

CONCEPTUAL GRADING,
DRAINAGE AND UTILITY PLAN
FOR
ELLSWORTH & POINT TWENTY TWO
NWC ELLSWORTH ROAD AND RAY ROAD
MESA, ARIZONA

A PORTION OF LAND LOCATED WITHIN THE SOUTHEAST QUARTER OF SECTION 21, TOWNSHIP
1 SOUTH, RANGE 7 EAST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA
COUNTY, ARIZONA.

LEGAL

PARCEL NO. 1:

A PART OF THE SOUTHEAST QUARTER OF SECTION 21, TOWNSHIP 1 SOUTH, RANGE 7 EAST, OF THE GILA AND
SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE EAST QUARTER CORNER OF SAID SECTION 21;

THENCE NORTH 89 DEGREES 29 MINUTES 58 SECONDS WEST, ALONG THE EAST–WEST MIDSECTION LINE, A
DISTANCE OF 2636.60 FEET TO A POINT BEING THE CENTER OF SAID SECTION 21;

THENCE SOUTH 00 DEGREES 18 MINUTES 49 SECONDS EAST, ALONG THE NORTH–SOUTH MIDSECTION LINE OF
SAID SECTION 21, A DISTANCE OF 493.47 FEET;

THENCE SOUTH 89 DEGREES 28 MINUTES 59 SECONDS EAST, A DISTANCE OF 2635.64 FEET TO A POINT
BEING ON THE EAST LINE OF SAID SECTION 21;

THENCE NORTH 00 DEGREES 12 MINUTES 05 SECONDS WEST, ALONG SAID EAST LINE OF SAID SECTION 21, A
DISTANCE OF 494.20 FEET TO THE TRUE POINT OF BEGINNING;

EXCEPT THE EAST 65 FEET CONVEYED TO MARICOPA COUNTY FOR FEE SIMPLE RIGHT–OF WAY IN THAT
WARRANTY DEED RECORDED IN DOCUMENT NO. 2003–1647669, RECORDS OF MARICOPA COUNTY, ARIZONA.

PARCEL NO. 2:

A PART OF THE SOUTHEAST QUARTER OF SECTION 21, TOWNSHIP 1 SOUTH, RANGE 7 EAST OF MARICOPA
COUNTY, ARIZONA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE EAST QUARTER CORNER OF SAID SECTION 21;

THENCE SOUTH 00 DEGREES, 12 MINUTES, 5 SECONDS EAST, ALONG THE EAST LINE OF SAID SECTION 21, A
DISTANCE OF 494.20 FEET TO THE TRUE POINT OF BEGINNING;

THENCE NORTH 89 DEGREES, 28 MINUTES, 59 SECONDS WEST, A DISTANCE OF 2635.64 FEET TO A POINT
BEING ON THE NORTH–SOUTH MIDSECTION LINE OF SECTION 21;

THENCE SOUTH 00 DEGREES, 18 MINUTES, 49 SECONDS EAST ALONG THE NORTH–SOUTH MIDSECTION LINE OF
SAID SECTION 21, A DISTANCE OF 493.47 FEET;

THENCE SOUTH 89 DEGREES, 12 MINUTES, 01 SECONDS EAST, A DISTANCE OF 2634.69 FEET TO A POINT
BEING ON THE EAST LINE OF SAID SECTION 21;

THENCE NORTH 00 DEGREES, 12 MINUTES, 05 SECONDS WEST, ALONG SAID EAST LINE OF SAID SECTION 21, A
DISTANCE OF 494.20 FEET TO THE TRUE POINT OF BEGINNING;

EXCEPT THE EAST 50.0 FEET THEREOF.

EXCEPT THE WEST 15 FEET OF THE EAST 65 FEET AS CONVEYED IN DOCUMENT NO. 2003–1647668.

FEMA CLASSIFICATION

THE CURRENT FEMA FLOOD INSURANCE RATE MAP (FIRM) FOR THIS AREA, MAP NUMBER 04013C 2760L
(EFFECTIVE REVISED DATE OCTOBER 16, 2013) DESIGNATES THIS SITE AS LOCATED WITHIN FLOOD HAZARD
ZONE X.
FLOOD ZONE X IS DEFINED BY F.E.M.A. AS "AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL
CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREA LESS THAN 1
SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD".

RETENTION CALCULATIONS

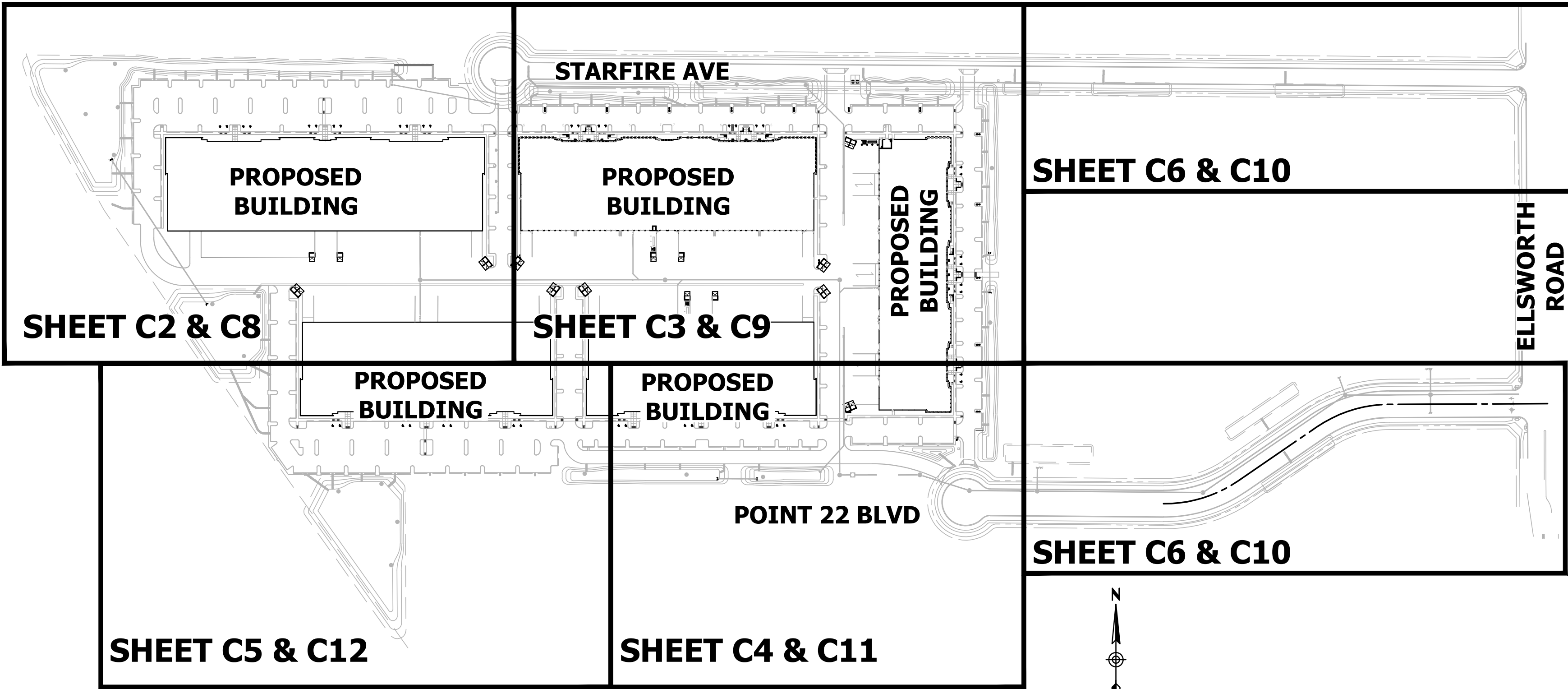
ON–SITE AREA: 45,226 AC
OFF–SITE AREA: 4,746 AC
RETENTION REQUIRED:
ONSITE:
VR=(C)*(P/12)*(A), P=2.19 (100YR–2HR EVENT)
VR=(0.90)*(2.19/12)*(45.226)*(43,560) = 323,580 CF
OFFSITE:
VR=(C)*(P/12)*(A), P=2.19 (100YR–2HR EVENT)
VR=(0.95)*(2.19/12)*(4.746)*(43,560) = 36,559 CF
TOTAL REQUIRED = 360,139 CF

RETENTION BASIN TABLE

BASIN NO.	VOLUME REQUIRED (CU. FT.)	VOLUME PROVIDED (CU. FT.)	EXCESS VOLUME (CU. FT.)
BASIN 1*	58,153	188,952	110,989
BASIN 2*	112,208	92,399	(19,809)
BASIN 3	37,405	132,624	95,219
BASIN 4**	16,692	23,721	3,691
BASIN 5**	20,763	17,426	(3,338)
BASIN 6	3,514	3,530	16
BASIN 7	24,469	35,911	11,441
BASIN 8	8,374	15,131	6,757
BASIN 9	34,371	34,773	402
BASIN 10	18,822	29,176	10,354
TEMP 1	1,420	2,218	798
TEMP 2	2,915	4,688	1,772
TEMP 3	3,678	4,168	490
TEMP 4	7,099	8,317	1,217
TEMP 5	5,256	5,481	225
TEMP 6	5,000	5,078	78
TOTAL	360,139	603,588	243,449

*BASIN 1 & BASIN 2 ARE HYDRAULICALLY LINKED

**BASIN 4 & BASIN 5 ARE HYDRAULICALLY LINKED



KEY MAP

SHEET INDEX

COVER SHEET.		C1
CONCEPTUAL GRADING AND DRAINAGE PLANS		C2–C6
TYPICAL SECTIONS.		C7
CONCEPTUAL UTILITY PLANS		C8–C12

EXISTING LEGEND

RIGHT OF WAY	---
PROPERTY LINE	---
CENTERLINE	---
EASEMENT LINE	---
WATER LINE	--8" ACP W--
WATER LINE	--16" ACP W--
SANITARY SEWER LINE	--6" VCP SS--
SPOT ELEVATION	+P 1349.16
FIRE HYDRANT	⊗
WATER VALVE	⊗
IRRIGATION CONTROL VALVE	⊗
SANITARY SEWER MANHOLE	⊗
SANITARY SEWER CLEANOUT	⊗
SIGN	⊗
LIGHT POLE	⊗
ELECTRICAL RISER	⊗
ELECTRICAL CABINET	CAB

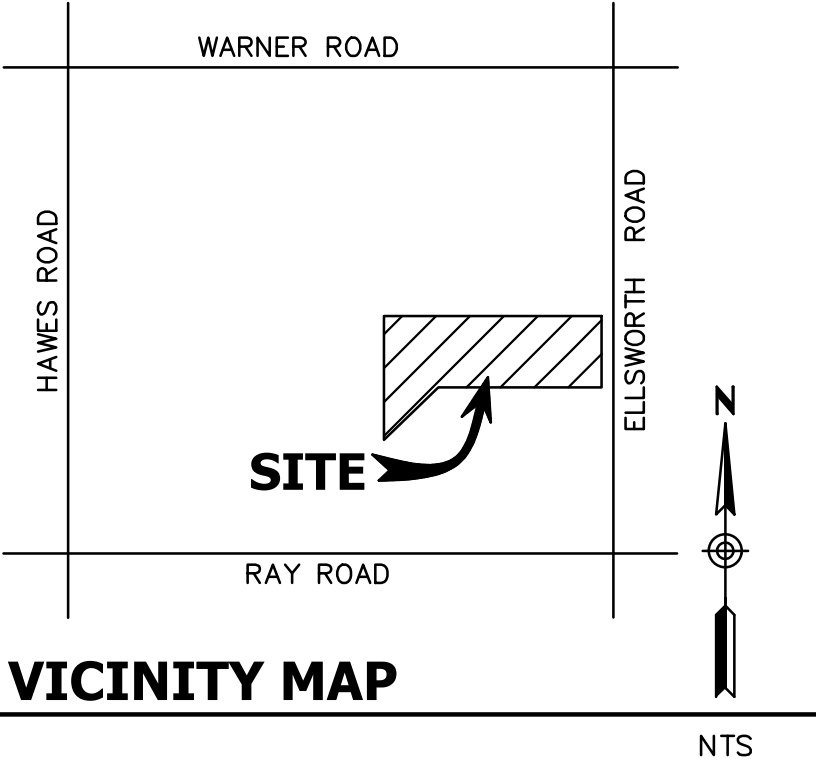
ABBREVIATIONS

ABC	AGGREGATE BASE COURSE
AC	ASPHALTIC CEMENT
BC	BACK OF CURB
BFP	BACKFLOW PREVENTOR
BOT	BOTTOM
CB	CATCH BASIN
CF	CUBIC FEET
CO	CURB OPENING
DNL	DAY–NIGHT SOUND LEVEL (LUKE AFB)
DW	DRYWELL
ESMT	EASEMENT
EX	EXISTING
F/C	FACE OF CURB
FF	FINISH FLOOR
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE

PROPOSED LEGEND

DIRECTION OF SLOPE	←
SEWER LINE	SS
WATER LINE	W
FIRE LINE	FIRE
EASEMENT	---
SAWCUT	---
GRADE BREAK	---
CATCH BASIN	⊗
DRYWELL	⊗
SPOT ELEVATION	90.50P
SECTION CALLOUT	1/8
FLOW LINE	---
BACKFLOW PREVENTOR	⊗
TAPPING SLEEVE & VALVE	⊗
SANITARY SEWER CLEANOUT	⊗
STORMDRAIN	---
HEADWALL	---

G	GUTTER
HDWL	HEADWALL
HW	HIGH WATER
NTS	NOT TO SCALE
P	PAVEMENT
PUE	PUBLIC UTILITY EASEMENT
R/W	RIGHT OF WAY
SD	STORM DRAIN
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
S/W	SIDEWALK
TC	TOP OF CURB
UG	UNDERGROUND RETENTION PIPE
UGE	UNDERGROUND ELECTRICAL
VCP	VITRIFIED CLAY PIPE
VP	VOLUME PROVIDED
VR	VOLUME REQUIRED
W	WATER



VICINITY MAP

OWNER

SUNBELT INVESTMENT HOLDINGS, INC
8095 OTHELLO AVENUE
SAN DIEGO, CALIFORNIA 92111
CONTACT: DENNIS O'NEIL
PHONE: (858) 776–7698
EMAIL: DONEIL@SUNBELTINV.COM

ARCHITECT

BUTLER DESIGN GROUP
5017 E. WASHINGTON STREET, SUITE 107
PHOENIX, ARIZONA 85034
CONTACT: ANTHONY VILLARREAL
PHONE: (602) 957–1800
EMAIL: AVILLARREAL@BUTLERDESIGNGROUP.COM

CIVIL ENGINEER

HUNTER ENGINEERING, INC.
10450 N. 74TH STREET, SUITE #200
SCOTTSDALE, ARIZONA 85258
CONTACT: JEFFREY HUNTER, PE
PHONE: (480) 991–3985
EMAIL: JHUNTER@HUNTERENGINEERINGPC.COM

APN #

304–31–008J
304–31–010F
304–31–010G

SITE ACREAGE

TOTAL AREA = ±58

EXISTING ZONING: PAD

BASIS OF BEARING

BASIS OF BEARING FOR THIS SURVEY IS A BEARING
OF NORTH 00°15'45" WEST, ALONG THE EAST LINE OF
THE SOUTHEAST QUARTER OF SECTION 21, TOWNSHIP
1 SOUTH, RANGE 7 EAST OF THE GILA AND SALT
RIVER BASE AND MERIDIAN, MARICOPA COUNTY,
ARIZONA, ACCORDING TO THE PLAT OF PLSS
SUBDIVISION RECOR OF SURVEY RECORDED IN BOOK
609, PAGE 29, MARICOPA COUNTY RECORDS,
ARIZONA.

BENCHMARK

CITY OF MESA BENCHMARK: BRASS TAG LOCATED AT THE
NORTHWEST CORNER INTERSECTION OF ELLSWORTH &
ELLIOT ON CONCRETE PAD. ELEV.=1405.91 (NAVD 88)

NO.	DATE	REVISION	BY

DESIGN BY: JN
DRAWN BY: DFK
CHECKED BY: JN

HUNTER ENGINEERING
CIVIL AND SURVEY
10450 NORTH 74TH STREET, SUITE 200
SCOTTSDALE, AZ 85258
T 480 991 3985
F 480 991 3986



CONCEPTUAL PLANS
FOR
ELLSWORTH AND POINT TWENTY TWO
NWC S ELLSWORTH ROAD & E RAY ROAD
MESA, ARIZONA 85212

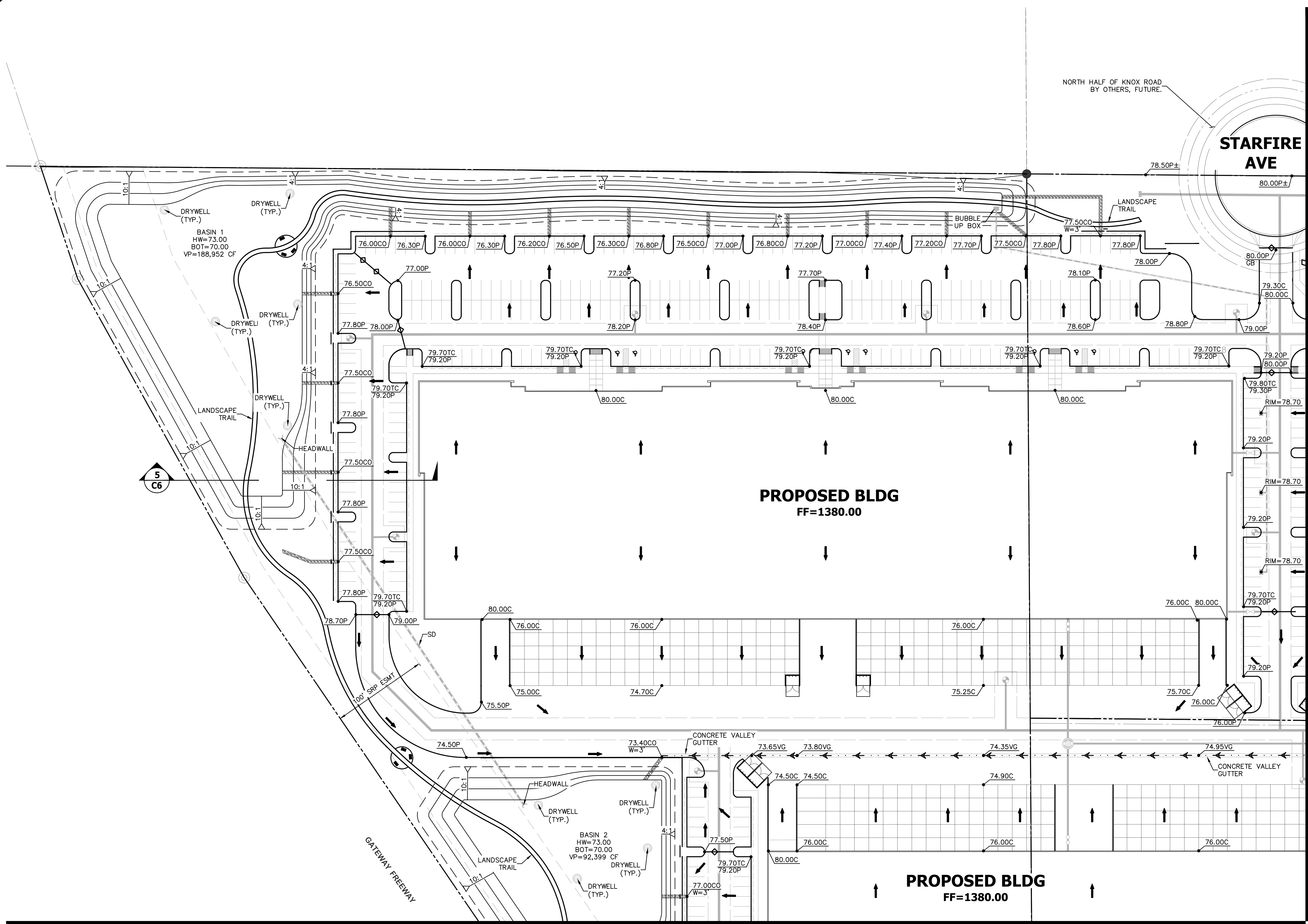


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MUNICIPALITY.

PROJECT NAME:
VIEW 202

HE NO.: BELT016
SCALE: NTS

SHEET:
C1



MATCH LINE SEE SHEET C5

MATCH LINE SEE SHEET C3

NO.	DATE	REVISION	BY

DESIGN BY: JN
DRAWN BY: JN
CHECKED BY: JN

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ENGINEERING
10450 NORTH 74TH STREET, SUITE 200
SCOTTSDALE, AZ 85258
T 480 991 3985
F 480 991 3986

CIVIL AND SURVEY



**CONCEPTUAL GRADING & DRAINAGE PLAN
FOR
ELLSWORTH AND POINT TWENTY TWO
NWC S ELLSWORTH ROAD & E RAY ROAD
MESA, ARIZONA 85212**

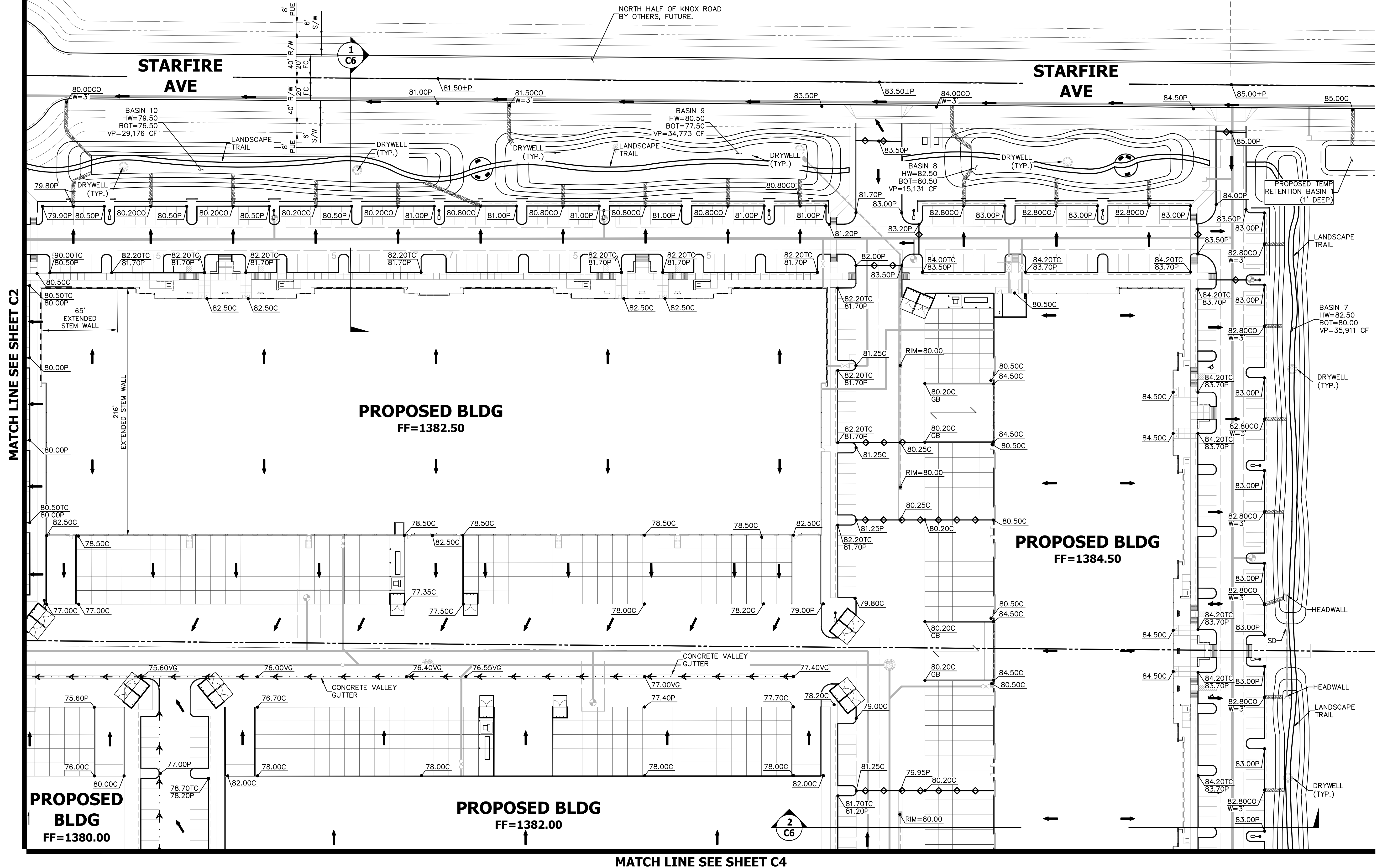


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PROJECT NAME:
VIEW 202

HE NO.: BELT016
SCALE: 1"=40'

SHEET:
C2

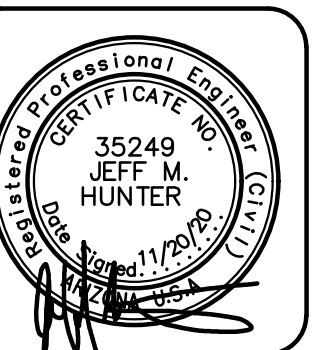


NO.	DATE	REVISION	DI

DR SUBMITTAL

DESIGN BY: JN
DRAWN BY: DFK
CHECKED BY: JN

HUNTER
ENGINEERING
CIVIL AND SURVEY
10450 NORTH 74TH STREET.



CONCEPTUAL GRADING & DRAINAGE PLAN
FOR
ELLSWORTH AND POINT TWENTY TWO
NWC S ELLSWORTH ROAD & E RAY ROAD
MESA, ARIZONA 85212

CONTACT ARIZONA 811 AT LEAST 2 FULL
WORKING DAYS BEFORE YOU BEGIN EXCAVATION

ARIZONA811
BLUE STAKE, INC.
CALL 811 OR CLICK ARIZONA811.COM

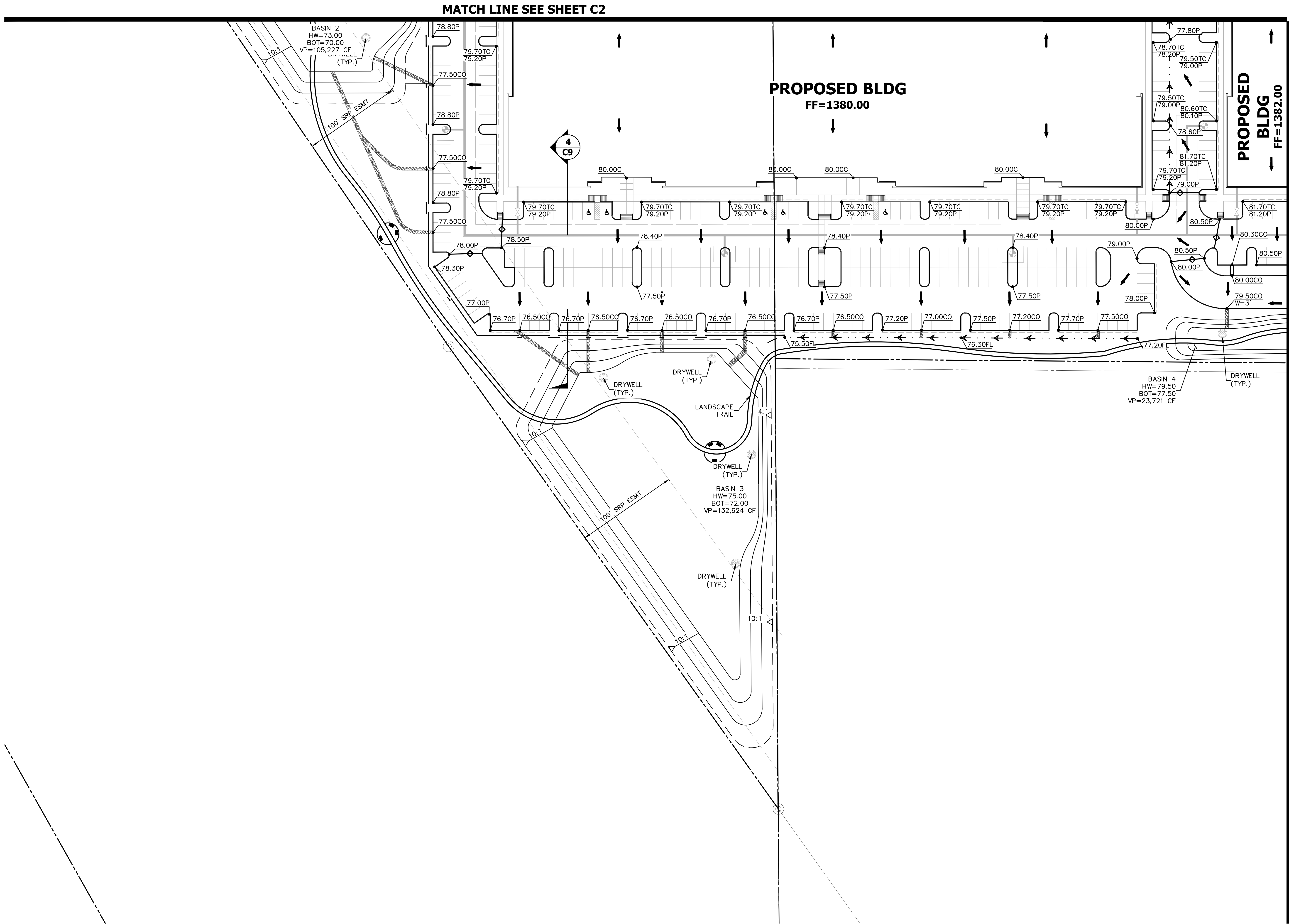
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PROJECT NAME:
VIEW 202

E NO.: BELT016
SCALE: 1"=40'

SHEET:
C3

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NO.	DATE	REVISION	BY

DESIGN BY: JN
DRAWN BY: DFK
CHECKED BY: JN

HUNTER
ENGINEERING
10450 NORTH 74TH STREET, SUITE 200
SCOTTSDALE, AZ 85258
T 480 991 3985
F 480 991 3986

CIVIL AND SURVEY

Professional Engineer
35249
JEFF M.
HUNTER
11/17/2020
(AZ)

CONCEPTUAL GRADING & DRAINAGE PLAN
FOR
ELLSWORTH AND POINT TWENTY TWO
NWC S ELLSWORTH ROAD & E RAY ROAD
MESA, ARIZONA 85212

CONTACT ARIZONA 811 AT LEAST 2 FULL WORKING DAYS BEFORE YOU BEGIN EXCAVATION

AR ZONA811
811 SERVICE
CALL 811 OR CLICK ARIZONA811.COM

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PROJECT NAME:
VIEW 202

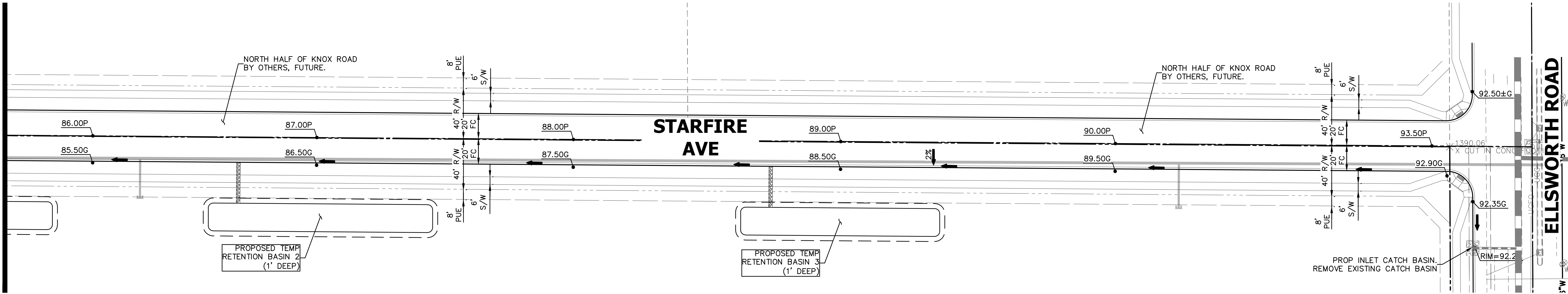
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SCALE: 1"=40'

SHEET:
C5

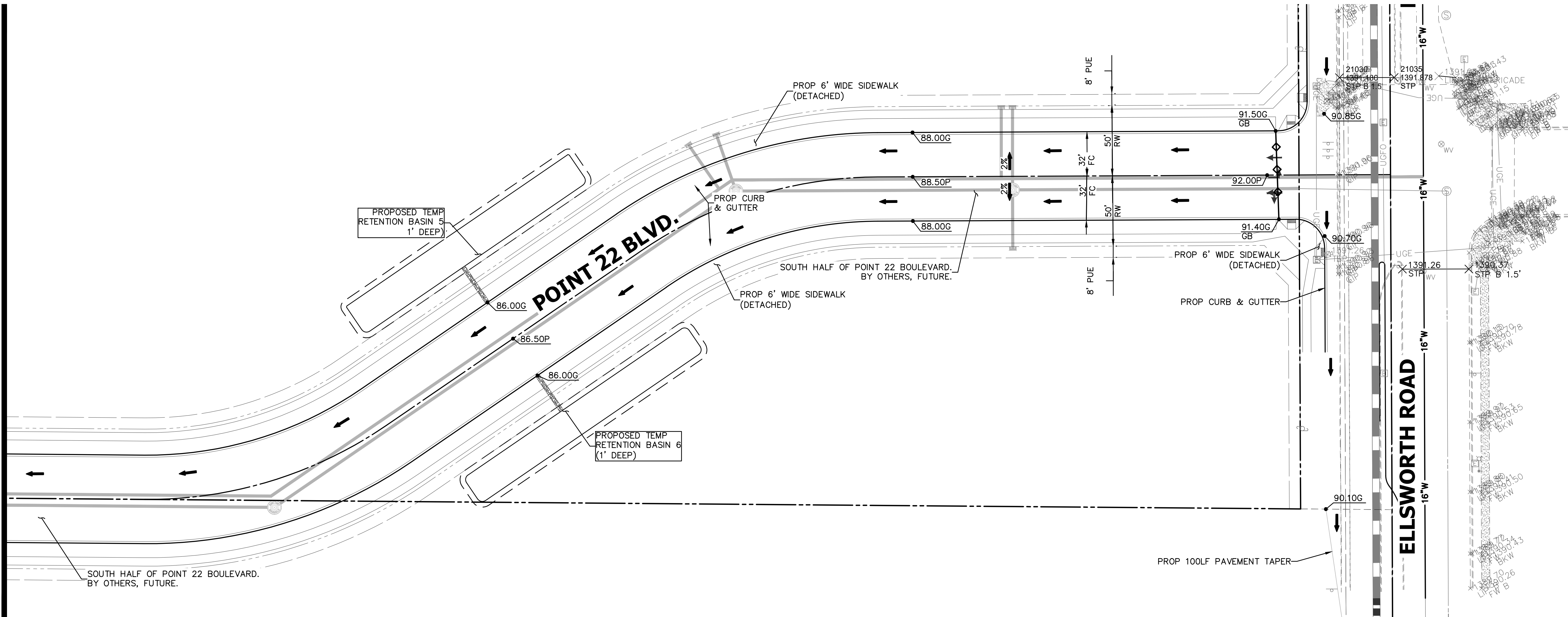
PURPOSE:
DR SUBMITTAL

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MATCH LINE
SEE SHEET C3



MATCH LINE
SEE SHEET C4



CONCEPTUAL GRADING & DRAINAGE PLAN
FOR
ELLSWORTH AND POINT TWENTY TWO
NWC S ELLSWORTH ROAD & E RAY ROAD
MESA, ARIZONA 85212

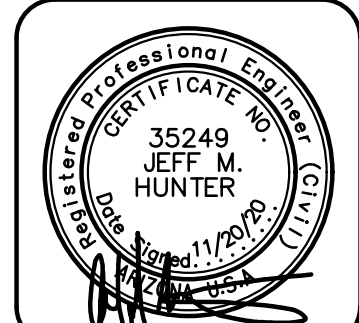


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MUNICIPALITY.

PROJECT NAME:
VIEW 202

HE NO.: BELT016
SCALE: 1"=40'

SHEET:
C6



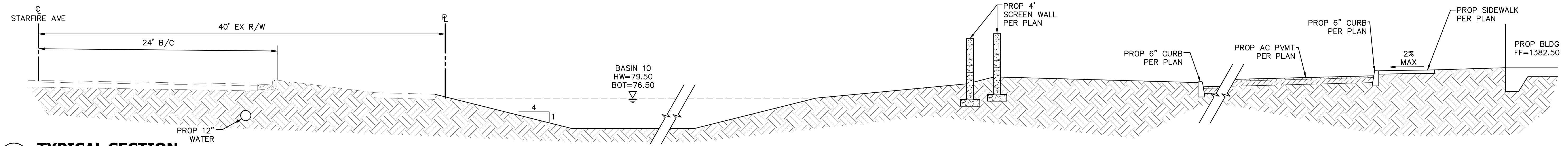
HUNTER
ENGINEERING
10450 NORTH 74TH STREET,
SUITE 200
SCOTTSDALE, AZ 85258
T 480 991 3985
F 480 991 3986

CIVIL AND SURVEY

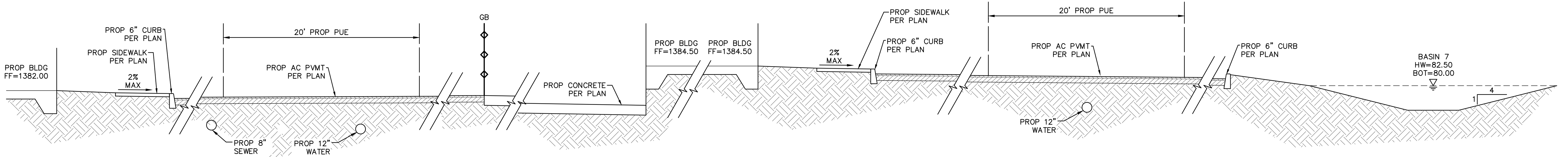
DESIGN BY: JN
DRAWN BY: JN
CHECKED BY: JN

NO.	DATE	REVISION	BY

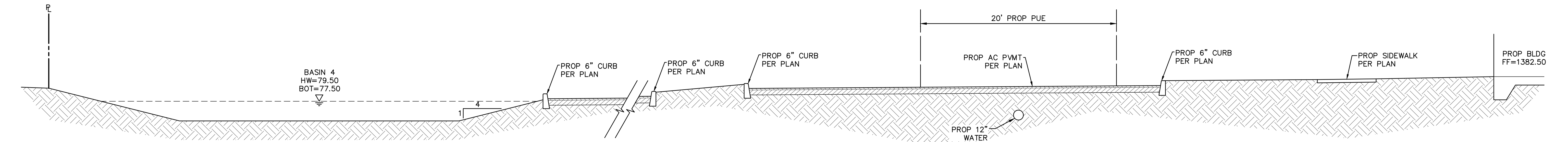
PURPOSE:
DR SUBMITTAL



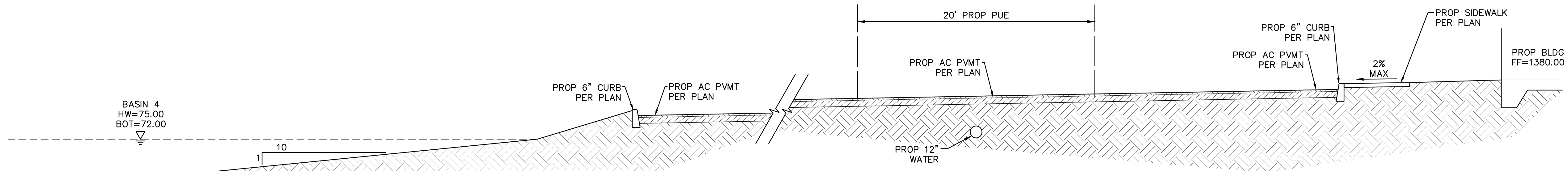
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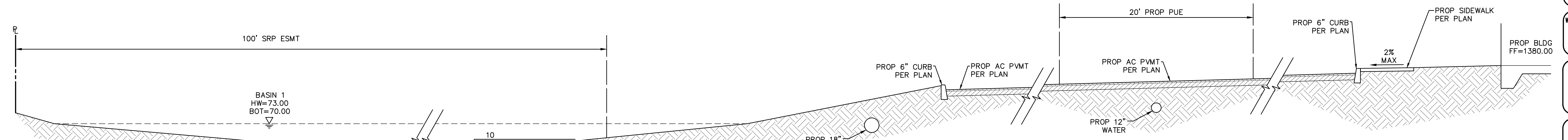
2 TYPICAL SECTION



3 TYPICAL SECTION



4 TYPICAL SECTION



5 TYPICAL SECTION

NO.	DATE	REVISION	BY

DESIGN BY: JN
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HUNTER
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10450 NORTH 74TH STREET, SUITE 200
SCOTTSDALE, AZ 85258
T 480 991 3985
F 480 991 3986



**TYPICAL SECTIONS
FOR
ELLSWORTH AND POINT TWENTY TWO
NWC S ELLSWORTH ROAD & E RAY ROAD
MESA, ARIZONA 85212**



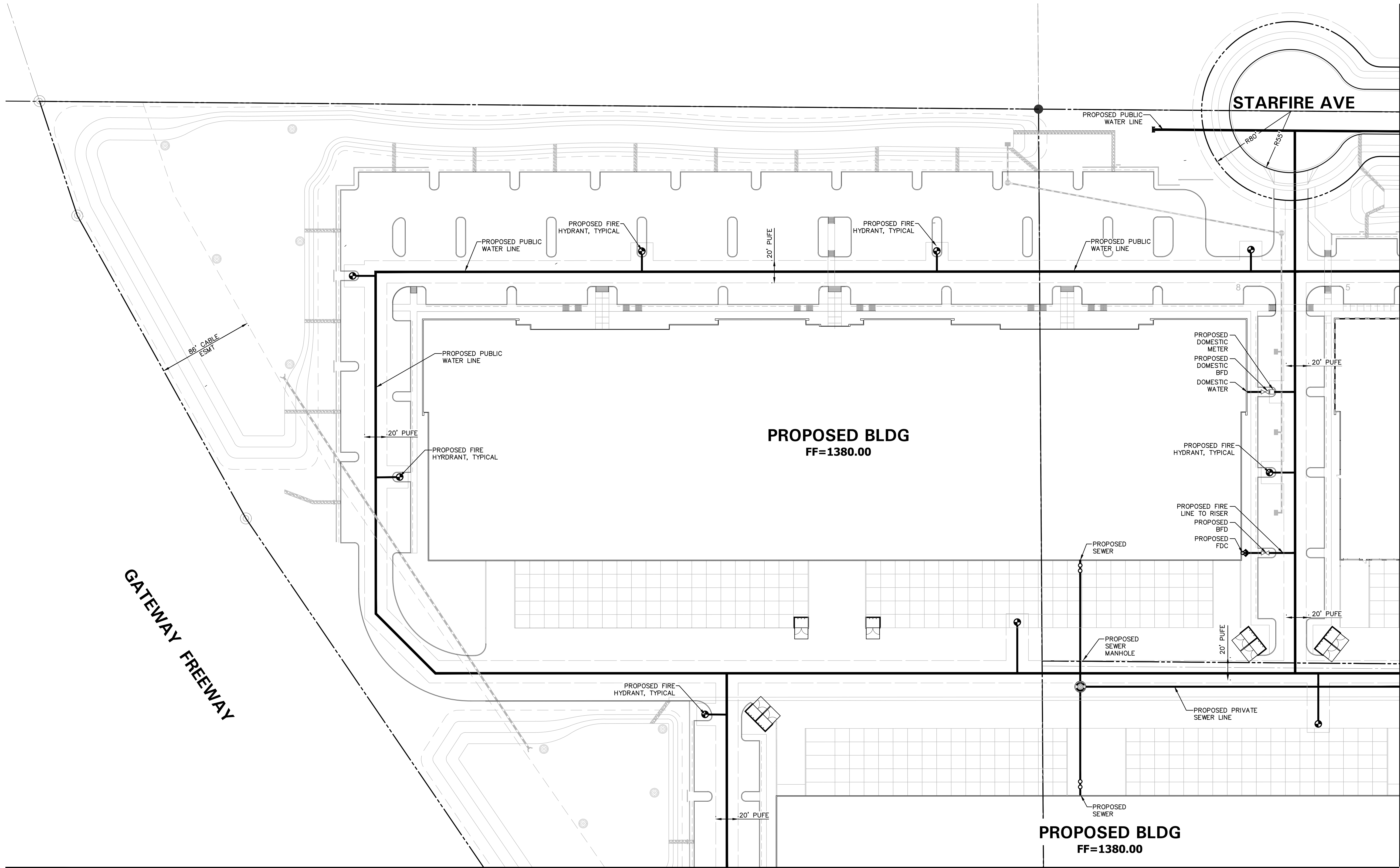
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PROJECT NAME:
VIEW 202

HE NO.: BELT016
SCALE: N.T.S.

SHEET:
C7

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MATCH LINE
SEE SHEET C12

MATCH LINE
SEE SHEET C9

NO.	DATE	REVISION	BY

DESIGN BY: JN
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CHECKED BY: JN

HUNTER
ENGINEERING
10450 NORTH 74TH STREET, SUITE 200
SCOTTSDALE, AZ 85258
T 480 991 3985
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CIVIL AND SURVEY



CONCEPTUAL UTILITY PLANS
FOR
ELLSWORTH AND POINT TWENTY TWO
NWC S ELLSWORTH ROAD & E RAY ROAD
MESA, ARIZONA 85212

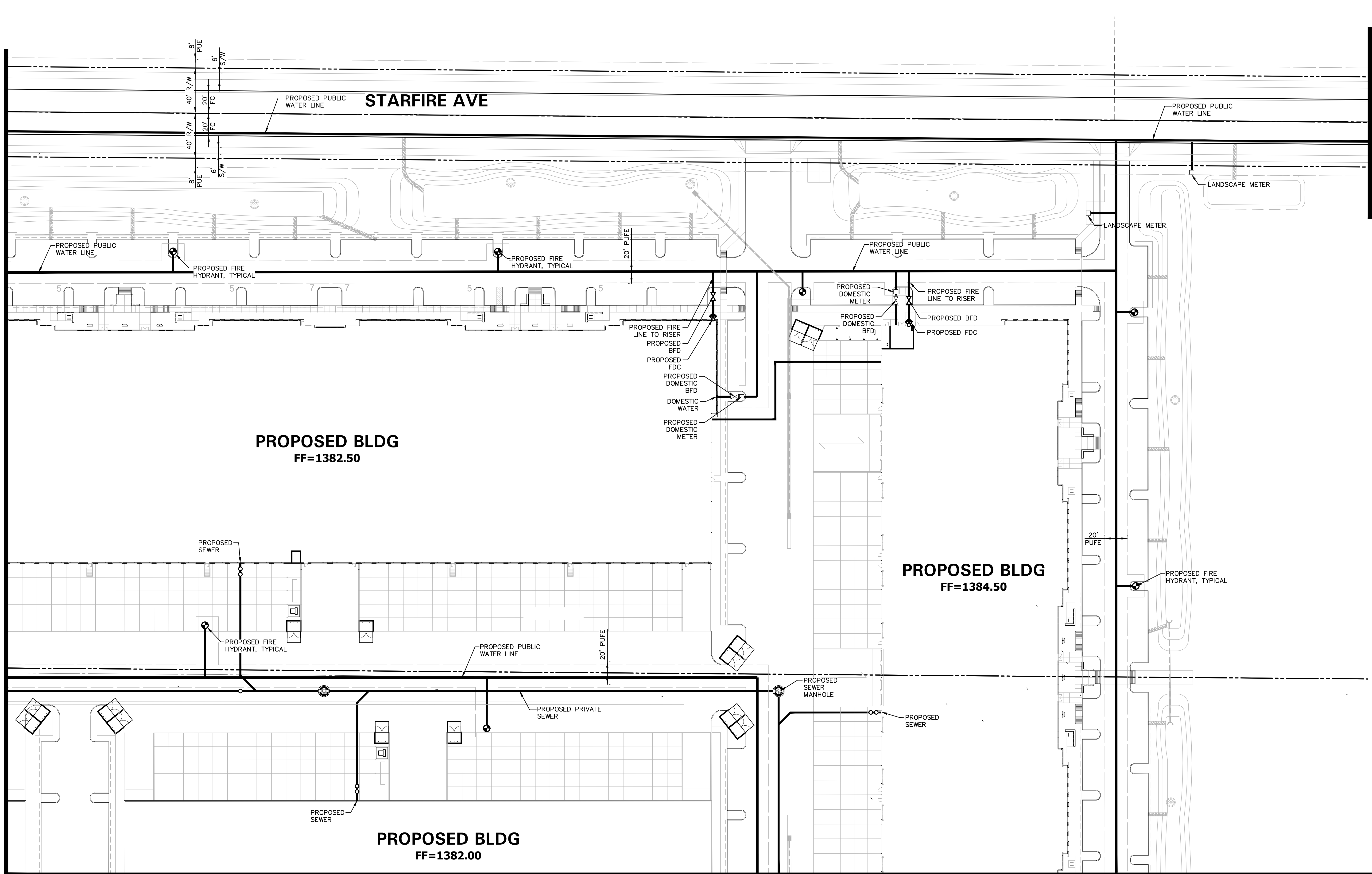


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PROJECT NAME:
VIEW 202

HE NO.: BELT016
SCALE: 1"=40'

SHEET:
C8



**MATCH LINE
SEE SHEET C10**

DESIGN BY: JN
DRAWN BY: DF
CHECKED BY: JN

HUNTER
ENGINEERING

CIVIL AND SURVEY

10450 NORTH 74TH STREET,
SUITE 200
SCOTTSDALE, AZ 85258
T 480 991 3963
F 480 991 3996



CONTACT ARIZONA 811 AT LEAST 2 FULL
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BLUE STAKE, INC.

CALL 811 OR CLICK ARIZONA811.COM

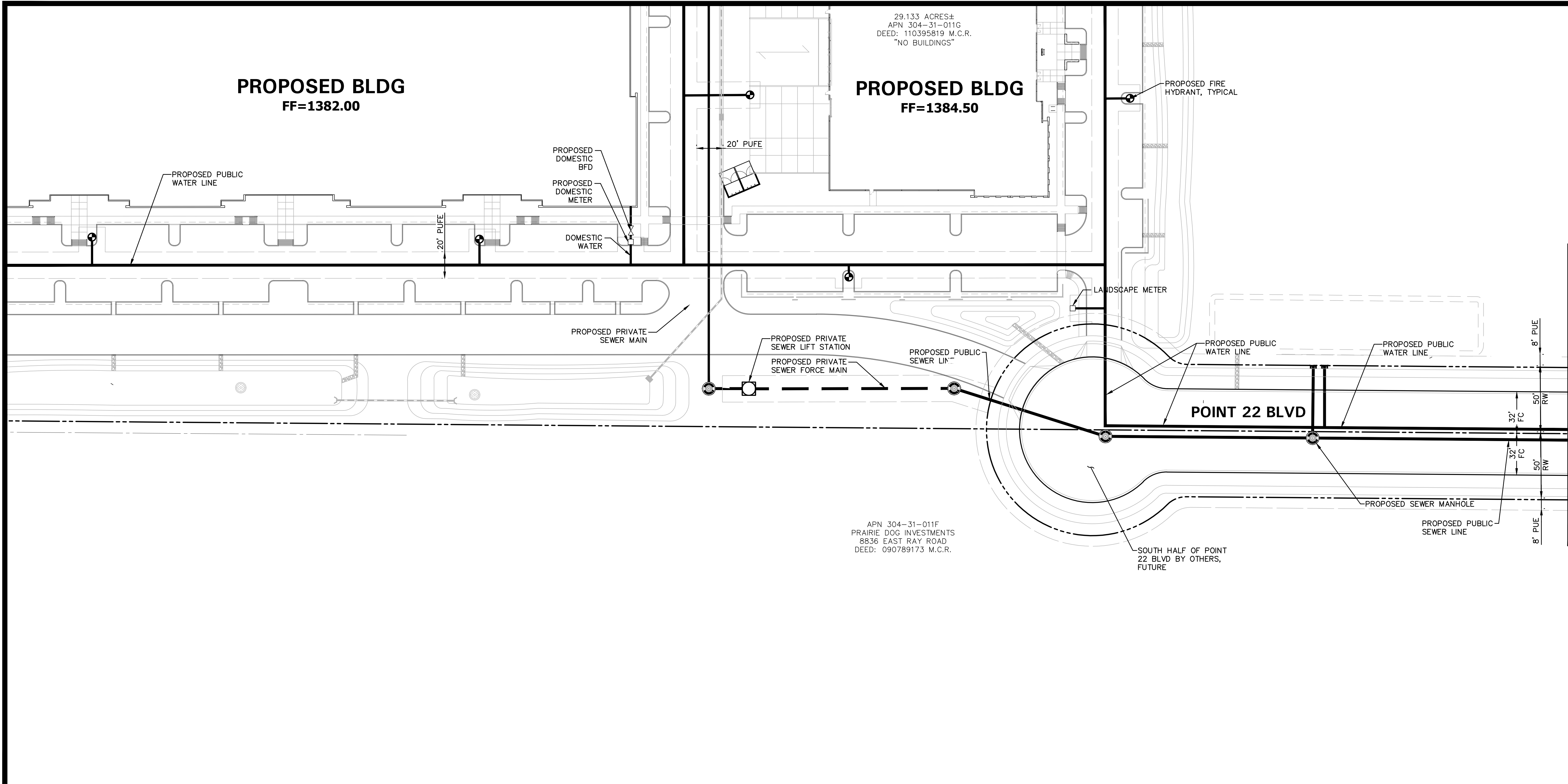
PROJECT NAME:
VIEW 202

SHEET:
C9

SEE SHEET C12
MATCH LINE

SEE SHEET C9
MATCH LINE

MATCH LINE
SEE SHEET C10



NO.	DATE	REVISION	BY

DESIGN BY: **DFK**
DRAWN BY: **DFK**
CHECKED BY: **DFK**

PURPOSE: **DR SUBMITTAL**

HUNTER
ENGINEERING
10450 NORTH 74TH STREET, SUITE 200
SCOTTSDALE, AZ 85258
T 480 991 3985
F 480 991 3986

CIVIL AND SURVEY

Professional Engineer
35249
JEFF M. HUNTER
11/25/20
11/25/20

CONCEPTUAL UTILITY PLANS
FOR
ELLSWORTH AND POINT TWENTY TWO
NWC S ELLSWORTH ROAD & E RAY ROAD
MESA, ARIZONA 85212

CONDUCT EXCAVATION AT LEAST 2 FULL WORKING DAYS BEFORE YOU BEGIN EXCAVATION

ARIZONA811
CALL 811 OR CLICK ARIZONA811.COM

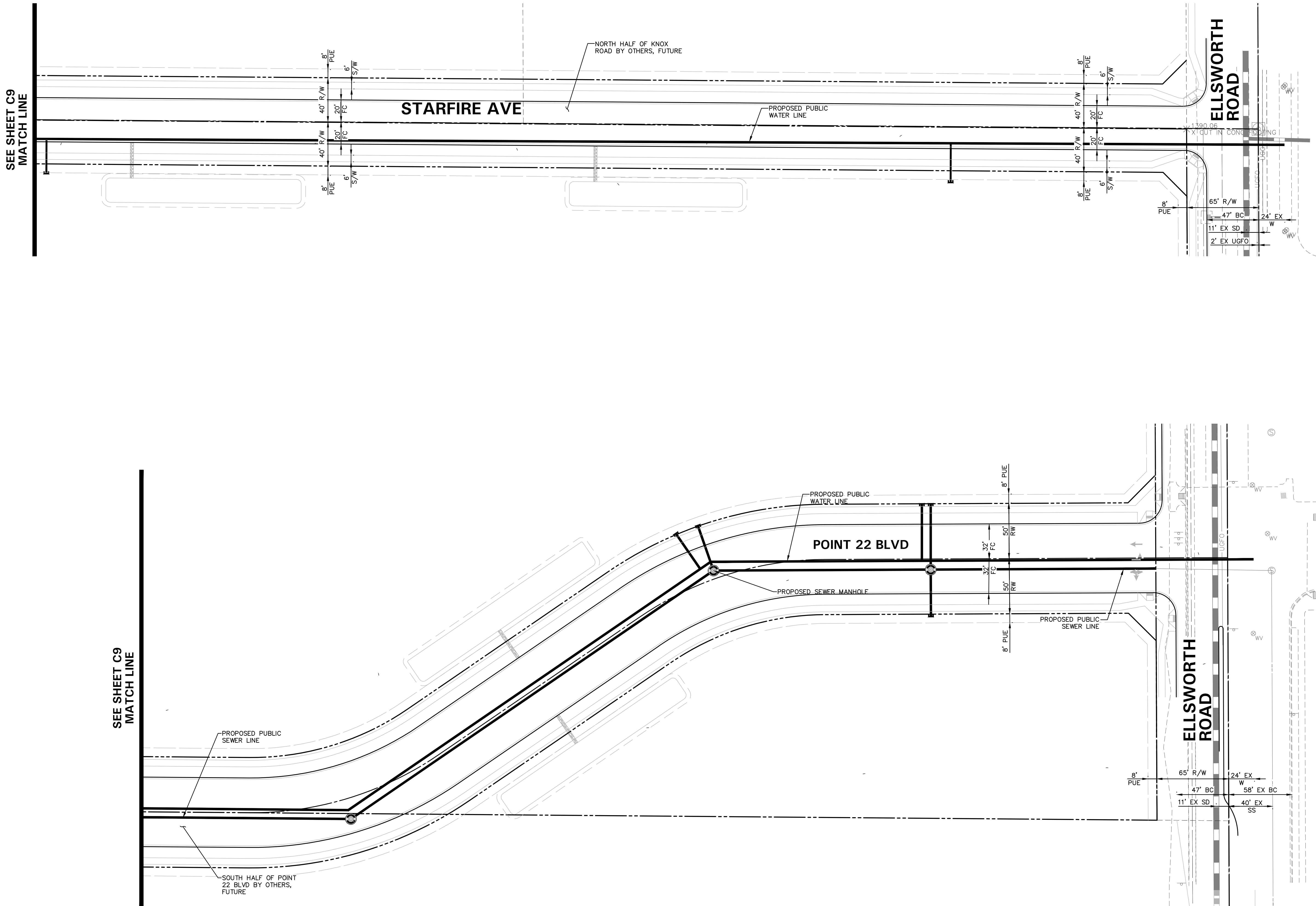
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PROJECT NAME:
VIEW 202

HE NO.: BELT016
SCALE: 1"=40'

SHEET:
C11

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NO. DATE REVISION BY

DESIGN BY: **DFK**
DRAWN BY: **DFK**
CHECKED BY:

PROJECT NAME:
VIEW 202

HE NO.: BELT016
SCALE: 1"=40'

SHEET:
C10

HUNTER
ENGINEERING
10450 NORTH 74TH STREET,
SUITE 200
SCOTTSDALE, AZ 85258
T 480 991 3985
F 480 991 3986

Professional Engineer
35249
JEFF M.
HUNTER
11/25/20

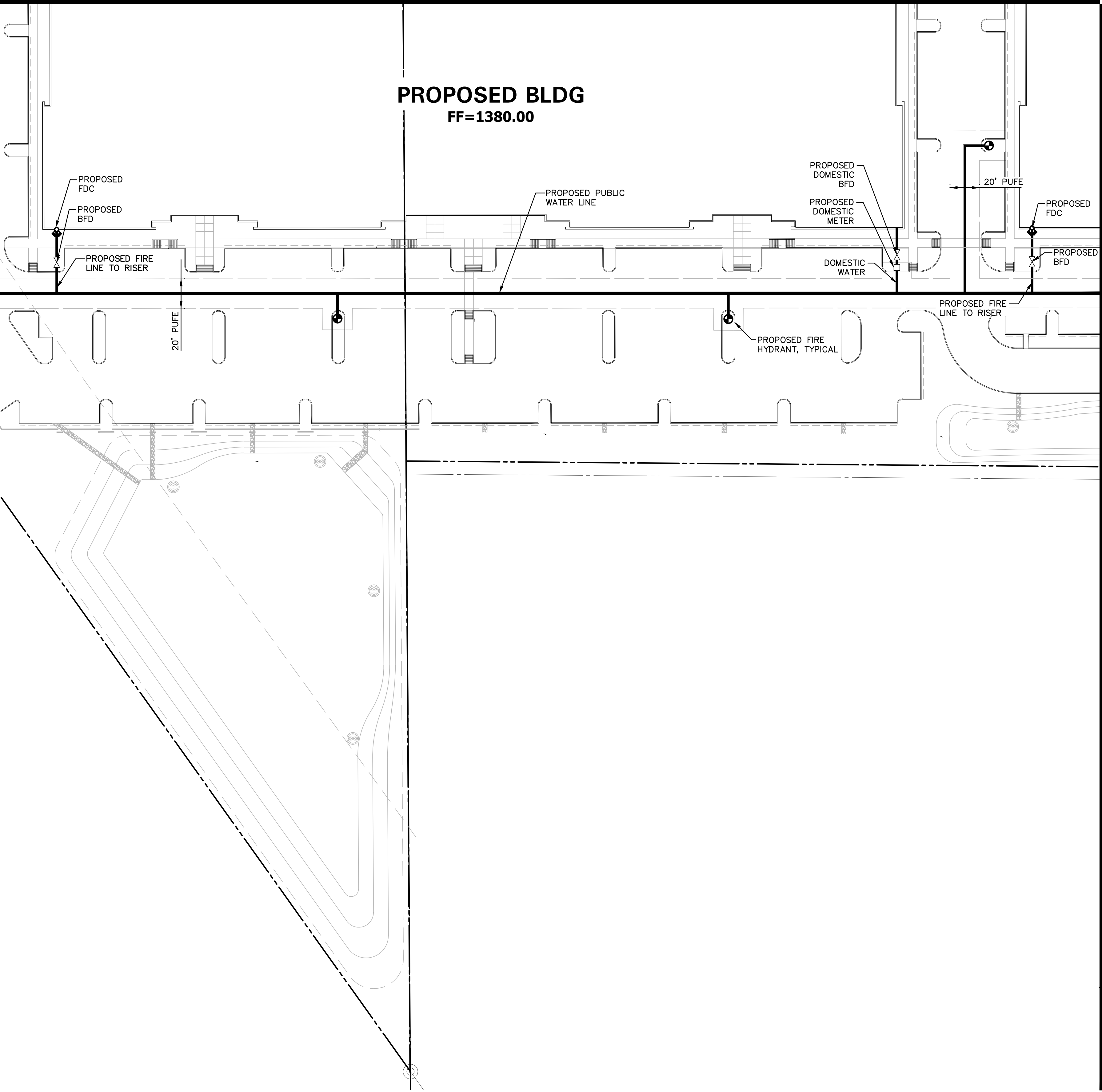
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MESA, ARIZONA 85212

CONDUCT EXCAVATION AT LEAST 2 FULL
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PURPOSE:
DR SUBMITTAL

SEE SHEET C8
MATCH LINE

PROPOSED BLDG
FF=1380.00



GATEWAY FREEWAY

MATCH LINE
SEE SHEET C11

NO.	DATE	REVISION	BY

PURPOSE:

DR SUBMITTAL

DESIGN BY: JN
DRAWN BY: JN
CHECKED BY: JN

HUNTER

ENGINEERING

10450 NORTH 74TH STREET,
SUITE 200
SCOTTSDALE, AZ 85258
T 480 991 3985
F 480 991 3986

CIVIL AND SURVEY



CONCEPTUAL UTILITY PLANS
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NWC S ELLSWORTH ROAD & E RAY ROAD
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HE NO.: BELT016
SCALE: 1"=40'

SHEET:
C12