

From: [Peterson, Dana M.](#)
To: "Michael Balaskovits"; [Biazar, Shahab](#)
Cc: [Adeeb, Muhanned W](#); [Kevin Murtagh](#); [Kelly Klein](#); [Olin Brown](#)
Subject: RE: Montage Unit 3B Public Work Order field change. (PWO #775782)
Date: Wednesday, September 18, 2019 12:23:43 PM

Good Afternoon Mike-

I've reviewed your attachments and Hydrology has no objection to the proposed change.

v/r,

Dana



DANA PETERSON, P.E, CFM
senior engineer, hydrology section
o 505.924.3695
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cabq.gov/planning

From: Michael Balaskovits [mailto:mbalaskovits@bhinc.com]
Sent: Tuesday, September 17, 2019 8:46 AM
To: Peterson, Dana M.; Biazar, Shahab
Cc: Adeeb, Muhanned W; Kevin Murtagh; Kelly Klein; Olin Brown
Subject: RE: Montage Unit 3B Public Work Order field change. (PWO #775782)

Good morning Dana, the contractor is eager to get this work started. Can you let me know if you have had a chance to review this with Shahab. When you and I met late last week, you mentioned you would have to look this over with him. Please don't hesitate to let Kelly or I know if you have any questions or comments and if we are ok to issue to the contractor. Thank you!

Mike Balaskovits, P.E.

mbalaskovits@bhinc.com

505-798-7891

Bohannon Huston, Inc.

Community Development and Planning

From: Michael Balaskovits
Sent: Friday, September 13, 2019 9:37 AM
To: 'Peterson, Dana M.' <dpeterson@cabq.gov>; Biazar, Shahab <sbiazar@cabq.gov>
Cc: Muhanned Adeeb (madeeb@cabq.gov) <madeeb@cabq.gov>; Kevin Murtagh <kmurtagh@bhinc.com>; Kelly Klein <kklein@bhinc.com>; Olin Brown <obrown@bhinc.com>
Subject: Montage Unit 3B Public Work Order field change. (PWO #775782)

Good morning all it has come to our attention that the double wing, double grate inlet call out at the intersection of de Kooning and Strand Loop (west side of the roadway) will not fit in the tangent provided. (Please refer to sheet 28 and attached for reference). We are proposing changing these inlets to double grate, single wing in order to fit and positioning the wings (or throats) on the upstream end of each inlet. The additional attached information is the revised inlet calculation sheet for the Inlets #5, 6, 11 and 12 that shows the capacity is to the top of the ROW verses the top of curb. This capacity meets the required storm event and overflow necessary for this sump condition. Please review the attached revisions we anticipate issuing to the contractor in the field along with revised inlet calculations. We would ask the contractor to solidify these changes with asbuilt information on the original approved plans. Please let us know if this is acceptable? Thank you.

Mike Balaskovits, PE

Vice President [Community Development and Planning](#)

Bohannon Huston

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This message has been analyzed by Deep Discovery Email Inspector.

X: _____
Y: _____
Z: _____

STA. 16+31.36, 10.00' RT
INSTALL 1 - 8" SAS PLUG

STA. 16+51.97, 23.00' RT
INSTALL 1 - DOUBLE GRATE,
DOUBLE WING SINGLE WING
TYPE "A" SD INLET
AS PER COA STD. DWG. 2201
BUILD 26.57 LF OF 18" SD
@ 14.4% SLOPE INV OUT=5299.83
TOP OF GRATE ELEV. = 5303.33
TC= 5304.23 5303.10 5303.21

STA. 16+81.01, 16.00' RT
INSTALL 1 - DOUBLE GRATE
DOUBLE WING SINGLE WING
TYPE "A" SD INLET
AS PER COA STD. DWG. 2201
BUILD 11 LF OF 24" SD
@ 0.5% SLOPE
INV IN=5296.01
INV OUT=5295.91
TOP OF GRATE ELEV. = 5303.23
TC= 5304.23 5303.91

SDMH5

STA. 16+81.00, 0.00' RT
BUILD 6' DIA.
TYPE "E" SD MH

STA. 16+31.36, 10.00' LT
INSTALL 6" WL CAP
X: _____
Y: _____
Z: _____

STA. 16+51.63, 23.00' LT
INSTALL 1 - DOUBLE GRATE, DOUBLE WING
TYPE "A" SD INLET
AS PER COA STD. DWG. 2201
BUILD 26.90 LF OF 18" SD
@ 6.8% SLOPE INV OUT=5298.83
TOP OF GRATE ELEV. = 5303.33
TC = 5304.23
TOP OF GRATE ELEV. = 5303.21 TC = 5304.10

STA. 16+80.97, 16.00' LT
INSTALL 1 - DOUBLE GRATE, DOUBLE WING
TYPE "A" SD INLET
AS PER COA STD. DWG. 2201
BUILD 10.93 LF OF 24" SD
@ 0.50% SLOPE INV IN=5297.00
INV OUT=5296.75
TOP OF GRATE ELEV. = 5303.23
TC= 5304.12 5303.91

STA. 17+12.00, 10.00' LT DEKOONING AVE=
STA. 22+88.64, 10.00' LT STRAND LOOP
INSTALL 1 - 6"x6" WL CROSS

STA. 17+14.00, 8.00' LT=
STA. 22+86.64, 8.00' LT
INSTALL 1 - 90° 4" BEND

STRAND LOOP
SEE SHEET 36

SDMH6

STA. 17+22.00, 0.00' RT, DEKOONING AVE=
STA. 22+78.64, 0.00' RT, STRAND LOOP
BUILD 6' DIA.
TYPE "E" SD MH

SASMH10

STA. 17+32.00, 10.00' RT DEKOONING AVE=
STA. 22+68.64, 10.00' RT, STRAND LOOP
BUILD 4' DIA.
SAS MH

STA. 17+58.00, 10.00' LT
INSTALL 1 - 6" GATE VALVE
w/BOX X: _____
Y: _____
Z: _____

STA. 17+64.44, 10.00' LT
INSTALL 1 - 6"x6" WL TEE
INSTALL APPROX. 9.0 LF 6" PVC
1 - FIRE HYDRANT 4' BURY
AS PER COA STD. DWG. 2340
1- 6" GATE VALVE w/BOX
FLANGE ELEV. = 5304.72

BLOCK
13

STA. 20+16.00, 10.00' LT DEKOONING AVE=
STA. 21+24.00, 10.00' LT MOTHERWELL DR
INSTALL 1 - 6"x6" WL TEE
X: _____
Y: _____
Z: _____

STA. 20+60.00, 10.00' LT
INSTALL 1 - 6" GATE VALVE
w/BOX
X: _____
Y: _____
Z: _____

STA. 20+88.03, 8.00' LT
INSTALL 1 - 6" GATE VALVE
w/BOX
X: _____
Y: _____
Z: _____

STA. 20+95.57, 8.00' LT DEKOONING AVE=
STA. 16+40.51, 315.57' RT ACCESS STREET
INSTALL 1 - 4"x4" REUSE WL TEE
WM STA. 21+45.01

WM SERVICE TABLE				
LOT	DESC	STATION	X	Y
12/13	DBL	18+35.01		
10/11	DBL	19+65.01		
8/9	DBL	20+95.01		
6/7	DBL	22+25.01		
8/9	DBL	25+08.36		

De Kooning Avenue
STORM DRAIN SUMP INLETS REVISION
Scale 1"=50'
09-12-2019

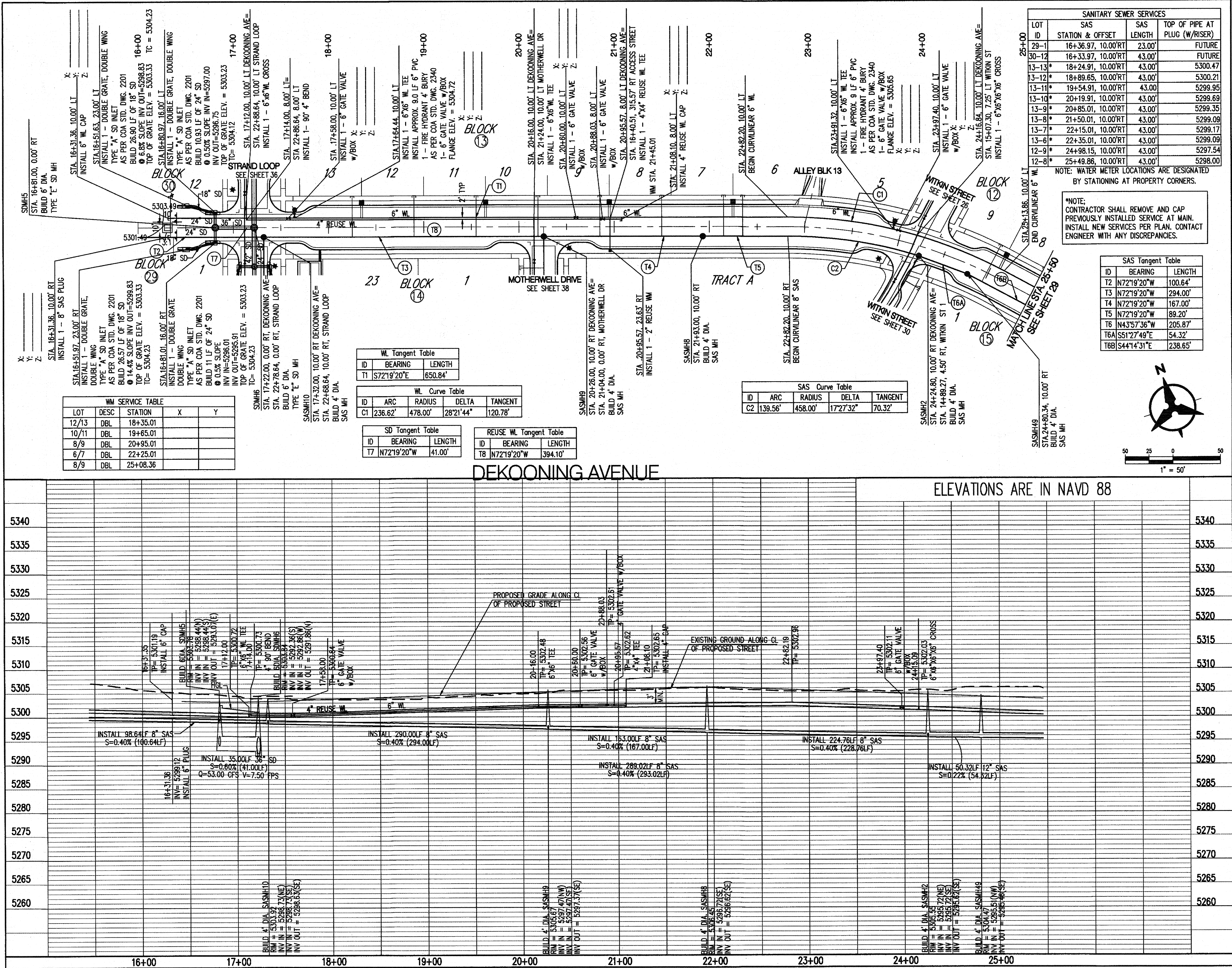
WL Tangent Table		
ID	BEARING	LENGTH
T1	S72°19'20"E	650.84'

WL Curve Table				
ID	ARC	RADIUS	DELTA	TANGENT
C1	236.62'	478.00'	28°21'44"	120.78'

SD Tangent Table		
ID	BEARING	LENGTH
T7	N72°19'20"W	41.00'

REUSE WL Tangent Table		
ID	BEARING	LENGTH
T8	N72°19'20"W	394.10'

DEKOONING AVENUE



GENERAL NOTES

- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY LINES WITH UTILITY COMPANIES AS REQUIRED.
- ALL CURVE DATA AND DIMENSIONS ARE CALCULATED FROM CENTERLINE OF PIPE OR MANHOLE. ALL SAS & SD SLOPES ARE CALCULATED TO TRUE PIPE DIMENSIONS FROM INVERT TO INVERT. (PAY ITEMS ARE SHOWN IN PARENTHESES)
- GRADE ELEVATIONS, WHERE NOTED, ARE FOR FLOWLINE OF STANDARD CURB UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR IS TO INSTALL A 4" X 4" X 5' POST AND E.M.S. AT THE END OF EACH SANITARY SEWER SERVICE.
- CONTRACTOR IS RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ALL DAMAGED EXISTING UTILITY CONDUITS AND EXISTING LINES.
- CONTRACTOR SHALL PARK EQUIPMENT AND VEHICLES AS NOT TO INTERFERE WITH NORMAL ACTIVITIES OF RESIDENTS OR OTHER CONTRACTORS ON SITE.
- CONTRACTOR SHALL PROVIDE THE INSPECTORS WITH THE PROPOSED TESTING PLAN. THE PLAN MUST BE APPROVED BEFORE TESTING OPERATIONS BEGIN.
- ANY DAMAGE TO THE EXISTING FACILITIES (CURB & GUTTER, PAVEMENT, LANDSCAPING, ETC.) DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- M.H. RIMS & CATCH BASIN INLET ELEVATIONS, FIRE HYDRANT & FLANGE ELEVATIONS ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY AND ADJUST TO FINAL PAVEMENT OR SURFACE GRADES.
- SAS, STORM DRAIN AND WATERLINE STATIONING FOLLOWS C.L. OF ROAD, UNLESS OTHERWISE NOTED.
- STATIONING OF DROP INLET IS TO MIDDLE OF DOWN HILL GRATE AT FACE OF CURB.
- FLOWLINE ELEVATIONS FOR DROP INLETS ARE PROJECTED FROM FLOWLINE OF STANDARD CURB TO MIDDLE OF DOWNHILL GRATE.
- RCP SHALL BE INSTALLED SO THAT THE JOINT GAP AT THE HOME POSITION SHALL CONFORM TO THE APPROVED MANUFACTURER'S RECOMMENDATIONS. MANUFACTURER'S RECOMMENDED JOINT GAP TOLERANCES FOR EACH PIPE SIZE AND TYPE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PLACEMENT OF PIPE. RCP JOINTS SHALL NOT BE GROUDED UNLESS DIRECTED BY THE ENGINEER AFTER CITY APPROVAL.
- ALL WATERLINE FITTINGS, VALVES, BENDS, TEES, CROSSES AND APPURTENANCES SHALL USE RESTRAINED JOINTS UNLESS OTHERWISE NOTED ON THE PLANS.
- AT UTILITY CROSSINGS WHERE LESS THAN 18" OF SEPARATION FROM STORM DRAIN PIPE OR MANHOLE IS PRESENT LEAN FILL IS TO BE USED 1) FOR A DISTANCE OF 5 FEET ON EACH SIDE OF THE SD C FROM TOP OF STORM DRAIN TO BOTTOM OF SANITARY SEWER OR WATER LINE OR 2) FOR 10 FEET ALONG SANITARY SEWER OR WATER LINE CENTERED ON THE MANHOLE WITH DEPTH EQUAL TO 2X SEWER OR WATER LINE DIAMETER.
- ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE CARRIED-OUT IN ACCORDANCE WITH OSHA 29 CFR 1926.650 SUBPART P.
- STORM DRAIN GRATES PER MODIFIED COA STD DWG 2220 PER DETAIL SHEET 18.

LEGEND

- DOUBLE WATER METER
- SINGLE WATER METER
- DEMOLISH WATER SERVICE LINE
- WATER LINE SHUTOFF VALVE
- SAS LATERAL
- DEMOLISH SAS LATERAL
- SAS MANHOLE
- STORM DRAIN MANHOLE
- STORM DRAIN INLET
- PROPOSED FIRE HYDRANT
- EXISTING WATER VALVE
- PROPOSED STREET LIGHT

AS-BUILT LOCATION OF MANHOLES & VALVES

VALVE, FH, TYP, MH	NORTHING	EASTING

NOTE: TO BE COMPLETED BY CONTRACTOR PRIOR TO ACCEPTANCE

MESA DEL SOL MONTAGE UNIT 3B

UTILITY PLAN AND PROFILE

DEKOONING AVENUE

Design Review Committee APPROVED FEB 20 2019

City Engineer APPROVED APR 04 2019

City Project No. 775782

Zone Map No. R-15, 16, S-16

Sheet 28 of 44

Inlets changed to
Double Gate
Single Wing

INLETS #5, #6, #11, & #12 - SUMP

LOCATED @ INTERSECTION OF
DEKUNING & STRAND

Double A inlet, in sump condition:

Open Area (for orifice calc in sq. ft.): 7.7977431
Length of Weir (feet): 7.9791667
Orifice Coefficient 0.6
Weir Coefficient 3

Head (ft)	Head (in)	1 Wing	Grate	Control Q		Dbl Wing (cfs)
		Weir Q (cfs)	Weir Q (cfs)	Orifice Q (cfs)	Sgl Wing (cfs)	
0.05	0.6	0.13	0.27	8.40	0.40	0.54
0.1	1.2	0.38	0.76	11.87	1.14	1.52
0.15	1.8	0.70	1.39	14.54	2.09	2.78
0.2	2.4	1.07	2.14	16.79	3.21	4.29
0.25	3	1.50	2.99	18.77	4.49	5.99
0.3	3.6	1.97	3.93	20.56	5.91	7.88
0.35	4.2	2.48	4.96	22.21	7.44	9.93
0.4	4.8	3.04	6.06	23.75	9.09	12.13
0.45	5.4	3.62	7.23	25.19	10.85	14.47
0.5	6	4.24	8.46	26.55	12.71	16.95
0.55	6.6	4.89	9.76	27.84	14.66	19.55
0.6	7.2	5.58	11.13	29.08	16.70	22.28
0.65	7.8	6.29	12.54	30.27	18.83	25.12
0.667	8.0	6.54	13.04	30.66	19.58	26.11
0.7	8.4	7.03	14.02	31.41	21.05	28.08
0.75	9	7.79	15.55	32.52	23.34	31.14
0.8	9.6	8.59	17.13	33.58	25.71	34.30
0.85	10.2	9.40	18.76	34.62	28.16	37.57
0.9	10.8	10.25	20.44	35.62	30.68	40.93
0.95	11.4	11.11	22.16	36.60	33.28	44.39
1	12	12.00	23.94	37.55	35.94	47.94
1.05	12.6	12.91	25.76	38.47	38.67	51.58
1.1	13.2	13.84	27.62	39.38	41.46	55.31
1.15	13.8	14.80	29.52	40.26	44.32	59.12
0.567	6.804	5.12	10.22	28.27	15.34	20.47

Calculation of open area:

Total Grate Area 2000 13.888889
Cross Bar Area -732 -5.083333
Supports (ends) -115.625 -0.802951
(middle) -100 -0.694444
Areas Counted Twice 70.5 0.4895833
1122.875 7.7977431

Calculation of Length of Weir:

Total Perimeter of Grate 130 10.833333
Short Cross Bars -7 -0.583333
Bearing Bars -13 -1.083333
End Supports -9.25 -0.770833
Middle Supports -5 -0.416667
110 7.9791667

BASIN A-3 - 15.5 CFS

BASIN A-5 - 15.2 CFS

BASIN A-6 - 10.8 CFS

RESIDUAL INLETS #9 & #10 - 11.5 CFS

By interpolation
@ Q=13.25cfs,
d=0.51' < 8" curb

53 CFS / 4 = 13.25 CFS / INLET
d=0.45'

2 X 100 YR = 26.5 CFS / INLET
d=0.67'

By interpolation
@ Q=26.5cfs, (2*100yr)
d=0.81' < 0.9' ROW