT IN WRITING OF ANY DIFFERING CONDITIONS. MANHARD CONSULTING HAS NOT VERIFIED THIS SURVEY AND IS NOT RESPONSIBLE FOR THE ACCURACY OF THE SURVEY BOUNDARY AND/OR TOPOGRAPHY.
- MANHARD CONSULTING IS NOT RESPONSIBLE FOR THE SAFETY OF ANY PARTY AT OR ON THE CONSTRUCTION SITE. SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND ANY OTHER PERSON OR ENTITY PERFORMING WORK OR SERVICES. NEITHER THE OWNER NOR ENGINEER ASSUMES ANY RESPONSIBILITY FOR THE JOB SITE SAFETY OF PERSONS ENGAGED IN THE WORK OR THE MEANS OR METHODS OF CONSTRUCTION.

BENCHMARKS:

SOURCE BENCHMARK:
CITY OF MESA BENCHMARK -- BRASS TAG IN THE TOP OF THE CURB AT THE NORTHWEST CORNER OF MERIDIAN AND WARNER ROAD.

ELEVATION = 1481.15
(CITY OF MESA DATUM)

BASIS OF BEARING:

NORTH 00°15'13" WEST ALONG THE WEST LINE OF THE NORTHWEST QUARTER OF SECTION 22, TOWNSHIP 1 SOUTH, RANGE 7 EAST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, ACCORDING TO BOOK 1521 OF MAPS, PAGE 33, MARICOPA COUNTY RECORDS.



Manhard CONSULTING

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INDEX OF SHEETS

SHEET NO.	SHEET TITLE
1	TITLE SHEET
2	PRELIMINARY SITE DIMENSIONAL AND PAVING PLAN
3	PRELIMINARY UTILITY PLAN
4	PRELIMINARY GRADING PLAN
5	PRELIMINARY RETENTION EXHIBIT
6	PRELIMINARY FIRE TRUCK TURN AND ACCESS EXHIBIT
7	PRELIMINARY FIRE HYDRANT COVERAGE EXHIBIT
8	SIGHT VISIBILITY TRIANGLE EXHIBIT

SITE INFORMATION

LAND USE GROUP (LUG)	GENERAL URBAN
MULTIFAMILY AREA - PARCEL 1	16.57 ACRES
TOTAL AREA	16.57 ACRES
DENSITY	16.66 DU/ACRE
BUILDING / LANDSCAPE SETBACKS	NORTH 11'/NA SOUTH 11'/NA EAST 11'/NA WEST 11'/NA

BUILDING INFORMATION

CLUBHOUSE	4,630 SF
RESIDENT BUILDINGS	QUANTITY HEIGHT
G24L (24 DU/BUILDING)	7 2-STORY / 34'
Z36A (36 DU/BUILDING)	3 3-STORY / 45'
TOTAL RESIDENT BUILDINGS	10
GENERAL HOME MIX	HOMES PERCENTAGE
STUDIO	37 13%
1-BEDROOM	101 37%
2-BEDROOM	115 42%
3-BEDROOM	23 8%
TOTAL HOMES	276 100%

PARKING INFORMATION

PARKING	QUANTITY
DETACHED GARAGES	24
12G (12-BAY)	1
12GS-2 (12-BAY WITH STORAGE)	1
CARPETS	280
GROUPS BUILDING (MG-P)	1
TOTAL COVERED PARKING	305
SURFACE PARKING	206
TOTAL UNCOVERED PARKING	206
TOTAL RESIDENT PARKING PROVIDED	511
PARKING REQUIRED PER CODE	465
HOME PARKING RATIO	1.85
OVERALL GARAGES/HOME	0.09
COVERED PARKING/HOME	1.11
CLUBHOUSE PARKING	17
ADA PARKING	26
BIKE PARKING REQUIRED	199
BIKE PARKING PROVIDED	205
GUEST PARKING REQUIRED	28
GUEST PARKING PROVIDED	28
ELECTRIC CHARGING PARKING PROVIDED	2

PARKING DIMENSIONS	PERP - 9' X 18'
STANDARD STALL	PERP - 9' X 18'
ADA STALL	PERP - 9' X 18'
COMPACT STALL	N/A
DRIVE WIDTH	24' / 26' (NEXT TO 3-STORY)

SITE AMENITIES

AMENITY	QTY / SF / NOTES
SWIMMING POOL	INCLUDED
FITNESS CENTER	INCLUDED
CAR CARE CENTER	INCLUDED
PET PLAYGROUND TYPE A	6,300 SF
PET PLAYGROUND TYPE C	6,800 SF
ENCLOSED YARDS	0
STORAGE LOCKERS	7
PARCEL PICKUP	INCLUDED
GRILLING AREA	INCLUDED

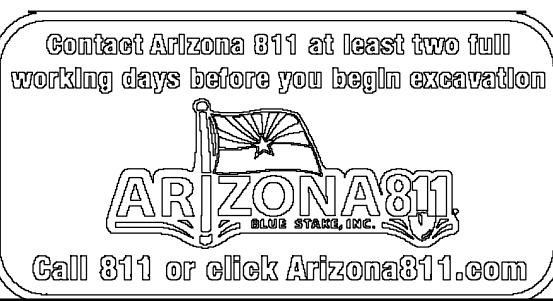
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11/06/2020	REVISED PER CITY COMMENTS
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SPRINGS AT EASTMARK
CITY OF MESA, ARIZONA
TITLE SHEET

PROJ. MGR.: DJM
PROJ. ASSOC.: CAS
DRAWN BY: ZTW
DATE: 08/10/2020
SHEET
1 OF 8
PCPCMSA20Z

Printed: 11/16/2020 4:54 PM. Draw Name: P:\Gcmsa20z\2020\Eng\Preliminary\Plan Set\Cover and Notes.dwg. Updated By: ZWanders
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PAVEMENT LEGEND

- STANDARD DUTY PAVEMENT
SIDEWALK
CONCRETE PAVEMENT
STAMPED ASPHALT PAVEMENT

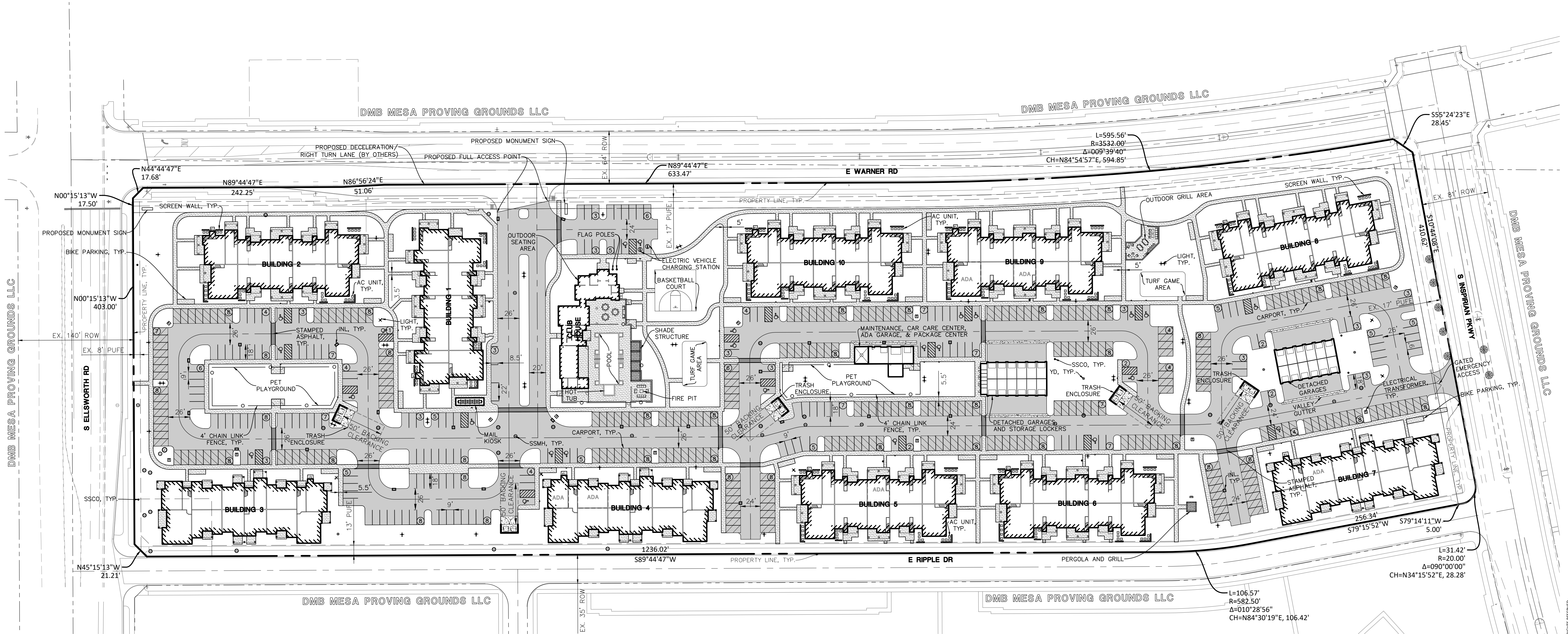
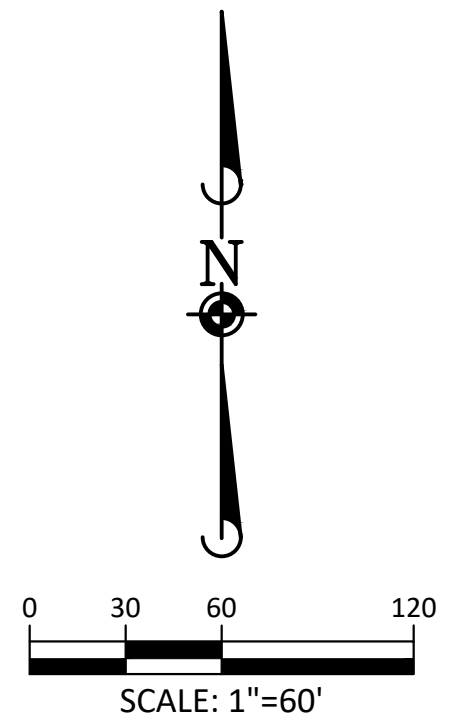
NOTE: PAVEMENT SECTIONS TO BE PER GEOTECHNICAL REPORT.

SITE DIMENSIONAL AND PAVING NOTES:

- 1. ALL DIMENSIONS ARE FACE OF CURB TO FACE OF CURB OR BUILDING FOUNDATION UNLESS NOTED OTHERWISE.
2. ALL PROPOSED CURB AND GUTTER SHALL BE "TYPE A" PER MAG DETAIL 220-1. ALL PROPOSED SINGLE CURB SHALL BE "TYPE B" PER MAG DETAIL 222.
3. ALL CURB RADI SHALL BE 4' MEASURED TO FACE OF CURB UNLESS NOTED OTHERWISE.
4. BUILDING DIMENSIONS AND ADJACENT PARKING HAVE BEEN PREPARED BASED UPON ARCHITECTURAL INFORMATION CURRENT AT THE DATE OF THIS DRAWING. SUBSEQUENT ARCHITECTURAL CHANGES MAY EXIST. THEREFORE, CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR PRECISE BUILDING DIMENSIONS AND NOTIFY THE ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION, BUILDING DIMENSIONS SHOWN SHOULD NOT BE USED FOR CONSTRUCTION LAYOUT OF BUILDING.
5. IMPROVEMENTS ADJACENT TO BUILDING, IF SHOWN, SUCH AS RETAINING WALLS, SIDEWALKS, CURBING, FENCES, CANOPIES, RAMPS, HANDICAP ACCESS, PLANTERS, DUMPSTERS, TRANSFORMERS, ETC. HAVE BEEN SHOWN FOR APPROXIMATE LOCATION ONLY. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS, SPECIFICATIONS, AND DETAILS.
6. LOCATION OF PATIO SIDEWALKS SHALL BE COORDINATED WITH PROPOSED DOORWAY. CONTRACTOR TO VERIFY ACTUAL BUILDING PLAN LOCATIONS WITH ARCHITECT/DEVELOPER PRIOR TO CONSTRUCTING THE SIDEWALKS.
7. ALL ROADWAY AND PARKING LOT SIGNAGE, STRIPING, SYMBOLS, ETC. SHALL BE IN ACCORDANCE WITH LATEST JURISDICTIONAL GOVERNMENTAL ENTITY DETAILS.
8. SOME EXISTING ITEMS TO BE REMOVED HAVE BEEN DELETED FROM THIS PLAN FOR CLARITY. SEE DEMOLITION PLAN FOR ITEMS DELETED.
9. TIE ALL PROPOSED CURB AND GUTTER TO EXISTING CURB AND GUTTER WITH 2"-#4 BARS x 18" LONG DOWELED INTO EXISTING CURB.
10. DEPRESS CURB & GUTTER AT ALL SIDEWALK AND PATH LOCATIONS FOR HANDICAP ACCESS PER FEDERAL AND STATE STANDARDS.
11. THE CONTRACTOR SHALL CONTACT 811 PRIOR TO ANY WORK TO LOCATE UTILITIES AND SHALL CONTACT THE OWNER SHOULD UTILITIES APPEAR TO BE IN CONFLICT WITH THE PROPOSED IMPROVEMENT.
12. ALL HANDICAP RAMPS SHALL BE CONSTRUCTED WITH A MAX CROSS SLOPE OF 2.00%.
13. ALL HANDICAP PARKING STALLS SHALL BE CONSTRUCTED WITH A MAX SLOPE OF 2.00% IN ANY DIRECTION.
14. RETAINING WALL DESIGN BY OTHERS.
15. SEE ARCHITECTURAL PLANS FOR TRASH ENCLOSURE DETAILS.
16. POOL AND POOL DECK AREA DESIGN BY OTHERS.

SITE DATA TABLE

Table with 2 columns: SITE AREA (AC) ±16.57, TYPICAL SURFACE PARKING SPACES 180, STANDARD CARPORT SPACES 279, ELECTRIC VEHICLE CHARGING SPACES 1, ADA ELECTRIC VEHICLE CHARGING SPACES 1, ADA SURFACE SPACES 24, ADA CARPORT SPACES 1, ADA DETACHED GARAGE SPACES 1, DETACHED GARAGE SPACES 24, TOTAL PARKING SPACES PROVIDED 511.



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Revision table with columns: DATE, REVISIONS, and a list of revisions from 11/07/2020 to 11/07/2020.

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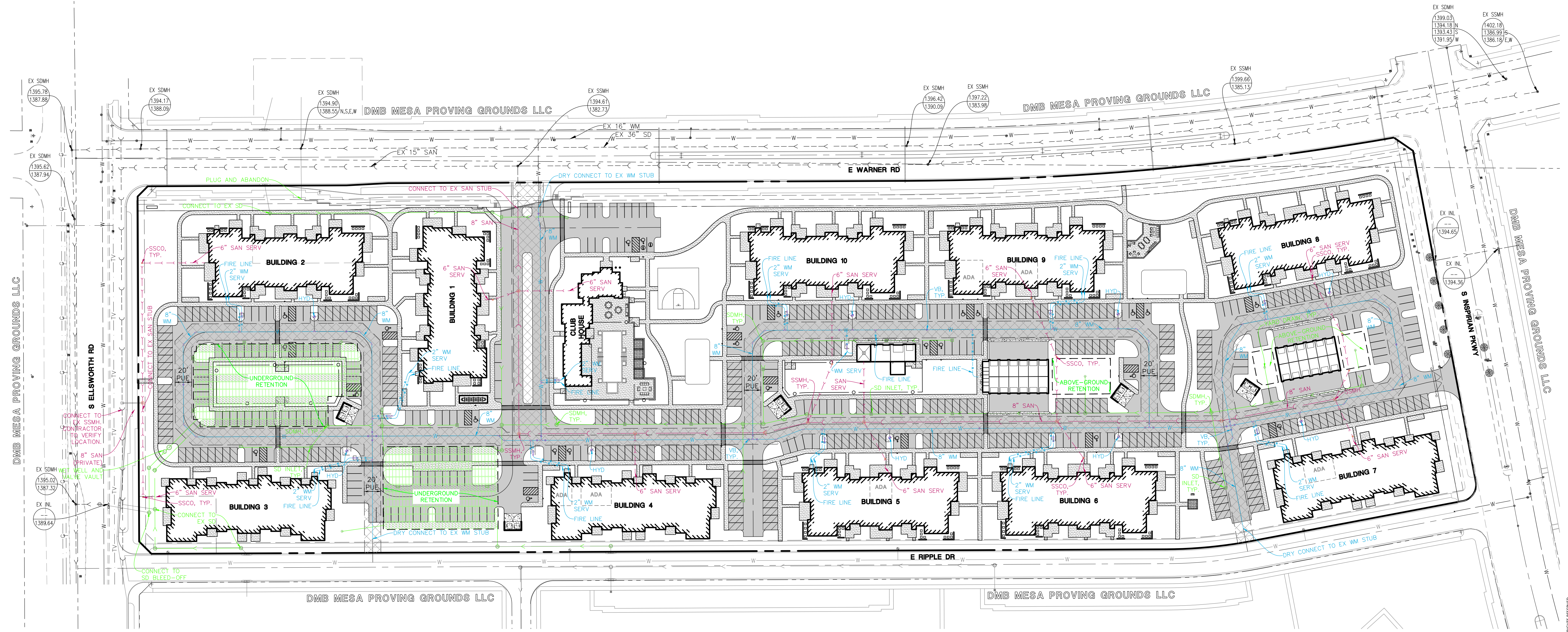
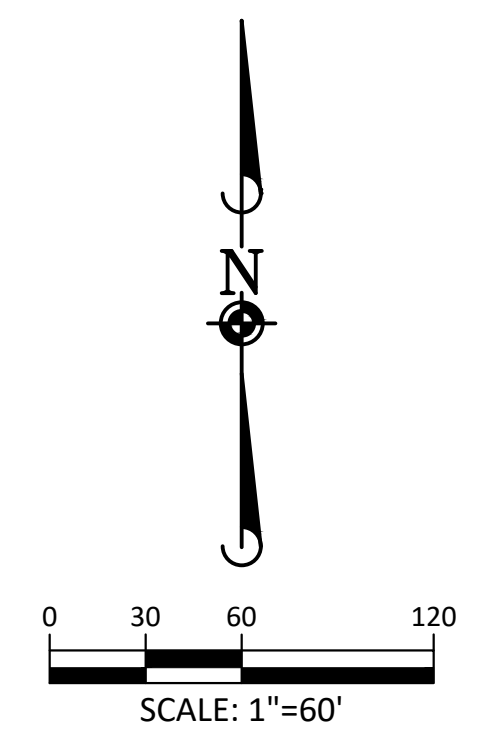
SPRINGS AT EASTMARK
CITY OF MESA, ARIZONA
PRELIMINARY SITE DIMENSIONAL AND PAVING PLAN

PROJ. MGR.: DJM
PROJ. ASSOC.: CAS
DRAWN BY: ZTW
DATE: 08/10/2020
SHEET 2 OF 8
CPCMSA20Z

PRELIMINARY - NOT FOR CONSTRUCTION

UTILITY LEGEND	
	STORM DRAIN (SD)
	SANITARY SEWER (SAN)
	WATERMAIN (WM)
	SANITARY MANHOLE (SSMH)
	SANITARY CLEANOUT (SSCO)
	STORM MANHOLE (SDMH)
	TYPE E STORM INLET (INL)
	TYPE O STORM INLET (INL)
	YARD DRAIN (YD)
	VALVE IN BOX (VB)
	FIRE HYDRANT (HYD)
	PROPOSED PUBLIC UTILITY EASEMENT

- UTILITY NOTES:**
- THE CONTRACTOR SHALL CONTACT 811 PRIOR TO ANY WORK TO LOCATE UTILITIES AND SHALL CONTACT THE OWNER SHOULD UTILITIES APPEAR TO BE IN CONFLICT WITH THE PROPOSED IMPROVEMENT.
 - ALL UTILITY DIMENSIONS ARE TO CENTER OF PIPE OR CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
 - BUILDING DIMENSIONS AND ADJACENT UTILITY LAYOUT HAVE BEEN PREPARED BASED UPON ARCHITECTURAL INFORMATION CURRENT AT THE DATE OF THIS DRAWING. SUBSEQUENT ARCHITECTURAL CHANGES MAY EXIST. THEREFORE CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR PRECISE BUILDING DIMENSIONS AND EXACT UTILITY ENTRANCE LOCATIONS AND NOTIFY THE ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
 - ROUTING OF GAS, ELECTRIC AND TELEPHONE SERVICES IF SHOWN ARE APPROXIMATE ONLY AND SUBJECT TO CHANGE BASED UPON FINAL REVIEW AND APPROVAL BY RESPECTIVE UTILITY COMPANIES AND OWNER. DEVELOPER SHALL CONTACT EACH UTILITY COMPANY AND COORDINATE FINAL LOCATIONS FOR ALL UTILITY SERVICES PRIOR TO START OF CONSTRUCTION.
 - CONTRACTOR SHALL EXCAVATE AND VERIFY ALL EXISTING SEWER, WATER MAIN AND DRY UTILITY LOCATIONS, SIZES, CONDITIONS & ELEVATIONS AT PROPOSED POINTS OF CONNECTION AND CROSSINGS PRIOR TO ANY UNDERGROUND CONSTRUCTION AND NOTIFY THE OWNER OF ANY DISCREPANCIES OR CONFLICTS.
 - LIGHTING AND UNDERGROUND CABLE IF SHOWN ON PLANS ARE FOR APPROXIMATE LOCATION ONLY. REFER TO ARCHITECTURAL PLANS FOR SPECIFICATIONS AND DETAILS.
 - THE CONTRACTOR SHALL ADJUST RIM ELEVATIONS OF ALL EXISTING STRUCTURES TO PROPOSED FINISH GRADES.
 - CONTRACTOR TO VERIFY LOCATION, SIZES, AND ELEVATION OF ALL BUILDING SERVICE LOCATIONS WITH ARCHITECTURAL PLANS.
 - ALL WATER MAINS (TOP OF PIPE) SHALL BE A MINIMUM OF 4'-0" BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
 - ALL WATER MAIN CROSSINGS WITH OTHER UTILITIES SHALL MAINTAIN A MINIMUM OF 2'-0" VERTICAL SEPARATION FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE, UNLESS NOTED OTHERWISE.
 - ALL EXISTING UTILITIES SHOWN ARE NOT TO BE INTERPRETED AS THE EXACT ELEVATION OR LOCATION, OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES.
 - THE UNDERGROUND UTILITY INFORMATION AS SHOWN HERE ON IS BASED, IN PART, UPON INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED.
 - SANITARY SEWER PIPE LENGTHS SHOWN ARE CENTER OF MANHOLE TO CENTER OF MANHOLE. STORM DRAIN PIPE LENGTHS ARE TO CENTER OF MANHOLE, CENTER OF INLET, OR END OF FES.
 - SOME EXISTING ITEMS TO BE REMOVED HAVE BEEN DELETED FROM THIS PLAN FOR CLARITY. SEE DEMOLITION PLAN FOR ITEMS DELETED.
 - ALL TRENCHES SHALL BE ADEQUATELY SUPPORTED AND THE SAFETY OF WORKERS PROVIDED FOR AS REQUIRED BY THE MOST RECENT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) "SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION." THESE REGULATIONS ARE DESCRIBED IN SUBPART P, PART 1926 OF THE CODE OF FEDERAL REGULATIONS. SHEETING AND SHORING SHALL BE UTILIZED WHERE NECESSARY TO PREVENT ANY EXCESSIVE WIDENING OR SLOUGHING OF THE TRENCH WHICH MAY BE DETRIMENTAL TO HUMAN SAFETY, TO THE PIPE BEING PLACED, TO TREES OR TO ANY EXISTING STRUCTURE WHERE EXCAVATIONS ARE MADE UNDER SEVERE WATER CONDITIONS. THE CONTRACTOR MAY BE REQUIRED TO USE AN APPROVED PILING INSTEAD OF SHEETING AND SHORING.
 - BUILDING WATER AND SANITARY SEWER SERVICE STUBS ARE DESIGNED TO 5" OUTSIDE FOUNDATION. SEE ARCHITECTURAL OR PLUMBING PLANS FOR CONTINUATION OF SERVICES.



Plotted: 11/16/2020 4:55 PM. Draw Name: P:\Gcmsa02\dwg\Eng\Preliminary\Plan Set\Overall Utility Plan.dwg. Updated By: Cshandor
 DMB MESA PROVING GROUNDS LLC

Contact Arizona 811 at least two full working days before you begin excavation

 Call 811 or eText Arizona811.com

DATE	REVISIONS
11/07/2020	REVISED PER CITY COMMENTS
11/07/2020	UPDATES PER EASTMARK AND CITY COMMENTS

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SPRINGS AT EASTMARK
 CITY OF MESA, ARIZONA
 PRELIMINARY UTILITY PLAN

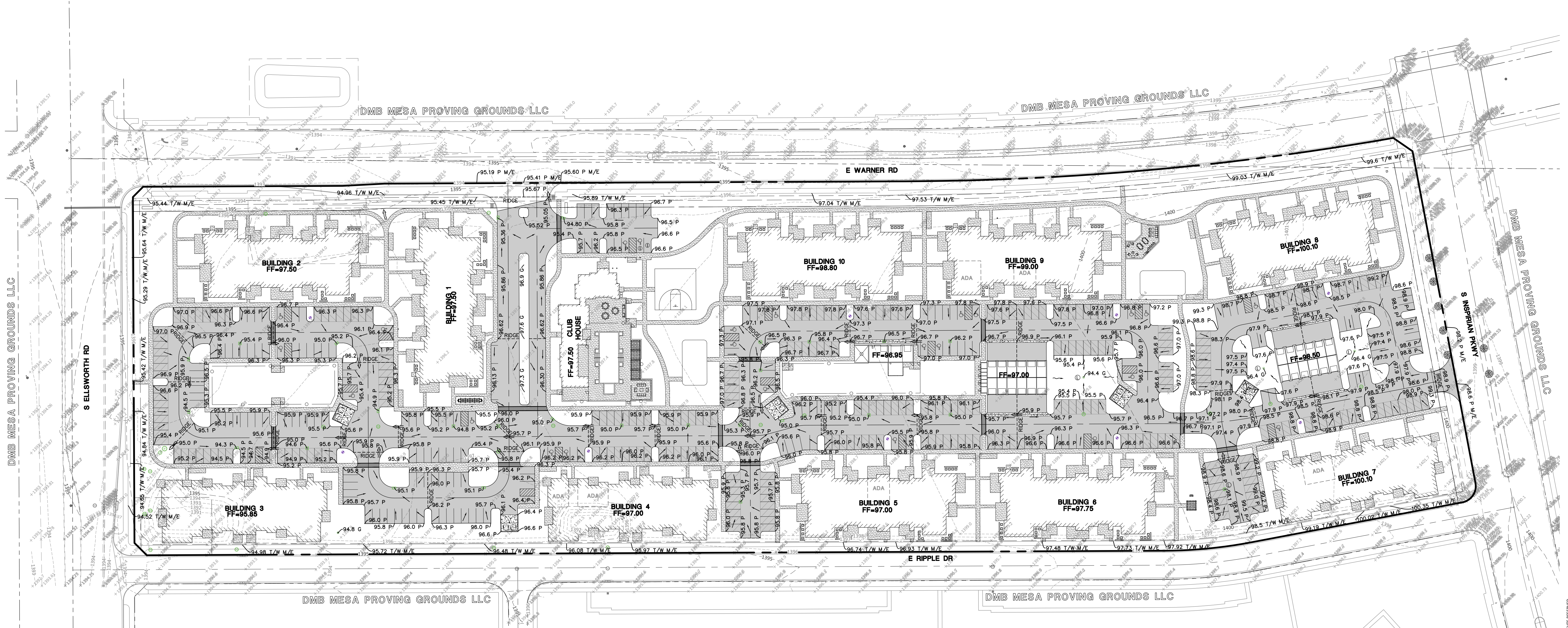
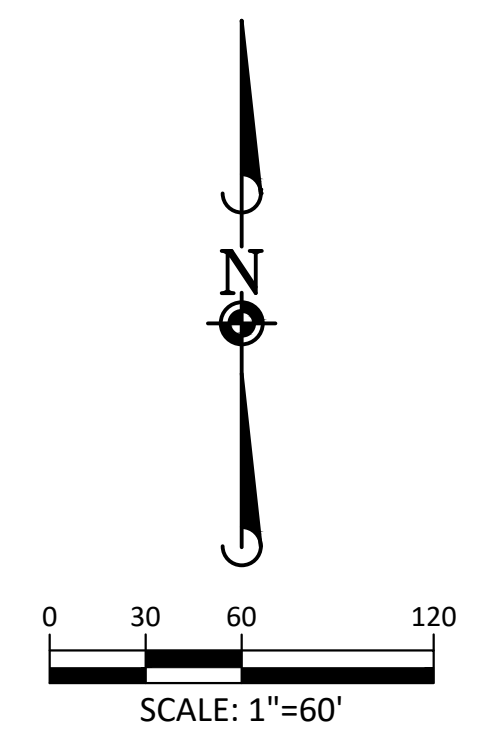
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 PROJ. ASSOC.: CAS
 DRAWN BY: ZTW
 DATE: 08/10/2020
 SHEET
3 OF 8
 CPCMSA020

PRELIMINARY - NOT FOR CONSTRUCTION

GRADING PLAN LEGEND	
	PROPOSED 1 FOOT CONTOURS
	PROPOSED SPOT ELEVATION
	PROPOSED FINISHED FLOOR ELEVATION
	PROPOSED GRADE AT FOUNDATION
	PROPOSED PAVEMENT ELEVATION
	PROPOSED TOP OF CURB
	PROPOSED TOP OF WALK
	PROPOSED TOP OF WALL
	MEET EXISTING
	PROPOSED GROUND GRADE OR GROUND AT BASE OF RETAINING WALL
	PROPOSED DITCH OR SWALE FLOW
	OVERFLOW RELIEF ROUTE
	PROPOSED RIDGE LINE
	PROPOSED DEPTH OF PONDING
	RETAINING WALL
	PROPOSED LOW POINT

- GRADING NOTES:**
- RETAINING WALL DESIGN TO BE PROVIDED BY OTHERS.
 - PAVEMENT SLOPES THROUGH HANDICAP ACCESSIBLE PARKING AREAS SHALL BE 2.00% MAXIMUM IN ANY DIRECTION.
 - ALL HANDICAP RAMPS SHALL BE CONSTRUCTED WITH A MAXIMUM CROSS SLOPE OF 2.00% OR LESS AND A MAXIMUM LONGITUDINAL SLOPE OF 8.33%.
 - SIDEWALKS TO HAVE A MINIMUM CROSS SLOPE OF 1.50% AND MAXIMUM CROSS SLOPE OF 2.00%, UNLESS SPECIFIED OTHERWISE.
 - MEET EXISTING GRADE AT PROPERTY LIMITS UNLESS NOTED OTHERWISE.
 - CONTRACTOR SHALL REFER TO THE STORMWATER POLLUTION PREVENTION PLAN AND DETAILS FOR CONSTRUCTION SCHEDULING AND EROSION CONTROL MEASURES TO BE INSTALLED PRIOR TO BEGINNING GRADING OPERATIONS.
 - THE CONTRACTOR SHALL CONTACT ARIZONA 811 PRIOR TO ANY WORK TO LOCATE UTILITIES AND SHALL CONTACT THE OWNER SHOULD UTILITIES APPEAR TO BE IN CONFLICT WITH THE PROPOSED IMPROVEMENT.
 - THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
 - IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITION OR BETTER.
 - ALL UNPAVED AREAS DISTURBED BY GRADING OPERATIONS SHALL RECEIVE FINAL SURFACE TREATMENT PER LANDSCAPE PLANS. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH GOVERNING SPECIFICATIONS UNTIL A HEALTHY STAND OF VEGETATION IS OBTAINED.
 - EXISTING TOPOGRAPHY SHOWN REPRESENTS SITE CONDITIONS AS PREPARED BY BOWMAN CONSULTING ON 07/10/2020. CONTRACTOR SHALL FIELD CHECK EXISTING ELEVATIONS AND CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING CONSTRUCTION. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR TO THE OWNER FOR REVIEW.
 - TRANSITIONS FROM DEPRESSED CURB TO FULL HEIGHT CURB SHALL BE TAPERED AT 2H:1V UNLESS OTHERWISE NOTED.

RELATIVE ELEVATION NOTE:
ADD 1300.00' TO ALL PROPOSED GRADES.



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11/07/2020	REVISED PER EASTMARK AND CITY COMMENTS

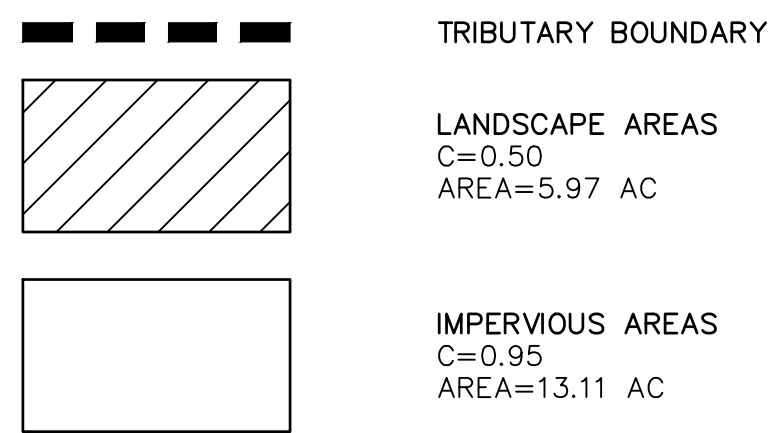
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SPRINGS AT EASTMARK
 CITY OF MESA, ARIZONA
 PRELIMINARY GRADING PLAN

PROJ. MGR.: DJM
 PROJ. ASSOC.: CAS
 DRAWN BY: ZTW
 DATE: 08/10/2020
 SHEET
4 OF 8
 CPCMSA20Z

PRELIMINARY - NOT FOR CONSTRUCTION

DRAINAGE LEGEND



RETENTION REQUIRED

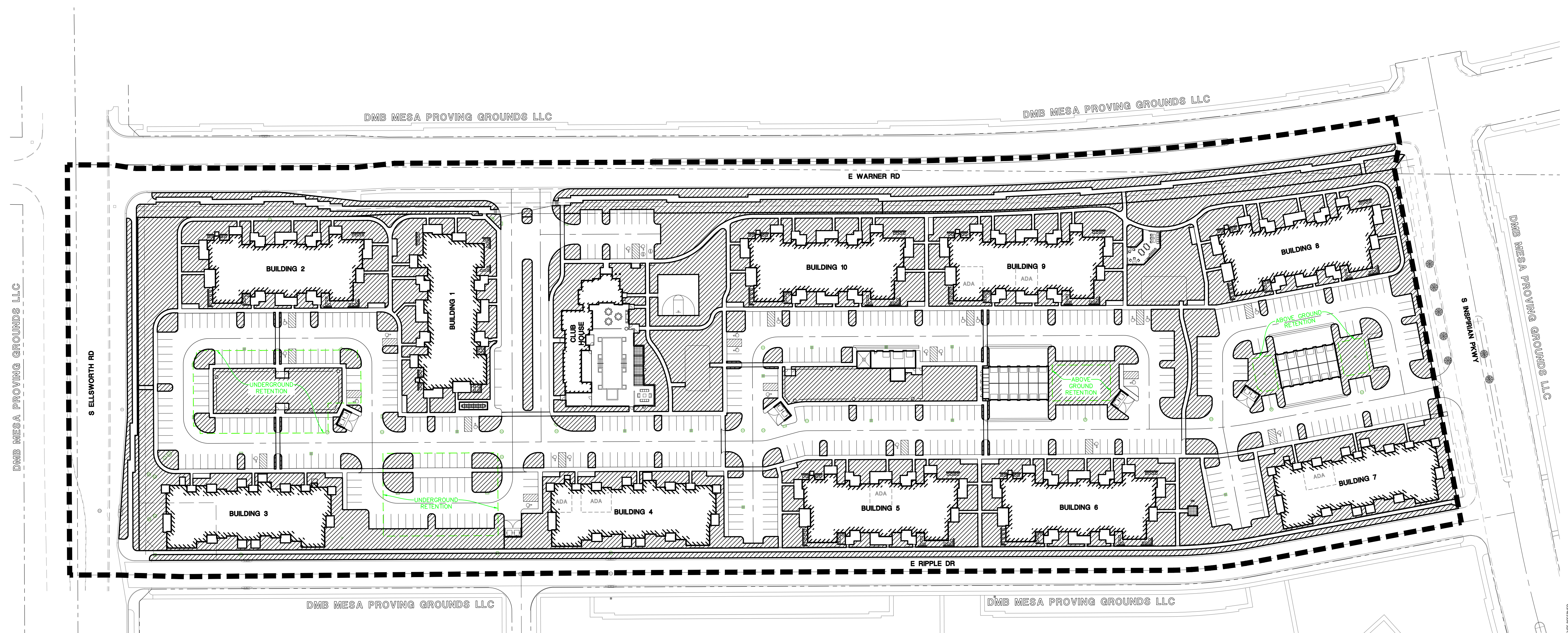
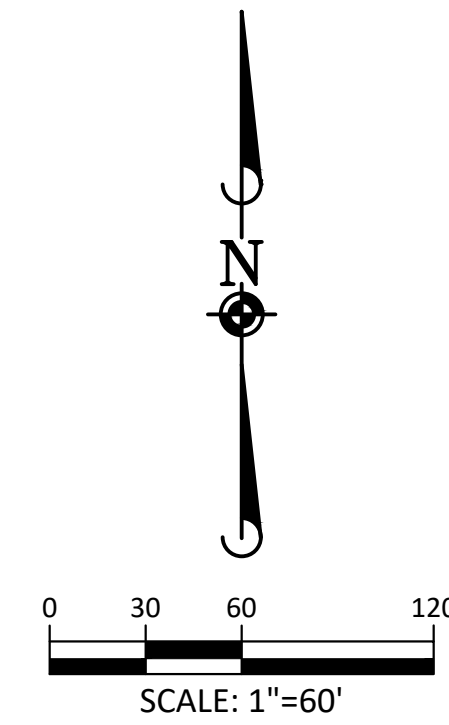
LAND USE	RUNOFF COEFFICIENT (C)	AREA (AC)	INTENSITY (I)	VOLUME (CU-FT)	VOLUME (AC-FT)
ONSITE LANDSCAPING	0.50	5.15	2.20	20394	0.47
ONSITE IMPERVIOUS AREA	0.95	10.11	2.20	76068	1.75
ONSITE TOTAL:				96462	2.21
OFFSITE LANDSCAPING	0.50	0.82	2.20	3247	0.07
OFFSITE IMPERVIOUS AREA	0.95	3.00	2.20	22572	0.52
OFFSITE TOTAL:				25819	0.59
TOTAL RETENTION REQUIRED:				122281	2.81

RETENTION PROVIDED

TYPE	VOLUME (CU-FT)	VOLUME (AC-FT)
ADS MC-4500 STORMTECH - WEST	78527	1.80
ADS MC-4500 STORMTECH - CENTRAL	57892	1.33
TOTAL RETENTION PROVIDED		136419

BLEED-OFF CALCULATION

VOLUME (CU-FT)	TIME (HRS)	RATE (CFS)
136419	36	1



Plotted: 11/07/2020 4:57 PM. Dwg Name: P:\Gcmsa202\Draw\Eng\Preliminary\Plan Set\Preliminary Retention Plan.dwg. Updated By: Cbandor
 DMB MESA PROVING GROUNDS LLC

Obey Arizona 811 at least two full working days before you begin excavation.

 Call 811 or visit Arizona811.com

DATE	REVISIONS
11/07/2020	REVISED PER CITY COMMENTS
11/07/2020	REVISED PER EASTMARK AND CITY COMMENTS

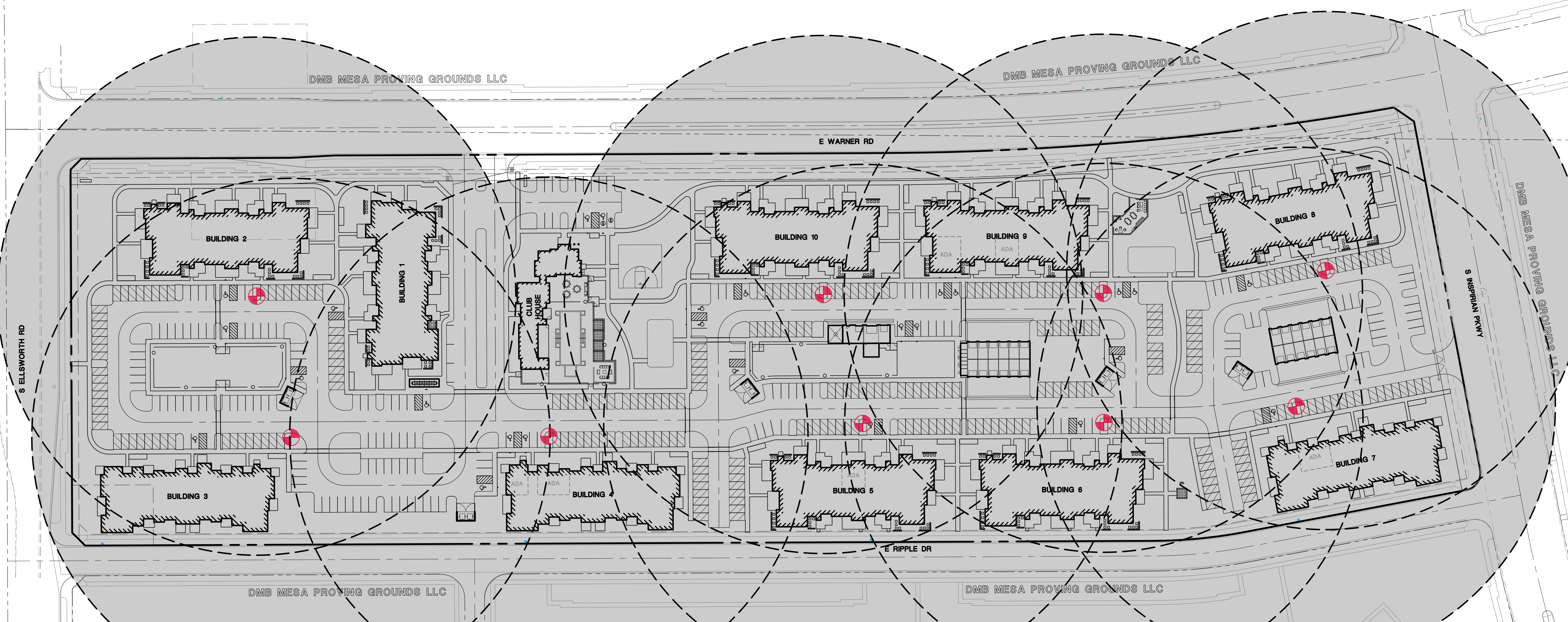
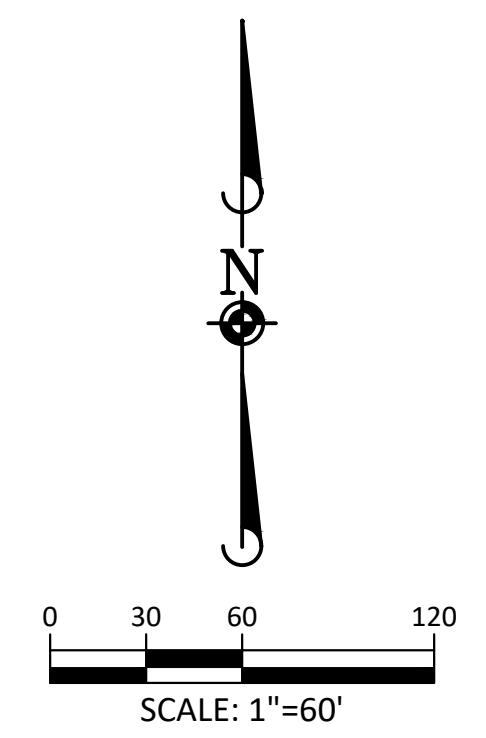
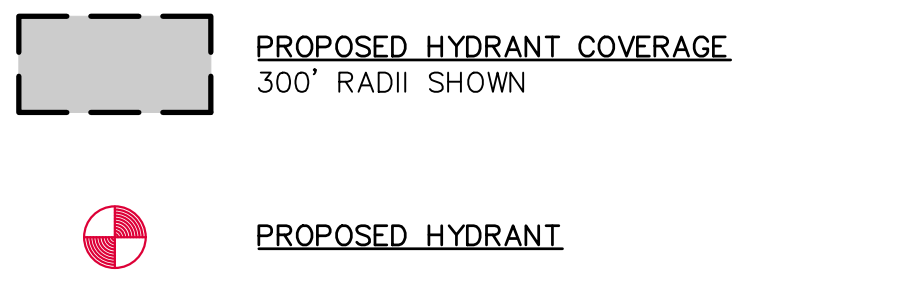
Manhard CONSULTING LTD.
 7600 East Orchard Road, Suite 100, Greenwood Village, CO 80111, phone: 303.750.0500
 Civil Engineering | Surveying & Geospatial Services | Construction Management | Water Resource Management

SPRINGS AT EASTMARK
 CITY OF MESA, ARIZONA
 PRELIMINARY RETENTION EXHIBIT

PROJ. MGR.: DJM
 PROJ. ASSOC.: CAS
 DRAWN BY: ZTW
 DATE: 08/10/2020
 SHEET
5 OF **8**
 CPCMSA202

PRELIMINARY - NOT FOR CONSTRUCTION

HYDRANT COVERAGE LEGEND



Plotted: 11/06/2020 4:58 PM Dwg Name: P:\Cmsa202\dwg\Eng\Preliminary\Plan Set\Fire Hydrant Coverage Exhibit.dwg Updated By: ZWanders

Contact Arizona 811 at least two full working days before you begin excavation

 Call 811 or visit Arizona811.com

DATE	REVISIONS
11/06/2020	REVISED PER CITY COMMENTS
11/07/2020	UPDATES PER EASTMARK AND CITY COMMENTS

Manhard
 CONSULTING LTD.
 7600 East Colford Road, Suite 100-102, Greenwood Village, CO 80111, phone: 303.750.0500
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SPRINGS AT EASTMARK
 CITY OF MESA, ARIZONA
 PRELIMINARY FIRE HYDRANT COVERAGE EXHIBIT

PROJ. MGR.: DJM
 PROJ. ASSOC.: CAS
 DRAWN BY: ZTW
 DATE: 08/10/2020
 SHEET
7 OF **8**
 CPCMSA202

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PRELIMINARY - NOT FOR CONSTRUCTION

