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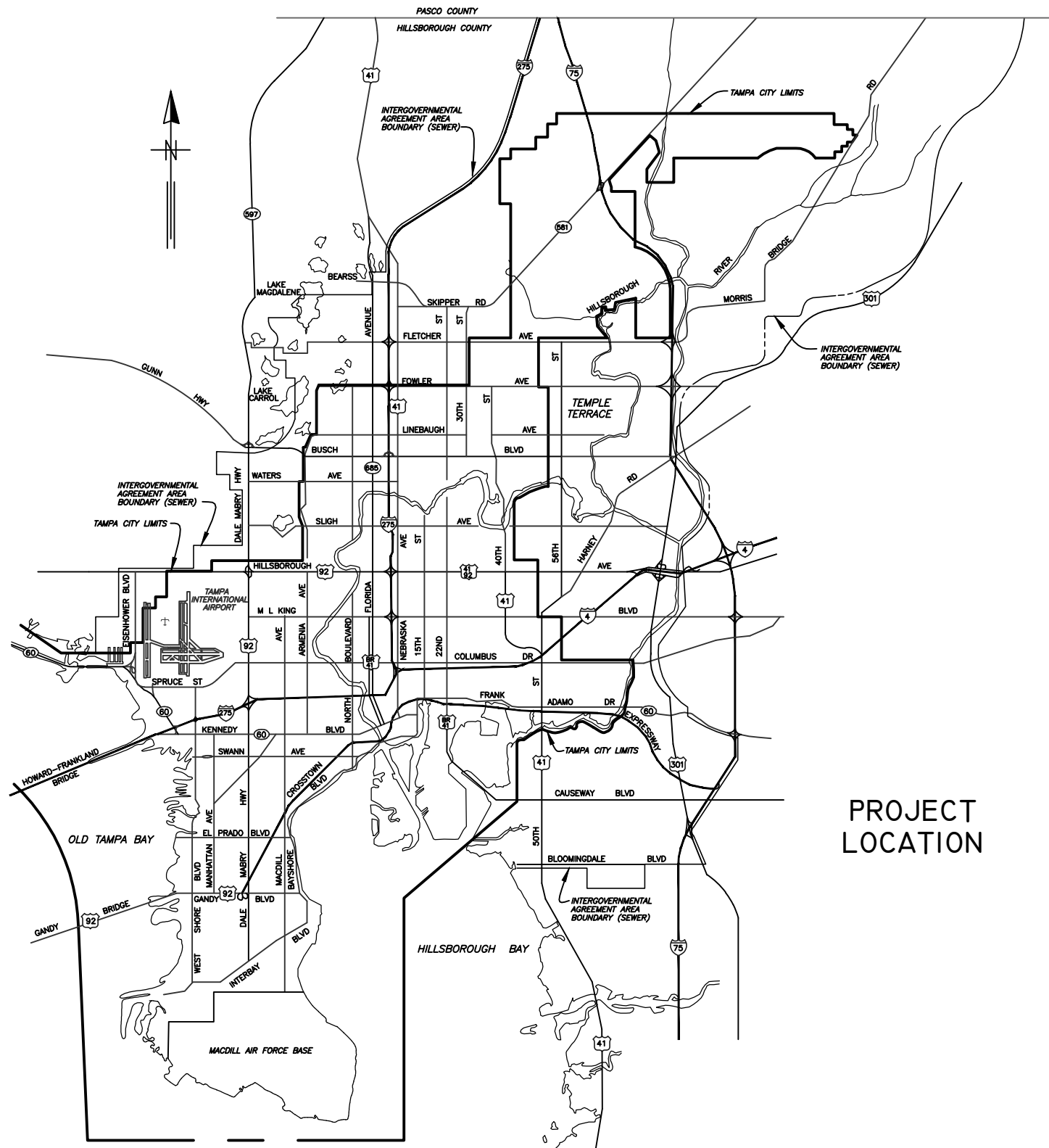
**Please Email ALL Questions:**

**[MailTo:ContractAdministration@TampaGov.net](mailto:ContractAdministration@TampaGov.net)**

**Please Let Us Know If You Plan To Bid**

City of Tampa  
Contract Administration Department  
306 E. Jackson St. #280A4N  
Tampa, FL 33602  
(813)274-8456

LOCATION MAP



CITY of TAMPA



WASTEWATER DEPARTMENT

PLANS FOR  
FY 2015 MANHOLE REHABILITATION

CONTRACT No.  
15-C-00010

PROJECT  
LOCATION

No.	DATE	REVISIONS
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DES: CB  
DRN: RS  
CKD: JF  
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CITY of TAMPA  
WASTEWATER DEPARTMENT

FY 2015 MANHOLE REHABILITATION

COVER

W.O. 1000509  
SHEET  
1  
OF 46

GENERAL NOTES

1. THE SCOPE OF THIS PROJECT SHALL CONSIST OF REHABILITATION OF 427 MANHOLES BY THE APPLICATION OF A STRUCTURAL COATING SYSTEM AND ALL APPURTENANCE ASSOCIATED WITH COMPLETION OF THE PROJECT.
2. FOR THE MANHOLES IN FDOT MAINTAINED ROADWAYS, THE CONTRACTOR SHALL NOTIFY FDOT MAINTENANCE DIVISION AT 744-6038 A MINIMUM OF 48 HOURS PRIOR TO STARTING THE MANHOLE REHABILITATION WORK. FDOT CONSIDERS THIS WORK AS MAINTENANCE AND, AS A RESULT, A RIGHT-OF-WAY PERMIT IS NOT REQUIRED. THE CITY WILL OBTAIN THE SPECIAL-USE PERMIT FROM FDOT. HOWEVER, CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL SIGNAGE IN ACCORDANCE TO FDOT INDEX 602 FOR ANY WORK ACTIVITY LOCATED 15' OR LESS FROM THE EDGE OF PAVEMENT, OR APPLICABLE FDOT INDEX DRAWINGS (MOST CURRENT EDITION).
3. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR OBTAINING THE NECESSARY ROAD CLOSURE AND RIGHT-OF-WAY PERMITS FROM THE APPROPRIATE GOVERNMENT AGENCIES HAVING JURISDICTION OVER THE SPECIFIC ROADWAYS. THE TABLE ON THIS SHEET, LISTS THE CONTACT NAMES AND PHONE NUMBERS FOR THE AGENCIES WITH JURISDICTION OVER THE VARIOUS LOCATIONS THROUGHOUT THIS PROJECT.
4. IN ORDER TO OBTAIN ROADWAY CLOSURE OR RIGHT-OF-WAY PERMITS, AT MINIMUM, THE CONTRACTOR MUST SUBMIT DETAILED MAINTENANCE OF TRAFFIC (MOT) PLANS ALONG WITH APPLICATIONS TO THE APPROPRIATE AGENCY. THE MOT(S) SHALL CONFORM TO APPLICABLE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) INDEX DRAWINGS (MOST CURRENT EDITION). THE GOVERNING AGENCIES MAY REQUIRE ADDITIONAL INFORMATION AND DICTATE SPECIFIC WORK TIMES DURING NON-PEAK TRAFFIC HOURS. REFER TO SPECIFIC PROVISIONS FOR SPECIFIC TRAFFIC CONTROL REQUIREMENTS.
5. DURING THE MANHOLE'S INTERIOR CLEANING OPERATION, THE CONTRACTOR MUST PROVIDE A MEANS OF CAPTURING AND DISPOSING OF THE REMOVED DEBRIS. THIS METHOD SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.
6. THE ONLY EXCAVATION NECESSARY FOR THIS PROJECT IS FOR THE REMOVAL AND REPLACEMENT OF THE MANHOLE FRAME AND COVERS AS INDICATED IN THE REHABILITATION SCHEDULE. FOR THESE CASES, THE CONTRACTOR IS REQUIRED TO CALL SUNSHINE AT 1-800-432-4770 TO DETERMINE UTILITY LOCATIONS PRIOR TO EXCAVATION.
7. ALL EXPOSED STEEL REINFORCEMENT SHALL BE THOROUGHLY CLEANED OF ANY DETERIORATION/RUST AND COATED WITH THE PROPOSED COATING SYSTEM.
8. OSHA STANDARD EQUIPMENT SUCH AS SAFETY HARNESES, GAS MONITORS, LOWER EXPLOSIVE LIMIT (LEL) DETECTORS, BREATHING APPARATUS, ETC. SHALL BE UTILIZED WHERE THE WORK DICTATES THEIR USE.
9. ALL RING AND COVERS DESIGNATED TO BE REMOVED SHALL BE DISPOSED OF BY THE CONTRACTOR IN A MANNER APPROVED BY THE ENGINEER.
10. BYPASSING PUMPING WILL NOT BE REQUIRED FOR THE MANHOLE REHABILITATION AND BENCH RESTORATION. HOWEVER, WORK DURING LOW-FLOW PERIODS MAY BE NECESSARY.

PROPOSED MANHOLE COATING SYSTEM THICKNESS	
Location	Coating System
Manhole Barrel	175 MILS (MIN)
Manhole Bottom or Junction Chamber	250 MILS (MIN)
Manhole Benches	125 MILS (MIN)

TRAFFIC OPERATIONS - CONTACTS NAMES			
Location	(Jurisdiction)	Contact Name	Phone Number
New Tampa Blvd., Clark Ave., Bosphorous Ave. and Severn Ave., MacDill Ave. and including all other streets not mentioned.	(City of Tampa)	David Houseman	274-5656
Cross Creek Blvd., Sligh Ave., 50th St., 37th St., Bearss Ave. and 131st Ave., 136th Ave., North Blvd., 56th Ave., and Columbus Dr.	(County)	Amos Castillo	628-5025
Florida Ave., Hillsborough Ave., 39th St., and Dale Mabry Hwy.	(FDOT)	James Meyer	744-6038

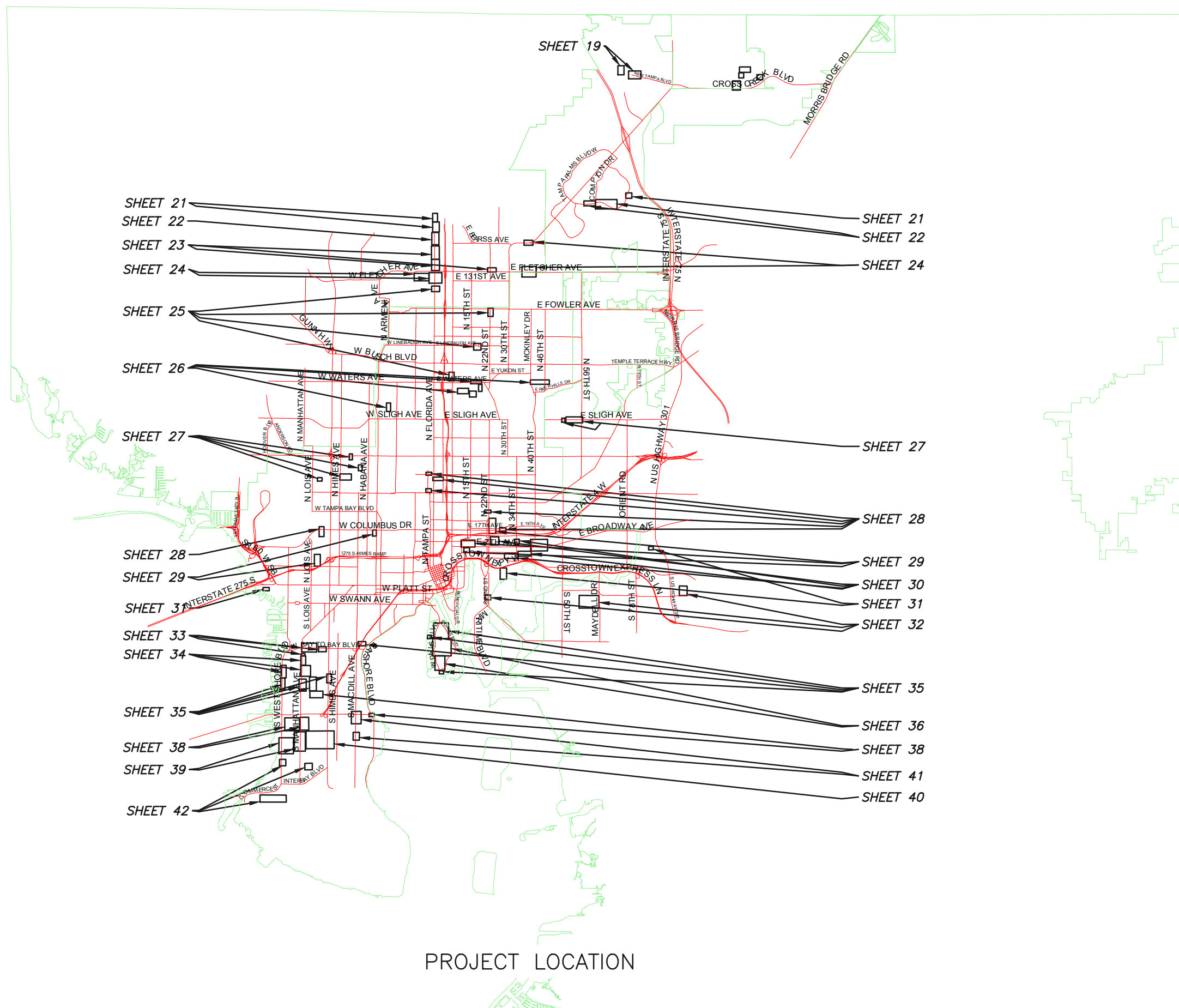
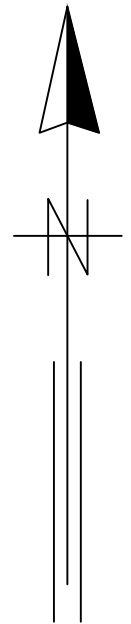
INDEX	
Sheet Title	Sheet Number
COVER	1
INDEX AND NOTES	2
PLAN KEY	3
MANHOLE REHABILITATION SCHEDULE 1	4
MANHOLE REHABILITATION SCHEDULE 2	5
MANHOLE REHABILITATION SCHEDULE 3	6
MANHOLE REHABILITATION SCHEDULE 4	7
MANHOLE REHABILITATION SCHEDULE 5	8
MANHOLE REHABILITATION SCHEDULE 6	9
MANHOLE REHABILITATION SCHEDULE 7	10
MANHOLE REHABILITATION SCHEDULE 8	11
MANHOLE REHABILITATION SCHEDULE 9	12
MANHOLE REHABILITATION SCHEDULE 10	13
MANHOLE REHABILITATION SCHEDULE-11	14
MANHOLE REHABILITATION SCHEDULE-12	15
MANHOLE REHABILITATION SCHEDULE 13	16
MANHOLE REHABILITATION SCHEDULE 14	17
MANHOLE REHABILITATION SCHEDULE_15	18
PLAN-1	19
PLAN-2	20
PLAN-3	21
PLAN-4	22
PLAN-5	23
PLAN-6	24
PLAN-7	25

PLAN-8	26
PLAN-9	27
PLAN-10	28
PLAN-11	29
PLAN-12	30
PLAN-13	31
PLAN-14	32
PLAN-15	33
PLAN-16	34
PLAN-17	35
PLAN-18	36
PLAN-19	37
PLAN-20	38
PLAN-21	39
PLAN-22	40
PLAN-23	41
PLAN-24	42
MANHOLE DETAIL A B AND C	43
MANHOLE DETAILS D E AND F	44
MISCELLANEOUS_DETAILS	45
MISCELLANEOUS DETAILS	46

User: ss1s Drawing Name: K:\WW\_P\Projects\2015\2015\_15-C-00010 Manhole Rehabilitation \Dwg\GENERAL\2015\_LEGEND.dwg Layout: Mar 05, 2015 - 3:13pm CTB - WW-TOSHIBA\_PIPE-RS.CTB

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	FY 2015 MANHOLE REHABILITATION	W.O. 1000509
	INDEX AND NOTES	SHEET 2 OF 46



- LEGEND:**
- MANHOLES - TO BE REHABILITATED
  - MANHOLES - NO REHABILITATION REQUIRED
  - EX. PUMP STATION

User: sst's Drawing Name: K:\WW\_Projects\2015\_15-C-00010 Manhole Rehabilitation \Dwg\GENERAL\2015\_PLAN\_KEY.dwg  
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JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: CB	<b>CITY of TAMPA</b> WASTEWATER DEPARTMENT	FY 2015 MANHOLE REHABILITATION  PLAN KEY	W.O. 1000509
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Manhole Rehabilitation Schedule										
Atlas	Manhole #	Manhole Type	Plan Sheet #	Approx Depth (ft)	Barrel Dia. (ft)	Downstream Pipe Dia. (in)	Barrel Payment Length (ft)	Bottom Chamber Payment Area (sf)	Replace Frame and Cover (Size, In Grass or Pavement)	Comments
M-11	106A-275	A	38	8.71	4	18	7.38	0	yes (small, pavement)	
K-12	125A-008	A	36	12.93	4	21	11.48	0	no (pavement)	
K-12	125A-009	A	36	12.41	4	21	10.96	0	no (pavement)	
K-12	125A-010	A	36	10.92	4	21	9.47	0	no (pavement)	
J-12	125A-014	A	36	9.72	4	21	8.27	0	no (pavement)	
J-12	125A-015	A	36	10.50	4	21	9.05	0	no (pavement)	
J-12	125A-016	A	36	11.38	4	21	9.93	0	no (pavement)	
J-12	125A-018	A	35	11.67	4	21	10.22	0	no (pavement)	
J-12	125A-020	A	35	9.71	4	18	8.38	0	no (pavement)	
J-12	125A-021	A	35	9.47	4	18	8.14	0	no (pavement)	
J-12	125A-022	A	35	9.20	4	18	7.87	0	no (pavement)	
J-12	125A-023	A	35	9.78	4	18	8.45	0	no (pavement)	
J-12	125A-024	A	35	9.08	4	18	7.75	0	no (pavement)	
J-12	125A-025	A	35	6.63	4	18	5.30	0	no (pavement)	
J-12	125A-026	A	35	5.96	4	15	4.76	0	no (pavement)	
J-12	125A-028	A	35	5.50	4	15	4.30	0	no (pavement)	
J-12	125A-029	A	35	5.73	4	15	4.53	0	no (pavement)	
J-12	125A-037	A	35	N/A	4	18	N/A	0	no (pavement)	MH has FRP liner, Seal pipe penetrations and Bench Restoration only
J-12	125A-063	B	35	9.11	4	10	8.11	0	no (pavement)	Bench Restoration
J-12	125A-064	B	35	10.27	4	10	9.27	0	no (pavement)	Bench Restoration
K-12	125A-065	B	35	9.40	4	8	8.49	0	no (pavement)	Bench Restoration
K-12	125A-116	B	36	6.72	4	8	5.81	0	no (pavement)	Bench Restoration
K-12	125A-194	A	36	11.11	4	15	9.91	0	no (pavement)	
J-12	125A-195	A	36	10.98	4	15	9.78	0	no (pavement)	
J-12	125A-196	A	36	11.07	4	15	9.87	0	no (pavement)	
K-12	125A-197	A	36	10.25	4	10	9.25	0	no (pavement)	
K-12	125A-198	A	36	9.65	4	10	8.65	0	no (pavement)	
K-12	125A-199	A	36	9.83	4	8	8.92	0	no (pavement)	
J-13	125A-200	A	36	8.23	4	8	7.32	0	no (pavement)	

User: sst Drawing Name: K:\WW\_Proj\2015\2015\_15-C-00010 Manhole Rehabilitation\Shee\_Se\PLANS\MH-SCH=DUL--'15.dwg Loyalu - Mar 05, 2015 - 3:43pm CTB - WW.CTB

JACINTO CARLOS -RRAS, P.E. #49454  
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**CITY of TAMPA**  
**WASTEWATER DEPARTMENT**

**FY 2015 MANHOLE REHABILITATION**  
**MANHOLE REHABILITATION SCHEDULE**

W.O. 1000509  
 HEET  
 4  
 0- 46

B085-066

Manhole Rehabilitation Schedule

Atlas	Manhole #	Manhole Type	Plan Sheet #	Approx Depth (ft)	Barrel Dia. (ft)	Downstream Pipe Dia. (in)	Barrel Payment Length (ft)	Bottom Chamber Payment Area (sf)	Replace Frame and Cover (Size, In Grass or Pavement)	Comments
J-13	125A-201	A	36	8.18	4	8	7.27	0	no (pavement)	
K-12	125A-304	A	36	11.27	4	15	10.07	0	no (pavement)	
K-12	125A-305	A	36	11.25	4	15	10.05	0	no (pavement)	
K-12	125A-309	A	36	4.60	4	8	3.69	0	no (pavement)	
K-12	125A-312	A	36	12.26	4	15	11.06	0	no (pavement)	
K-12	125A-315	A	36	11.29	4	15	10.09	0	no (pavement)	
K-12	125A-316	A	36	10.81	4	15	9.61	0	no (pavement)	
K-12	125A-318	A	36	10.81	4	15	9.61	0	no (pavement)	
K-12	125A-320	A	36	11.22	4	15	10.02	0	no (pavement)	
K-12	125A-330	A	36	10.61	4	15	9.41	0	no (pavement)	
K-12	125A-331	A	36	9.55	4	15	8.35	0	no (pavement)	
K-12	125A-333	A	36	9.21	4	15	8.01	0	no (pavement)	
K-12	125A-344	A	36	9.60	4	15	8.40	0	no (pavement)	
K-12	125A-345	A	36	9.90	4	15	8.70	0	no (pavement)	
K-12	125A-346	A	36	9.42	4	15	8.22	0	no (pavement)	Bench Restoration
K-12	125A-349	A	36	9.31	4	15	8.11	0	no (pavement)	
K-12	125A-351	A	36	8.60	4	15	7.40	0	no (pavement)	
K-12	125A-352	A	36	7.15	4	8	6.24	0	yes (small, pavement)	
K-12	125A-361	A	36	7.52	4	15	6.32	0	no (pavement)	
K-12	125A-363	A	36	8.29	4	8	7.38	0	no (grass)	
K-12	125A-364	A	35	6.32	4	8	5.41	0	no (pavement)	
K-12	125A-368	A	36	5.72	4	8	4.81	0	no (pavement)	
K-12	125A-374	A	32	4.05	4	8	3.14	0	no (pavement)	
K-12	125A-388	A	36	11.74	4	12	10.66	0	no (pavement)	
K-12	125A-389	A	36	11.30	4	10	N/A	0	no (pavement)	MH has FRP liner, Seal pipe penetrations and Bench Restoration only
K-12	125A-441	A	36	8.70	4	10	7.70	0	no (grass)	
K-12	125A-548	A	36	13.73	4	15	12.53	0	no (grass)	
J-12	125A-549	A	36	10.10	4	21	8.65	0	yes (small, pavement)	
K-12	125A-550	A	36	12.63	4	21	11.18	0	no (pavement)	
K-12	125A-553	A	36	7.90	4	10	6.90	0	no (pavement)	

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**CITY of TAMPA**  
**WASTEWATER DEPARTMENT**

**FY 2015 MANHOLE REHABILITATION**  
**MANHOLE REHABILITATION SCHEDULE**

W.O. 1000509  
HEET  
5  
0- 46

B085-067

Manhole Rehabilitation Schedule

Atlas	Manhole #	Manhole Type	Plan Sheet #	Approx Depth (ft)	Barrel Dia. (ft)	Downstream Pipe Dia. (in)	Barrel Payment Length (ft)	Bottom Chamber Payment Area (sf)	Replace Frame and Cover (Size, In Grass or Pavement)	Comments
J-12	125A-558	A	35	9.20	4	15	8.00	0	no (pavement)	
E-15	139A-065	D	27	7.80	4	10	6.80	0	no (pavement)	Remove calcium aluminate liner system prior to proposed coating system; Bench Restoration Required
E-16	139A-067	C	27	13.61	4	30	11.36	50	no (pavement)	Remove calcium aluminate liner system prior to proposed coating system; Bench Restoration Required
E-16	139A-068	C	27	13.18	4	30	10.93	50	no (pavement)	Remove calcium aluminate liner system prior to proposed coating system; Bench Restoration Required
E-16	139A-069	C	27	13.48	4	30	11.23	50	no (pavement)	Remove calcium aluminate liner system prior to proposed coating system; Bench Restoration Required
E-16	139A-070	C	27	13.56	4	30	11.31	50	no (pavement)	Remove calcium aluminate liner system prior to proposed coating system; Bench Restoration Required
E-16	139A-072	D	27	12.04	4	21	10.59	0	no (pavement)	Remove calcium aluminate liner system prior to proposed coating system; Bench Restoration Required
E-16	139A-073	D	27	12.26	4	21	10.81	0	no (pavement)	Remove calcium aluminate liner system prior to proposed coating system; Bench Restoration Required
E-16	139A-074	D	27	13.68	4	21	12.23	0	no (pavement)	Remove calcium aluminate liner system prior to proposed coating system; Bench Restoration Required
E-16	139A-075	D	27	14.77	4	21	13.32	0	no (pavement)	Remove calcium aluminate liner system prior to proposed coating system; Bench Restoration Required
E-16	139A-079	D	27	13.41	4	21	11.96	0	no (pavement)	Remove calcium aluminate liner system prior to proposed coating system; Bench Restoration Required
F-10	154A-036	A	27	6.98	4	8	6.07	0	no (pavement)	
F-10	154A-037	B	27	6.58	4	8	5.67	0	0	Bench Restoration
F-10	154A-038	A	27	6.58	4	8	N/A	0	0	MH has FRP liner, Seal pipe penetrations and Bench Restoration only
F-10	154A-043	A	27	6.53	4	8	5.62	0	no (pavement)	
F-10	154A-045	A	27	6.36	4	8	5.45	0	no (pavement)	
I-8	155A-002	A	31	9.49	4	10	8.49	0	yes (small, pavement)	Bench Restoration
I-8	155A-020	A	31	8.18	4	8	7.27	0	no (pavement)	

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**CITY of TAMPA**  
**WASTEWATER DEPARTMENT**

**FY 2015 MANHOLE REHABILITATION**  
**MANHOLE REHABILITATION SCHEDULE**

W.O. 1000509  
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6  
0- 46

B085-068

Manhole Rehabilitation Schedule										
Atlas	Manhole #	Manhole Type	Plan Sheet #	Approx Depth (ft)	Barrel Dia. (ft)	Downstream Pipe Dia. (in)	Barrel Payment Length (ft)	Bottom Chamber Payment Area (sf)	Replace Frame and Cover (Size, In Grass or Pavement)	Comments
O-8	157A-002	A	42	14.32	4	10	13.32	0	no (pavement)	
O-8	157A-004	A	42	14.38	4	8	13.47	0	no (pavement)	
O-8	157A-020	A	42	13.10	4	8	12.19	0	no (pavement)	
O-8	157A-021	A	42	12.09	4	8	11.18	0	no (pavement)	
O-8	157A-041	A	42	8.30	4	8	7.39	0	no (pavement)	
K-8	168A-107	A	34	15.07	4	15	13.87	0	no (pavement)	
K-8	168A-252	A	34	11.92	4	12	10.84	0	no (pavement)	
L-8	168A-253	A	37	11.75	4	12	10.67	0	yes (small, grass)	
L-8	168A-272	A	37	12.07	4	10	11.07	0	no (pavement)	
L-8	168A-273	A	37	10.44	4	10	9.44	0	yes (small, grass)	
L-8	168A-294	A	37	8.27	4	8	7.36	0	no (pavement)	
L-8	168A-333	A	37	9.50	4	8	8.59	0	no (pavement)	Bench Restoration
L-9	169A-017	A	38	9.69	4	8	8.78	0	no (pavement)	
L-9	169A-018	A	38	8.38	4	8	7.47	0	yes (small, grass)	
L-9	169A-019	A	38	8.31	4	8	7.40	0	no (grass)	
L-9	169A-026	A	38	9.02	4	8	8.11	0	no (grass)	
L-9	169A-029	A	38	7.03	4	8	N/A	0	yes (small, grass)	MH has FRP liner, Seal pipe penetrations and Bench Restoration only
L-9	169A-030	A	38	5.75	4	8	4.84	0	no (grass)	
L-9	169A-032	A	38	4.04	4	8	3.13	0	no (sidewalk)	Bench Restoration
L-9	169A-035	A	38	3.76	4	8	2.85	0	yes (small, grass)	
L-9	169A-036	A	38	3.36	4	8	2.45	0	no (grass)	
L-9	169A-037	A	38	3.10	4	8	2.19	0	yes (small, grass)	
M-9	171A-002	A	40	10.43	4	8	9.52	0	no (grass)	
M-9	171A-004	A	40	9.63	4	8	8.72	0	no (pavement)	
M-9	171A-014	A	40	11.27	4	8	10.36	0	no (grass)	
M-9	171A-015	A	40	9.31	4	8	8.40	0	no (pavement)	
M-9	171A-016	A	40	9.50	4	8	8.59	0	no (pavement)	
M-9	171A-018	A	40	7.83	4	8	6.92	0	no (pavement)	
M-9	171A-019	A	40	7.78	4	8	6.87	0	no (pavement)	
M-9	171A-020	A	40	5.66	4	8	4.75	0	no (pavement)	

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W.O. 1000509  
HEET  
7  
0- 46



B085-069

Manhole Rehabilitation Schedule

Atlas	Manhole #	Manhole Type	Plan Sheet #	Approx Depth (ft)	Barrel Dia. (ft)	Downstream Pipe Dia. (in)	Barrel Payment Length (ft)	Bottom Chamber Payment Area (sf)	Replace Frame and Cover (Size, In Grass or Pavement)	Comments
M-9	171A-057	A	40	7.56	4	8	6.65	0	no (pavement)	
M-9	171A-058	A	40	6.99	4	8	6.08	0	no (pavement)	
I-14	187A-021	A	32	2.50	4	8	1.59	0	no (bricks)	
I-14	187A-079	A	31	4.50	4	8	3.59	0	no (pavement)	
I-14	187A-083	A	31	4.50	4	8	3.59	0	no (grass)	
I-14	187A-097	A	31	3.50	4	8	2.59	0	no (grass)	
I-16	188A-002	A	32	12.17	4	8	11.26	0	no (pavement)	
I-16	188A-003	A	32	11.53	4	8	10.62	0	no (pavement)	
I-16	188A-004	A	32	8.93	4	8	8.02	0	no (pavement)	
I-16	188A-005	B	32	7.30	4	8	6.39	0	no (pavement)	
I-16	188A-024	A	32	11.50	4	8	10.59	0	yes (small, grass)	
I-16	188A-029	A	32	7.66	4	8	6.75	0	no (pavement)	
I-16	188A-030	A	32	6.51	4	8	5.60	0	no (pavement)	
I-16	188A-035	A	32	10.89	4	8	9.98	0	no (pavement)	
I-16	188A-036	A	32	10.65	4	8	9.74	0	no (pavement)	
I-16	188A-038	A	32	2.50	4	8	1.59	0	no (pavement)	
I-16	188A-039	A	32	4.30	4	8	3.39	0	no (pavement)	
J-16	188A-056	B	32	6.60	4	8	5.69	0	yes (small, grass)	
J-16	188A-058	B	32	5.61	4	8	4.70	0	no (pavement)	
M-8	189A-004	A	38	10.03	4	27	8.33	0	no (pavement)	
M-8	189A-008	A	38	3.00	4	18	3.00	0	yes (small, pavement)	MH has FRP liner, Rehab Brick Riser, Seal pipe penetrations and Bench Restoration
M-8	189A-009	A	38	1.00	4	15	1.00	0	yes (small, pavement)	MH has FRP liner, Rehab Brick Riser, Seal pipe penetrations and Bench Restoration
M-8	189A-010	A	38	5.30	4	8	4.39	0	yes (small, pavement)	
M-8	189A-011	A	38	3.66	4	8	2.75	0	yes (small, pavement)	
M-8	189A-014	A	38	4.50	4	8	3.59	0	no (pavement)	
M-8	189A-015	A	38	3.13	4	8	2.22	0	no (pavement)	
M-8	189A-030	A	38	6.20	4	8	5.29	0	yes (small, grass)	
M-8	189A-031	A	38	5.25	4	8	4.34	0	no (pavement)	
M-8	189A-034	A	38	5.05	4	8	4.14	0	no (pavement)	
M-8	189A-036	A	38	2.80	4	8	1.89	0	no (grass)	

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JACINTO CARLOS -RRAS, P.-. #49454  
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**CITY of TAMPA**  
**WASTEWATER DEPARTMENT**

**FY 2015 MANHOLE REHABILITATION**  
**MANHOLE REHABILITATION SCHEDULE**

W.O. 1000509  
HEET  
8  
0- 46

B085-070

Manhole Rehabilitation Schedule

Atlas	Manhole #	Manhole Type	Plan Sheet #	Approx Depth (ft)	Barrel Dia. (ft)	Downstream Pipe Dia. (in)	Barrel Payment Length (ft)	Bottom Chamber Payment Area (sf)	Replace Frame and Cover (Size, In Grass or Pavement)	Comments
M-8	189A-037	A	38	4.28	4	8	3.37	0	yes (small, pavement)	Bench Restoration
M-8	189A-040	A	38	5.62	4	8	4.71	0	no (pavement)	
M-8	189A-076	A	38	6.75	4	8	5.84	0	yes (small, grass)	
O-8	192A-042	A	42	4.37	4	8	N/A	0	no (pavement)	MH has FRP liner, Seal pipe penetrations and Bench Restoration
B-14	205A-058	A	25	3.66	4	8	2.75	0	yes (small, pavement)	
B-14	205A-059	A	25	5.36	4	8	4.45	0	no (pavement)	
B-14	205A-060	A	25	7.16	4	8	6.25	0	no (pavement)	
M-9	208A-002	A	40	7.94	4	8	7.03	0	yes (small, pavement)	
M-9	208A-003	A	40	7.19	4	8	6.28	0	yes (small, pavement)	
M-9	208A-004	A	40	6.19	4	8	5.28	0	yes (small, pavement)	
I-19	211A-009	A	32	12.91	4	10	11.91	0	no (pavement)	
I-19	211A-017	A	32	10.07	4	10	9.07	0	no (pavement)	
I-19	211A-037	A	32	13.59	4	10	12.59	0	no (pavement)	
I-19	211A-040	B	32	4.00	4	10	3.00	0	yes (small, grass)	
M-8	217A-002	A	39	13.24	4	15	12.04	0	yes (small, grass)	
M-8	217A-055	A	39	7.02	4	8	6.11	0	no (pavement)	
M-8	217A-056	A	39	5.87	4	8	4.96	0	no (pavement)	
M-8	217A-058	A	39	3.88	4	8	2.97	0	yes (small, pavement)	
M-8	217A-059	A	39	3.88	4	8	2.97	0	yes (small, pavement)	
M-8	217A-060	A	39	3.88	4	8	2.97	0	yes (small, pavement)	
M-8	217A-061	A	39	13.67	4	15	12.47	0	no (pavement)	
M-8	217A-062	A	39	12.58	4	15	11.38	0	no (grass)	
M-8	217A-063	A	39	12.17	4	15	10.97	0	no (pavement)	
M-8	217A-064	A	39	12.20	4	15	11.00	0	no (grass)	
M-8	217A-067	A	39	7.24	4	8	6.33	0	no (pavement)	
N-8	217A-068	A	39	6.28	4	8	5.37	0	no (pavement)	
N-8	217A-091	A	42	6.81	4	10	5.81	0	yes (small, grass)	MH has FRP liner, Rehab Brick Riser, Seal pipe penetrations and Bench Restoration
M-8	217A-103	A	39	9.65	4	8	8.74	0	no (pavement)	
FF-20	234A-021	B	20	20.17	4	8	19.26	0	no (pavement)	
FF-21	234A-024	B	20	5.23	4	8	4.32	0	no (pavement)	

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**CITY of TAMPA**  
**WASTEWATER DEPARTMENT**

**FY 2015 MANHOLE REHABILITATION**  
**MANHOLE REHABILITATION SCHEDULE**

W.O. 1000509  
HEET  
9  
0- 46

Manhole Rehabilitation Schedule

Atlas	Manhole #	Manhole Type	Plan Sheet #	Approx Depth (ft)	Barrel Dia. (ft)	Downstream Pipe Dia. (in)	Barrel Payment Length (ft)	Bottom Chamber Payment Area (sf)	Replace Frame and Cover (Size, In Grass or Pavement)	Comments
FF-20	234A-038	B	20	8.34	4	8	7.43	0	no (pavement)	
FF-20	234A-039	B	20	8.01	4	8	7.10	0	no (pavement)	Bench Restoration
FF-20	234A-041	B	20	8.02	4	8	7.11	0	yes (small, grass)	Bench Restoration
FF-20	234A-043	B	20	7.46	4	24	5.88	0	yes (small, pavement)	
FF-20	234A-045	B	20	7.61	4	24	6.03	0	yes (small, pavement)	
FF-20	234A-074	B	20	10.61	4	8	9.70	0	yes (small, grass)	
FF-21	234A-183	B	20	8.42	4	8	7.51	0	no (pavement)	
AA-14	237A-118	E	24	4.00	4	36	4.00	0	yes (large, pavement)	MH T-lock lined, Rehab Brick Riser Section
A-12	237A-130	B	24	10.78	4	24	9.20	0	no (pavement)	
A-12	237A-132	B	25	10.07	4	24	8.49	0	no (pavement)	
A-12	237A-133	B	25	8.15	4	24	6.57	0	no (pavement)	
A-12	237A-134	B	25	7.50	4	8	6.59	0	yes (small, pavement)	
A-12	237A-135	B	25	8.00	4	8	7.09	0	yes (small, pavement)	
A-12	237A-136	B	24	10.02	4	24	8.44	0	no (pavement)	
A-12	237A-138	B	24	10.38	4	24	8.80	0	no (pavement)	
A-12	237A-139	B	23	10.55	4	24	8.97	0	no (pavement)	
AA-12	237A-140	B	23	12.66	4	24	11.08	0	no (pavement)	
AA-12	237A-141	B	23	11.90	4	24	10.32	0	no (pavement)	
AA-12	237A-142	B	23	12.11	4	24	10.53	0	yes (small, pavement)	
AA-12	237A-143	B	23	12.26	4	24	10.68	0	no (pavement)	
AA-12	237A-144	B	23	11.10	4	24	9.52	0	no (pavement)	
AA-12	237A-145	B	23	11.35	4	24	9.77	0	no (pavement)	
AA-12	237A-150	B	23	11.92	4	21	10.47	0	no (pavement)	
AA-12	237A-151	B	23	15.35	4	21	13.90	0	no (pavement)	
AA-12	237A-152	B	23	16.21	4	21	14.76	0	no (pavement)	
AA-12	237A-153	B	23	15.40	4	21	13.95	0	no (pavement)	
AA-12	237A-154	B	23	14.68	4	21	13.23	0	no (pavement)	
AA-12	237A-155	B	23	13.99	4	21	12.54	0	no (pavement)	
AA-12	237A-156	B	23	14.97	4	21	13.52	0	no (pavement)	
AA-12	237A-157	B	22	14.62	4	18	13.29	0	no (pavement)	
AA-12	237A-158	B	22	13.66	4	15	12.46	0	no (pavement)	
AA-12	237A-160	B	22	13.67	4	15	12.47	0	no (pavement)	

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JACINTO CARLOS ERAS, P.E. #49454  
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**CITY of TAMPA**  
**WASTEWATER DEPARTMENT**

**FY 2015 MANHOLE REHABILITATION**  
**MANHOLE REHABILITATION SCHEDULE**

W.O. 1000509  
HEET  
10  
0- 46

Manhole Rehabilitation Schedule

Atlas	Manhole #	Manhole Type	Plan Sheet #	Approx Depth (ft)	Barrel Dia. (ft)	Downstream Pipe Dia. (in)	Barrel Payment Length (ft)	Bottom Chamber Payment Area (sf)	Replace Frame and Cover (Size, In Grass or Pavement)	Comments
AA-12	237A-161	B	22	13.23	4	12	12.15	0	no (pavement)	
A-12	237A-172	B	24	12.51	4	27	10.81	0	no (pavement)	
A-12	237A-173	B	24	12.97	4	27	11.27	0	no (pavement)	
AA-13	237A-194	B	23	5.87	4	12	4.79	0	no (pavement)	
AA-14	237A-211	B	23	7.88	4	8	6.97	0	no (pavement)	
AA-14	237A-212	B	23	6.10	4	8	5.19	0	no (pavement)	
AA-14	237A-213	B	23	7.34	4	8	6.43	0	no (pavement)	
AA-12	237A-232	B	21	12.72	4	10	11.72	0	no (pavement)	
AA-12	237A-233	B	21	11.42	4	10	10.42	0	no (pavement)	
BB-12	237A-234	B	21	10.95	4	10	9.95	0	no (pavement)	
BB-12	237A-235	B	21	10.26	4	10	9.26	0	no (pavement)	
BB-12	237A-236	B	21	9.14	4	10	8.14	0	no (pavement)	
BB-12	237A-237	B	21	8.45	4	10	7.45	0	no (pavement)	
BB-12	237A-238	B	21	7.96	4	10	6.96	0	no (pavement)	
BB-12	237A-239	B	21	7.74	4	10	6.74	0	no (pavement)	
BB-12	237A-240	B	21	5.45	4	8	4.54	0	no (pavement)	
BB-12	237A-241	B	21	5.95	4	8	5.04	0	no (pavement)	
BB-12	237A-242	B	21	3.43	4	8	2.52	0	no (pavement)	
BB-12	237A-243	B	21	5.80	4	8	4.89	0	no (pavement)	
BB-12	237A-244	B	21	4.60	4	8	3.69	0	no (pavement)	
BB-12	237A-245	B	21	5.40	4	8	4.49	0	no (pavement)	
A-12	237A-253	B	24	10.17	4	24	8.59	0	no (pavement)	
AA-12	237A-261	B	22	14.20	4	10	13.20	0	no (pavement)	
BB-12	237A-265	B	21	5.79	4	8	4.88	0	no (pavement)	
AA-12	237A-266	B	22	10.39	4	8	9.48	0	no (pavement)	
AA-12	237A-270	B	23	8.50	4	8	7.59	0	no (pavement)	
I-9	248A-048	C	29	15.72	4	42	13.39	80	no (pavement)	Remove calcium aluminate liner system prior to proposed coating system; Bench Restoration Required
H-9	248A-051	C	29	14.01	4	42	11.68	80	no (pavement)	Remove calcium aluminate liner system prior to proposed coating system; Bench Restoration Required

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**CITY of TAMPA**  
**WASTEWATER DEPARTMENT**

**FY 2015 MANHOLE REHABILITATION**  
**MANHOLE REHABILITATION SCHEDULE**

W.O. 1000509  
HEET  
11  
0- 46

Manhole Rehabilitation Schedule

Atlas	Manhole #	Manhole Type	Plan Sheet #	Approx Depth (ft)	Barrel Dia. (ft)	Downstream Pipe Dia. (in)	Barrel Payment Length (ft)	Bottom Chamber Payment Area (sf)	Replace Frame and Cover (Size, In Grass or Pavement)	Comments
H-9	248A-052	C	29	14.42	4	42	12.09	80	no (pavement)	Remove calcium aluminate liner system prior to proposed coating system; Bench Restoration Required
H-9	248A-053	C	29	14.68	4	42	12.35	80	no (pavement)	Remove calcium aluminate liner system prior to proposed coating system; Bench Restoration Required
M-10	250A-031	B	41	7.06	4	8	6.15	0	no (pavement)	
M-10	250A-032	B	41	5.53	4	8	4.62	0	no (pavement)	
M-10	250A-033	B	41	4.43	4	8	3.52	0	yes (small, pavement)	
C-15	262A-095	B	26	12.71	4	15	11.51	0	no (pavement)	
C-15	262A-096	B	26	11.22	4	15	10.02	0	no (pavement)	
C-15	262A-099	B	26	9.77	4	15	8.57	0	no (pavement)	
C-15	262A-104	B	26	8.86	4	12	7.78	0	no (pavement)	
C-15	262A-112	B	26	10.08	4	12	9.00	0	no (pavement)	
C-15	262A-113	B	26	10.89	4	12	9.81	0	no (pavement)	
C-15	262A-114	B	26	11.48	4	12	10.40	0	no (pavement)	
C-15	262A-115	B	26	8.93	4	12	7.85	0	no (pavement)	
C-15	262A-116	B	26	4.25	4	8	3.34	0	no (pavement)	
C-15	262A-117	B	26	5.06	4	8	4.15	0	no (pavement)	
C-15	262A-184	B	26	5.90	4	8	4.99	0	no (pavement)	
C-15	262A-185	B	26	5.68	4	8	4.77	0	no (pavement)	
C-15	262A-186	B	26	5.86	4	8	4.95	0	no (pavement)	
F-10	269A-005	B	27	12.82	4	12	11.74	0	no (pavement)	
F-10	269A-029	B	27	4.40	4	8	3.49	0	no (pavement)	
F-10	269A-041	B	27	12.78	4	12	11.70	0	no (pavement)	
F-10	269A-042	B	27	11.84	4	12	10.76	0	no (pavement)	
BB-16	273A-002	B	22	17.40	4	15	16.20	0	no (pavement)	
BB-16	273A-003	B	22	17.31	4	15	16.11	0	no (pavement)	
BB-16	273A-004	B	22	16.08	4	15	14.88	0	no (pavement)	
BB-16	273A-005	B	22	13.67	4	8	12.76	0	no (pavement)	
BB-16	273A-006	B	22	13.50	4	15	12.30	0	no (pavement)	

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JACINTO CARLOS -RRAS, P.-. #49454  
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**CITY of TAMPA**  
**WASTEWATER DEPARTMENT**

**FY 2015 MANHOLE REHABILITATION**  
**MANHOLE REHABILITATION SCHEDULE**

W.O. 1000509  
HEET  
12  
0- 46

B085-074

Manhole Rehabilitation Schedule

Atlas	Manhole #	Manhole Type	Plan Sheet #	Approx Depth (ft)	Barrel Dia. (ft)	Downstream Pipe Dia. (in)	Barrel Payment Length (ft)	Bottom Chamber Payment Area (sf)	Replace Frame and Cover (Size, In Grass or Pavement)	Comments
BB-16	273A-007	B	22	13.76	4	15	12.56	0	no (pavement)	
BB-16	273A-008	B	22	13.72	4	15	12.52	0	no (pavement)	
BB-16	273A-050	B	22	12.93	4	15	11.73	0	no (pavement)	
BB-16	273A-051	B	22	11.78	4	15	10.58	0	no (pavement)	
H-15	311A-002	A	31	14.60	5	30	12.77	0	no (pavement)	
H-15	311A-003	A	31	14.00	5	30	12.17	0	no (pavement)	
H-15	311A-004	A	31	13.49	5	30	11.66	0	no (pavement)	
H-15	311A-005	A	31	14.66	5	30	12.83	0	no (pavement)	
H-14	320A-041	A	30	5.67	4	8	4.76	0	yes (small, pavement)	
H-14	320A-047	A	30	5.97	4	8	5.06	0	yes (small, pavement)	
H-14	321A-001	A	30	10.57	4	18	9.24	0	yes (small, grass)	
H-14	321A-056	A	30	5.65	4	8	4.74	0	no (pavement)	
G-14	321A-099	A	28	8.37	4	12	7.29	0	no (pavement)	
G-14	321A-100	A	28	0.00	4	12	-1.08	0	no (pavement)	
H-14	324A-024	A	30	6.46	4	21	5.01	0	no (pavement)	
H-14	324A-029	A	30	6.60	4	18	5.27	0	yes (small, pavement)	
H-14	324A-036	B	29	11.84	4	21	10.39	0	no (pavement)	
H-14	324A-038	B	29	14.21	4	24	12.63	0	no (pavement)	
G-14	324A-039	A	29	13.89	4	24	12.31	0	no (pavement)	
G-14	324A-114	A	29	8.30	4	8	7.39	0	no (pavement)	
G-14	324A-121	A	29	13.57	4	21	12.12	0	no (pavement)	
G-14	324A-122	B	29	13.82	4	21	12.37	0	no (pavement)	
G-14	324A-133	A	29	13.90	4	21	12.45	0	no (pavement)	
G-15	324A-134	A	29	16.80	4	21	15.35	0	no (pavement)	
G-14	324A-135	A	29	15.41	4	21	13.96	0	yes (small, pavement)	
G-14	324A-189	A	29	15.30	4	21	13.85	0	yes (small, pavement)	
G-14	324A-191	A	29	13.85	4	21	12.40	0	no (pavement)	
G-13	324A-202	A	28	15.31	4	21	13.86	0	no (pavement)	
H-13	326A-002	A	29	5.05	4	24	3.47	0	no (pavement)	
H-13	326A-003	B	29	5.05	4	24	3.47	0	no (pavement)	
H-13	326A-004	A	29	5.30	4	24	3.72	0	no (pavement)	
H-13	326A-005	A	29	6.36	4	24	4.78	0	yes (small, grass)	

User: ssfs Drawing Name: K:\WW\_Proj\2015\_15-C-00010 Manhole Rehabilitation\Shee-Se\PLANS\MH-SCH-DUL--'15.dwg  
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JACINTO CARLOS -RRAS, P.-. #49454  
D=SIGN DIVISION H=AD  
WAST=WAT=R D=PARTM=NT

No.	DATE	REVISIONS
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DES: CB  
DRN: RS  
CKD: JF  
DATE: ####

**CITY of TAMPA**  
**WASTEWATER DEPARTMENT**

**FY 2015 MANHOLE REHABILITATION**  
**MANHOLE REHABILITATION SCHEDULE**

W.O. 1000509  
HEET  
13  
0- 46

Manhole Rehabilitation Schedule										
Atlas	Manhole #	Manhole Type	Plan Sheet #	Approx Depth (ft)	Barrel Dia. (ft)	Downstream Pipe Dia. (in)	Barrel Payment Length (ft)	Bottom Chamber Payment Area (sf)	Replace Frame and Cover (Size, In Grass or Pavement)	Comments
H-13	326A-007	B	29	8.07	4	18	6.74	0	no (pavement)	
H-13	326A-015	A	29	7.00	4	12	5.92	0	yes (small, grass)	
H-13	326A-059	B	29	4.91	4	12	3.83	0	no (brick pavers)	
H-13	326A-329	B	29	5.02	4	24	3.44	0	yes (small, grass)	
H-13	326A-331	B	29	5.42	4	24	3.84	0	yes (small, grass)	
H-13	326A-332	B	29	6.16	4	18	4.83	0	no (pavement)	
H-13	326A-333	B	29	6.06	4	18	4.73	0	yes (small, grass)	
H-13	326A-334	B	29	5.30	4	18	3.97	0	yes (small, grass)	
H-13	326A-335	B	29	6.34	4	18	5.01	0	yes (small, grass)	
H-14	328A-037	F	30	5.66	4	27	3.96	0	no (pavement)	Remove calcium aluminate liner system prior to proposed coating system;
H-14	328A-038	F	30	6.98	4	27	5.28	0	no (pavement)	Remove calcium aluminate liner system prior to proposed coating system;
H-14	328A-039	A	30	4.87	4	10	3.87	0	yes (small, pavement)	
H-14	328A-040	F	30	4.97	4	27	3.27	0	no (pavement)	Remove calcium aluminate liner system prior to proposed coating system;
H-14	328A-041	F	30	5.20	4	27	3.50	0	no (pavement)	Remove calcium aluminate liner system prior to proposed coating system;
H-14	328A-042	F	30	6.80	4	27	5.10	0	no (pavement)	Remove calcium aluminate liner system prior to proposed coating system;
H-14	328A-043	F	30	7.00	4	36	4.92	0	no (pavement)	Remove calcium aluminate liner system prior to proposed coating system;
H-14	328A-044	F	30	8.22	4	36	6.14	0	no (pavement)	Remove calcium aluminate liner system prior to proposed coating system;
H-15	328A-045	F	30	8.47	4	36	6.39	0	no (pavement)	Remove calcium aluminate liner system prior to proposed coating system;
H-15	328A-046	F	30	5.23	4	36	3.15	0	yes (large, pavement)	Remove calcium aluminate liner system prior to proposed coating system;
H-15	328A-047	F	30	6.07	4	36	3.99	0	no (pavement)	Remove calcium aluminate liner system prior to proposed coating system;
D-11	336A-155	A	26	6.01	4	8	5.10	0	no (grass)	
D-11	336A-158	A	26	5.60	4	8	4.69	0	no (grass)	
D-11	336A-161	A	26	8.23	4	8	7.32	0	no (grass)	
C-12	340A-057	A	25	7.91	4	30	6.08	0	yes (small, pavement)	Bench Restoration
C-13	340A-079	A	26	13.42	4	24	11.84	0	no (pavement)	
D-13	340A-085	A	26	12.87	4	24	11.29	0	no (pavement)	

B085-075

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DATE: ####

**CITY of TAMPA**  
**WASTEWATER DEPARTMENT**

**FY 2015 MANHOLE REHABILITATION**  
**MANHOLE REHABILITATION SCHEDULE**

W.O. 1000509  
HEET  
14  
0- 46





Manhole Rehabilitation Schedule

B085-077

Atlas	Manhole #	Manhole Type	Plan Sheet #	Approx Depth (ft)	Barrel Dia. (ft)	Downstream Pipe Dia. (in)	Barrel Payment Length (ft)	Bottom Chamber Payment Area (sf)	Replace Frame and Cover (Size, In Grass or Pavement)	Comments
K-9	380A-024	A	33	3.03	4	8	2.12	0	no (pavement)	
K-9	380A-030	B	33	5.10	4	8	4.19	0	no (pavement)	
K-9	380A-036	B	33	8.00	4	15	6.80	0	no (pavement)	
K-9	380A-037	A	33	7.97	4	15	6.77	0	no (pavement)	
K-9	380A-038	A	33	12.35	4	15	11.14	0	yes (small, pavement)	
K-9	380A-039	A	33	9.13	4	15	7.93	0	no (pavement)	
K-9	380A-040	A	33	10.36	4	15	9.16	0	no (pavement)	
K-9	380A-042	A	33	10.49	4	15	9.29	0	no (pavement)	
K-9	380A-043	A	33	10.77	4	15	9.57	0	no (pavement)	
K-9	380A-073	A	33	9.38	4	15	8.18	0	no (pavement)	
K-9	380A-074	A	33	8.45	4	15	7.25	0	no (pavement)	
K-9	380A-077	A	33	8.40	4	10	7.40	0	no (pavement)	
K-9	380A-078	A	33	8.05	4	10	7.05	0	no (pavement)	
K-9	381A-002	B	33	6.58	4	8	5.67	0	no (pavement)	
K-9	381A-006	B	33	5.86	4	8	4.95	0	no (pavement)	
K-9	381A-026	B	33	6.75	4	8	5.84	0	no (pavement)	
K-9	381A-036	B	34	5.85	4	8	4.94	0	no (pavement)	
K-9	381A-039	B	34	4.80	4	8	3.89	0	no (pavement)	
K-9	381A-049	B	34	6.07	4	8	5.16	0	no (pavement)	
K-9	381A-069	B	34	6.00	4	24	4.42	0	no (pavement)	
K-9	381A-077	B	34	6.40	4	8	5.49	0	yes (small, pavement)	
K-9	381A-078	A	34	5.66	4	8	4.75	0	no (pavement)	
K-9	381A-087	B	34	6.48	4	8	5.57	0	yes (small, pavement)	
K-9	381A-088	A	34	5.76	4	8	4.85	0	yes (small, pavement)	
K-9	381A-097	B	34	7.89	4	8	6.98	0	no (pavement)	
K-9	381A-155	B	34	7.00	4	8	6.09	0	no (pavement)	Bench Restoration
K-9	381A-156	A	34	7.50	4	8	6.59	0	no (pavement)	
K-9	381A-165	A	34	9.00	4	8	8.09	0	no (pavement)	
K-9	381A-200	B	34	8.00	4	8	7.09	0	no (pavement)	
L-9	381A-225	B	37	10.43	4	8	9.52	0	no (pavement)	
L-9	381A-235	B	38	7.28	4	8	6.37	0	no (pavement)	
L-9	381A-236	B	38	6.64	4	8	5.73	0	no (pavement)	

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**CITY of TAMPA**  
**WASTEWATER DEPARTMENT**

**FY 2015 MANHOLE REHABILITATION**  
**MANHOLE REHABILITATION SCHEDULE**

W.O. 1000509  
HEET  
16  
0- 46

B085-078

Manhole Rehabilitation Schedule

Atlas	Manhole #	Manhole Type	Plan Sheet #	Approx Depth (ft)	Barrel Dia. (ft)	Downstream Pipe Dia. (in)	Barrel Payment Length (ft)	Bottom Chamber Payment Area (sf)	Replace Frame and Cover (Size, In Grass or Pavement)	Comments
L-9	381A-276	A	37	6.95	4	10	5.95	0	no (pavement)	
L-9	381A-310	A	37	8.98	4	8	8.07	0	no (pavement)	
L-9	381A-312	A	37	8.20	4	8	7.29	0	no (pavement)	
L-9	381A-318	A	37	7.12	4	8	6.21	0	no (pavement)	
L-9	381A-320	A	37	6.34	4	8	5.43	0	no (pavement)	
L-9	381A-331	B	37	12.33	4	12	11.25	0	no (pavement)	
L-9	381A-339	B	37	7.72	4	8	6.81	0	no (pavement)	
L-9	381A-345	A	34	9.49	4	24	7.91	0	no (pavement)	
L-9	381A-346	B	38	13.85	4	18	12.52	0	no (pavement)	
L-9	381A-347	B	38	15.20	4	18	13.87	0	no (pavement)	
L-9	381A-368	B	37	13.00	4	21	11.55	0	no (pavement)	
L-9	381A-369	B	37	12.00	4	21	10.55	0	no (pavement)	
L-9	381A-370	B	37	8.84	4	21	7.39	0	no (pavement)	
L-9	381A-371	B	37	8.83	4	21	7.38	0	no (pavement)	
K-9	381A-372	A	34	9.33	4	24	7.75	0	no (pavement)	
K-9	381A-373	A	34	9.05	4	24	7.47	0	no (pavement)	
K-9	381A-374	A	34	9.55	4	24	7.97	0	no (pavement)	
K-9	381A-375	A	34	9.91	4	24	8.33	0	no (pavement)	
K-9	381A-376	A	34	9.94	4	24	8.36	0	no (pavement)	
K-9	381A-377	A	34	8.71	4	24	7.13	0	no (pavement)	
K-9	381A-378	A	34	9.71	4	24	8.13	0	no (pavement)	
K-9	381A-379	A	34	10.52	4	24	8.94	0	no (pavement)	
K-9	381A-380	A	34	11.35	4	24	9.77	0	no (pavement)	
L-9	381A-384	B	37	9.68	4	21	8.23	0	no (pavement)	
L-9	381A-385	B	37	9.00	4	8	8.09	0	no (pavement)	
L-9	381A-387	B	37	9.00	4	8	8.09	0	no (pavement)	
L-9	381A-388	B	38	9.14	4	8	8.23	0	no (pavement)	
K-10	392A-041	A	35	14.42	4	42	12.09	0	yes (small, grass)	
K-9	397A-082	B	37	6.24	4	8	5.33	0	no (pavement)	
K-9	397A-088	B	37	6.03	4	8	5.12	0	no (pavement)	
K-9	397A-089	B	37	6.17	4	8	5.26	0	yes (small, grass)	
L-9	397A-091	B	37	3.60	4	8	2.69	0	yes (small, pavement)	

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D=SIGN DIVISION H=AD  
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No.	DATE	REVISIONS
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DES: CB  
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**CITY of TAMPA**  
**WASTEWATER DEPARTMENT**

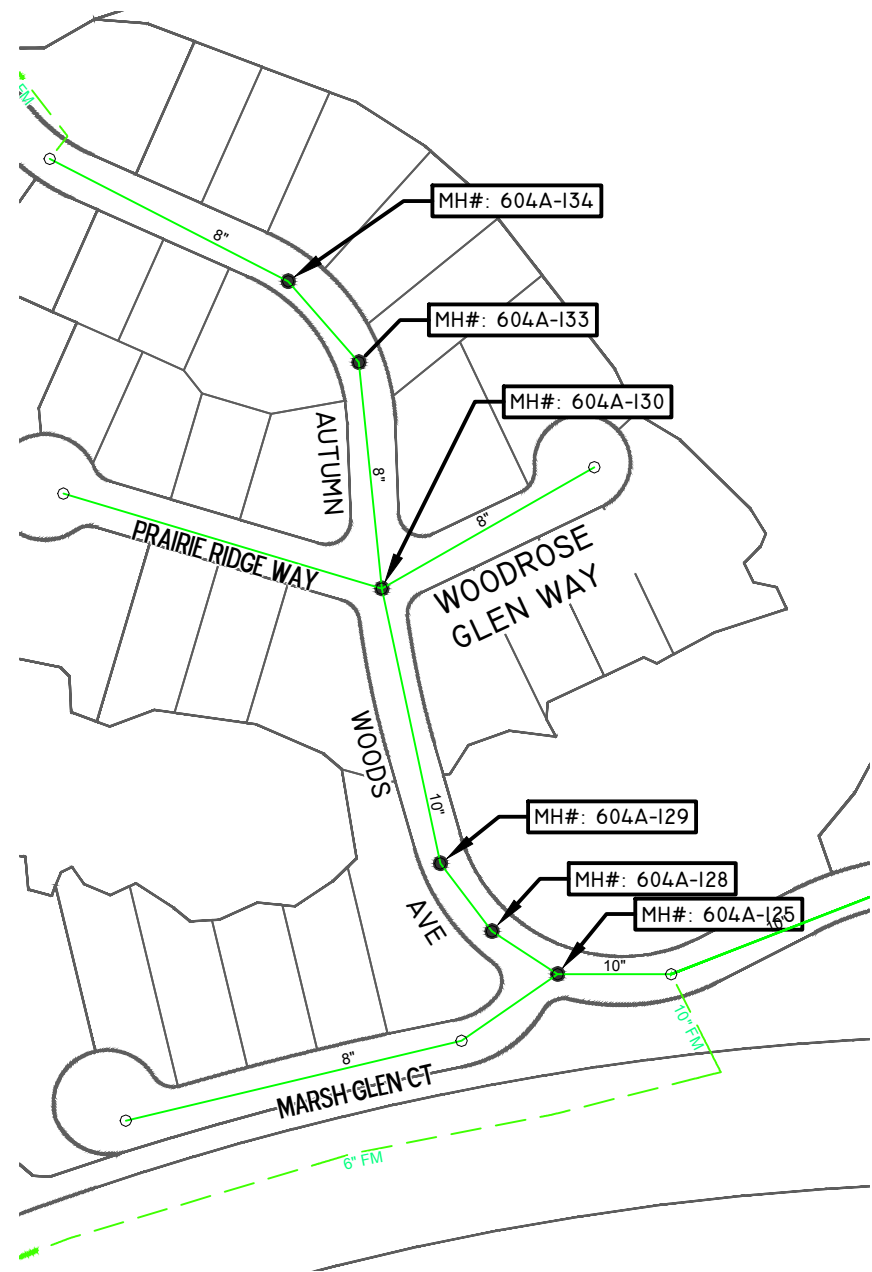
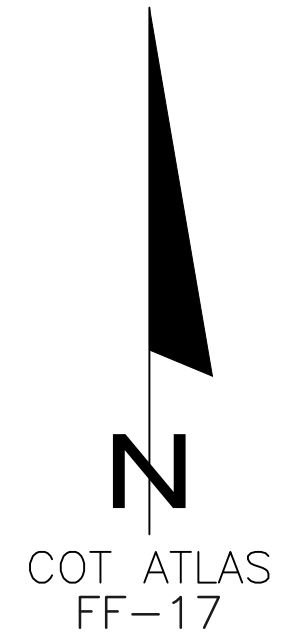
**FY 2015 MANHOLE REHABILITATION**  
**MANHOLE REHABILITATION SCHEDULE**

W.O. 1000509  
HEET  
17  
0- 46

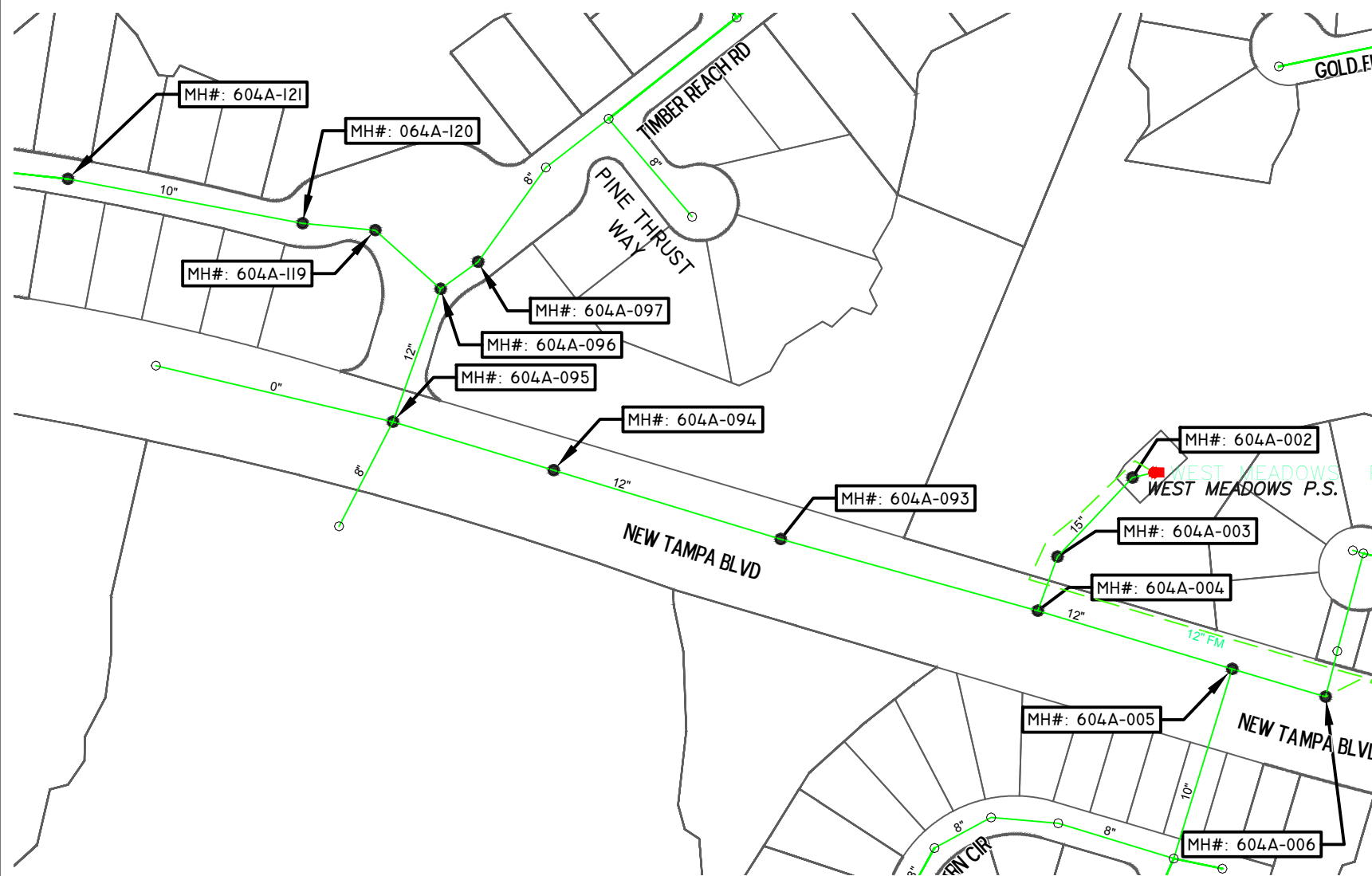
Manhole Rehabilitation Schedule										
Atlas	Manhole #	Manhole Type	Plan Sheet #	Approx Depth (ft)	Barrel Dia. (ft)	Downstream Pipe Dia. (in)	Barrel Payment Length (ft)	Bottom Chamber Payment Area (sf)	Replace Frame and Cover (Size, In Grass or Pavement)	Comments
FF-18	604A-002	B	19	19.11	4	15	17.91	0	no (pavement)	
FF-18	604A-003	B	19	18.55	4	15	17.35	0	no (pavement)	
FF-18	604A-004	B	19	19.74	4	15	18.54	0	no (pavement)	
FF-18	604A-005	B	19	18.49	4	12	17.41	0	no (pavement)	
FF-18	604A-006	B	19	17.71	4	12	16.63	0	no (pavement)	
FF-17	604A-093	B	19	19.78	4	12	18.70	0	no (pavement)	
FF-17	604A-094	B	19	15.68	4	12	14.60	0	no (pavement)	
FF-17	604A-095	B	19	14.34	4	12	13.26	0	no (pavement)	
FF-17	604A-096	B	19	13.28	4	12	12.20	0	no (pavement)	
FF-17	604A-097	B	19	12.88	4	10	11.88	0	no (pavement)	
FF-17	604A-119	B	19	12.87	4	10	11.87	0	no (pavement)	
FF-17	604A-120	B	19	12.36	4	10	11.36	0	no (pavement)	
FF-17	604A-121	B	19	11.65	4	10	10.65	0	no (pavement)	
FF-17	604A-125	B	19	7.55	4	10	6.55	0	no (pavement)	
FF-17	604A-128	B	19	7.43	4	10	6.43	0	no (pavement)	
FF-17	604A-129	B	19	7.49	4	10	6.49	0	no (pavement)	
FF-17	604A-130	B	19	5.91	4	10	4.91	0	no (pavement)	
FF-17	604A-133	B	19	5.35	4	8	4.44	0	no (pavement)	
FF-17	604A-134	B	19	5.07	4	8	4.16	0	no (pavement)	
H-18	616A-020	A	31	5.89	4	8	4.98	0	yes (small, pavement)	

User: ssfs Drawing Name: K:\WW\_Proj\2015\2015\_15-C-00010 Manhole Rehabilitation\Shee-Se\PLANS\MH-SCH=DUL--'15.dwg  
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JACINTO CARLOS ERAS, P.E. #49454 D=SIGN DIVISION H=AD WAST=WAT=R D=PARTM=NT	No.	DATE	REVISIONS	DES: CB	<b>CITY of TAMPA</b> <b>WASTEWATER DEPARTMENT</b>	FY 2015 MANHOLE REHABILITATION MANHOLE REHABILITATION SCHEDULE	W.O. 1000509
	3			DRN: RS			HEET
	2			CKD: JF			18
	1			DATE: ----			0- 46



**Autumn Woods Ave.**  
SCALE: 1"=200'



**Timber Reach**  
SCALE: 1" = 200'

**LEGEND:**

- MANHOLES - TO BE REHABILITATED
- MANHOLES - NO REHABILITATION REQUIRED
- EX. PUMP STATION
- EX. WASTEWATER FORCE MAIN

No.	DATE	REVISIONS
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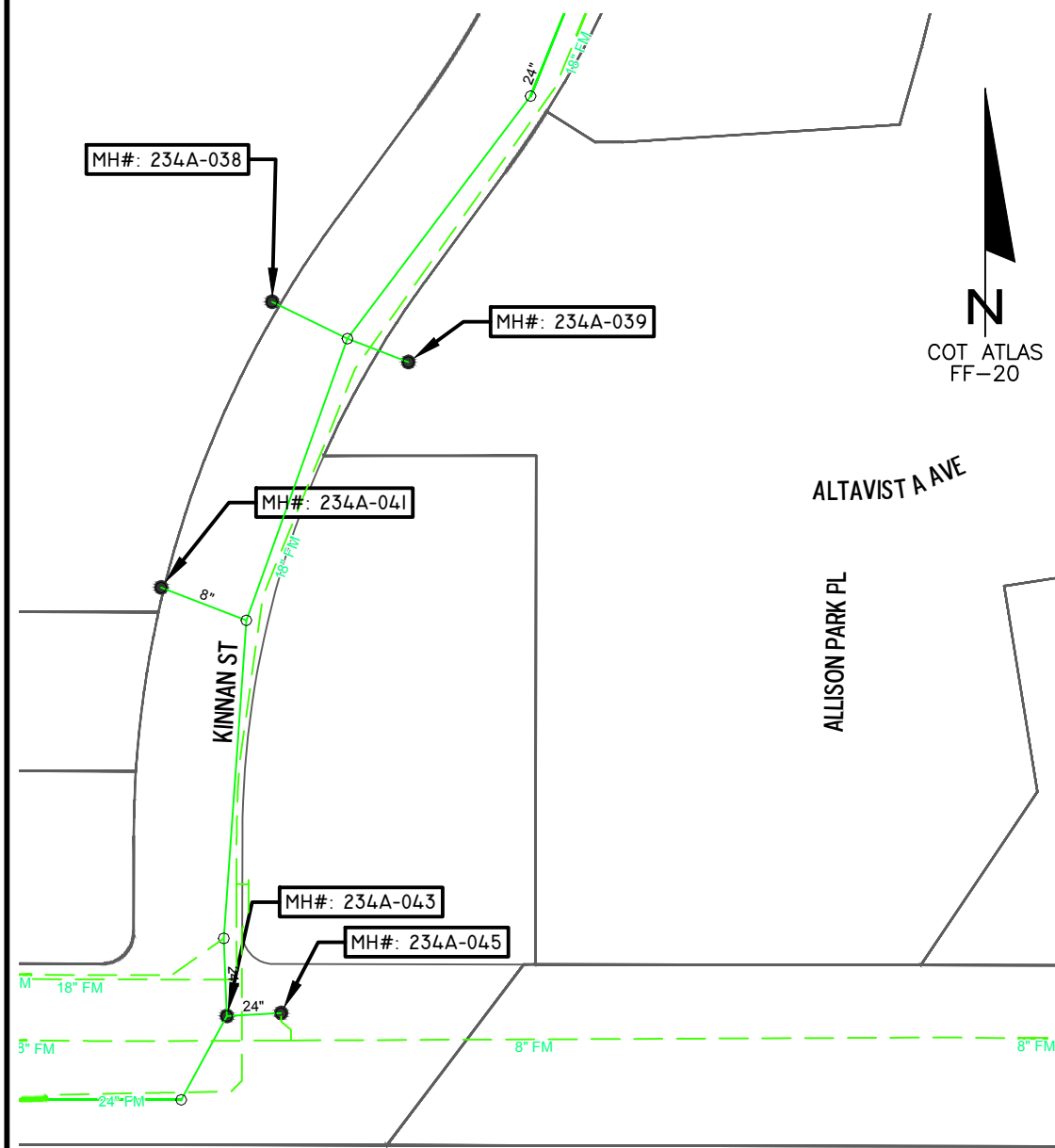
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**CITY of TAMPA**  
WASTEWATER DEPARTMENT

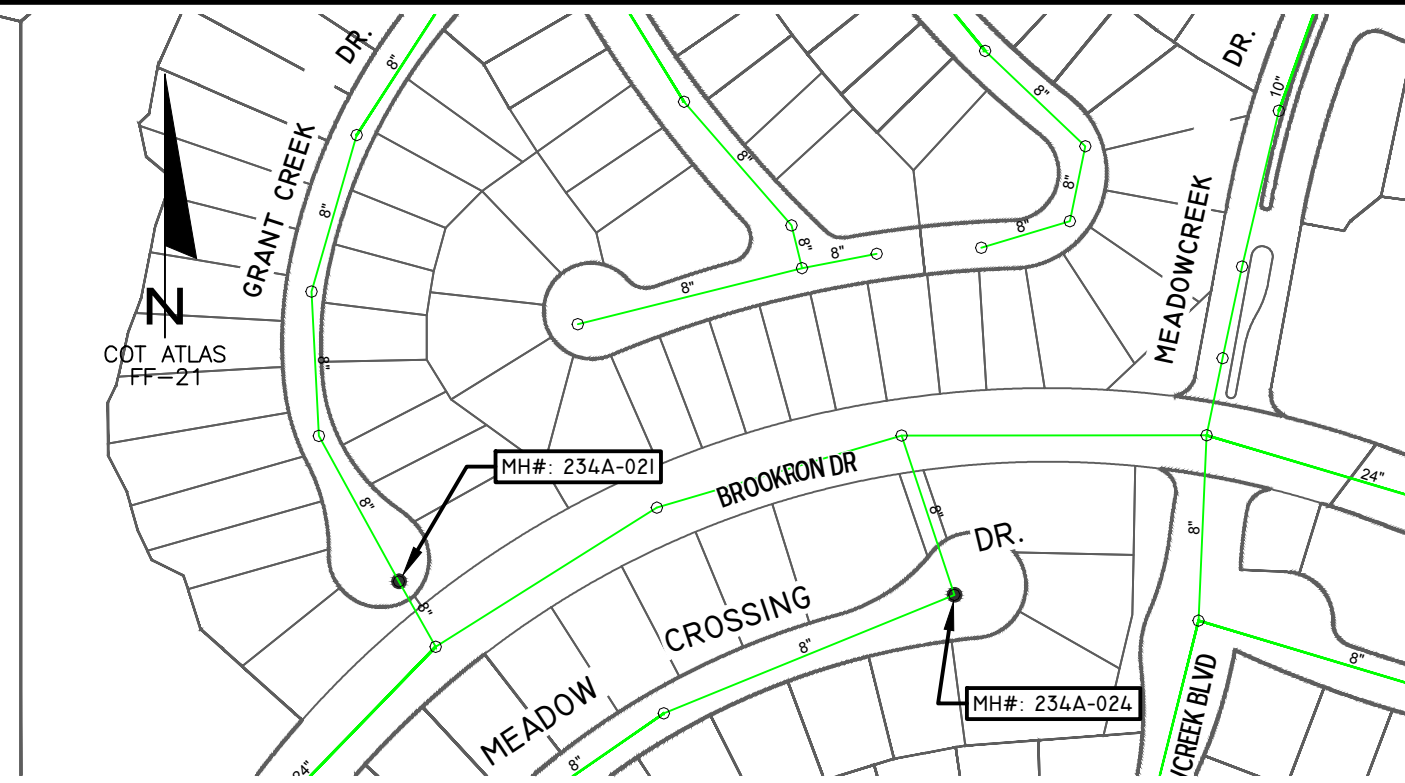
FY 2015 MANHOLE REHABILITATION

PLAN-1

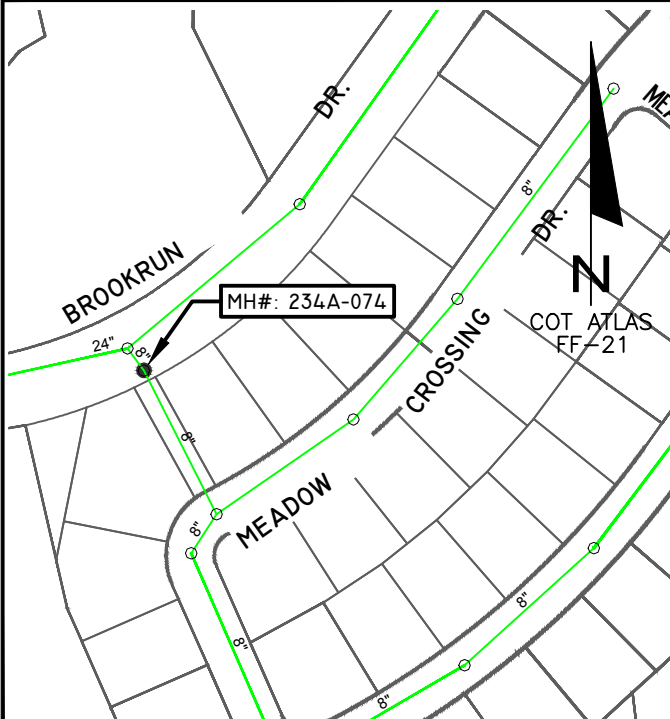
W.O. 1000509  
SHEET  
**19**  
OF 46



**Kinnan St.**  
SCALE: 1"=200'



**Grant Creek Dr. at Brookron Dr.**  
SCALE: 1"=200'



**Brookrun Dr.**  
SCALE: 1"=200'



**Birdwater Dr.**  
SCALE: 1"=200'

- LEGEND:**
- MANHOLES - TO BE REHABILITATED
  - MANHOLES - NO REHABILITATION REQUIRED
  - EX. PUMP STATION
  - EX. WASTEWATER FORCE MAIN

User: ss1s Drawing Name: K:\WW\_Projects\2015\2015\_15-C-00010 Manhole Rehabilitation\DWG\PLAN\PLAN.dwg Layout: Mar 05, 2015 - 2:16pm CTB - WW-TOSHIBA\_PIPE-RS.CTB

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WASTEWATER DEPARTMENT

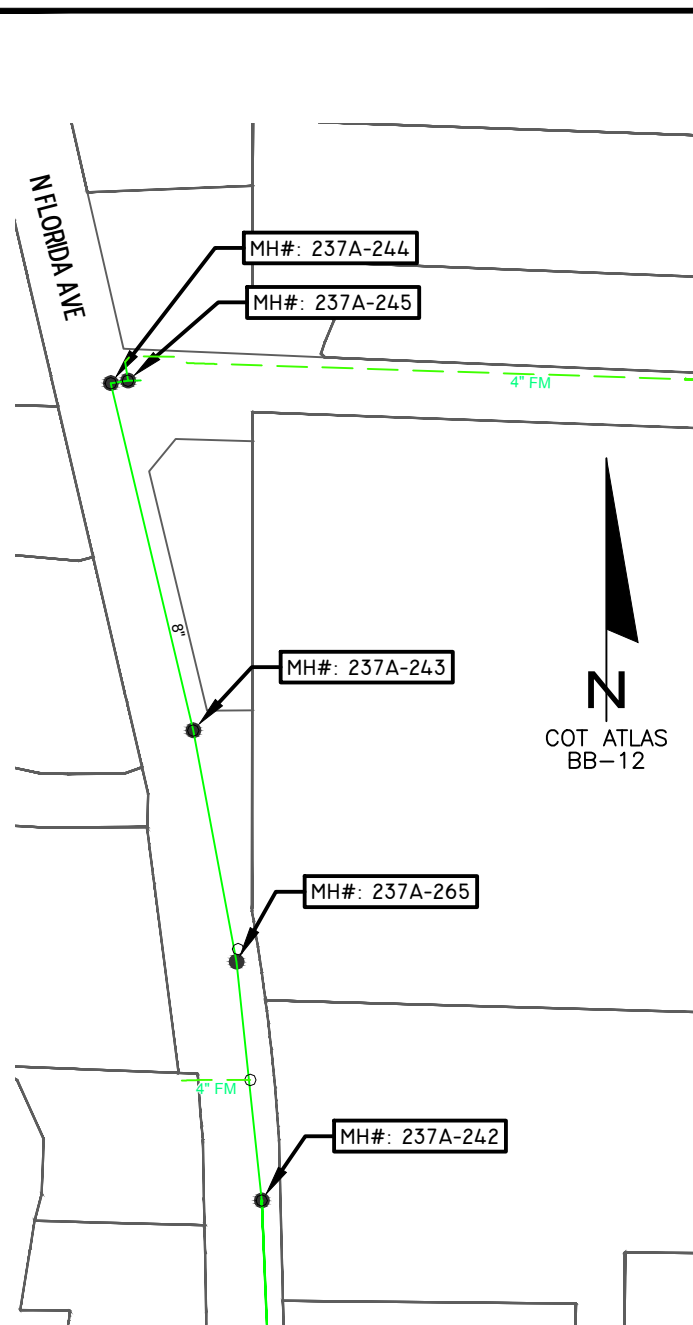
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**CITY of TAMPA**  
WASTEWATER DEPARTMENT

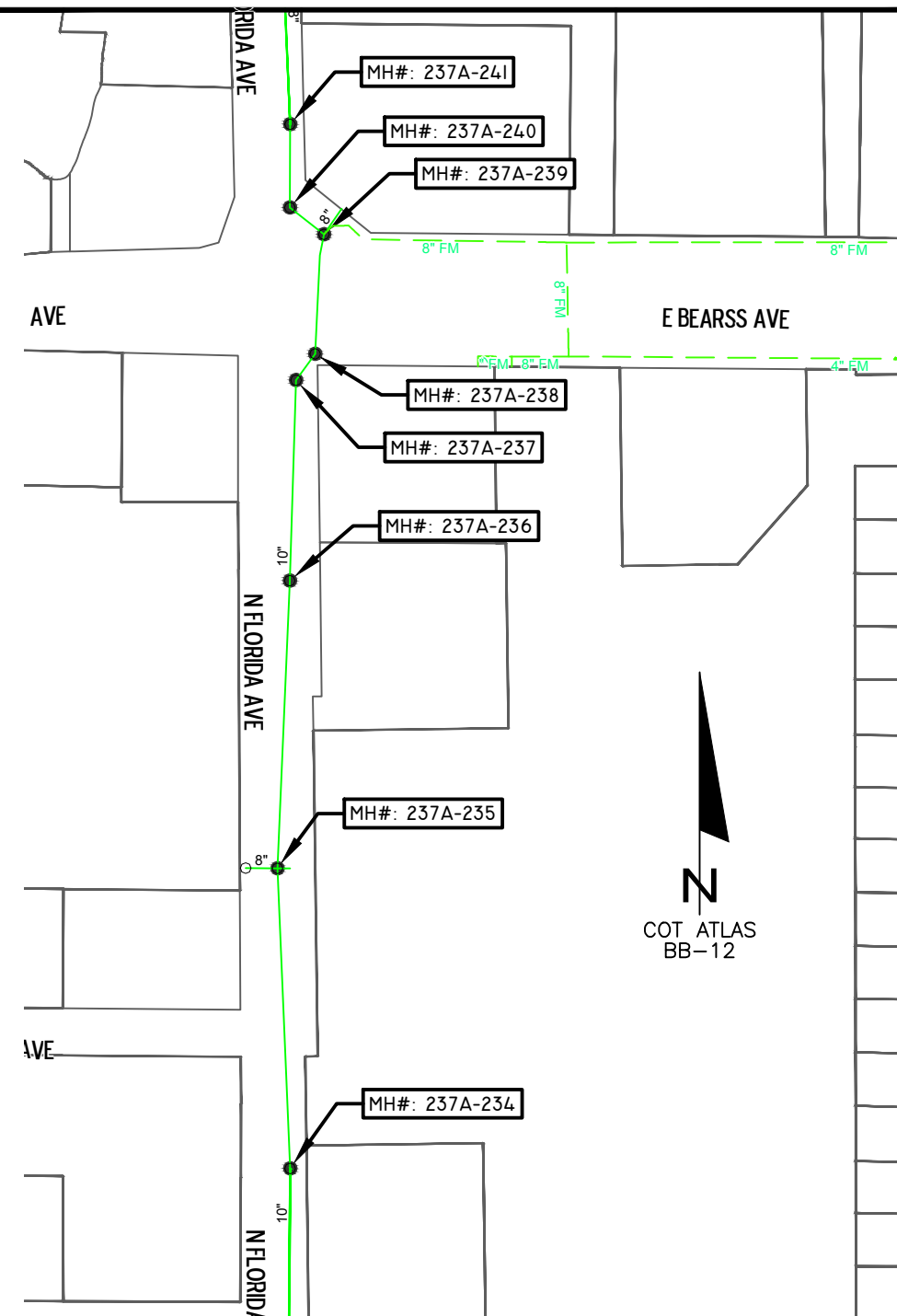
FY 2015 MANHOLE REHABILITATION  
PLAN-2

W.O. 1000509  
SHEET  
20  
OF 46



**Sinclair Hills**

SCALE: 1" = 200'



**Florida Ave. at Siobhan Ave.**

SCALE: 1" = 200'

**LEGEND:**

- MANHOLES - TO BE REHABILITATED
- MANHOLES - NO REHABILITATION REQUIRED
- EX. PUMP STATION
- EX. WASTEWATER FORCE MAIN

User: ss1s Drawing Name: K:\WW\_Projects\2015\2015\_15-C-00010 Manhole Rehabilitation\DWG\PLAN\PLAN.dwg Layout: Mar 05, 2015 - 2:16pm CTB - WW-TOSHIBA\_PIPE-RS.CTB

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#49454 DESIGN DIVISION HEAD  
WASTEWATER DEPARTMENT

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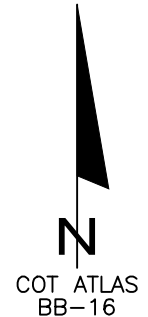
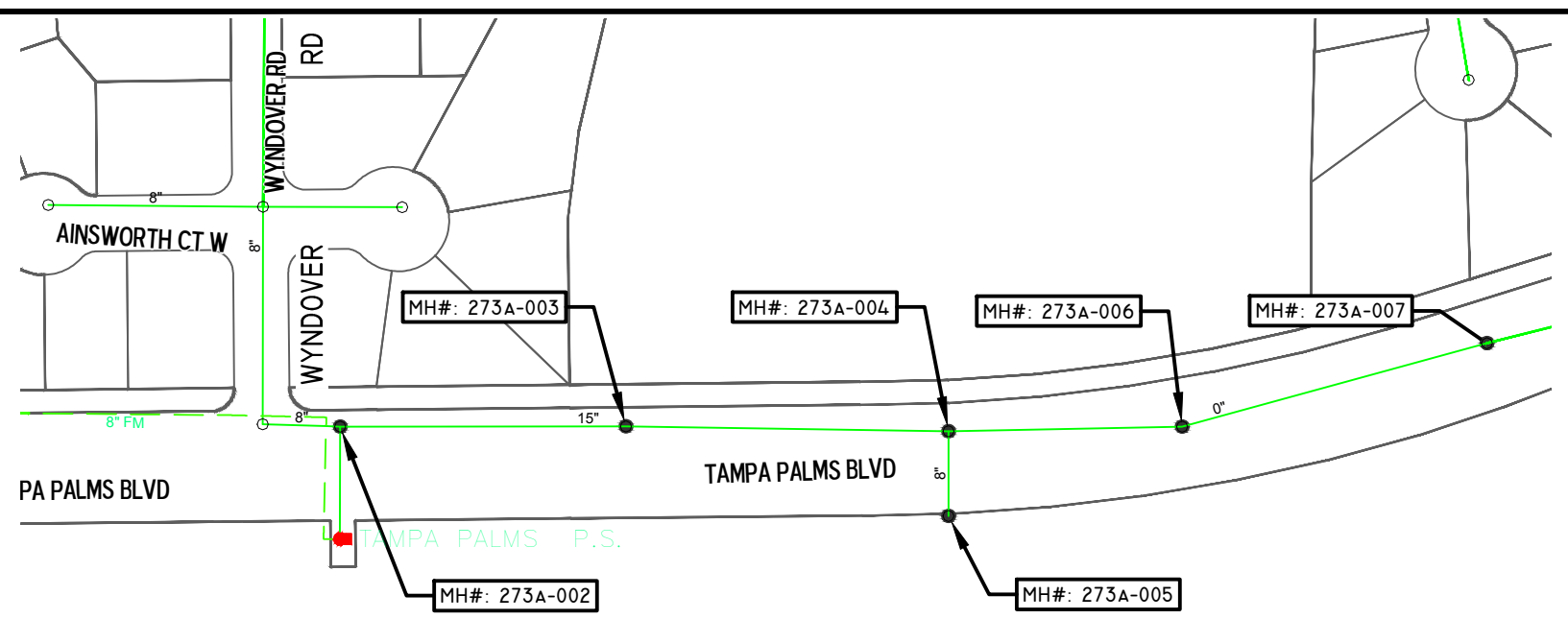
**CITY of TAMPA**  
WASTEWATER DEPARTMENT

FY 2015 MANHOLE REHABILITATION

PLAN-3

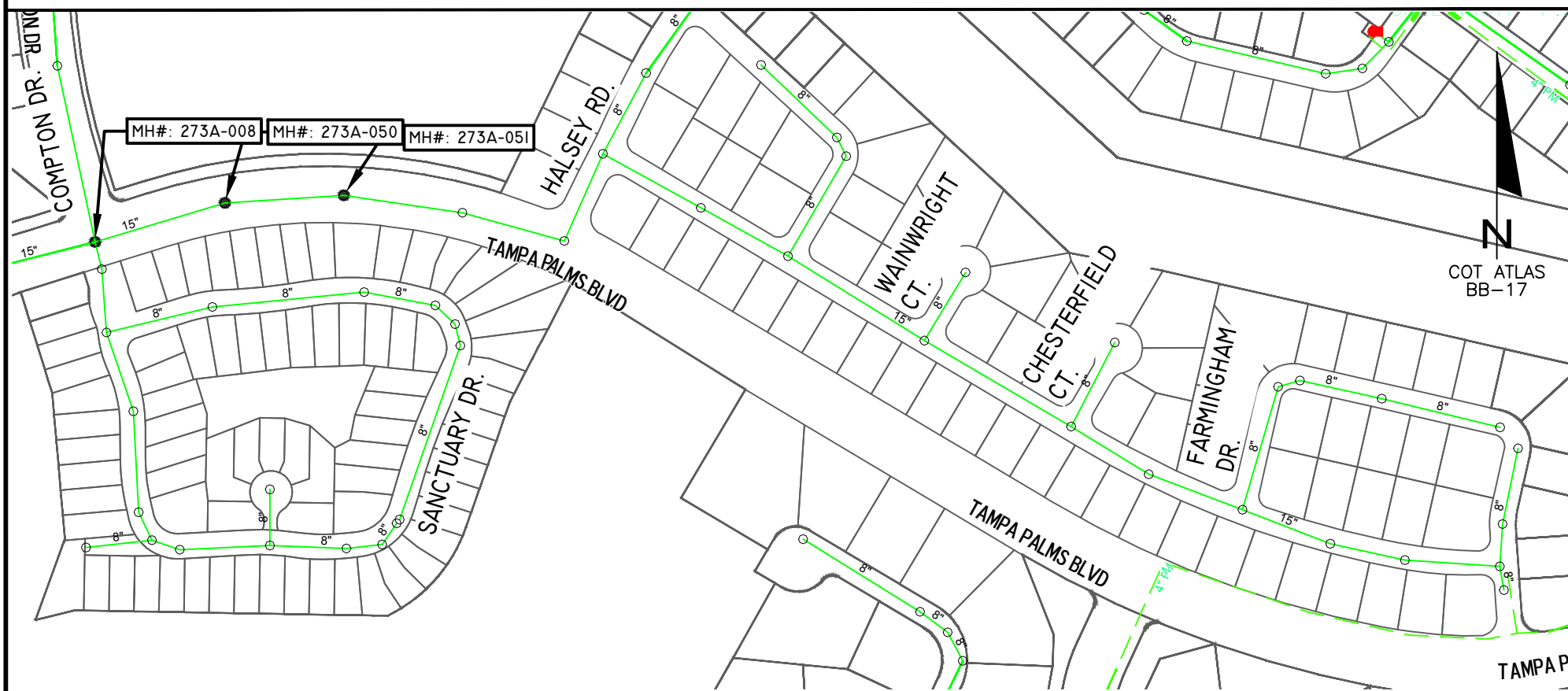
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OF 46





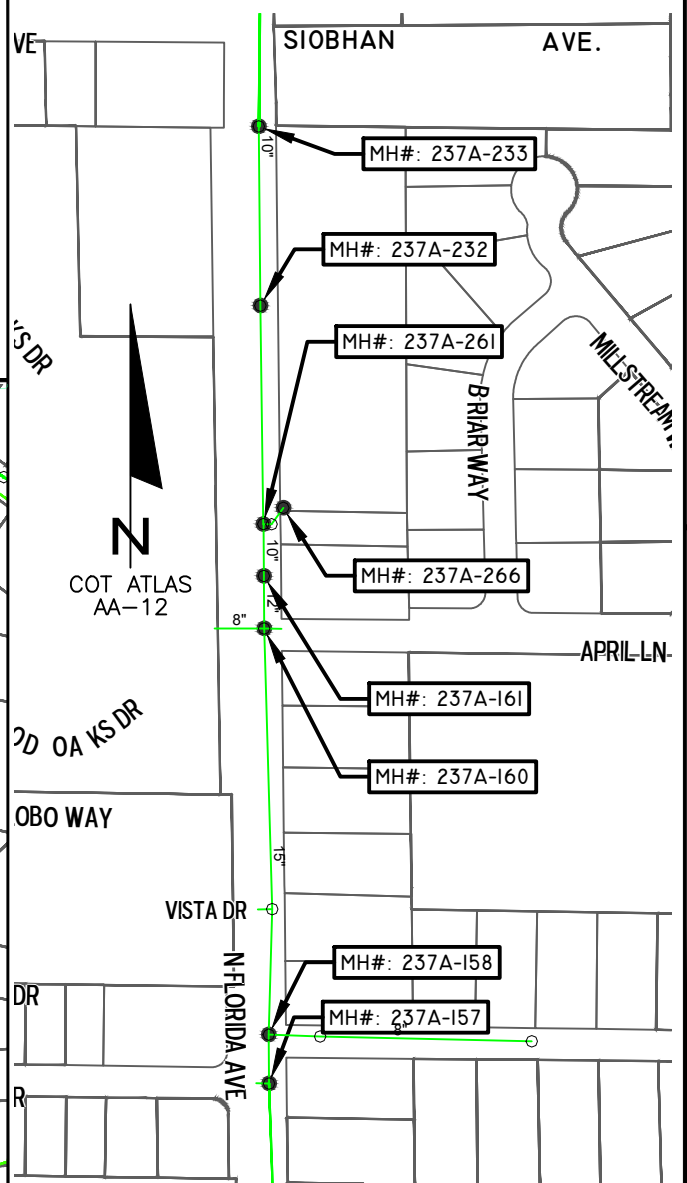
Tampa Palms at Windover Rd.

SCALE: 1"=200'



Halsey Rd. at Tampa Palms Blvd.

SCALE: 1"=300'



Florida Ave. Palm Dr. to Siobhan Ave.

SCALE: 1"=300'

- LEGEND:**
- MANHOLES - TO BE REHABILITATED
  - MANHOLES - NO REHABILITATION REQUIRED
  - EX. PUMP STATION
  - EX. WASTEWATER FORCE MAIN

User: ss1s Drawing Name: K:\WW\_Projects\2015\15-C-00010 Manhole Rehabilitation\DWG\PLAN\PLAN.dwg Layout: Mar 05, 2015 - 2:16pm CTB - WW-TOSHIBA\_PIPE-RS.CTB

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#49454 DESIGN DIVISION HEAD  
WASTEWATER DEPARTMENT

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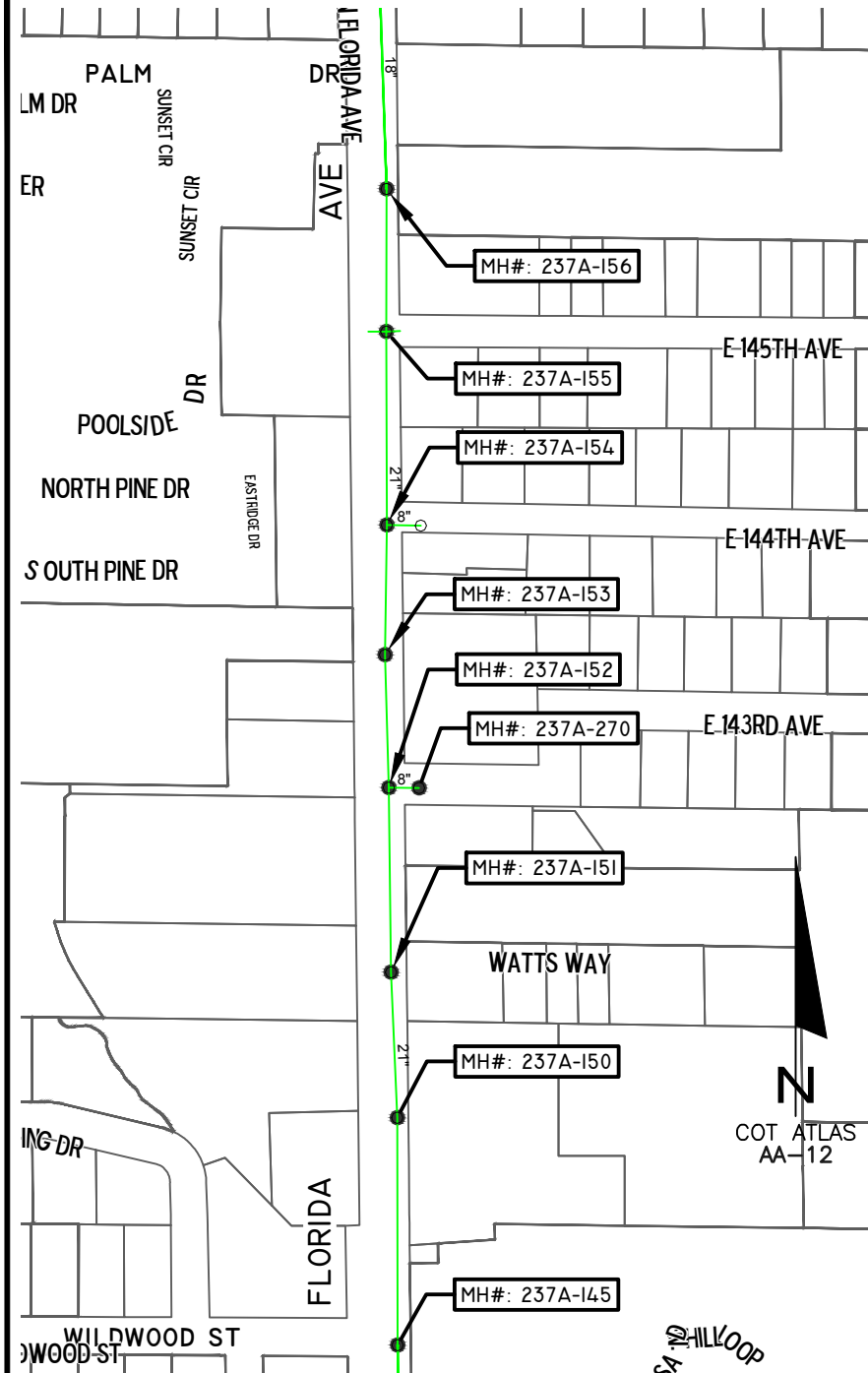
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CKD: JF  
DATE: ----

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WASTEWATER DEPARTMENT

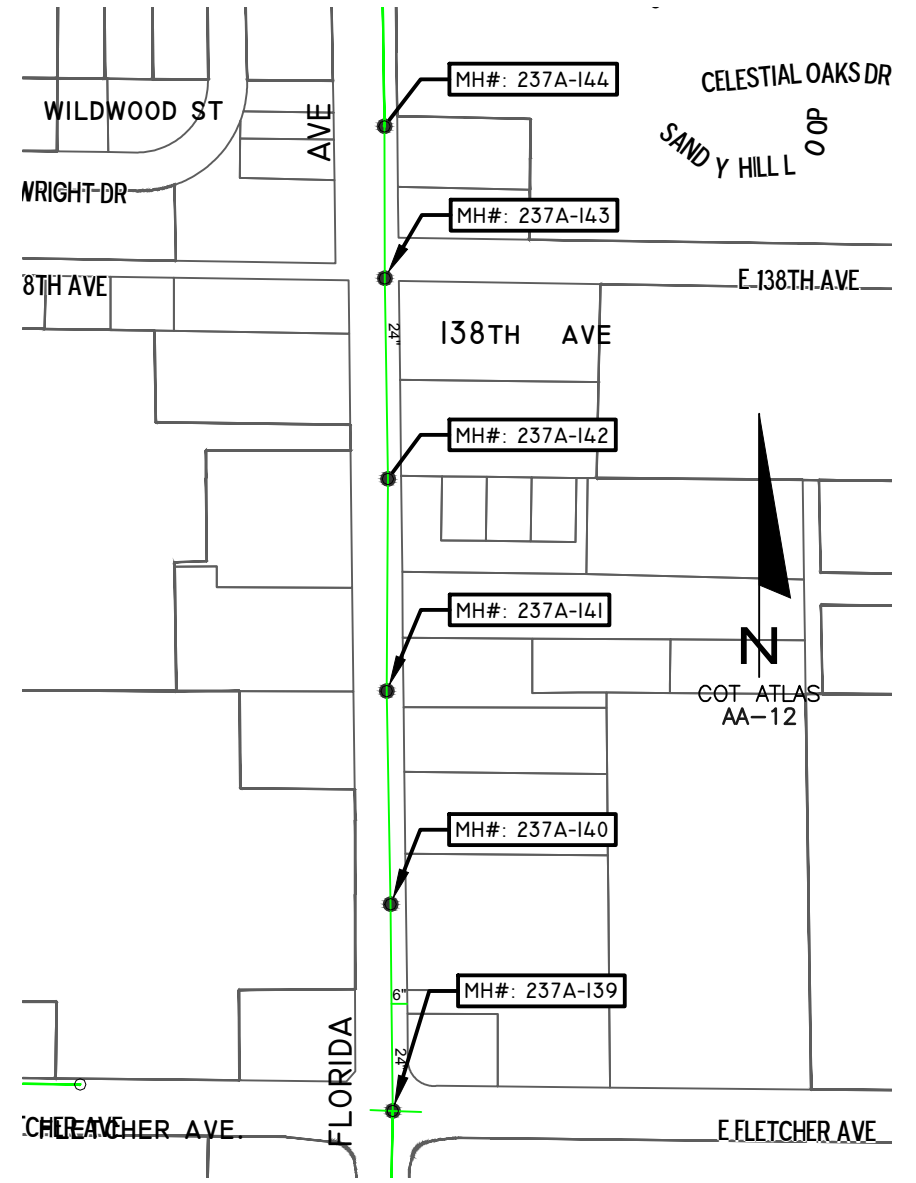
FY 2015 MANHOLE REHABILITATION

PLAN-4

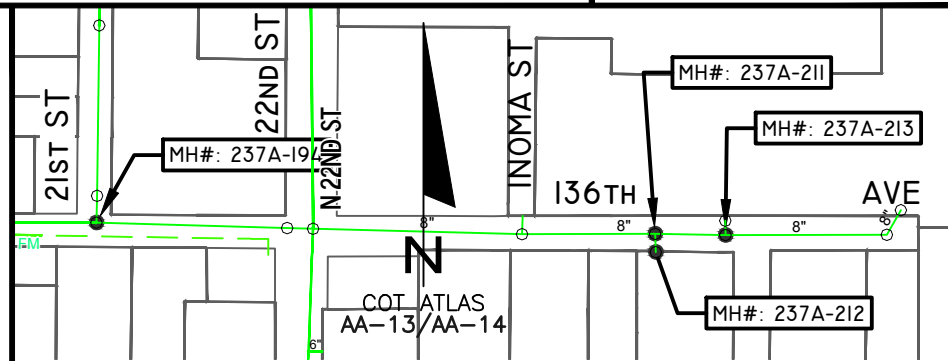
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SHEET  
**22**  
OF 46



Florida Ave., Wildwood St. to Palm Dr.  
SCALE: 1" = 300'



Florida Ave., Fletcher Ave. to Wildwood St.  
SCALE: 1" = 300'



136th Ave., 21st St. to 23rd St.  
SCALE: 1" = 300'

- LEGEND:**
- MANHOLES - TO BE REHABILITATED
  - MANHOLES - NO REHABILITATION REQUIRED
  - EX. PUMP STATION
  - EX. WASTEWATER FORCE MAIN

User: ss1s Drawing Name: K:\WW\_Projects\2015\2015\_15-C-00010 Manhole Rehabilitation\Draw\PLAN\PLAN.dwg Layout: Mar 05, 2015 - 2:16pm CTB - WW-TOSHIBA\_PIPE-RS.CTB

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#49454 DESIGN DIVISION HEAD  
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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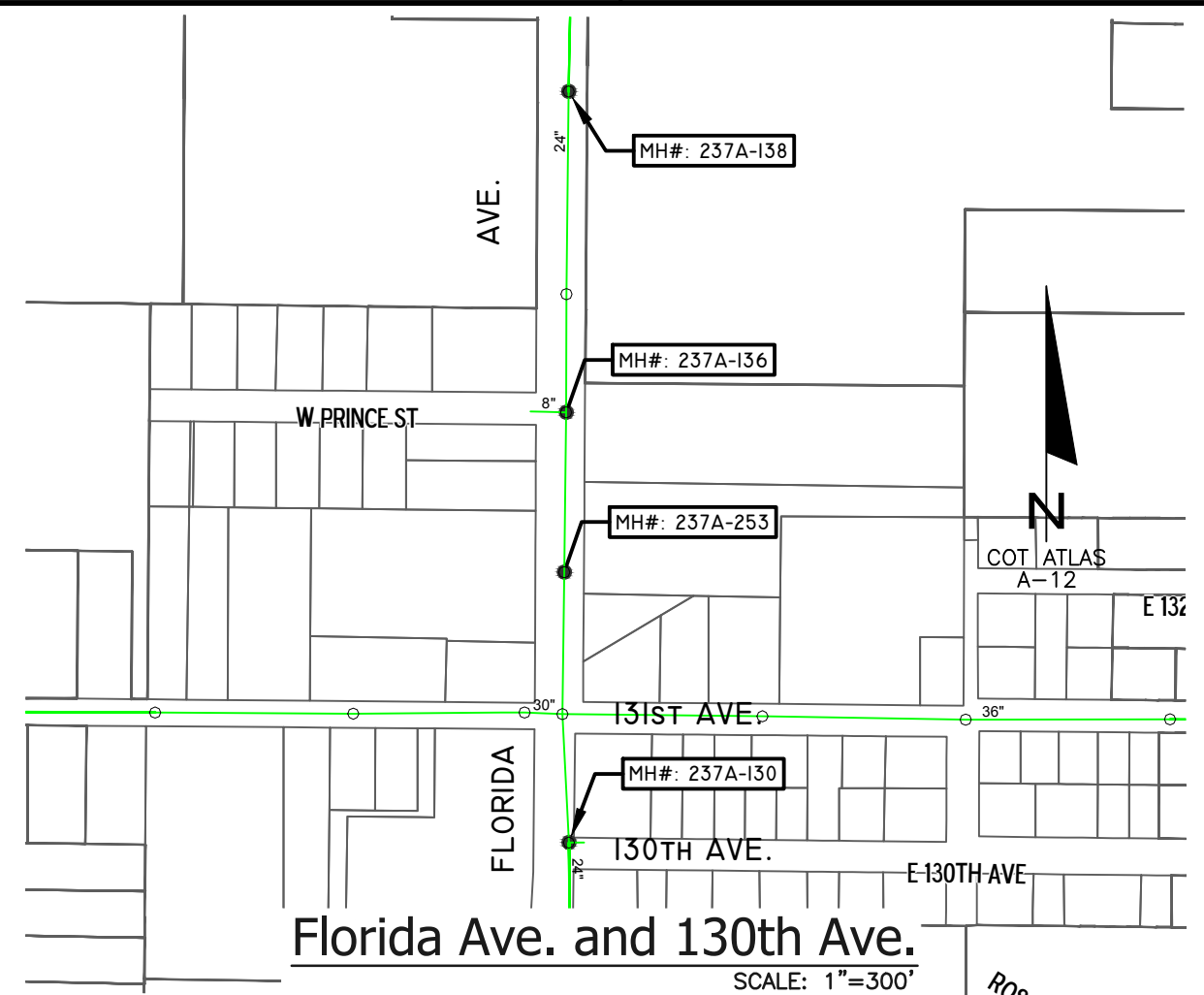
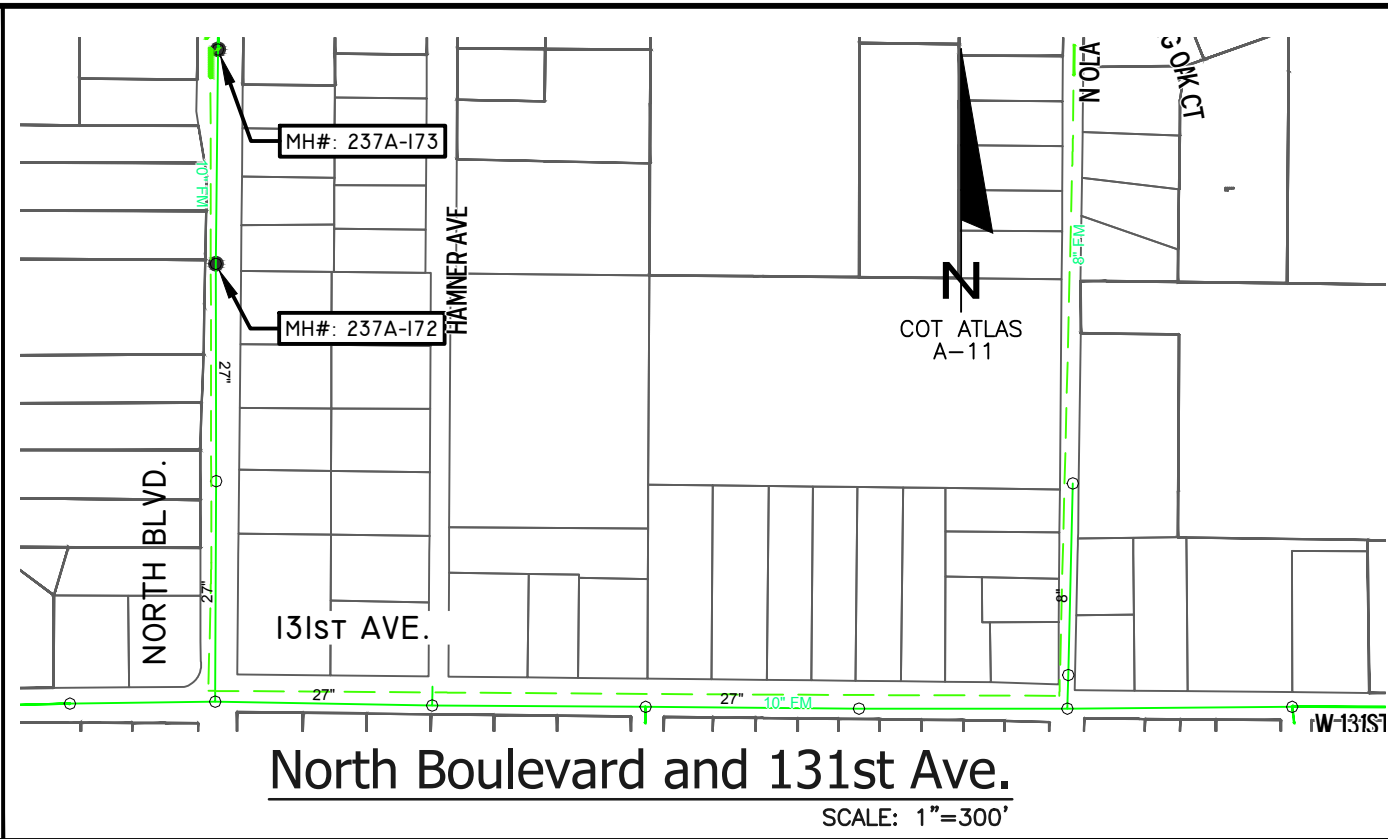
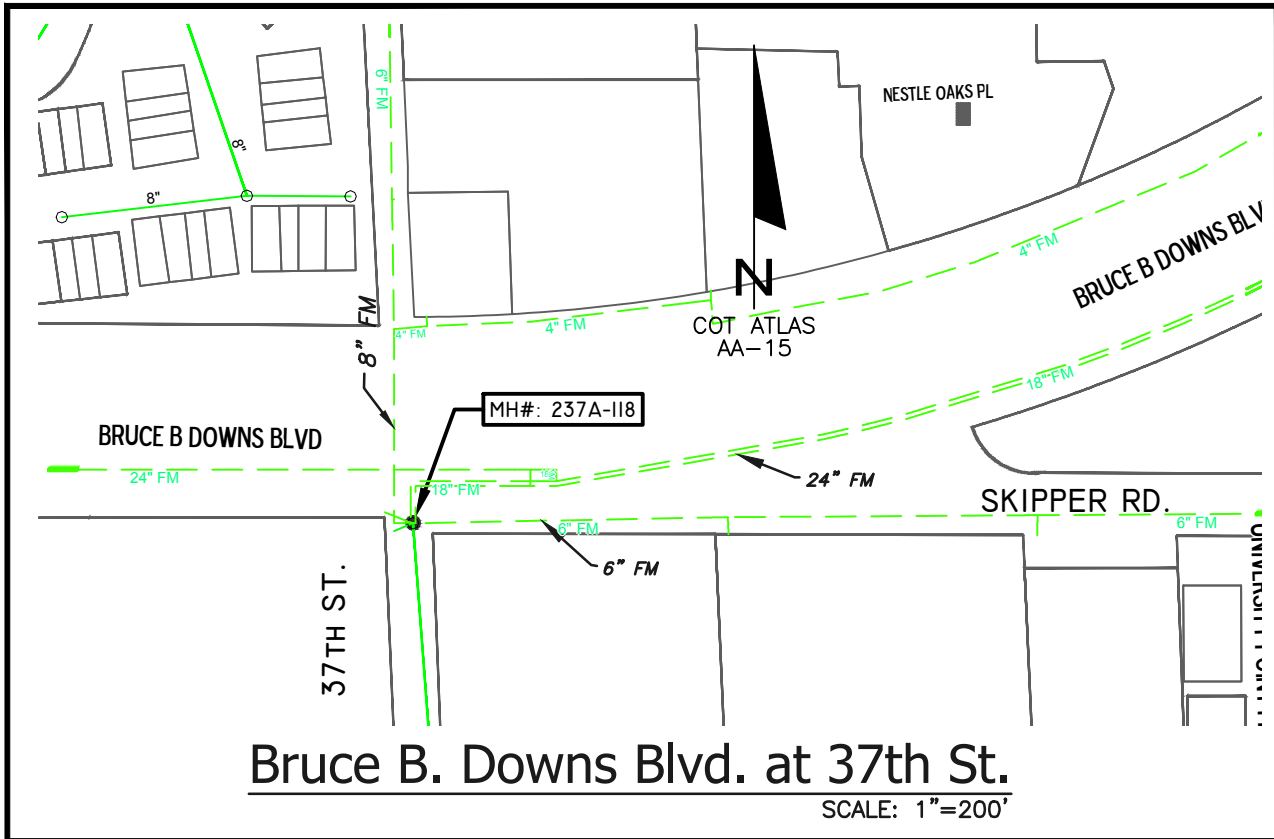
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WASTEWATER DEPARTMENT

FY 2015 MANHOLE REHABILITATION  
PLAN-5

W.O. 1000509  
SHEET  
23  
OF 46





- LEGEND:**
- MANHOLES - TO BE REHABILITATED
  - MANHOLES - NO REHABILITATION REQUIRED
  - EX. PUMP STATION
  - EX. WASTEWATER FORCE MAIN

User: ss1s Drawing Name: K:\WW\_Projects\2015\2015\_15-C-00010 Manhole Rehabilitation\DWG\PLAN\PLAN.dwg Layout- Mar 05, 2015 - 2:16pm CTB - WW-TOSHIBA\_PIPE-RS.CTB

JACINTO CARLOS FERRAS, P.E.  
#49454 DESIGN DIVISION HEAD  
WASTEWATER DEPARTMENT

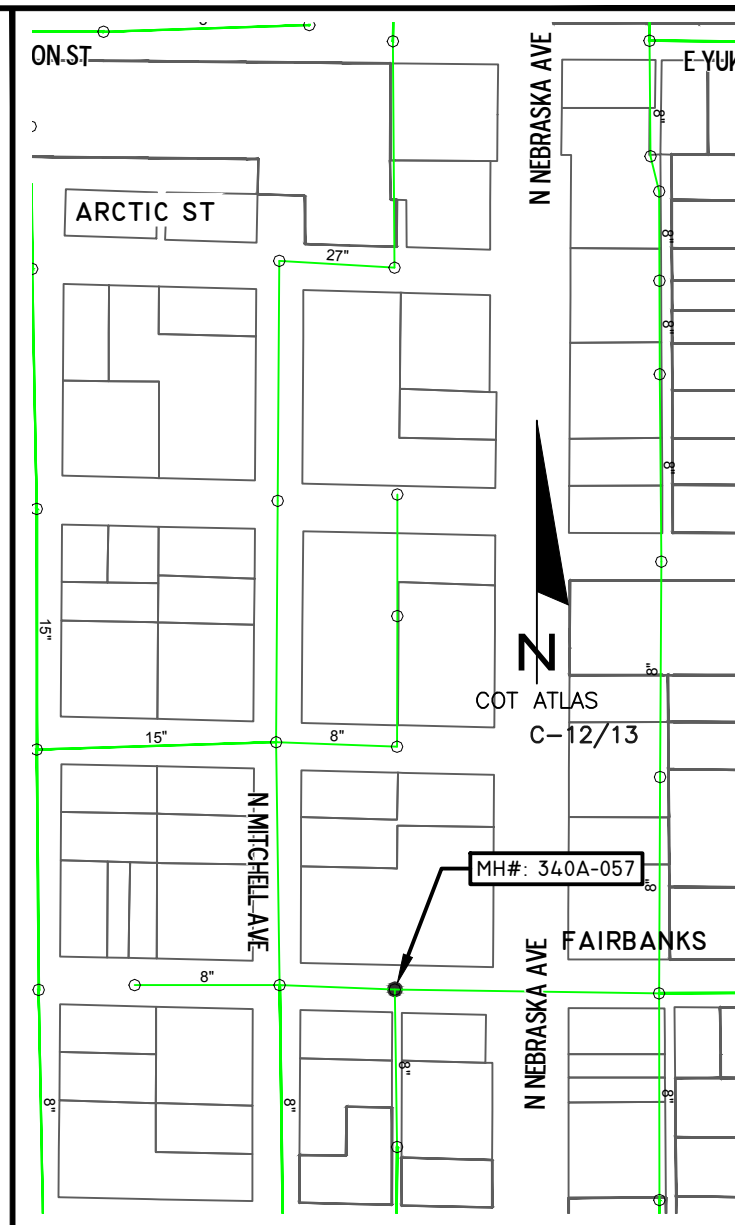
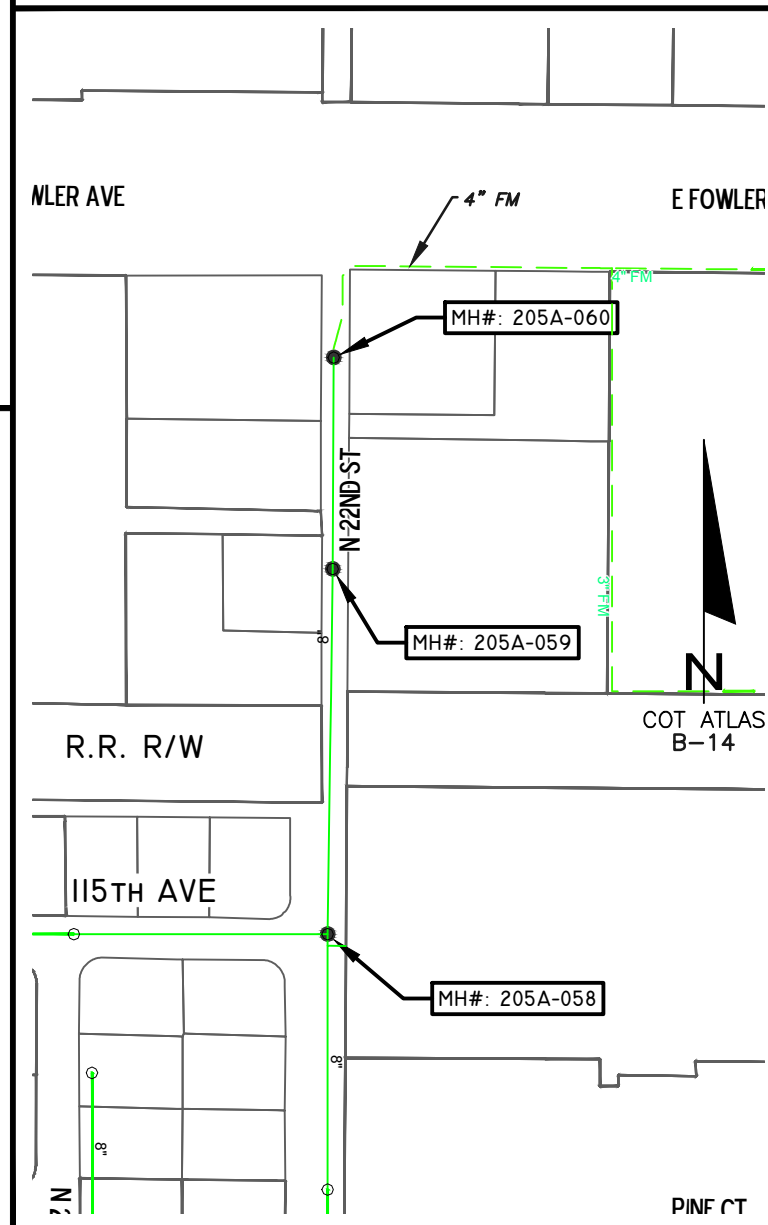
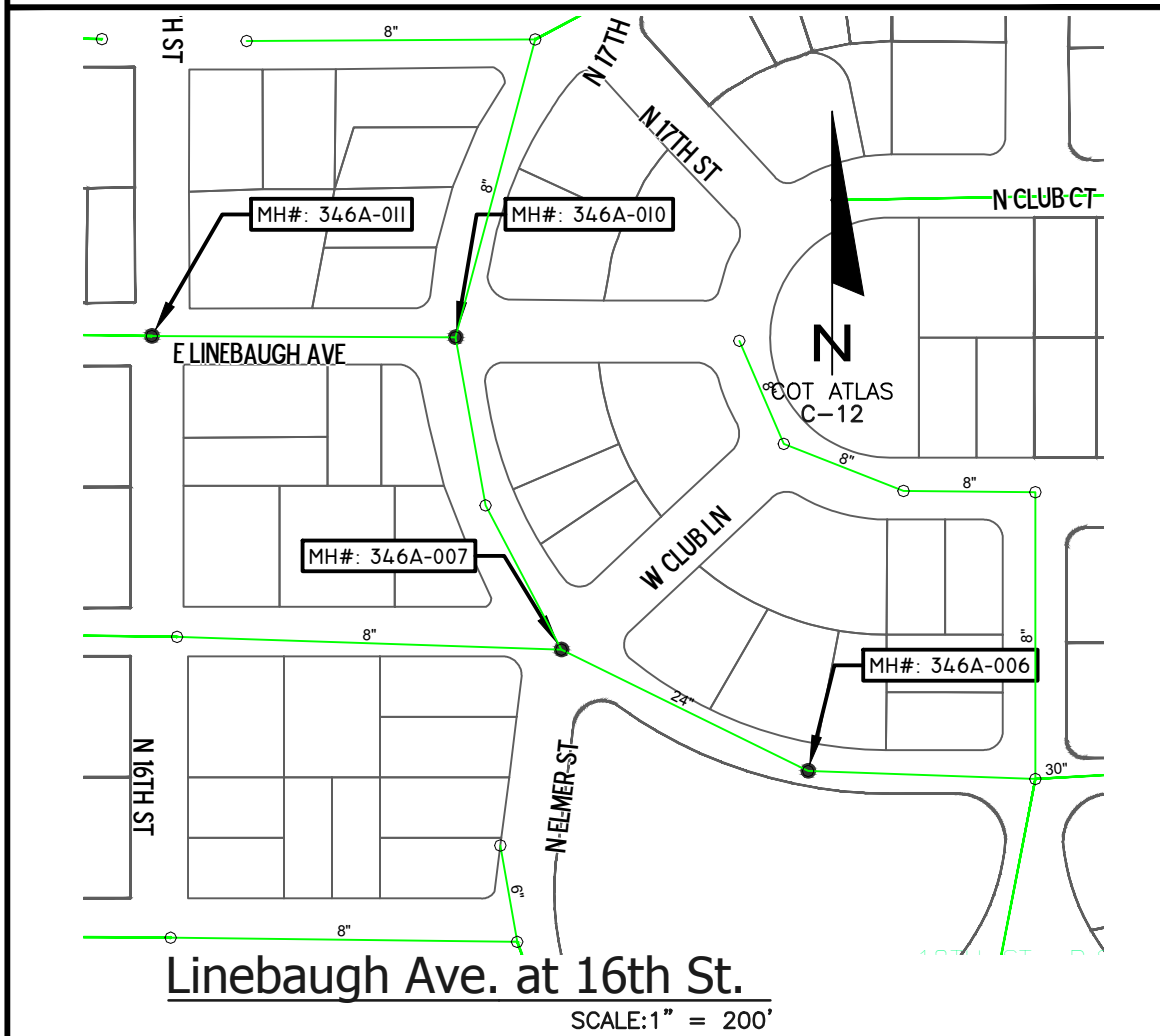
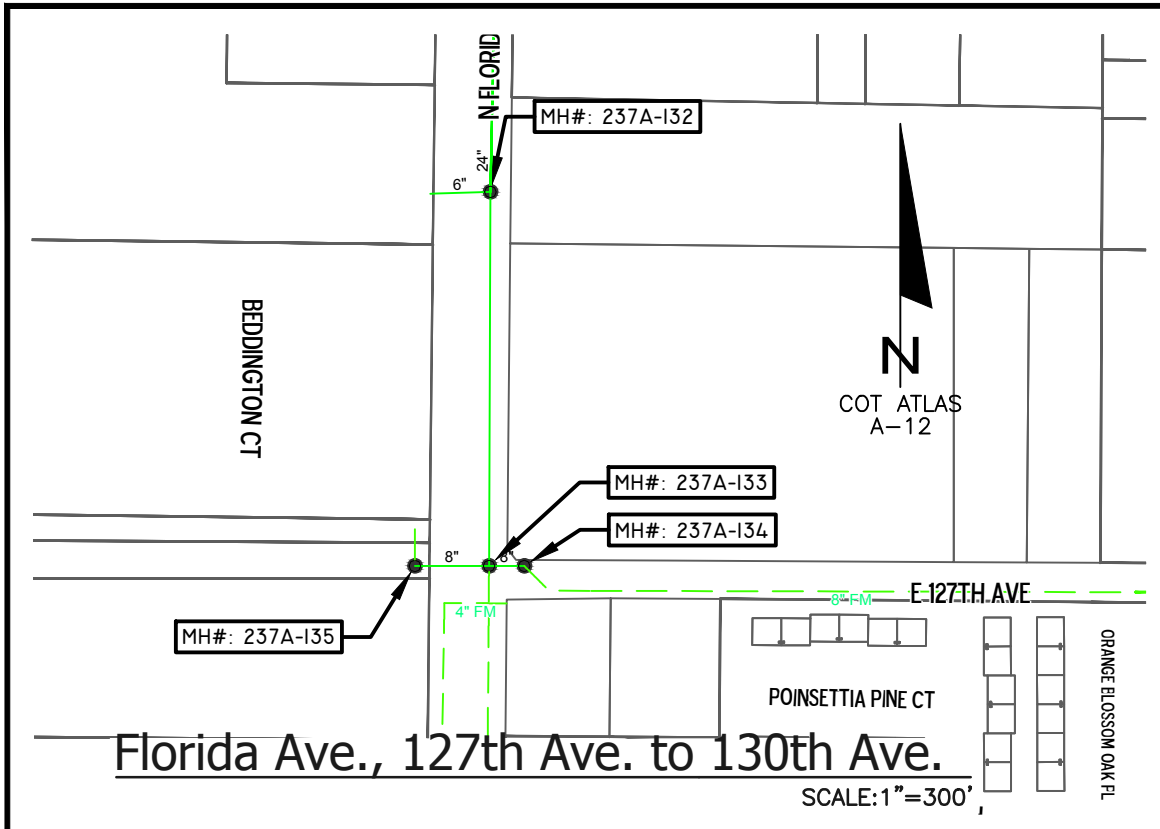
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WASTEWATER DEPARTMENT

FY 2015 MANHOLE REHABILITATION  
PLAN-6

W.O. 1000509  
SHEET  
**24**  
OF 46



- LEGEND:**
- MANHOLES - TO BE REHABILITATED
  - MANHOLES - NO REHABILITATION REQUIRED
  - EX. PUMP STATION
  - EX. WASTEWATER FORCE MAIN

JACINTO CARLOS FERRAS, P.E.  
#49454 DESIGN DIVISION HEAD  
WASTEWATER DEPARTMENT

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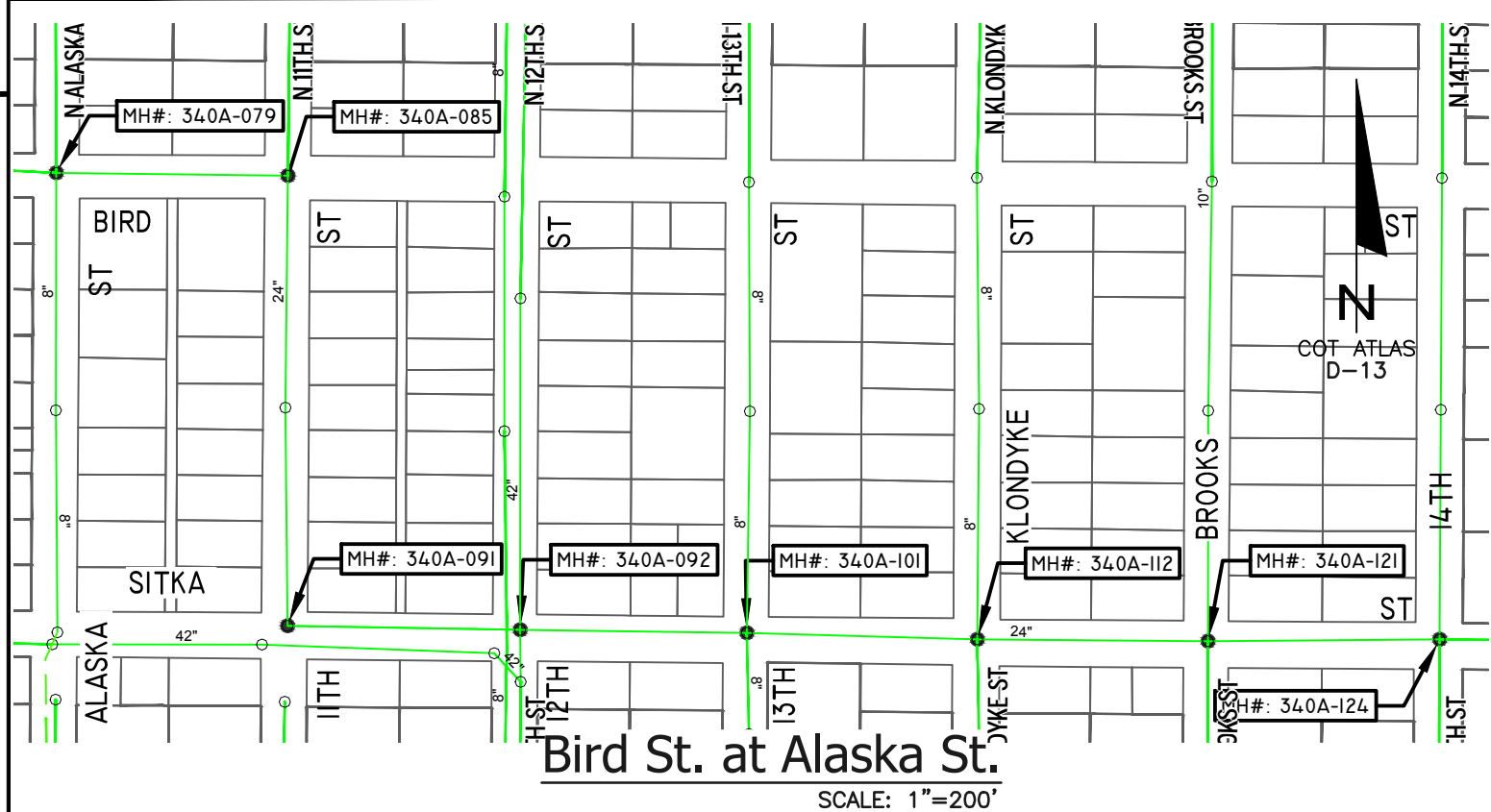
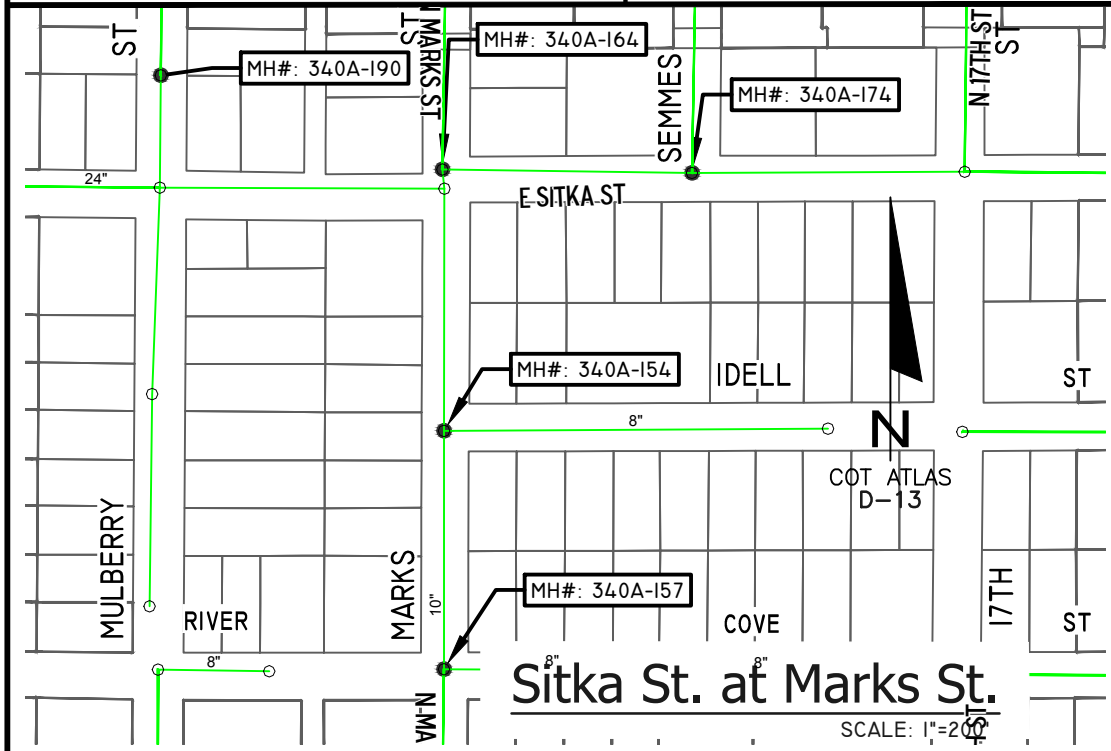
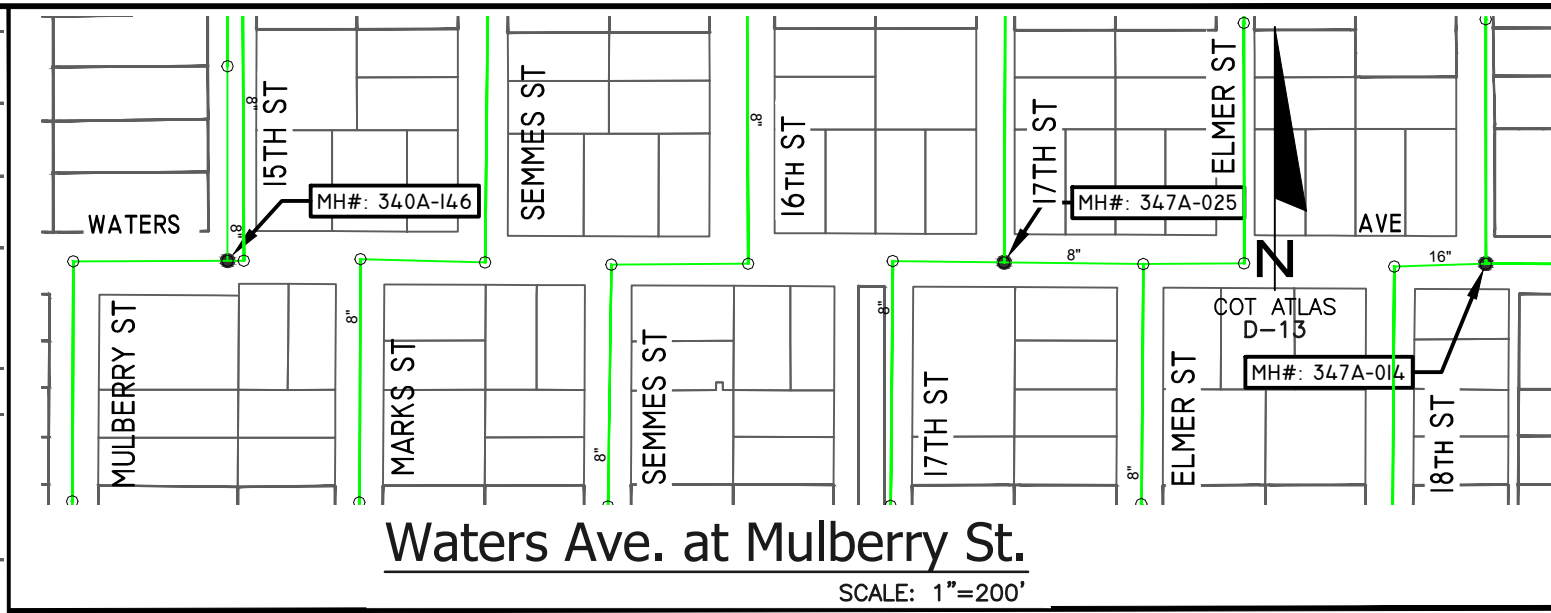
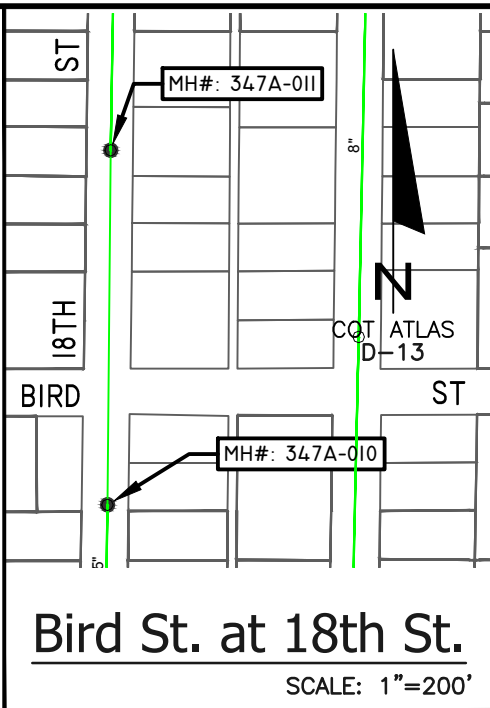
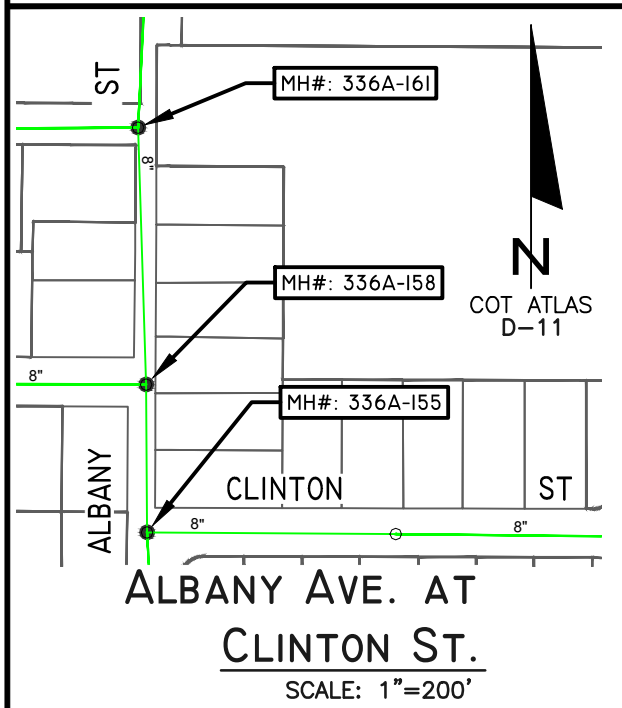
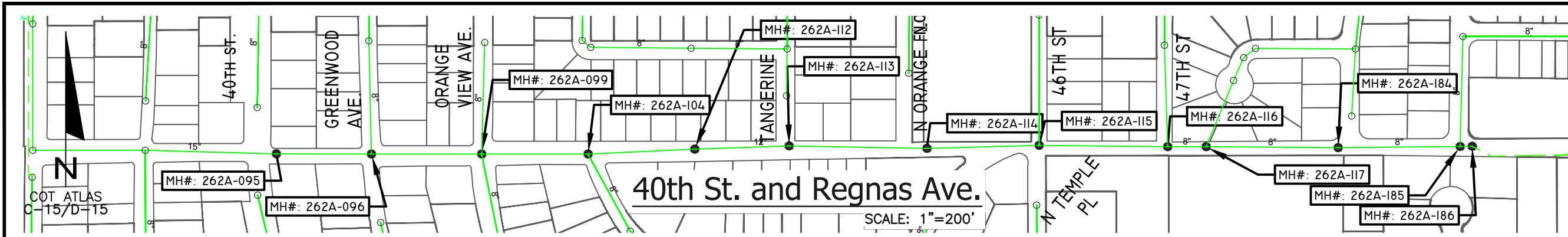
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WASTEWATER DEPARTMENT

FY 2015 MANHOLE REHABILITATION  
PLAN-7

W.O. 1000509  
SHEET  
25  
OF 46

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- LEGEND:**
- MANHOLES - TO BE REHABILITATED
  - MANHOLES - NO REHABILITATION REQUIRED
  - EX. PUMP STATION
  - EX. WASTEWATER FORCE MAIN

User: ss1s Drawing Name: K:\WW\_Projects\2015\2015\_15-C-00010 Manhole Rehabilitation\DWG\PLAN\PLAN.dwg Layout: Mar 05, 2015 - 2:16pm CTB - WW-TOSHIBA\_PIPE-RS.CTB

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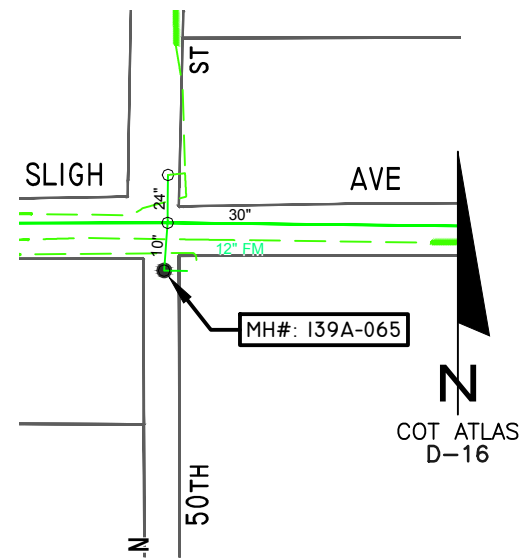
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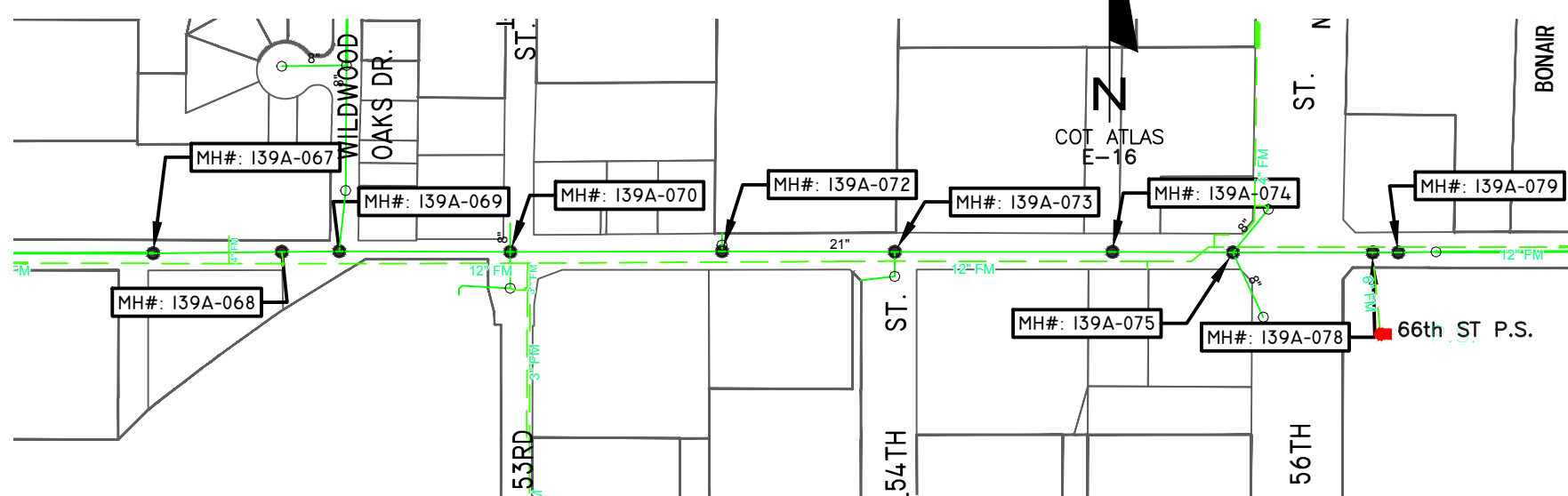
**CITY of TAMPA**  
WASTEWATER DEPARTMENT

FY 2015 MANHOLE REHABILITATION  
PLAN-8

W.O. 1000509  
SHEET  
26  
OF 46

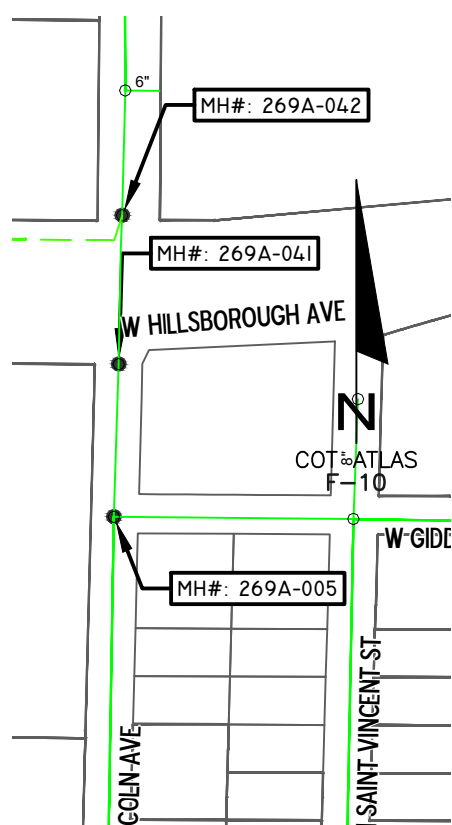


50th St. at Sligh Ave.



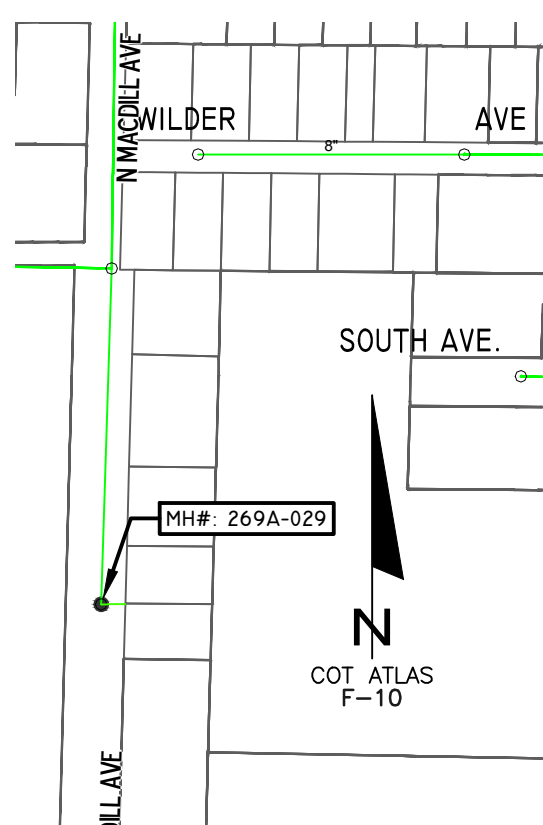
Wildwood Oak and Sligh Ave.

SCALE: 1" = 300'



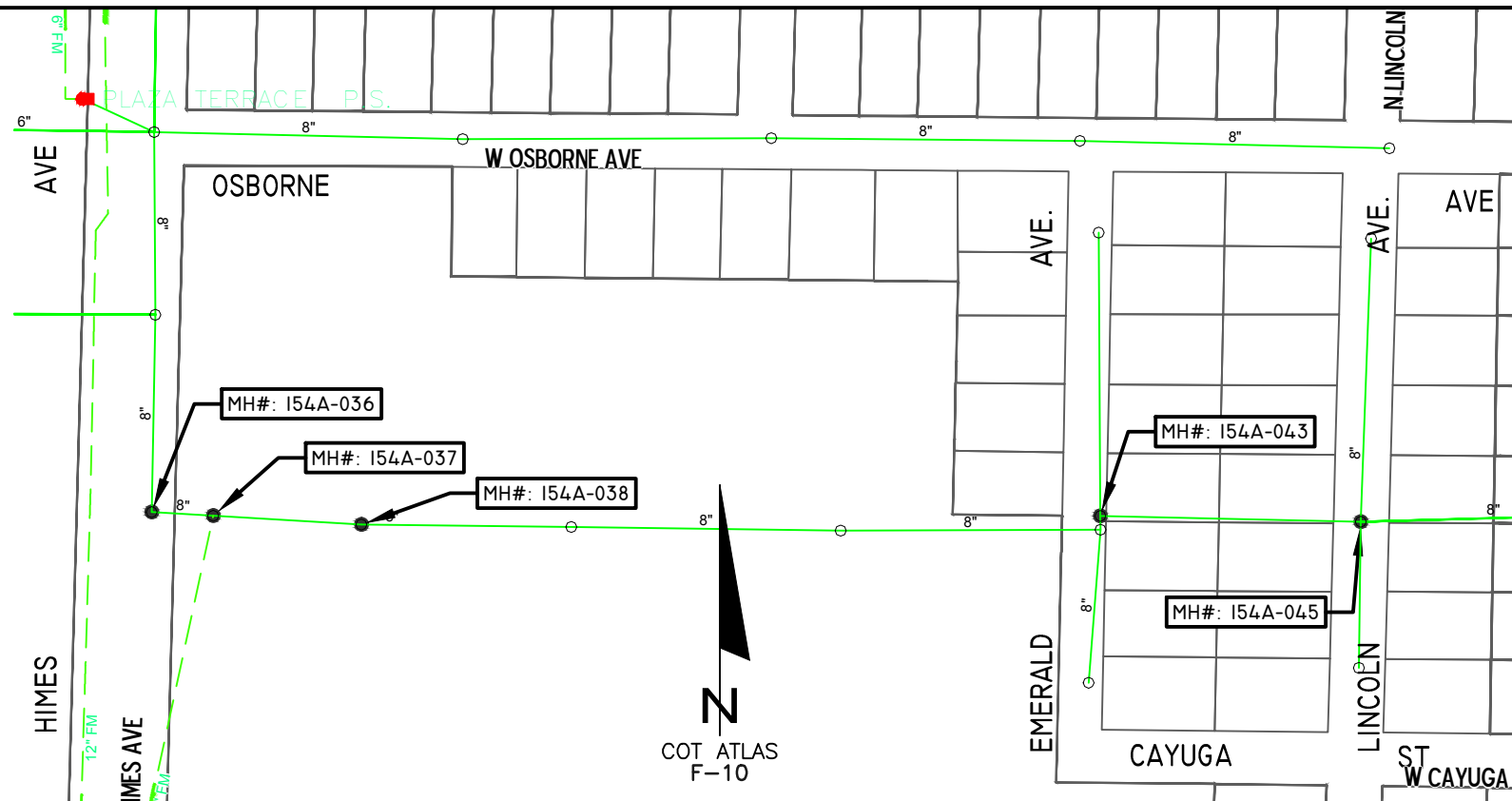
Hillsborough Ave. at Lincoln Ave.

SCALE: 1" = 200'



MacDill Ave. at Wilder St.

SCALE: 1" = 200'



Cayuga St. at Himes Ave.

SCALE: 1" = 200'

LEGEND:

- MANHOLES - TO BE REHABILITATED
- MANHOLES - NO REHABILITATION REQUIRED
- EX. PUMP STATION
- EX. WASTEWATER FORCE MAIN

User: ss1s Drawing Name: K:\WW\_Projects\2015\2015\_15-C-00010 Manhole Rehabilitation\DWG\PLAN\PLAN.dwg Layout: Mar 05, 2015 - 2:16pm CTB - WW-TOSHIBA\_PIPE-RS.CTB

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#49454 DESIGN DIVISION HEAD  
WASTEWATER DEPARTMENT

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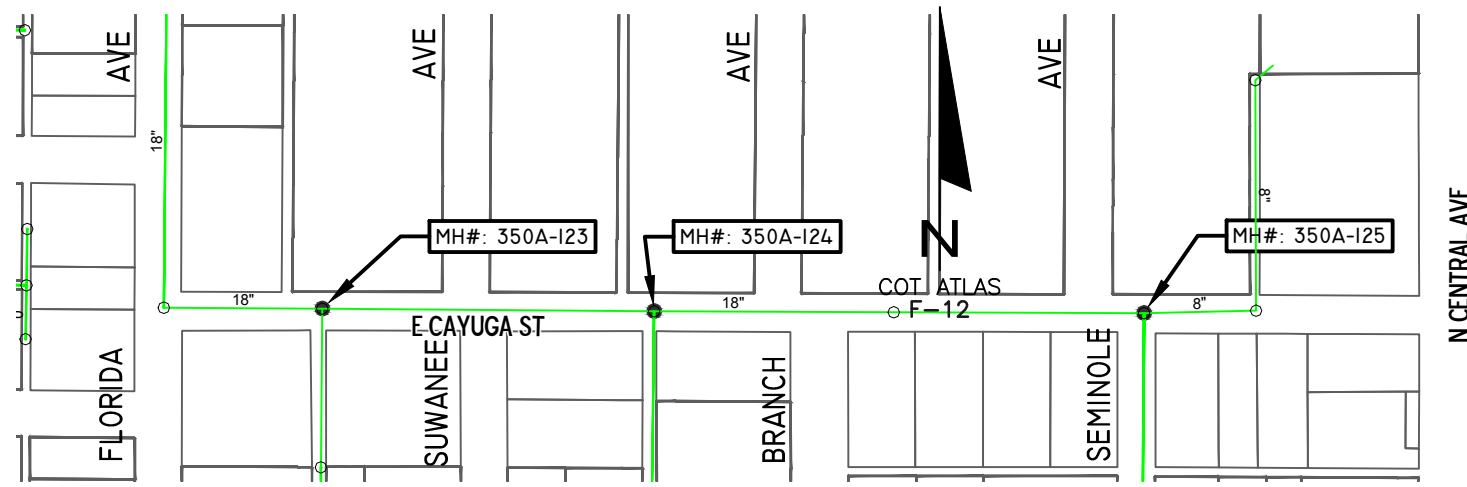
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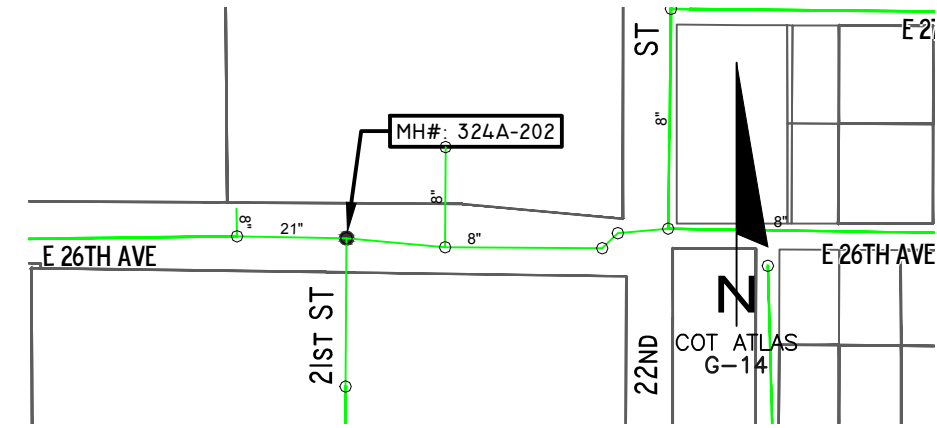
FY 2015 MANHOLE REHABILITATION

PLAN-9

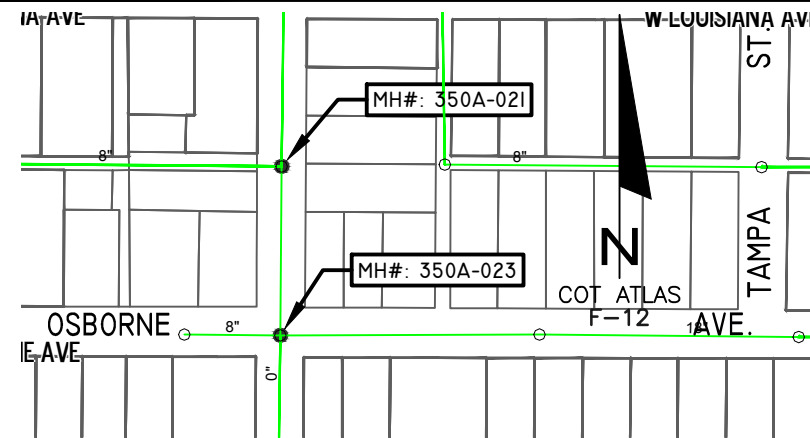
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27  
OF 46



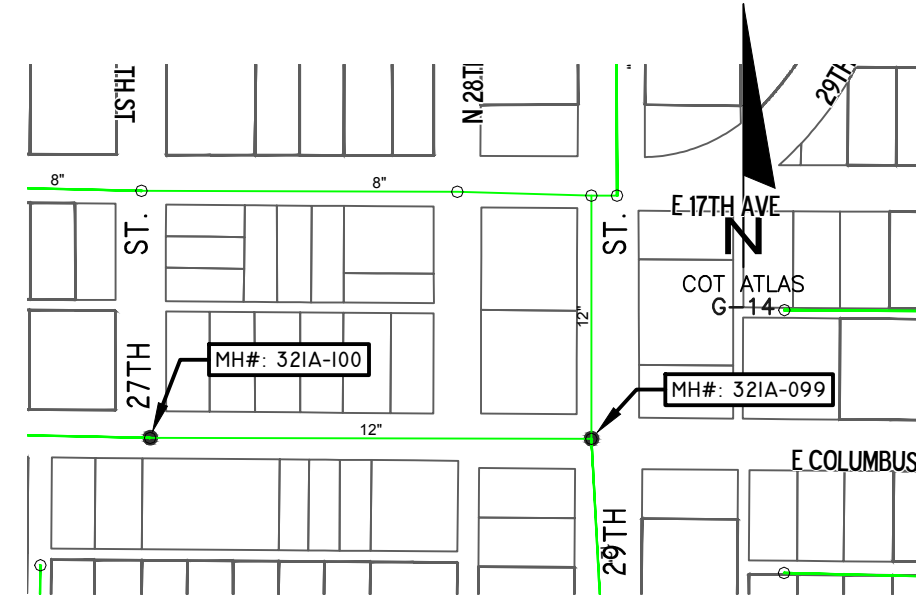
**Cayuga St. Florida Ave. to Central Ave.**  
Scale: 1"=200'



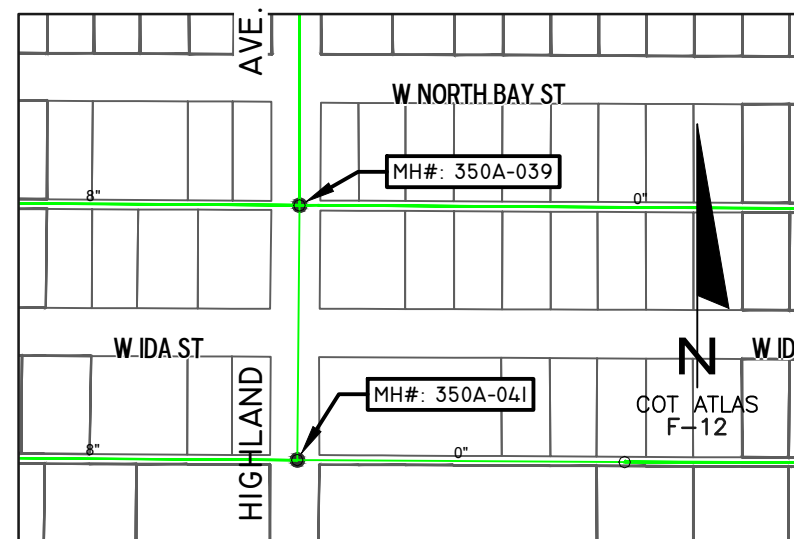
**26th Ave. at 21st St.**  
Scale: 1"=200'



**Osborne Ave. at Highland Ave.**  
Scale: 1"=200'



**Columbus Dr. at 27th St.**  
Scale: 1"=200'



**Ida St. at Highland Ave.**  
SCALE: 1" = 200'

**LEGEND:**

- MANHOLES - TO BE REHABILITATED
- MANHOLES - NO REHABILITATION REQUIRED
- EX. PUMP STATION
- EX. WASTEWATER FORCE MAIN

No.	DATE	REVISIONS
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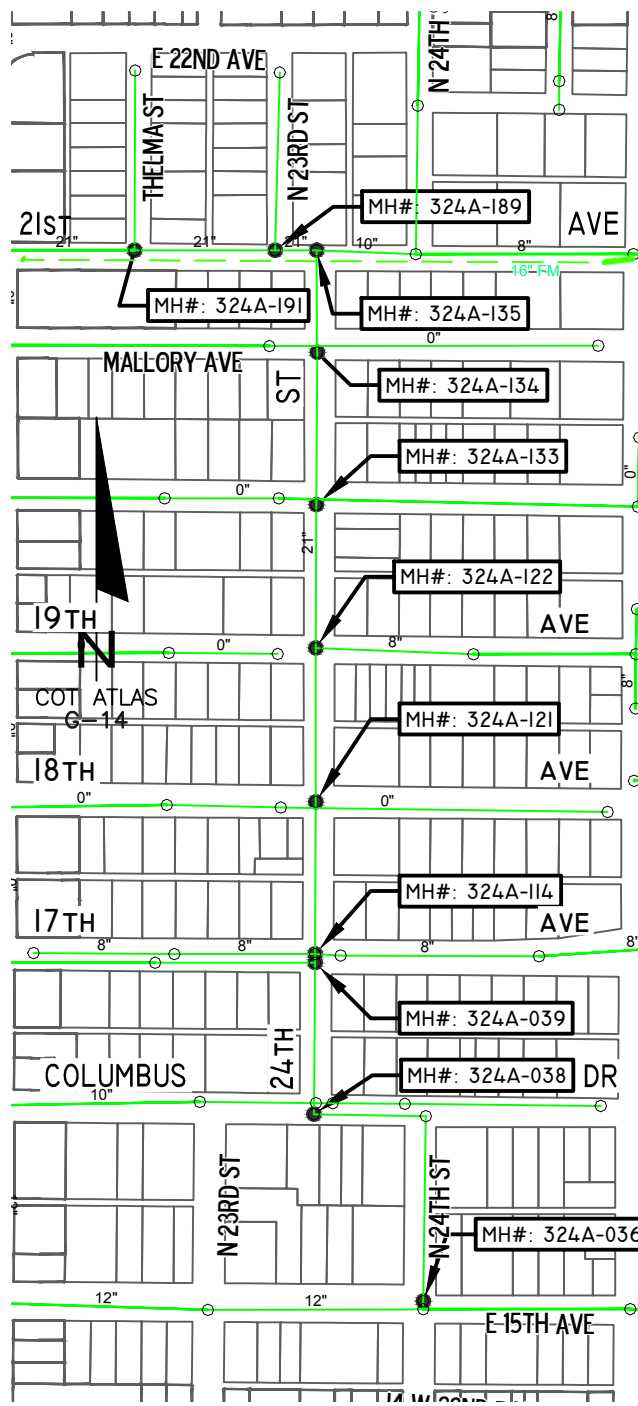
**CITY of TAMPA**  
WASTEWATER DEPARTMENT

FY 2015 MANHOLE REHABILITATION

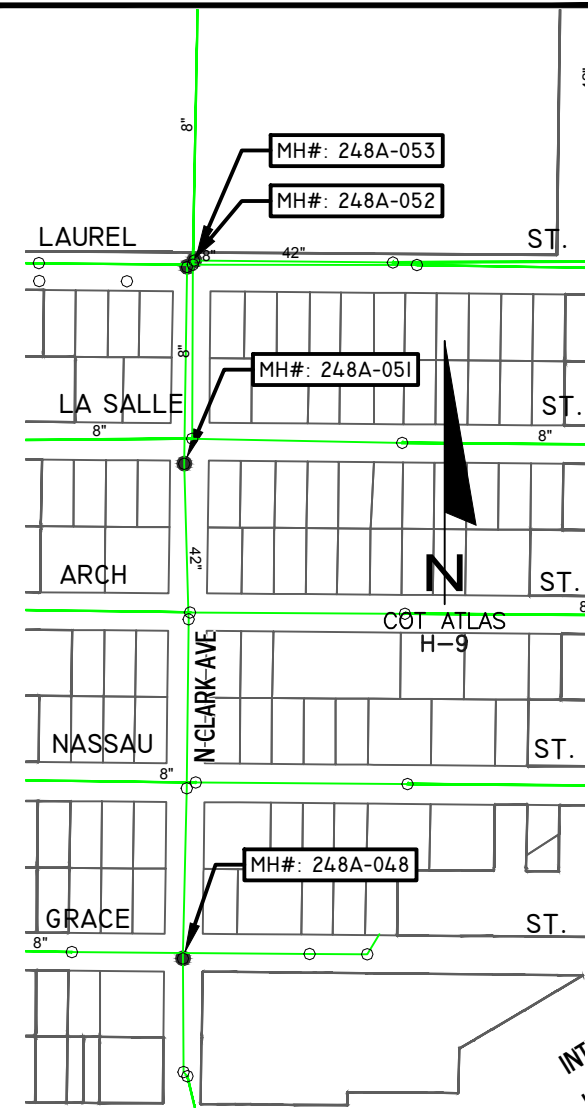
PLAN-10

W.O. 1000509  
SHEET  
**28**  
OF 46

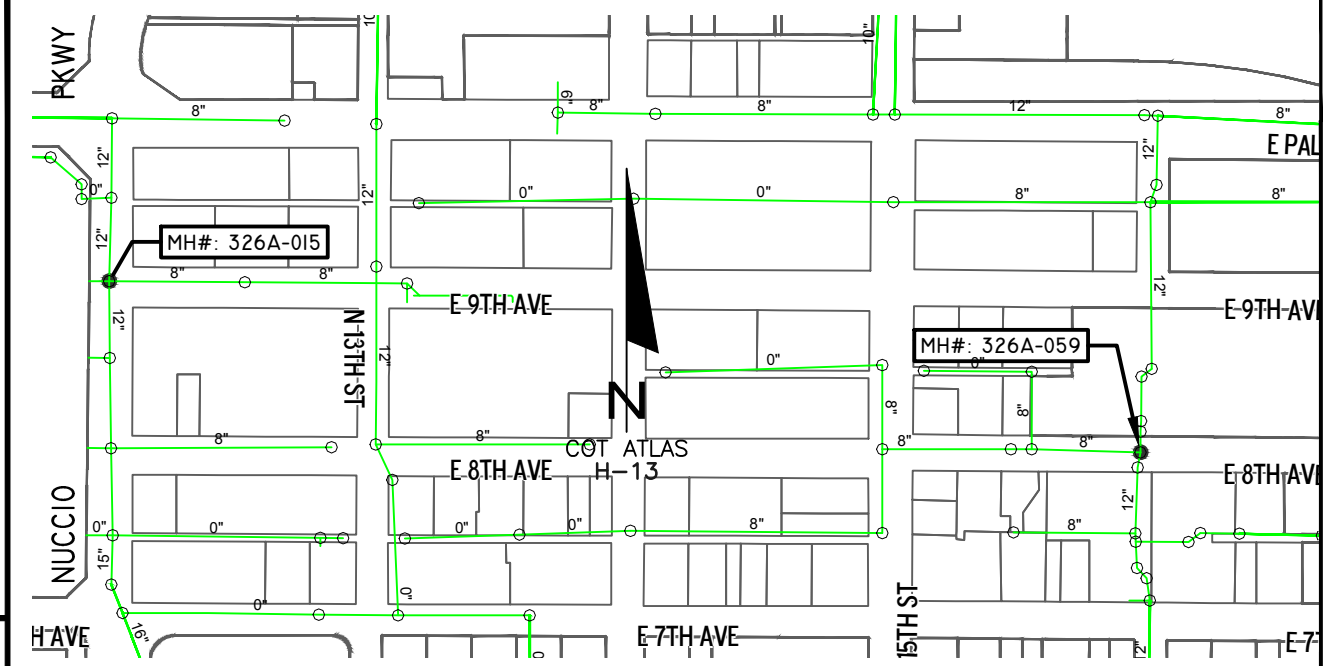




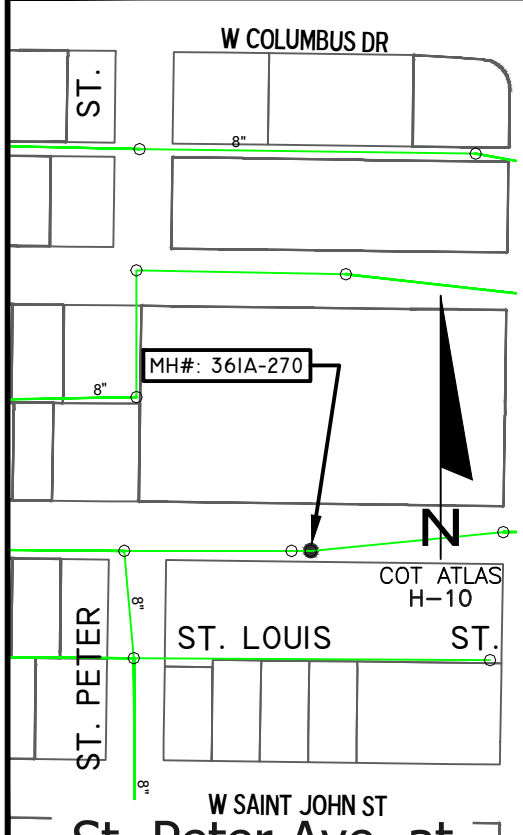
**24th St. at Columbus Dr.**  
SCALE: 1"=300'



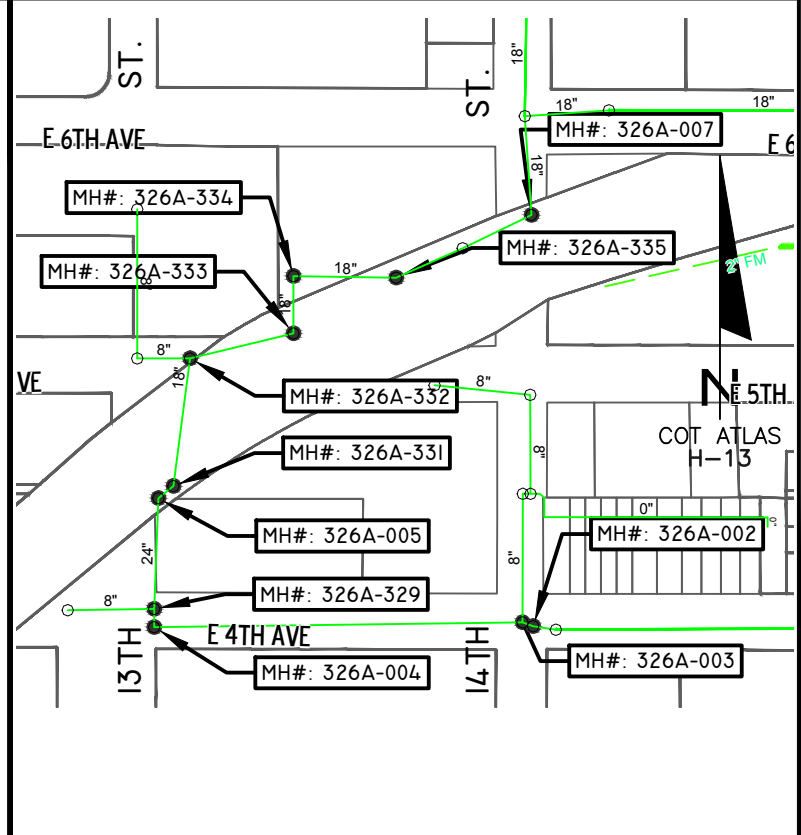
**Clark Ave. at Grace St.**  
SCALE: 1"=300'



**Nuccio Parkway. at 8th Ave.**  
SCALE: 1"=300'



**St. Peter Ave. at St. Louis Ave.**  
SCALE: 1"=200'



**13th St. at 5th Ave.**  
SCALE: 1"=200'

- LEGEND:**
- MANHOLES - TO BE REHABILITATED
  - MANHOLES - NO REHABILITATION REQUIRED
  - EX. PUMP STATION
  - EX. WASTEWATER FORCE MAIN

No.	DATE	REVISIONS
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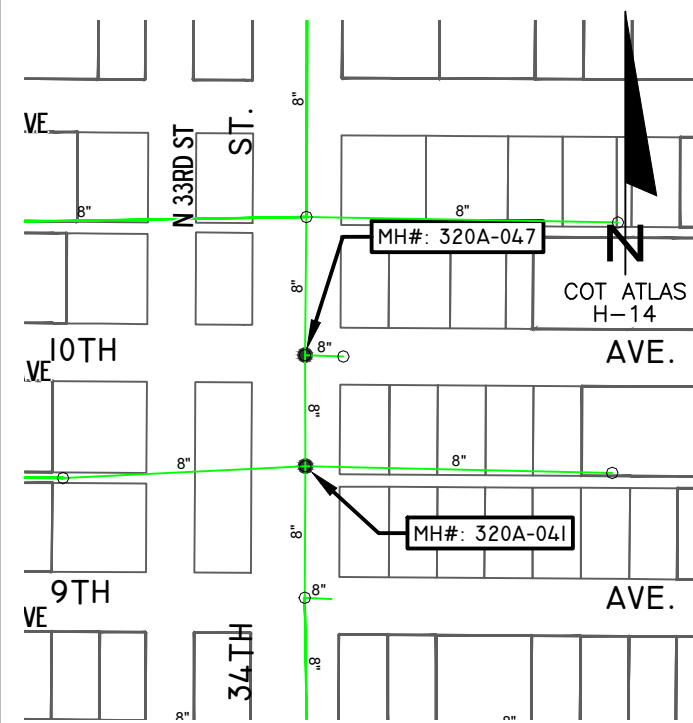
**CITY of TAMPA**  
WASTEWATER DEPARTMENT

FY 2015 MANHOLE REHABILITATION  
PLAN-11

W.O. 1000509  
SHEET  
29  
OF 46

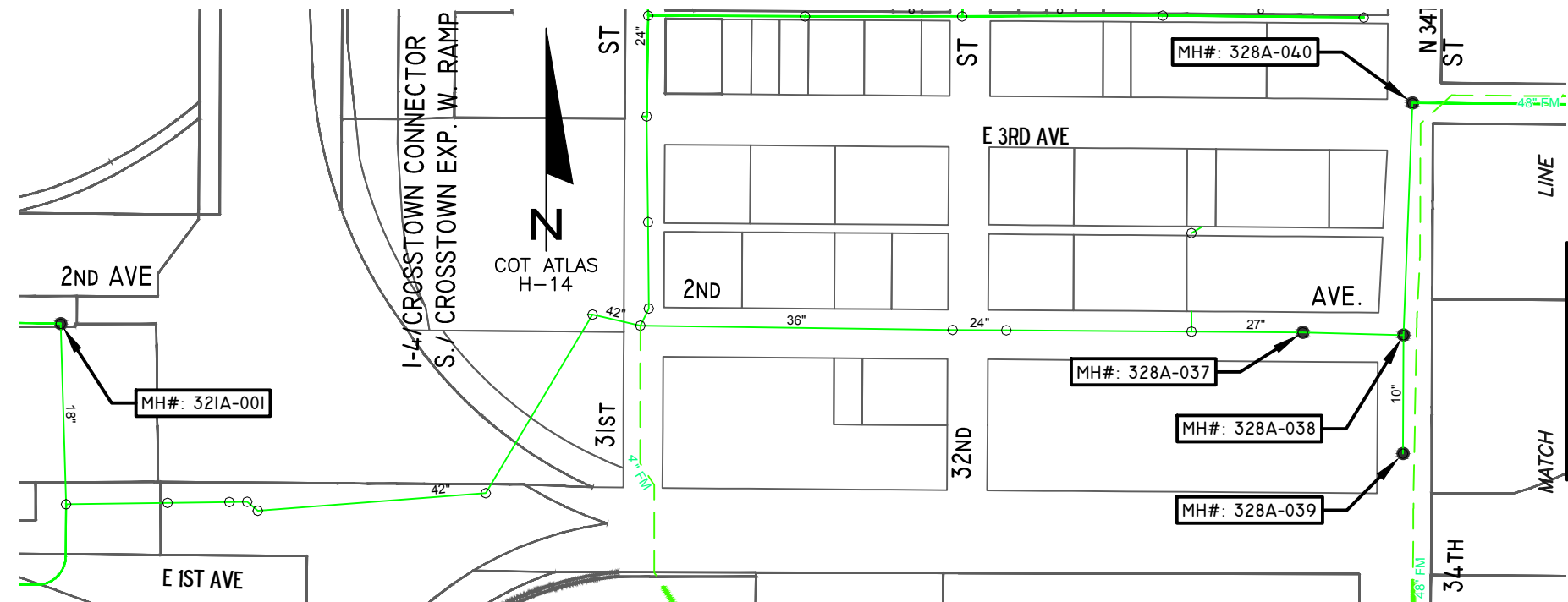
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#49454 DESIGN DIVISION HEAD  
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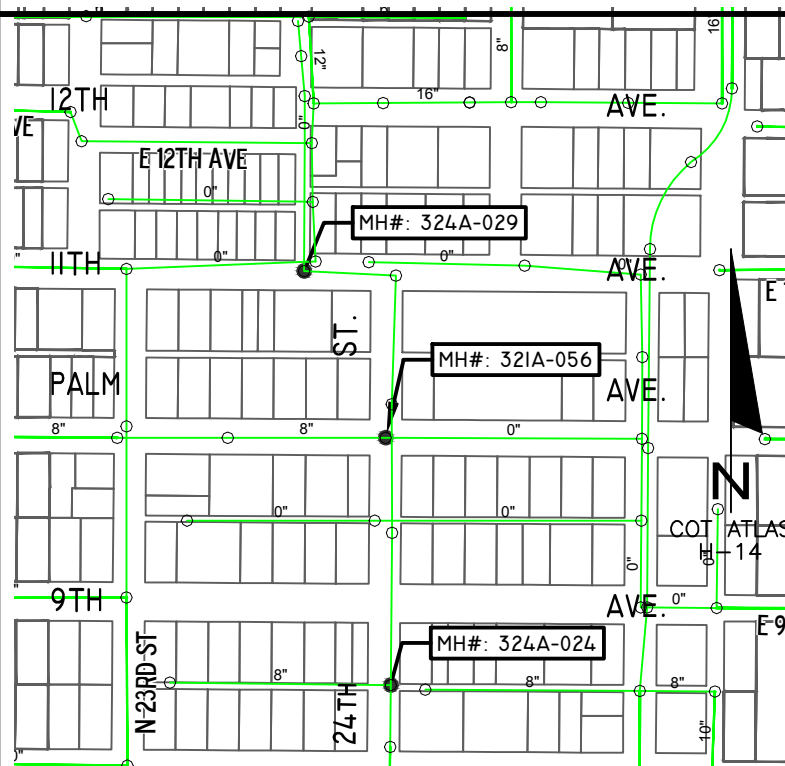
9th Ave. at 33rd St.

SCALE: 1"=200'



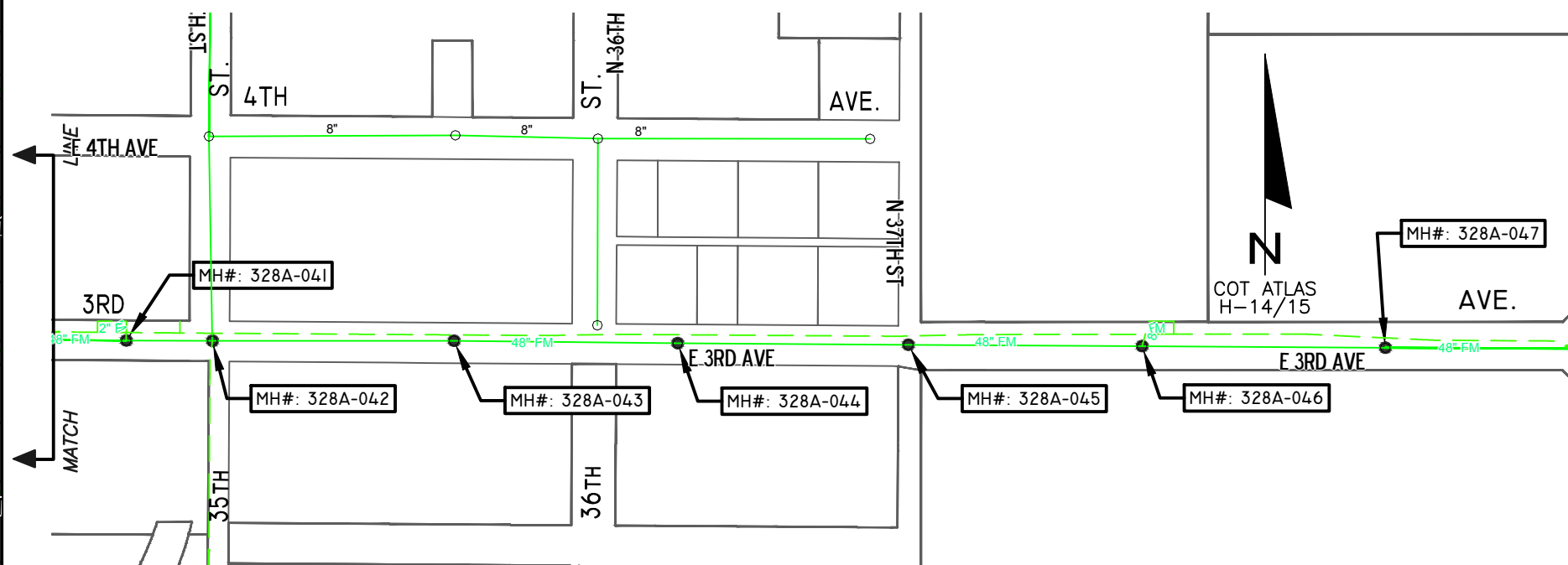
2nd Ave. at 28th St.

SCALE: 1"=200'



24th St. 9th Ave. to 12th Ave.

SCALE: 1"=300'



3rd Ave. at 34th St.

SCALE: 1"=200'

LEGEND:

- MANHOLES - TO BE REHABILITATED
- MANHOLES - NO REHABILITATION REQUIRED
- EX. PUMP STATION
- EX. WASTEWATER FORCE MAIN

No.	DATE	REVISIONS
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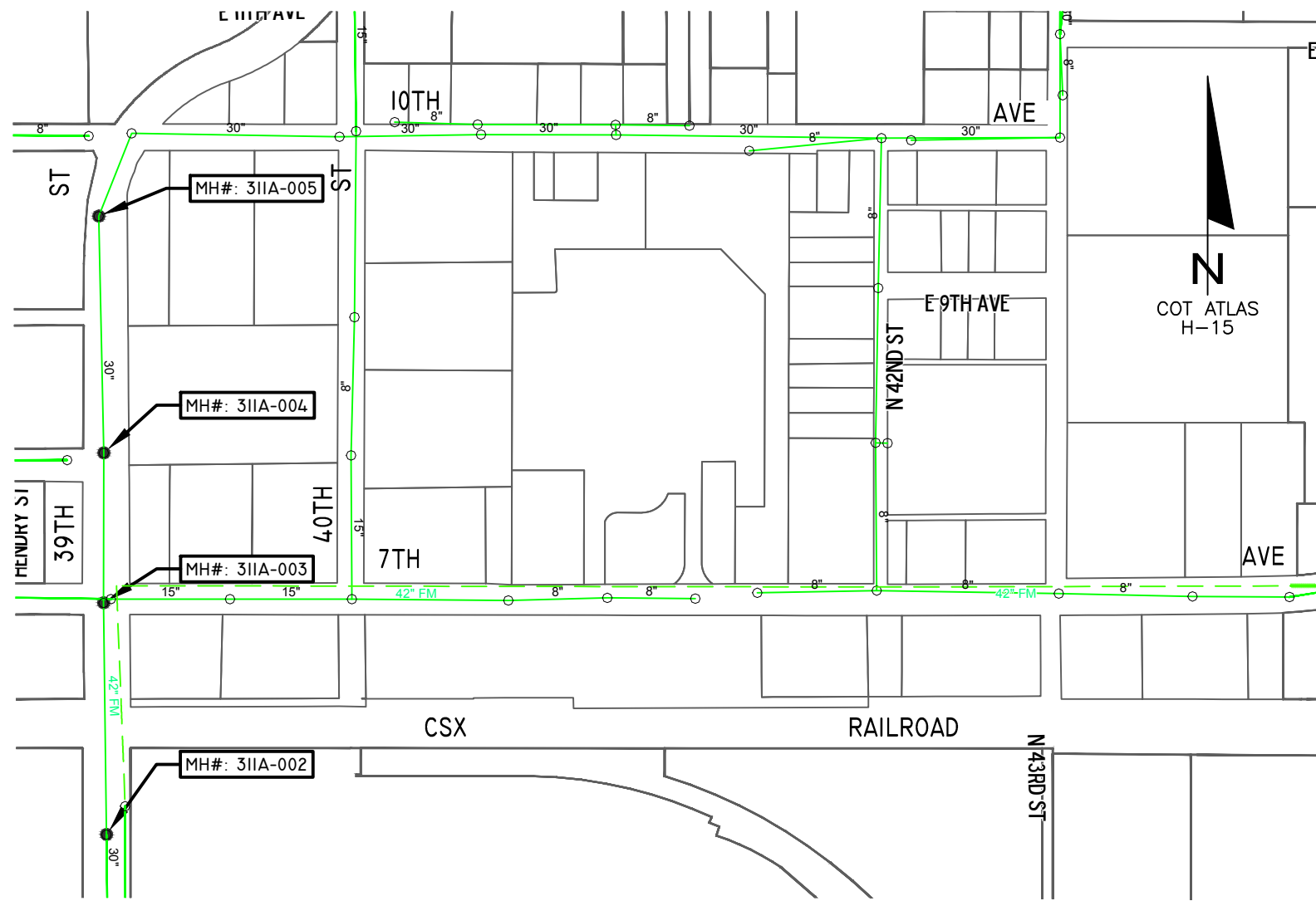
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 WASTEWATER DEPARTMENT

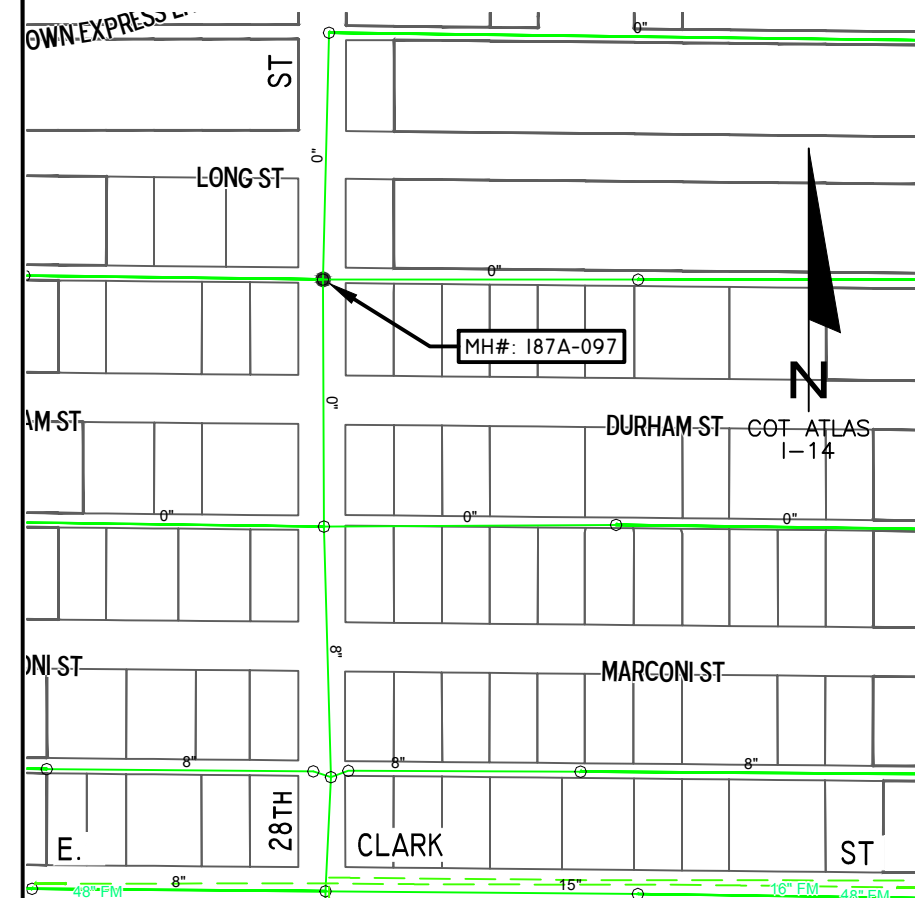
FY 2015 MANHOLE REHABILITATION

PLAN-12

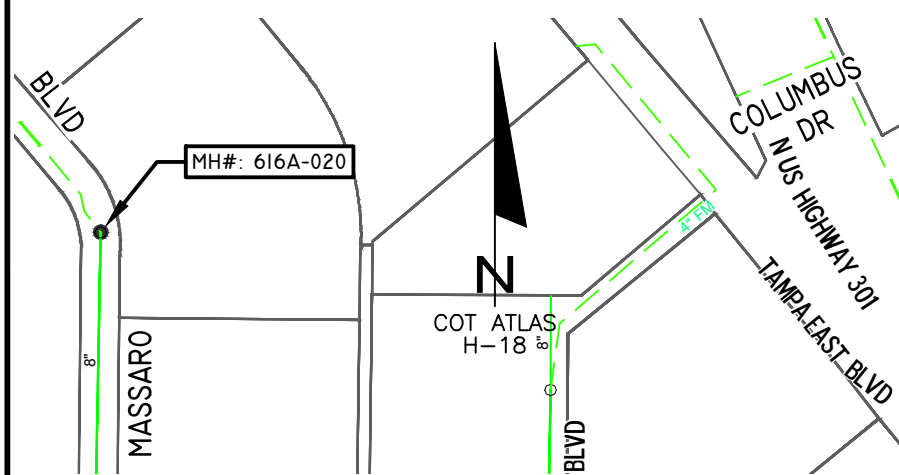
W.O. 1000509  
 SHEET  
 30  
 OF 46



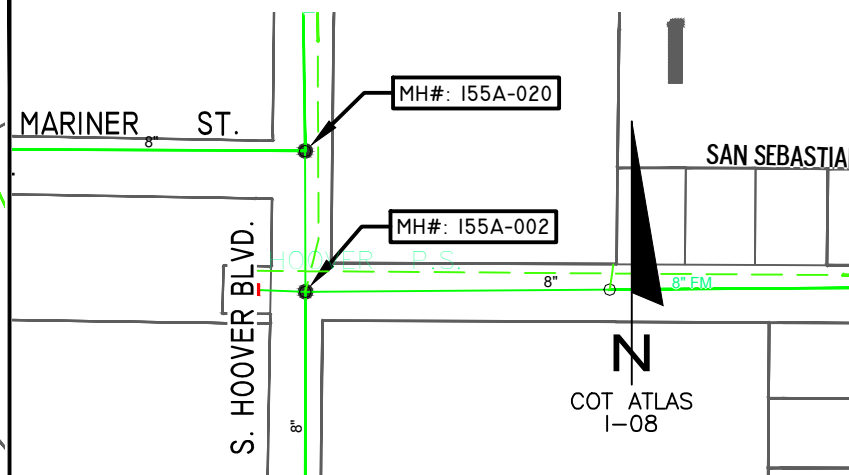
7th Ave. at 39th St.  
SCALE: 1" = 300'



Corrine St. at 28th St.  
SCALE: 1" = 200' ##



Massaro Blvd.  
SCALE: 1" = 200'



Mariner St. and Hoover Blvd.  
SCALE: 1" = 200'

LEGEND:

- MANHOLES - TO BE REHABILITATED
- MANHOLES - NO REHABILITATION REQUIRED
- ⊙ EX. PUMP STATION
- EX. WASTEWATER FORCE MAIN

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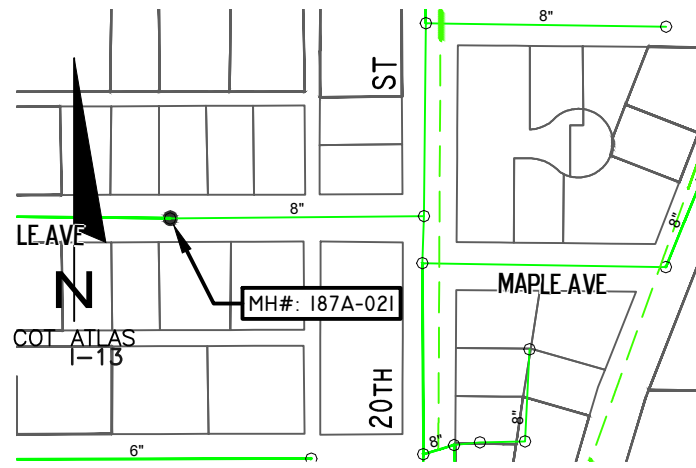
CITY of TAMPA  
WASTEWATER DEPARTMENT

FY 2015 MANHOLE REHABILITATION

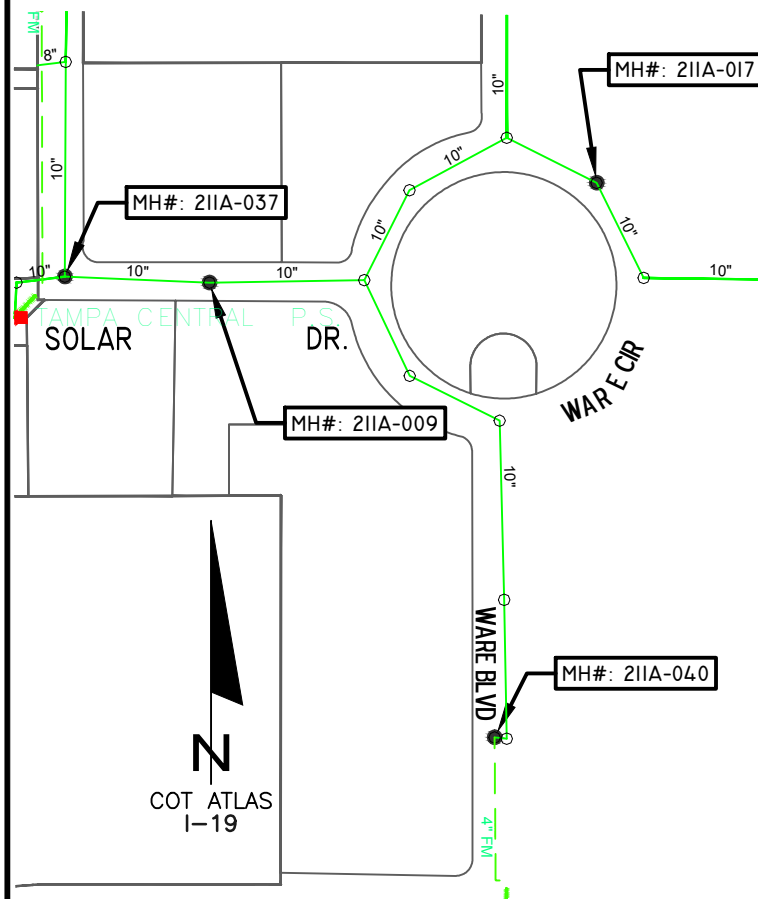
PLAN-13

W.O. 1000509  
SHEET  
31  
OF 46

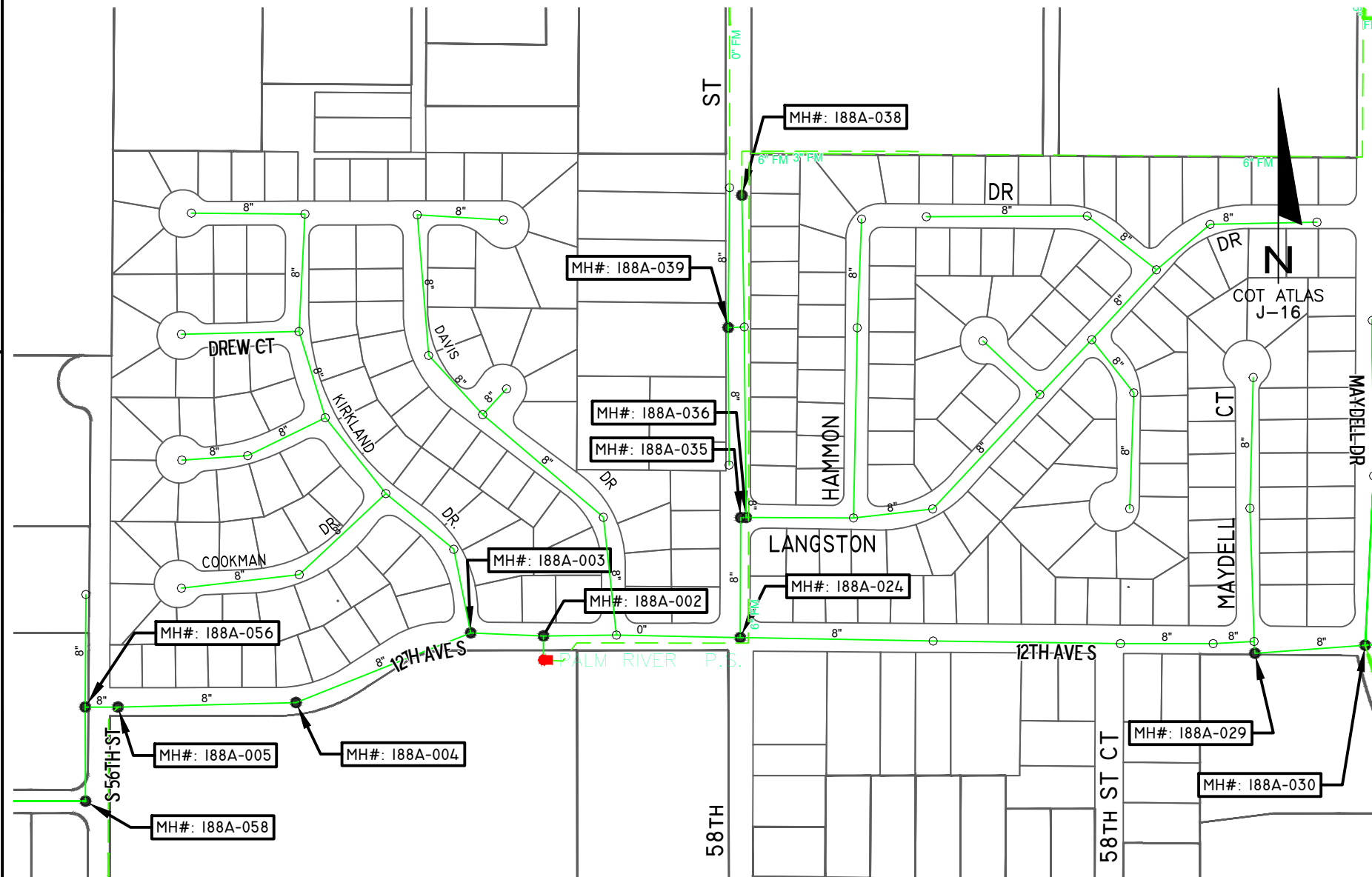




Maple Ave. at 20th St.  
SCALE: 1"=300'



Solar Dr. at Ware Blvd.  
SCALE: 1"=300'



12th Ave. at 58th St.  
SCALE: 1"=300'

LEGEND:

- MANHOLES - TO BE REHABILITATED
- MANHOLES - NO REHABILITATION REQUIRED
- EX. PUMP STATION
- EX. WASTEWATER FORCE MAIN

No.	DATE	REVISIONS
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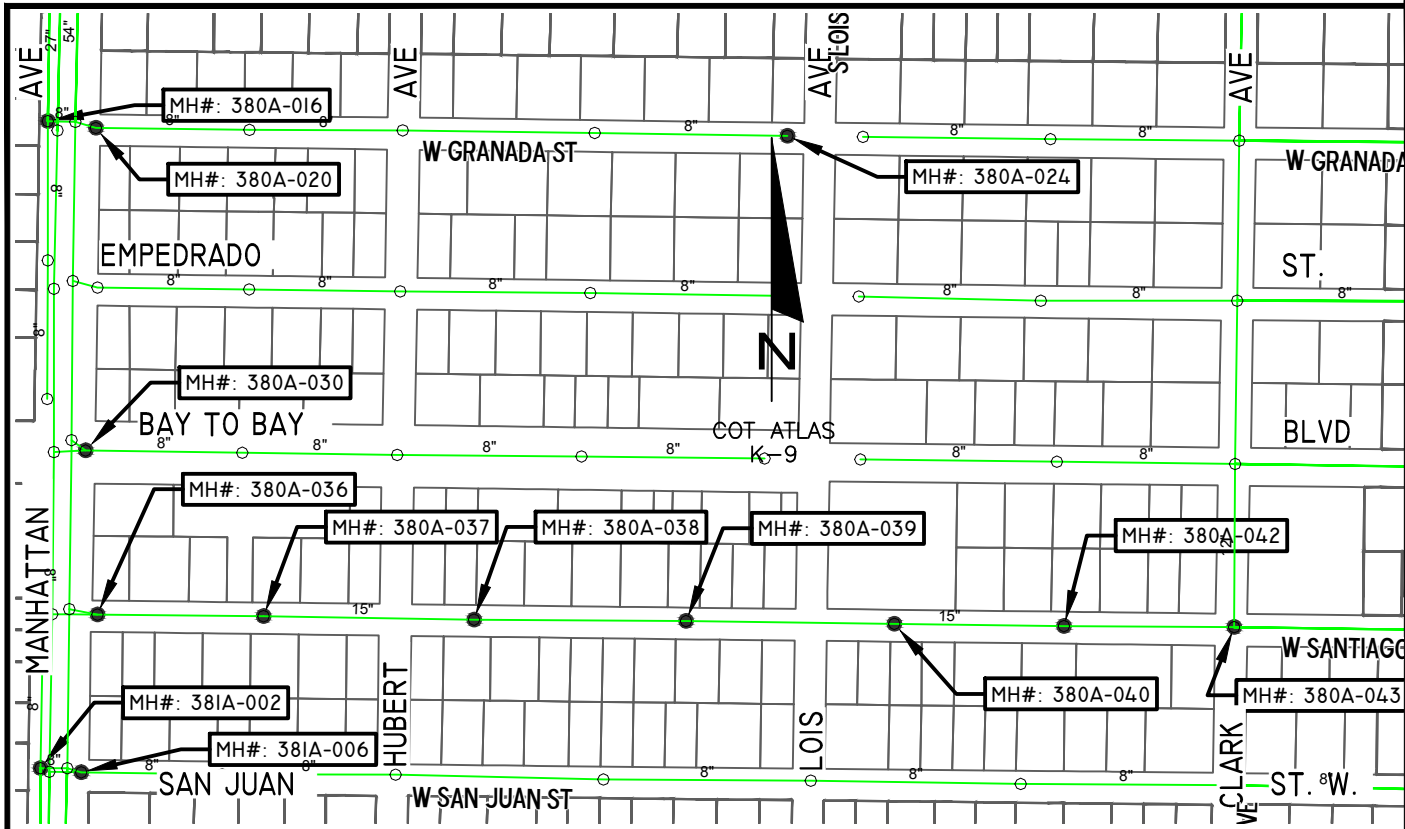
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CITY of TAMPA  
WASTEWATER DEPARTMENT

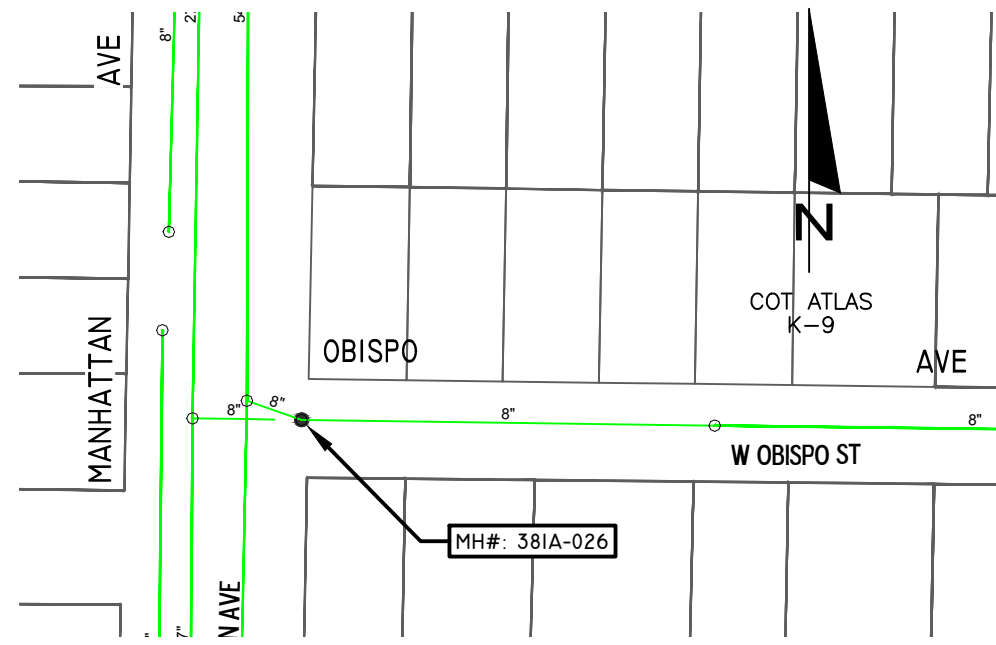
FY 2015 MANHOLE REHABILITATION

PLAN-14

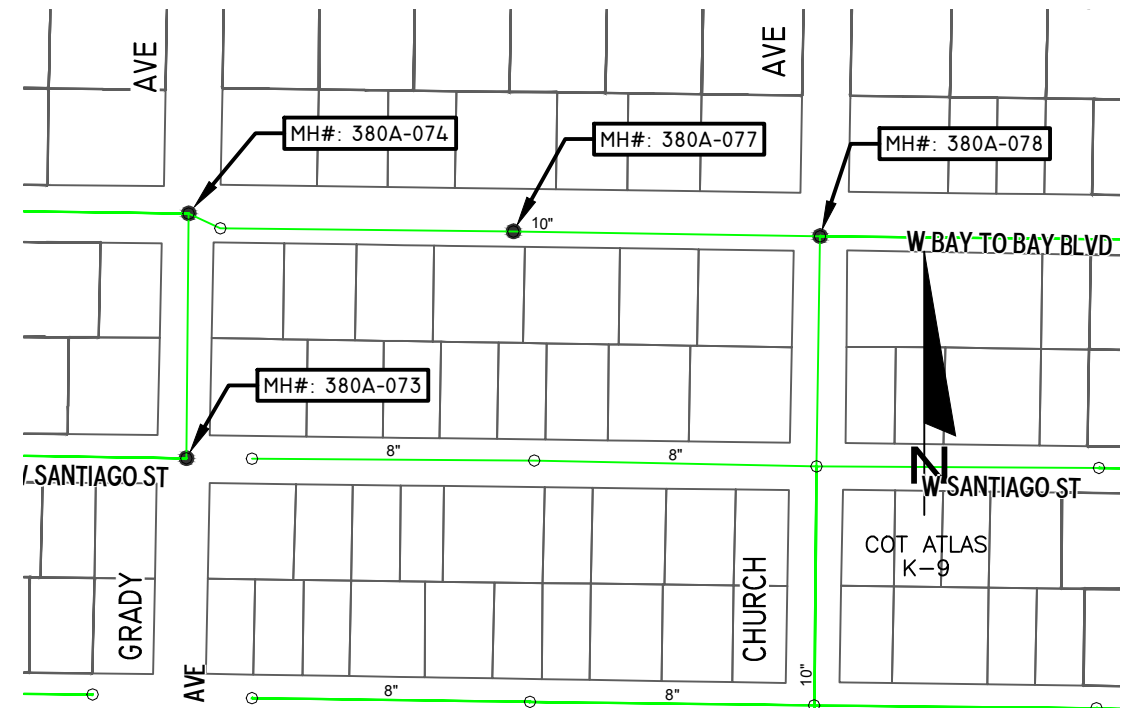
W.O. 1000509  
SHEET  
32  
OF 46



**Santiago St. at Manhattan Ave.**  
SCALE: 1" = 300'



**Obispo St. at Manhattan Ave.**  
SCALE: 1" = 100'



**Bay to Bay Ave. at Grady Ave.**  
SCALE: 1" = 200'

- LEGEND:**
- MANHOLES - TO BE REHABILITATED
  - MANHOLES - NO REHABILITATION REQUIRED
  - EX. PUMP STATION
  - EX. WASTEWATER FORCE MAIN

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#49454 DESIGN DIVISION HEAD  
WASTEWATER DEPARTMENT

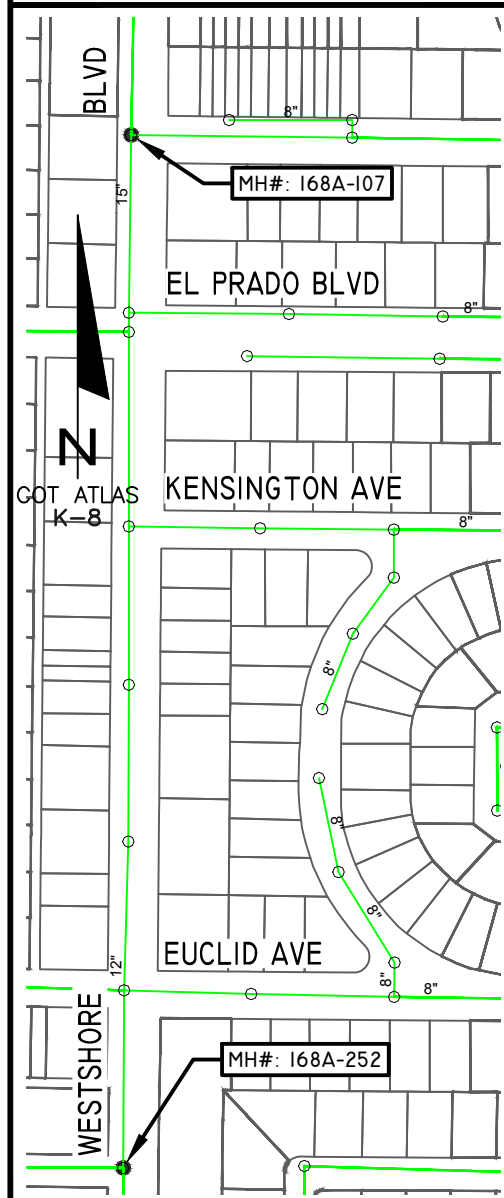
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WASTEWATER DEPARTMENT

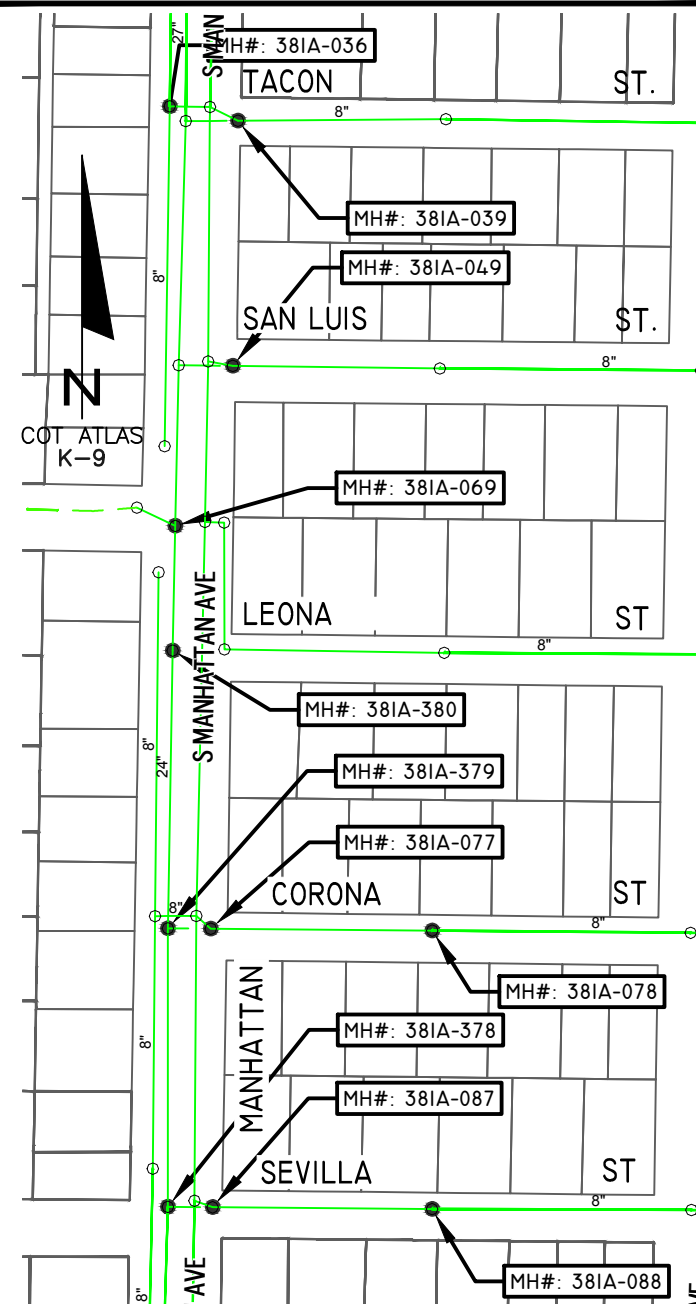
FY 2015 MANHOLE REHABILITATION  
PLAN-15

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**33**  
OF



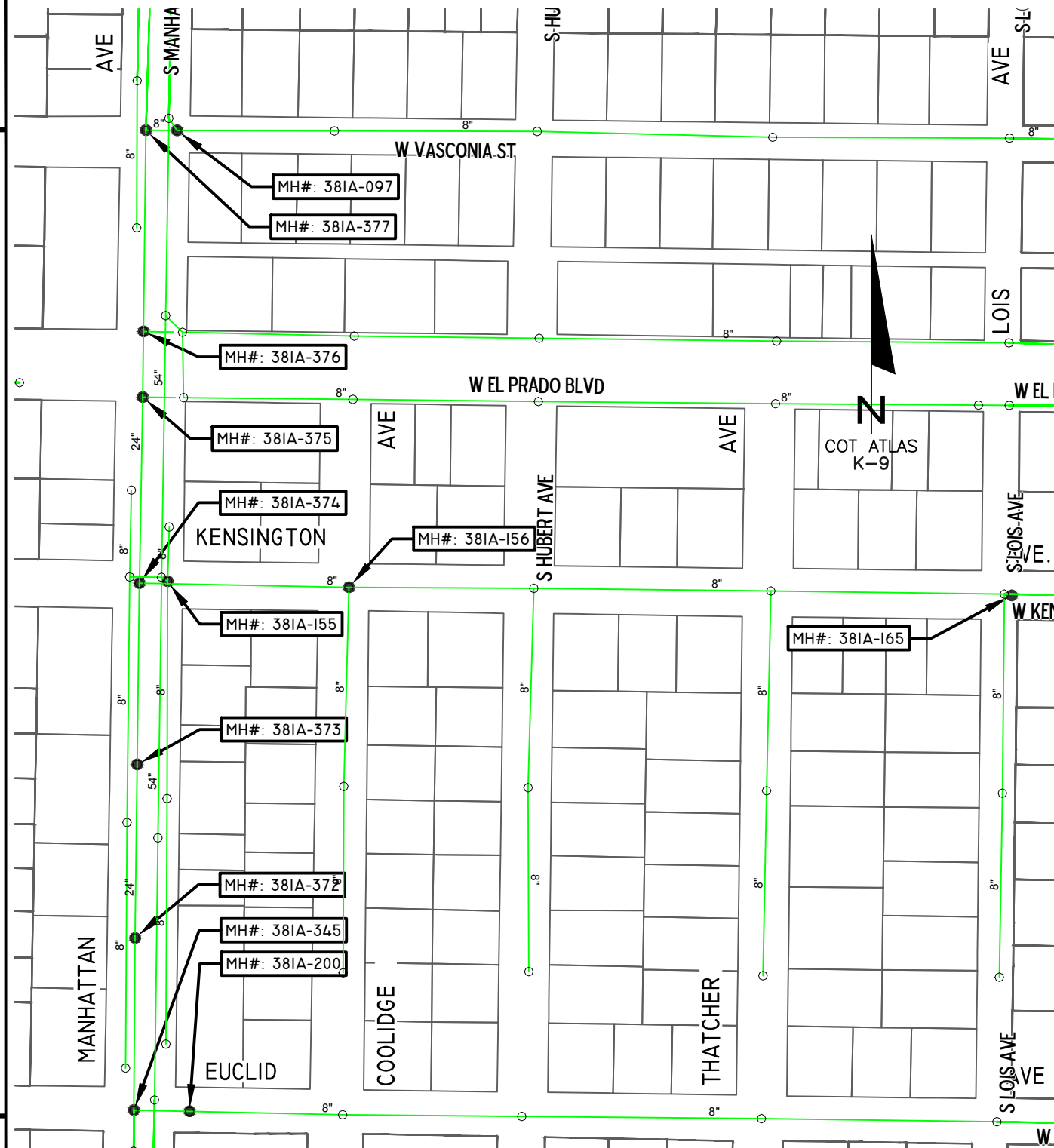
Westshore Blvd.  
at Euclid Ave.

SCALE: 1"=200'



Manhattan Ave.  
at Sevilla St.

SCALE: 1"=200'



Manhattan Ave. at Euclid Ave.

SCALE: 1"=200'

LEGEND:

- MANHOLES - TO BE REHABILITATED
- MANHOLES - NO REHABILITATION REQUIRED
- EX. PUMP STATION
- EX. WASTEWATER FORCE MAIN

No.	DATE	REVISIONS
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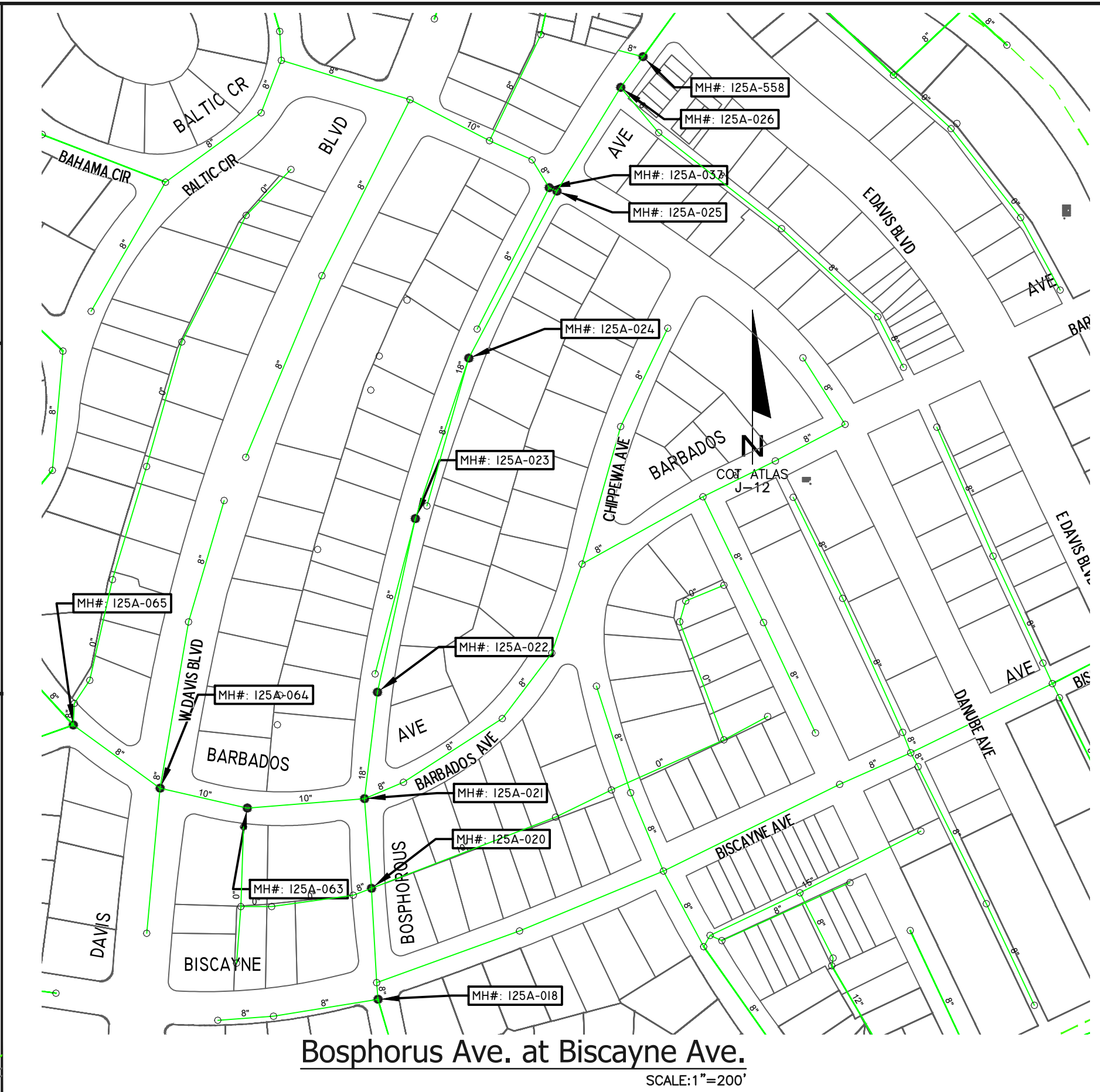
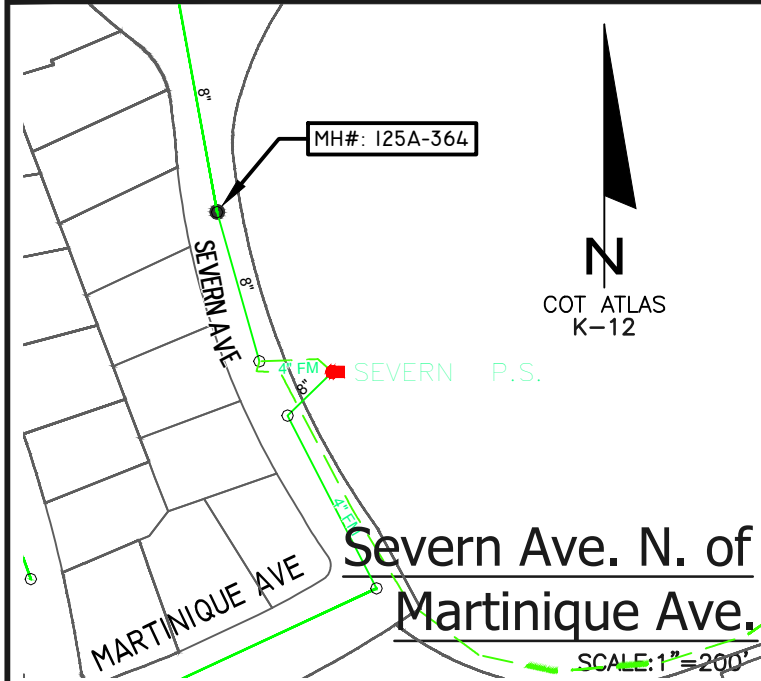
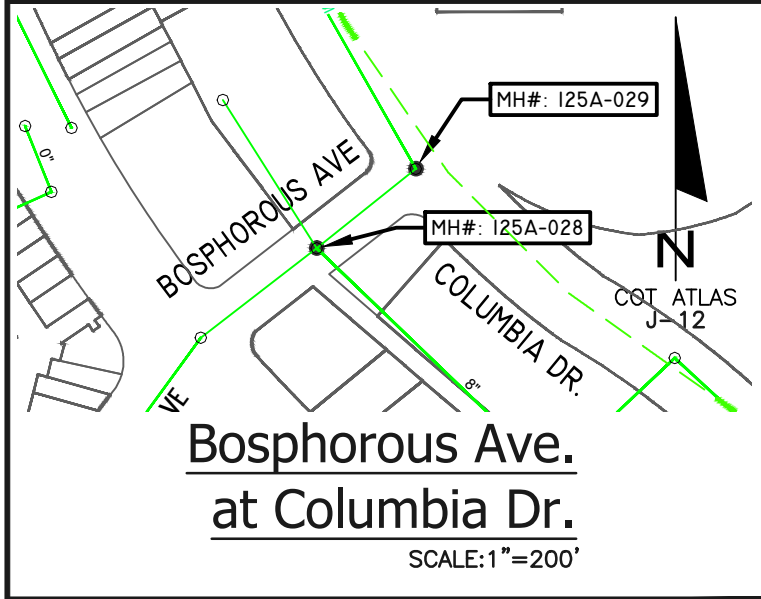
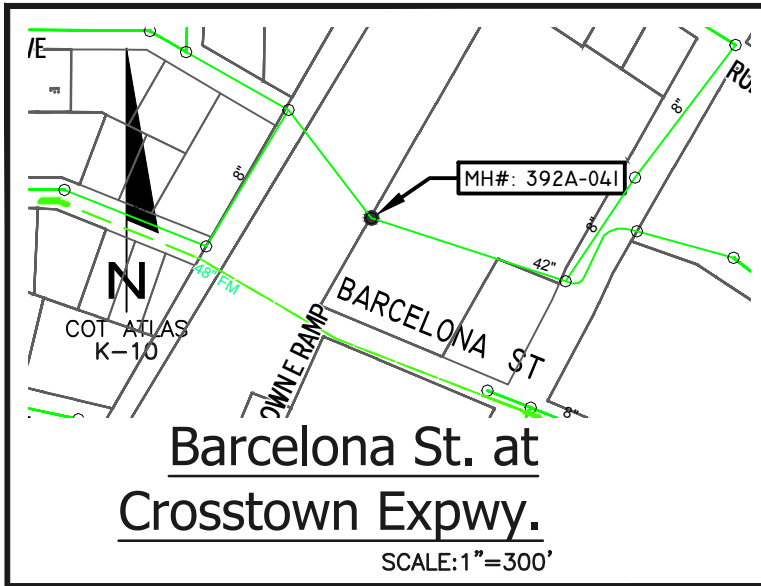
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WASTEWATER DEPARTMENT

FY 2015 MANHOLE REHABILITATION

PLAN-16

W.O. 1000509  
SHEET  
34  
OF 46



- LEGEND:**
- MANHOLES - TO BE REHABILITATED
  - MANHOLES - NO REHABILITATION REQUIRED
  - EX. PUMP STATION
  - EX. WASTEWATER FORCE MAIN

User: ss1s Drawing Name: K:\WW\_Projects\2015\2015\_15-C-00010 Manhole Rehabilitation\DWG\PLAN\PLAN.dwg Layout: Mar 05, 2015 - 2:16pm CTB - WW-TOSHIBA\_PIPE-RS.CTB

JACINTO CARLOS FERRAS, P.E.  
#49454 DESIGN DIVISION HEAD  
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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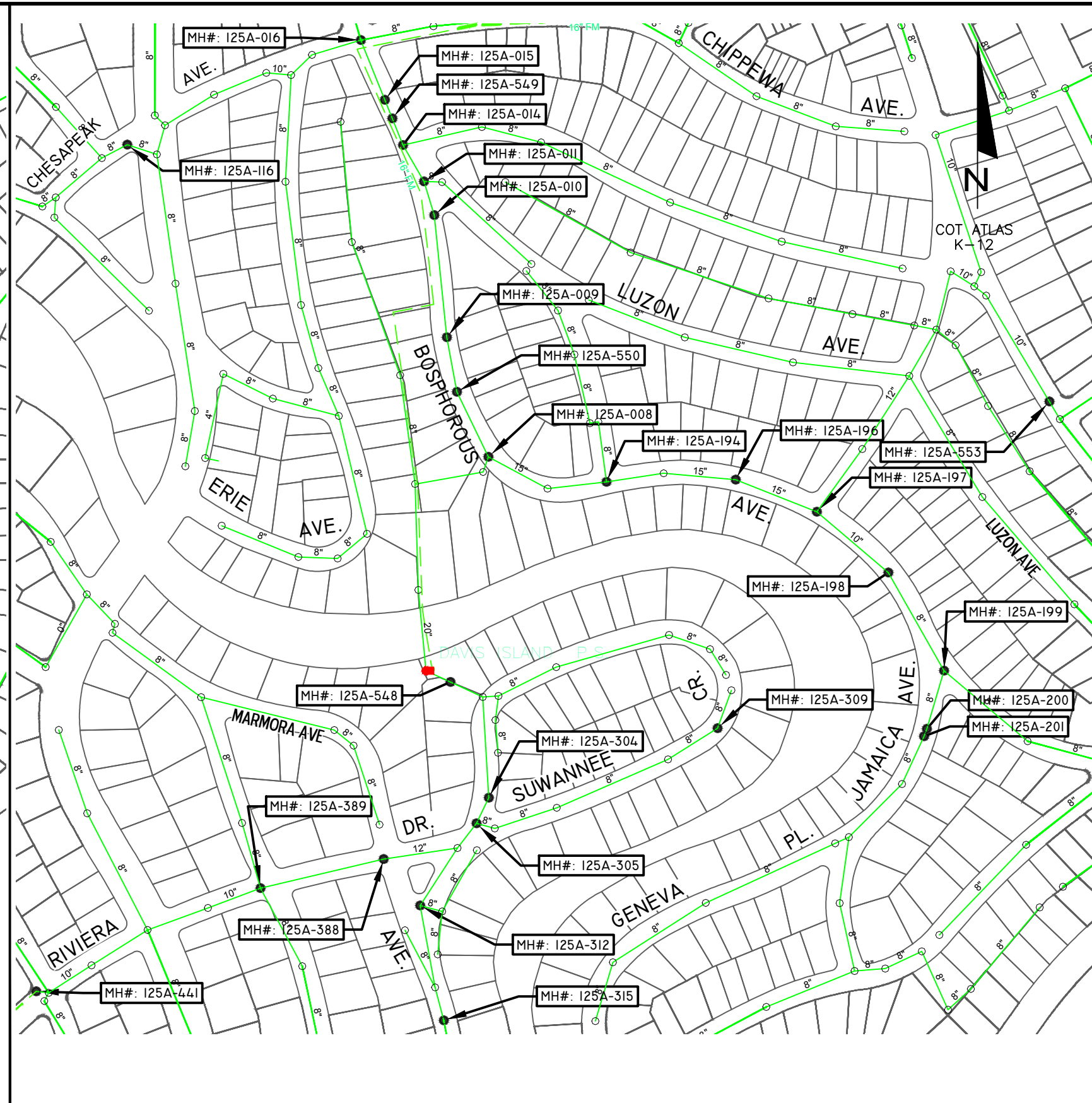
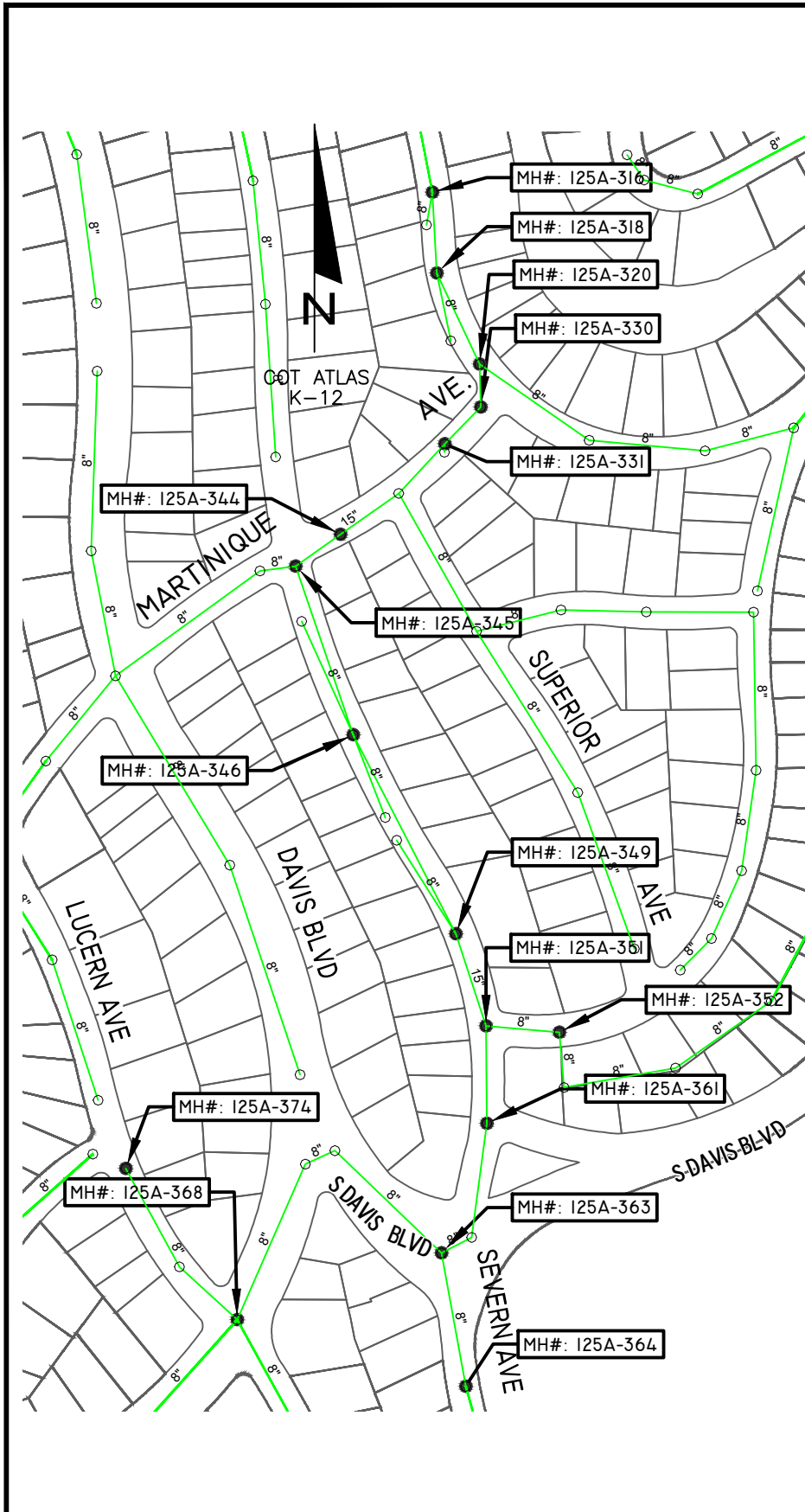
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DRN: RS  
CKD: JF  
DATE: ----

**CITY of TAMPA**  
WASTEWATER DEPARTMENT

FY 2015 MANHOLE REHABILITATION  
PLAN-17

W.O. 1000509  
SHEET  
35  
OF 46





Severn Ave. at Davis Blvd.

SCALE: 1"=300'

Bosphorus Ave. at Swanee Cr.

SCALE: 1"=300'

LEGEND:

- MANHOLES - TO BE REHABILITATED
- MANHOLES - NO REHABILITATION REQUIRED
- EX. PUMP STATION
- EX. WASTEWATER FORCE MAIN

No.	DATE	REVISIONS
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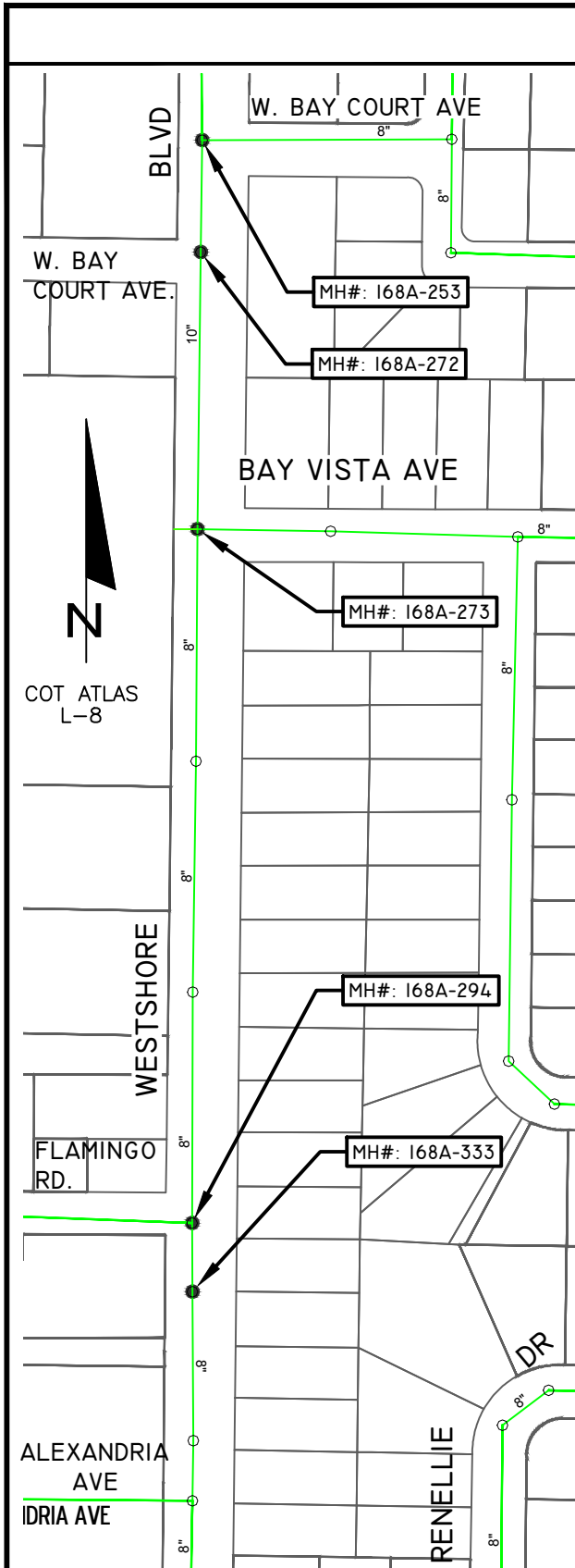
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 DRN: RS  
 CKD: JF  
 DATE: ----

CITY of TAMPA  
 WASTEWATER DEPARTMENT

FY 2015 MANHOLE REHABILITATION

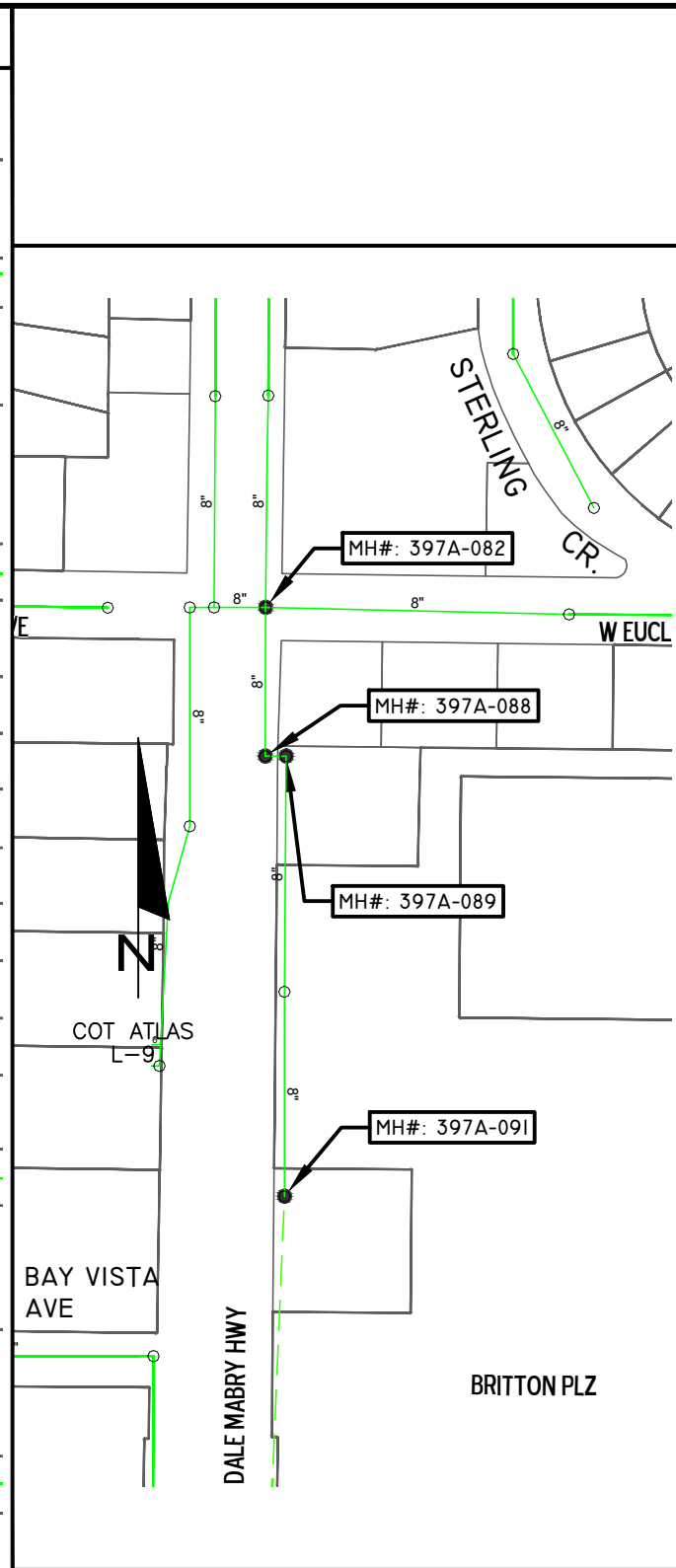
PLAN-18

W.O. 1000509  
 SHEET  
 36  
 OF 46



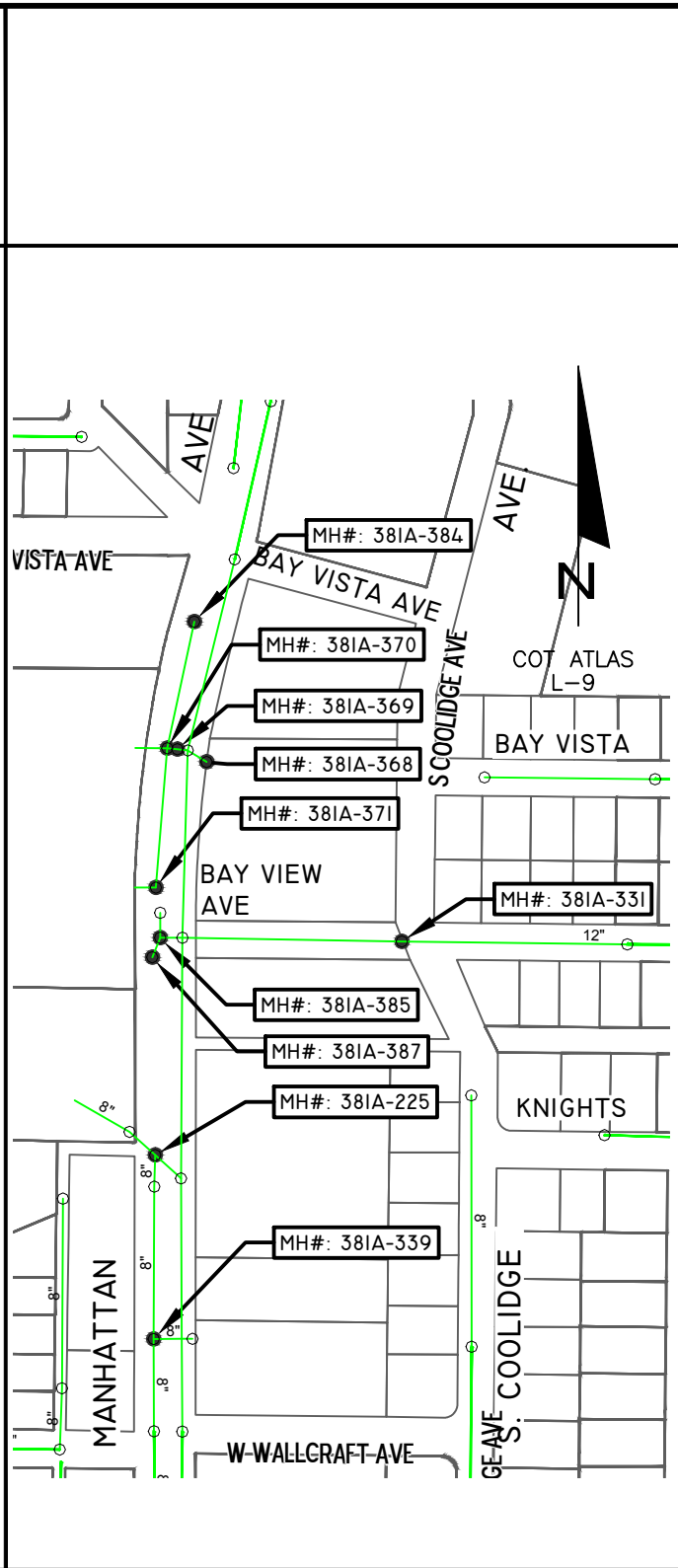
Westshore Blvd.  
at Alexandria Ave.

SCALE: 1"=200'



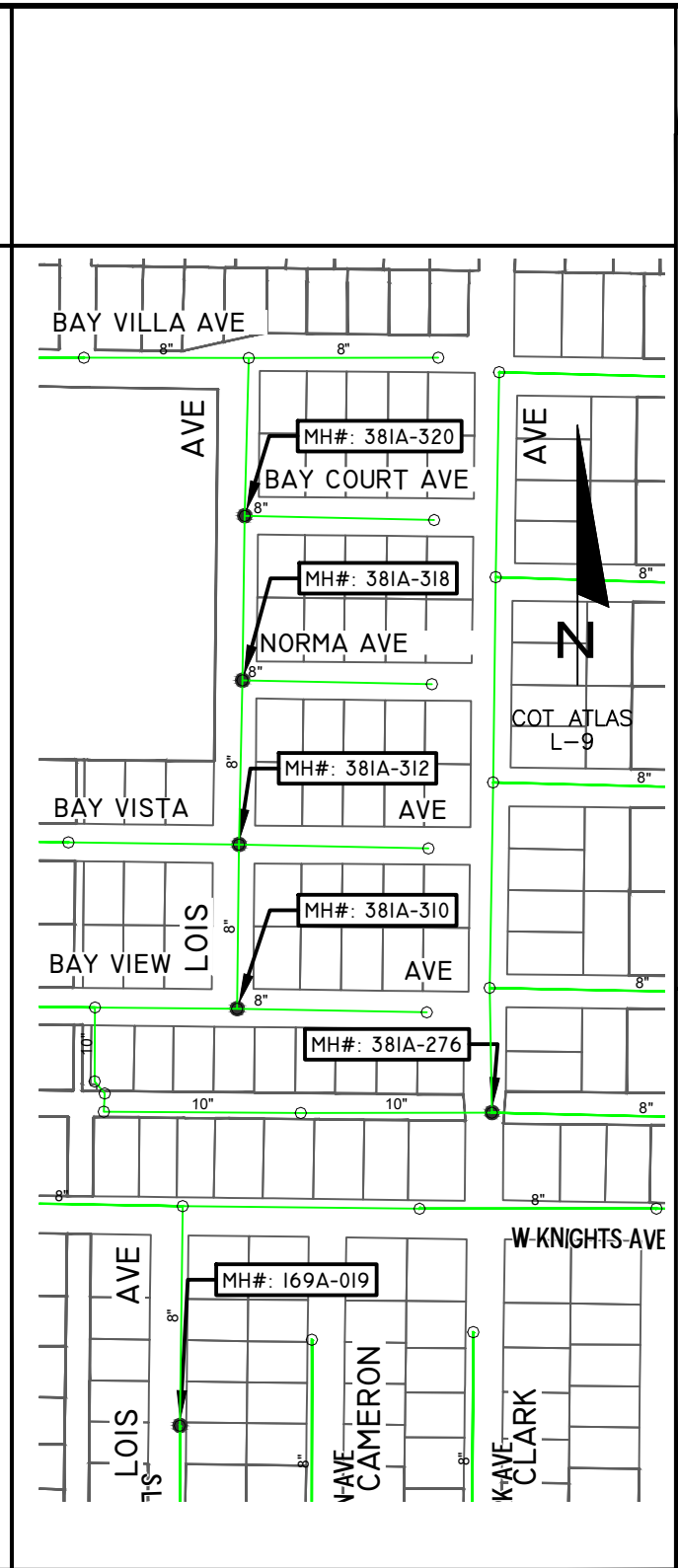
Dale Mabry Hwy.  
at Bay Vista

SCALE: 1"=200'



Manhattan Ave.  
at Wallcraft Ave.

SCALE: 1"=300'



Lois Ave. at  
Wallcraft Ave.

SCALE: 1"=300'

**LEGEND:**

- MANHOLES - TO BE REHABILITATED
- MANHOLES - NO REHABILITATION REQUIRED
- EX. PUMP STATION
- EX. WASTEWATER FORCE MAIN

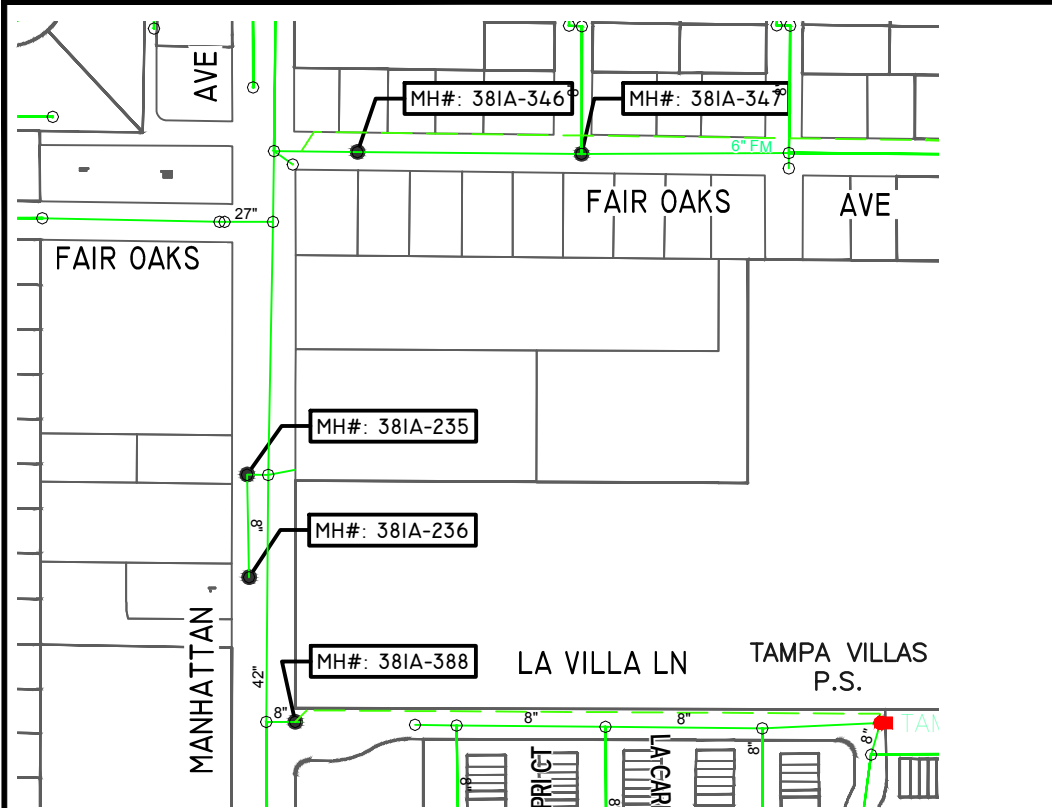
No.	DATE	REVISIONS
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DES: CB  
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CKD: JF  
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**CITY of TAMPA**  
WASTEWATER DEPARTMENT

User: ss1s Drawing Name: K:\WW\_Projects\2015\2015\_15-C-00010 Manhole Rehabilitation\DWG\PLAN\PLAN.dwg Layout: Mar 05, 2015 - 2:16pm CTB - WW-TOSHIBA\_PIPE-RS.CTB

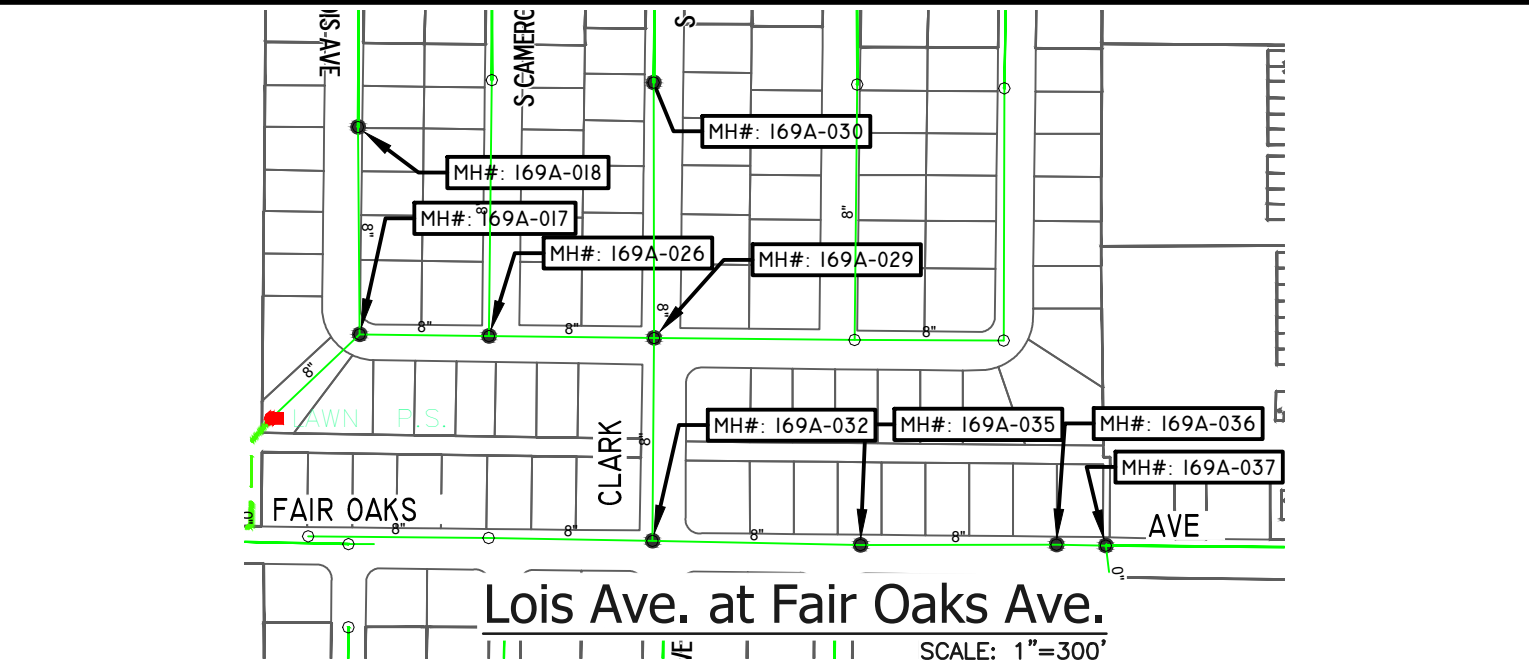
JACINTO CARLOS FERRAS, P.E.  
#49454 DESIGN DIVISION HEAD  
WASTEWATER DEPARTMENT



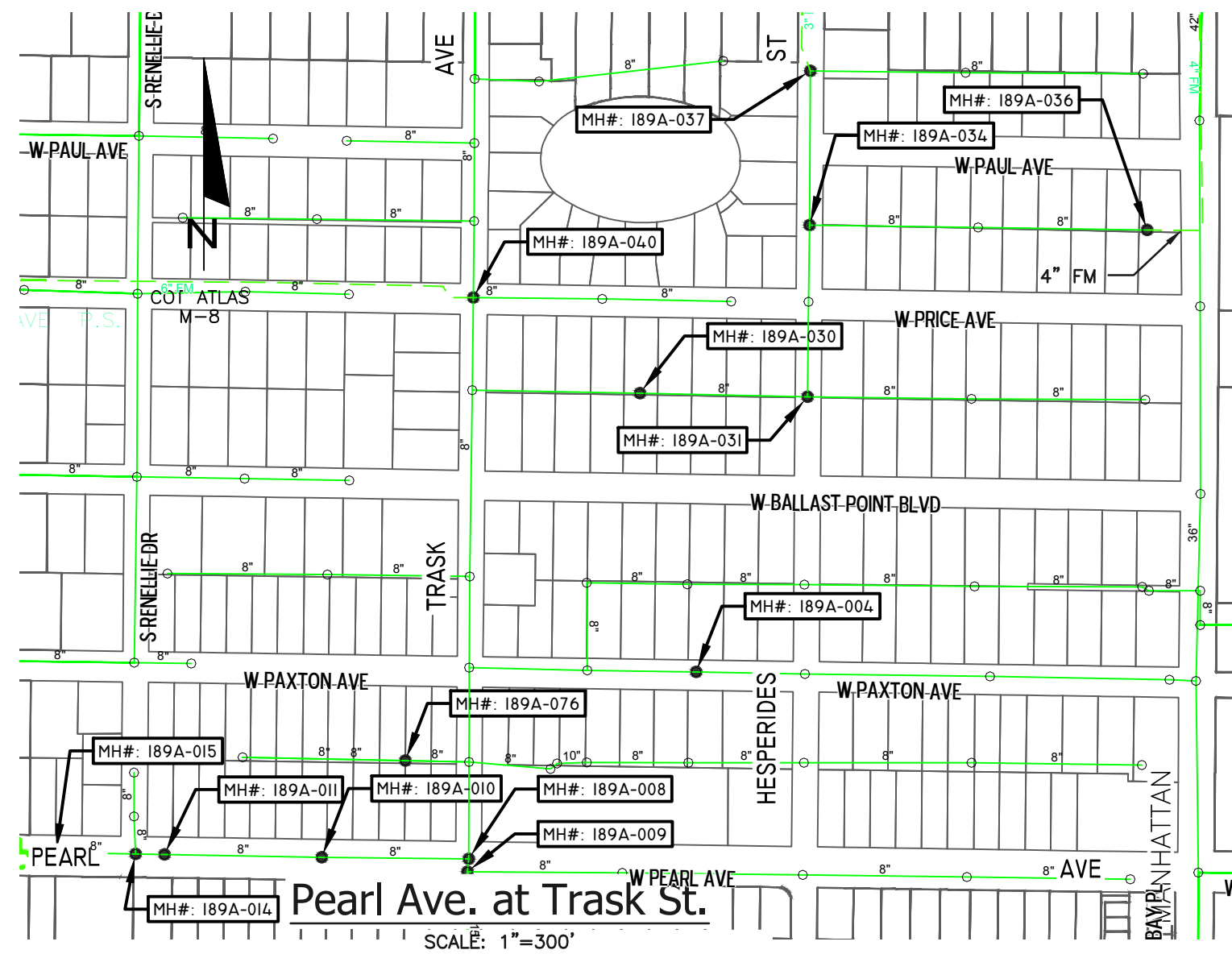
Manhattan Ave, Fair Oaks Ave to LaVilla Ln  
SCALE: 1"=300'



Bayshore Blvd. at Gandy Blvd.  
SCALE: 1"=200'



Lois Ave. at Fair Oaks Ave.  
SCALE: 1"=300'



Pearl Ave. at Trask St.  
SCALE: 1"=300'

- LEGEND:**
- MANHOLES - TO BE REHABILITATED
  - MANHOLES - NO REHABILITATION REQUIRED
  - ⊙ EX. PUMP STATION
  - EX. WASTEWATER FORCE MAIN

User: ss1s Drawing Name: K:\WW\_Projects\2015\2015\_15-C-00010 Manhole Rehabilitation\Dwg\PLAN\PLAN.dwg Layout: Mar 05, 2015 - 2:16pm CTB - WW-TOSHIBA\_PIPE-RS.CTB

JACINTO CARLOS FERRAS, P.E.  
#49454 DESIGN DIVISION HEAD  
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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DES: CB  
DRN: RS  
CKD: JF  
DATE: ----

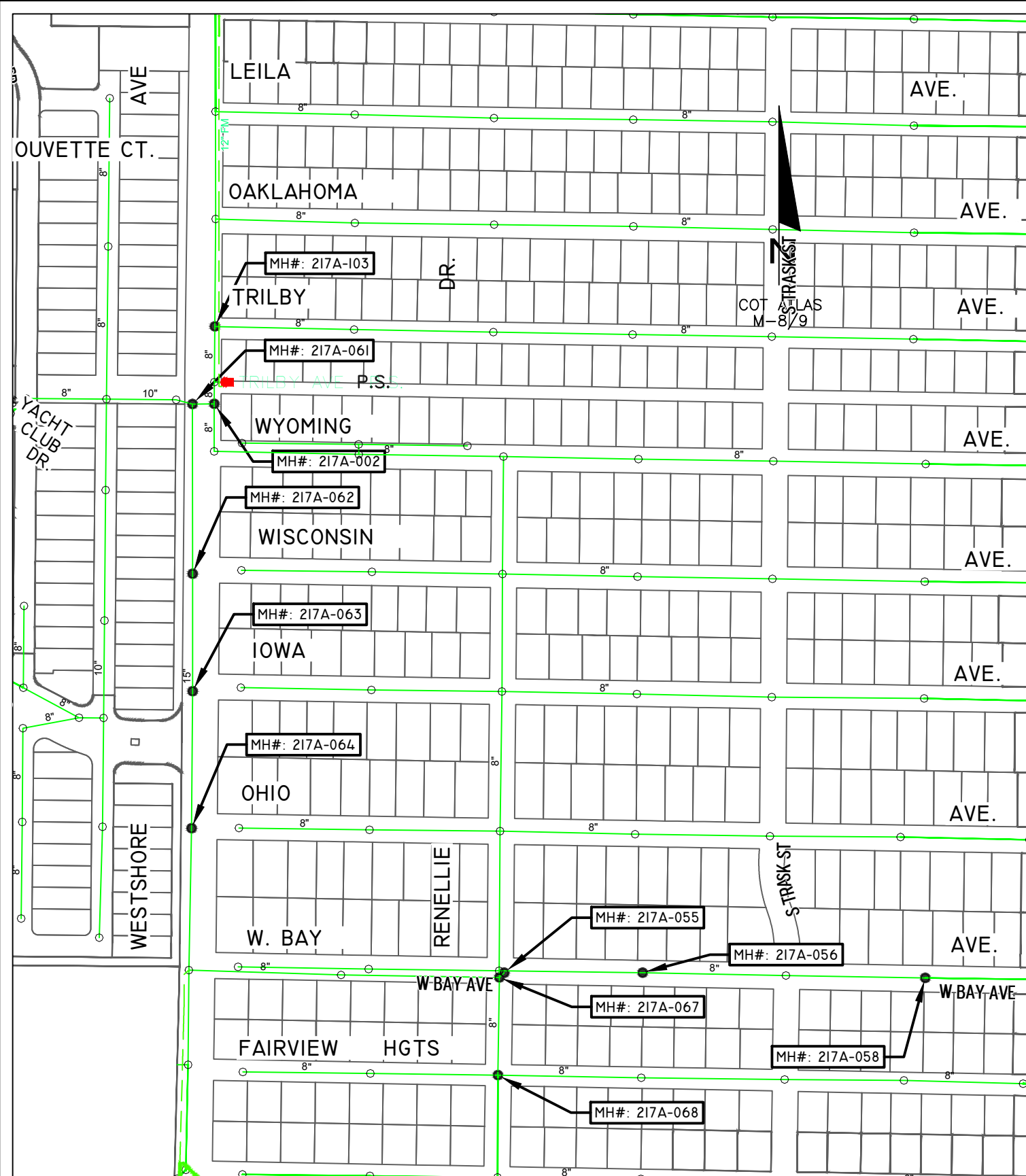
**CITY of TAMPA**  
WASTEWATER DEPARTMENT

FY 2015 MANHOLE REHABILITATION

PLAN-20

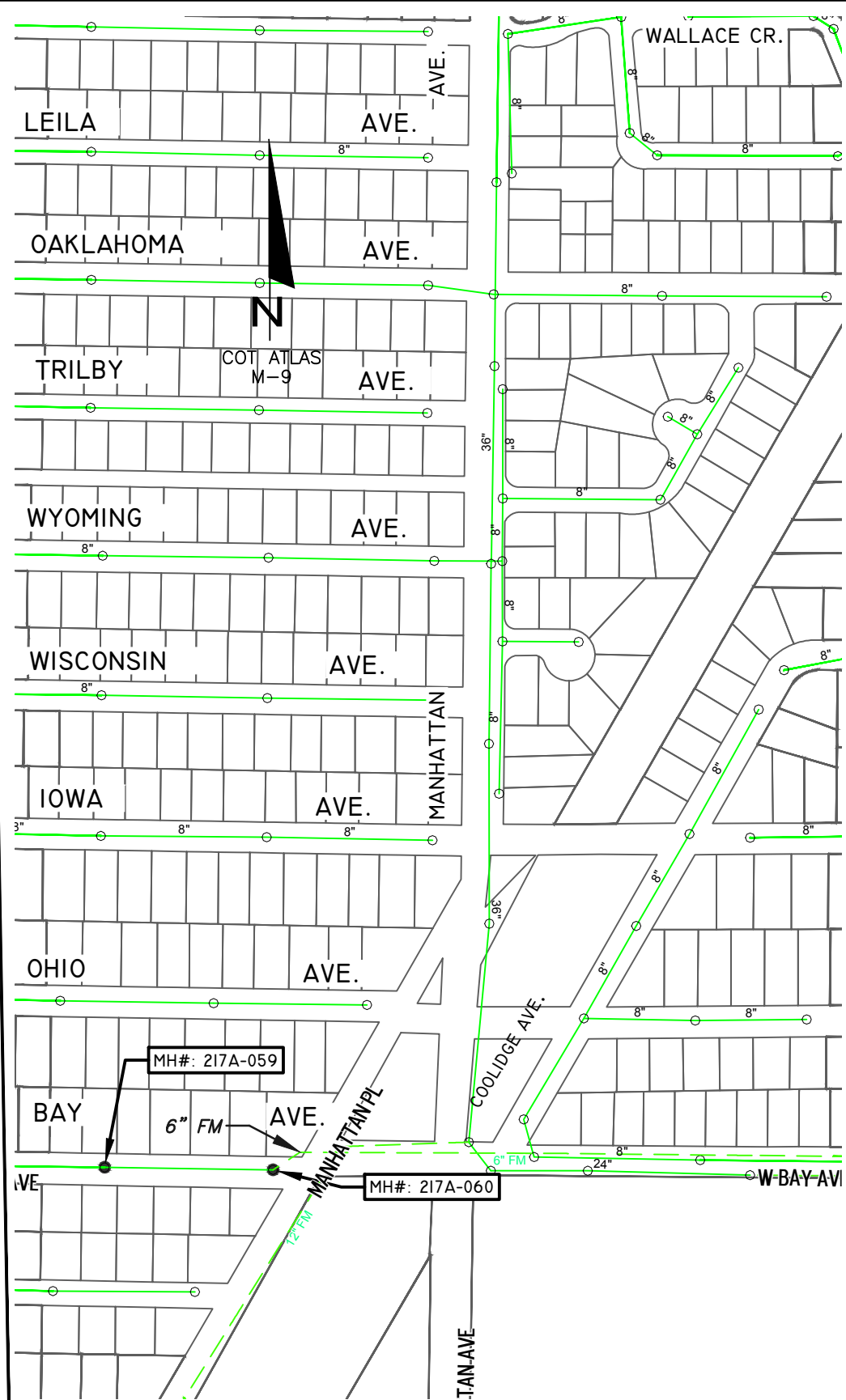
W.O. 1000509  
SHEET  
38  
OF 46





Westshore Blvd. at Fairview Hts.

SCALE: 1"=300'



Manhattan Ave. at W. Bay Ave.

SCALE: 1"=300'

LEGEND:

- MANHOLES - TO BE REHABILITATED
- MANHOLES - NO REHABILITATION REQUIRED
- EX. PUMP STATION
- EX. WASTEWATER FORCE MAIN

User: ss1s Drawing Name: K:\WW\_Projects\2015\2015\_15-C-00010 Manhole Rehabilitation\DWG\PLAN\PLAN.dwg Layout: Mar 05, 2015 - 2:16pm CTB - WW-TOSHIBA\_PIPE-RS.CTB

JACINTO CARLOS FERRAS, P.E.  
#49454 DESIGN DIVISION HEAD  
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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DRN: RS  
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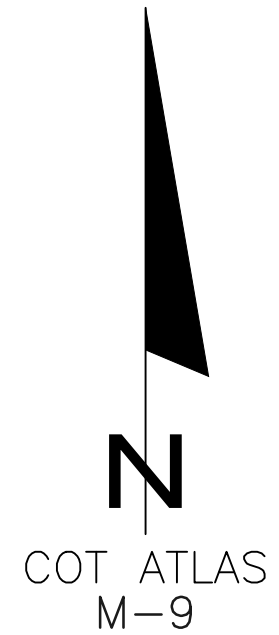
CITY of TAMPA  
WASTEWATER DEPARTMENT

FY 2015 MANHOLE REHABILITATION

PLAN-21

W.O. 1000509  
SHEET  
39  
OF 46





**Wisconsin Ave. at Lois Ave.**  
SCALE: 1" = 300'

- LEGEND:**
- MANHOLES - TO BE REHABILITATED
  - MANHOLES - NO REHABILITATION REQUIRED
  - EX. PUMP STATION
  - EX. WASTEWATER FORCE MAIN

User: ss1s Drawing Name: K:\WW\_Projects\2015\2015\_15-C-00010 Manhole Rehabilitation\DWG\PLAN\PLAN.dwg Layout: Mar 05, 2015 - 2:16pm CTB - WW-TOSHIBA\_PIPE-RS.CTB

JACINTO CARLOS FERRAS, P.E.  
#49454 DESIGN DIVISION HEAD  
WASTEWATER DEPARTMENT

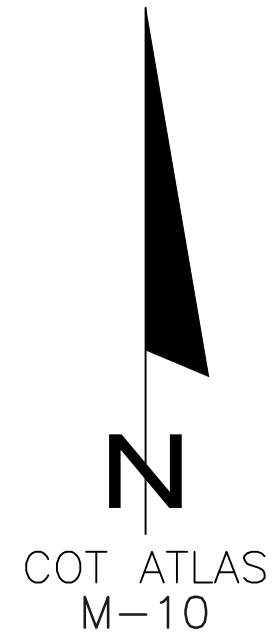
No.	DATE	REVISIONS
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DES: CB  
DRN: GP  
CKD: JF  
DATE: ----

**CITY of TAMPA**  
WASTEWATER DEPARTMENT

FY 2015 MANHOLE REHABILITATION  
PLAN-22

W.O. 1000509  
SHEET  
40  
OF 46



**MacDill Ave. at Leila Ave.**

SCALE: 1"=200'

**LEGEND:**

- MANHOLES - TO BE REHABILITATED
- MANHOLES - NO REHABILITATION REQUIRED
- EX. PUMP STATION
- EX. WASTEWATER FORCE MAIN

User: ss1s Drawing Name: K:\WW\_Projects\2015\2015\_15-C-00010 Manhole Rehabilitation\DWG\PLAN\PLAN.dwg Layout: Mar 05, 2015 - 2:16pm CTB - WW-TOSHIBA\_PIPE-RS.CTB

JACINTO CARLOS FERRAS, P.E.  
#49454 DESIGN DIVISION HEAD  
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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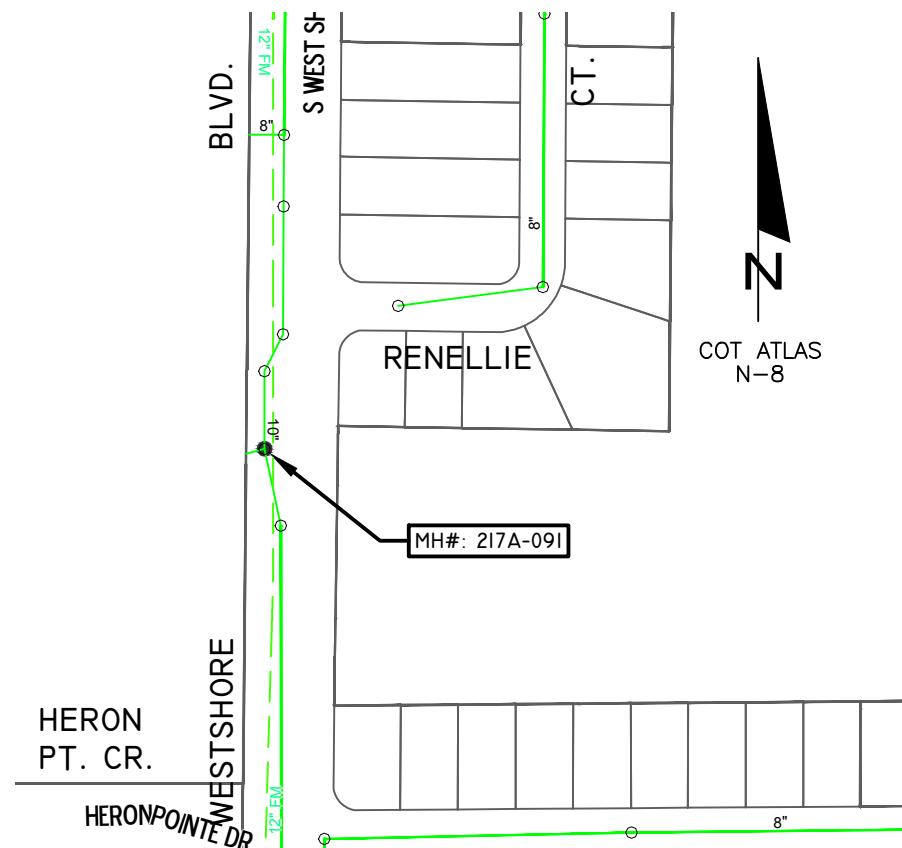
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CKD: JF  
DATE: ----

**CITY of TAMPA**  
**WASTEWATER DEPARTMENT**

FY 2015 MANHOLE REHABILITATION

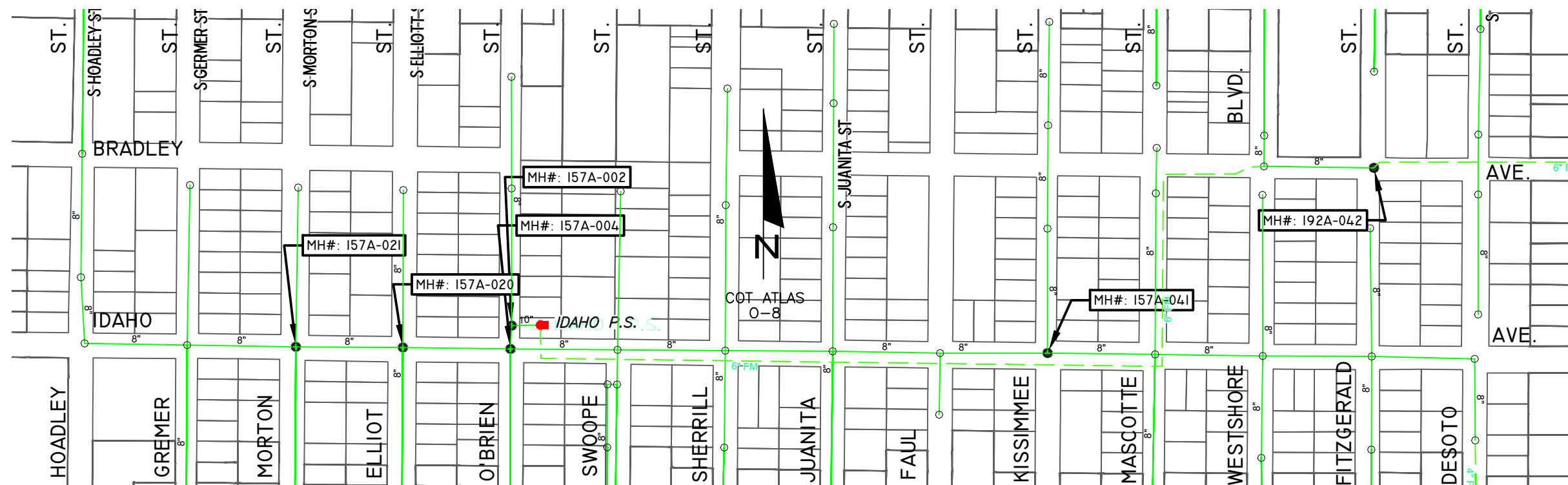
PLAN-23

W.O. 1000509  
SHEET  
**41**  
OF 46



Everett Ave. at Westshore Blvd.

SCALE: 1"=200'



Ingraham St. at Morton St.

SCALE: 1"=300'

LEGEND:

- MANHOLES - TO BE REHABILITATED
- MANHOLES - NO REHABILITATION REQUIRED
- EX. PUMP STATION
- EX. WASTEWATER FORCE MAIN

User: ss1s Drawing Name: K:\WW\_Projects\2015\2015\_15-C-00010 Manhole Rehabilitation\DWG\PLAN\PLAN.dwg Layout: Mar 05, 2015 - 2:16pm CTB - WW-TOSHIBA\_PIPE-RS.CTB

JACINTO CARLOS FERRAS, P.E.  
#49454 DESIGN DIVISION HEAD  
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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DES: CB  
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CITY of TAMPA  
WASTEWATER DEPARTMENT

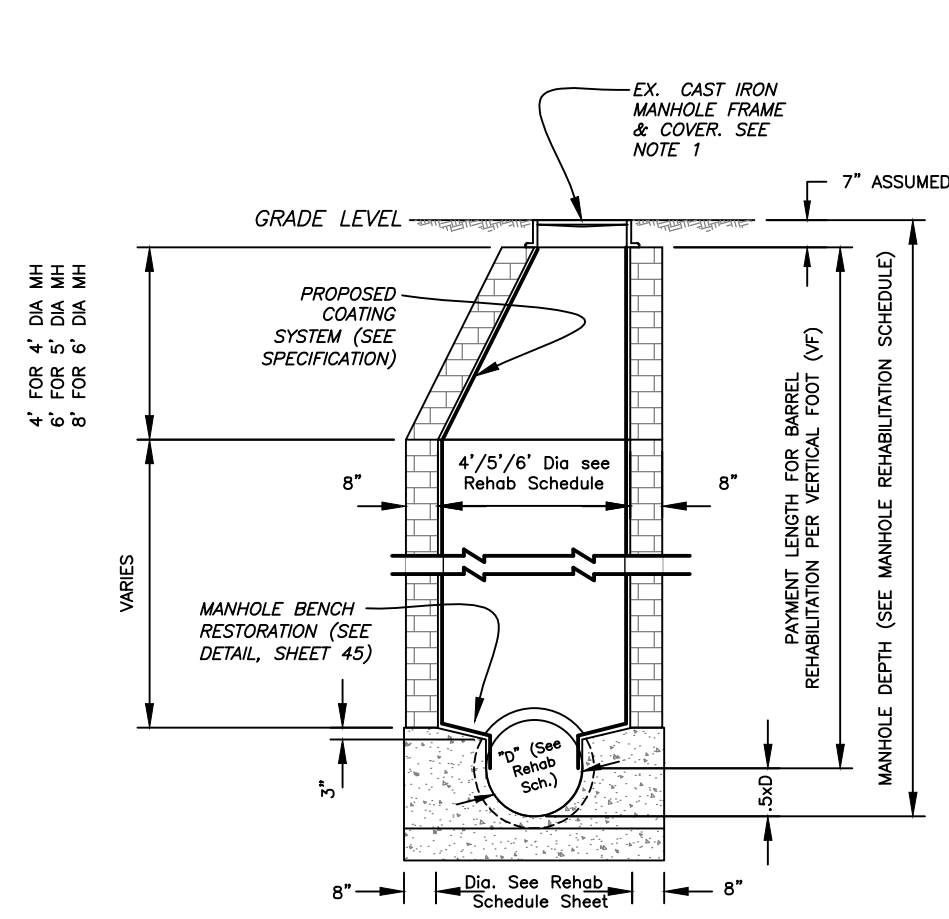
FY 2015 MANHOLE REHABILITATION

PLAN-24

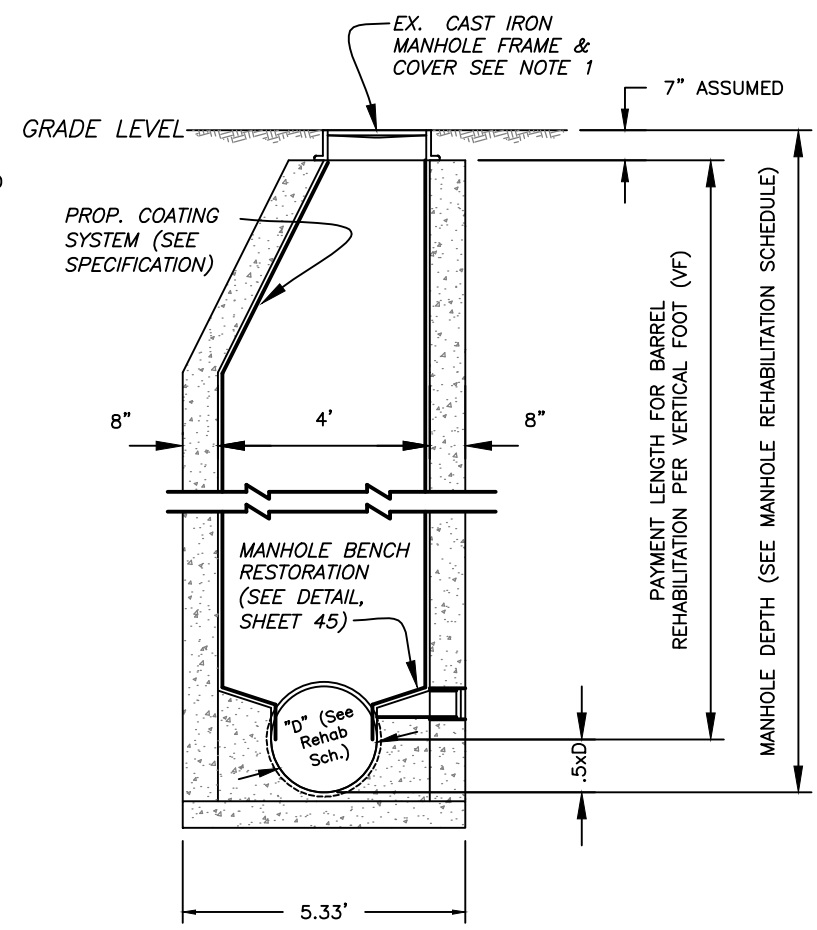
W.O. 1000509  
SHEET  
42  
OF 46

NOTES

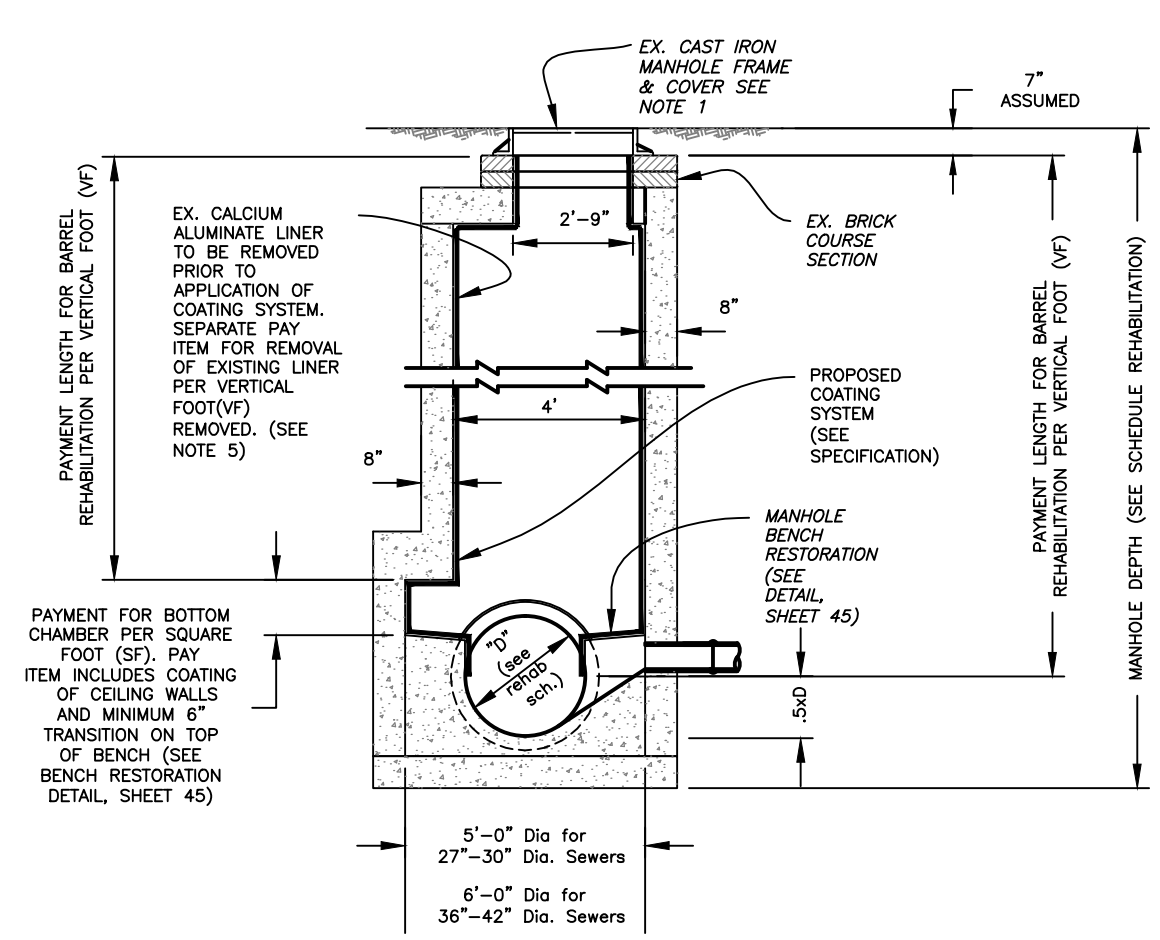
- SEE MANHOLE FRAME AND COVER REPLACEMENT DETAILS ON SHEET 46, FOR MANHOLE COVER SIZES AND WHETHER THE COVERS ARE LOCATED IN GRASS OR PAVEMENT, REFER TO THE MANHOLE REHABILITATION SCHEDULE.
- IT IS THE ENGINEER'S INTENT THAT THE MANHOLE REHABILITATION AND BENCH RESTORATION WILL NOT REQUIRE BYPASS PUMPING. HOWEVER, WORK DURING LOW-FLOW PERIODS MAY BE NECESSARY.
- THERE IS A SEPARATE PAY ITEM FOR THE BENCH RESTORATION.
- REFER TO SHEET 2 FOR PROPOSED COATING THICKNESS.
- CONTRACTOR SHALL REMOVE ALL CALCIUM ALUMINATE LINER TO A SOUND SUBSTRATE PRIOR TO APPLICATION OF COATING SYSTEM. PAYMENT FOR THE REMOVAL OF THE CALCIUM ALUMINATE LINER WILL BE MADE AT THE CONTRACT ITEM UNIT PRICE PER VERTICAL FOOT (VF) OF LINER REMOVED.
- CONTRACTOR SHALL REMOVE T-LOCK LINER TO A SOUND SUBSTRATE PRIOR TO APPLICATION OF CPP EPOXY PASTE COATING SYSTEM. IT IS NOT THE ENGINEERS INTENT TO REMOVE FIRMLY ATTACHED LINER. AFTER REMOVAL OF THE T-LOCK LINER, EXISTING EMBEDDED TEE'S SHALL BE CUT, GROUND AND SMOOTHED OVER PRIOR TO APPLICATION OF CPP EPOXY COATING SYSTEM. PAYMENT FOR THE REMOVAL OF DELAMINATING LINER WILL BE A SEPARATE PAY ITEM PER SQUARE FOOT (SF) OF LINER REMOVED.
- PROVIDE A 6" MIN. STRIP OF PROPOSED COATING SYSTEM OVER EDGE OF EXISTING LINER. SURFACE PREPARATION AND APPLICATION OF COATING SYSTEM SHALL BE DONE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS FOR INTERFACING WITH T-LOCK LINER.



**TYPE "A"**  
**BRICK MANHOLE**  
 (TYPICAL OF 237)  
 NOT TO SCALE



**TYPE "B"**  
**CONCRETE MANHOLE**  
 (TYPICAL OF 165)  
 NOT TO SCALE



**TYPE "C"**  
**CONCRETE MANHOLE WITH EX.**  
**CALCIUM ALUMINATE LINER**  
 (TYPICAL OF 8)  
 NOT TO SCALE

User: ss1s Drawing Name: K:\WW\_Projects\2015\2015-15-C-00010 Manhole Rehabilitation\DWG\DETAILS\Details.dwg Layout: Mar 04, 2015 - 5:12pm CTB - WW.CTB

JACINTO CARLOS FERRAS, P.E. #49454  
 DESIGN DIVISION HEAD  
 WASTEWATER DEPARTMENT

No.	
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DES: CB  
 DRN: RS  
 CKD: JF  
 DATE: xxxxxx

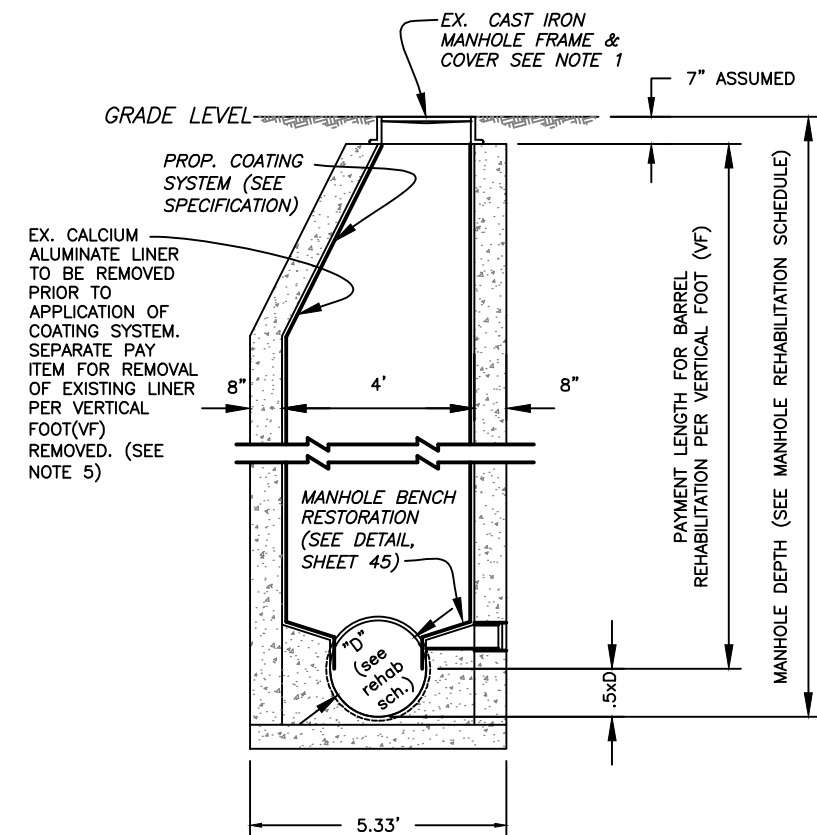
**CITY of TAMPA**  
**WASTEWATER DEPARTMENT**

FY 2015 MANHOLE REHABILITATION  
**MANHOLE DETAIL A, B AND C**

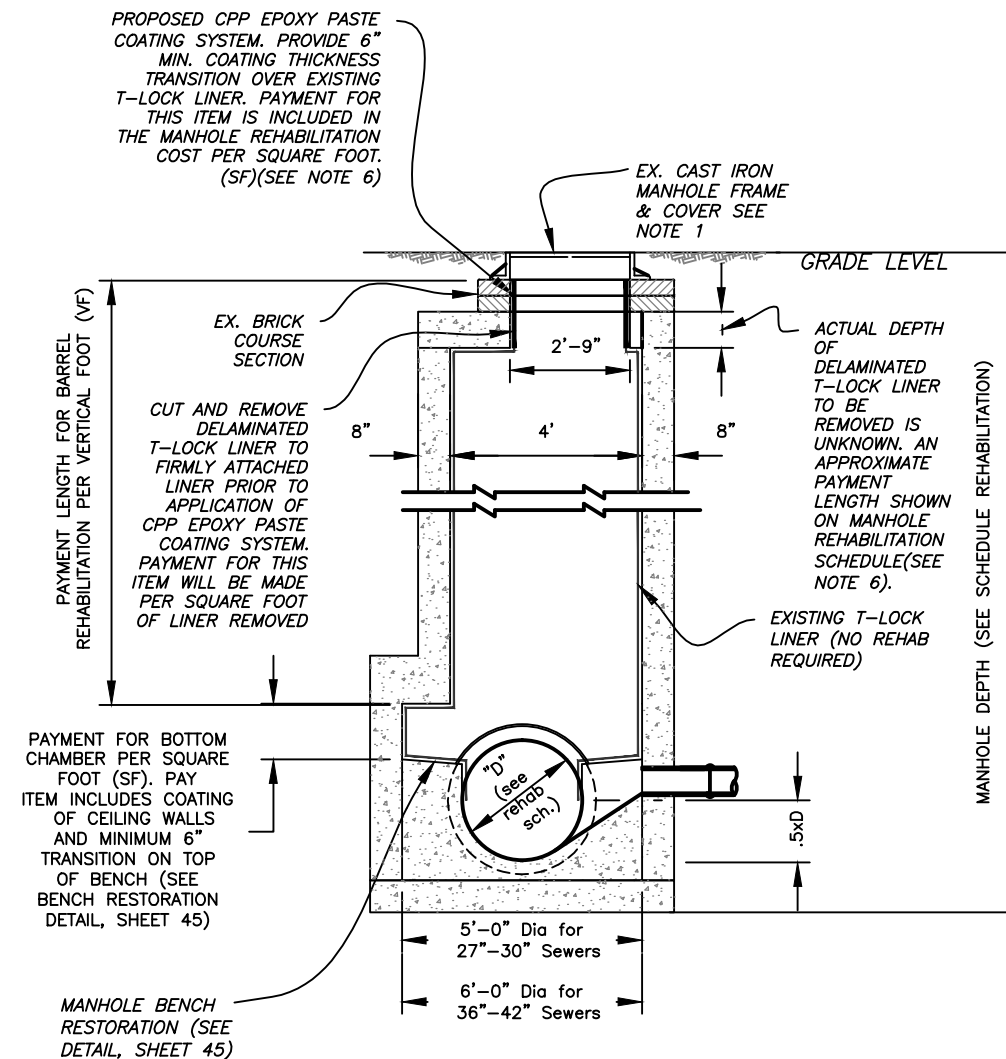
W.O. 1000509  
 SHEET  
**43**  
 OF 46

**NOTES**

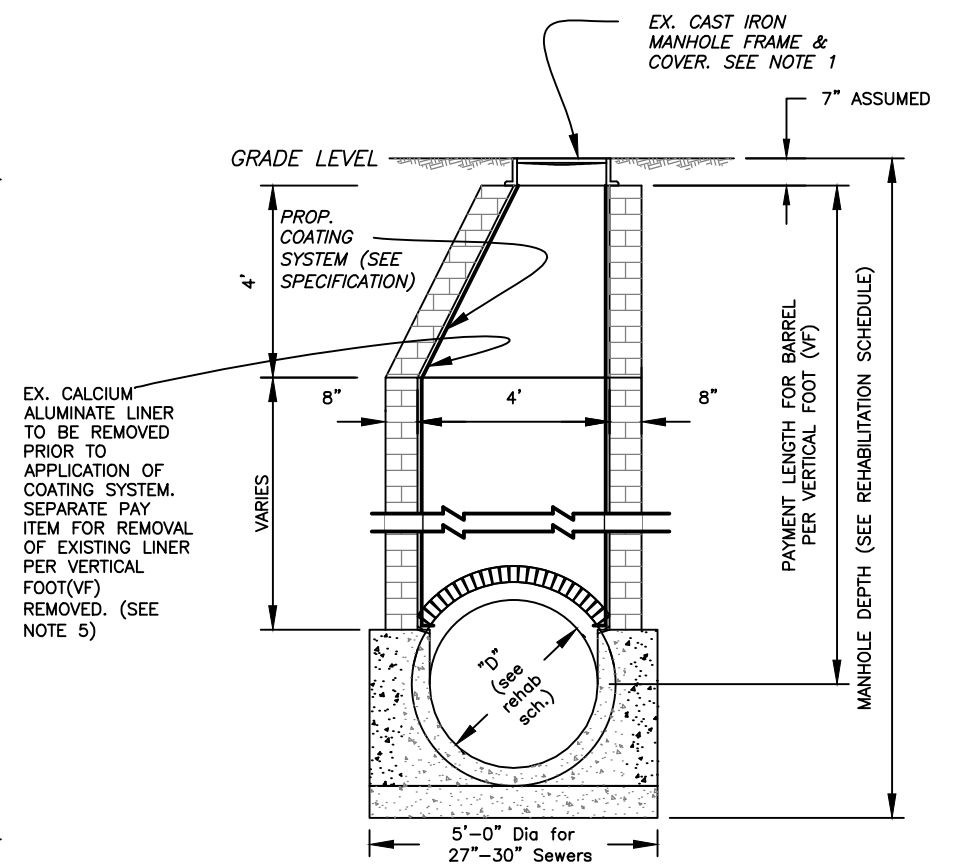
1. SEE MANHOLE FRAME AND COVER REPLACEMENT DETAILS ON SHEET 46, FOR MANHOLE COVER SIZES AND WHETHER THE COVERS ARE LOCATED IN GRASS OR PAVEMENT, REFER TO THE MANHOLE REHABILITATION SCHEDULE.
2. IT IS THE ENGINEER'S INTENT THAT THE MANHOLE REHABILITATION AND BENCH RESTORATION WILL NOT REQUIRE BYPASS PUMPING. HOWEVER, WORK DURING LOW-FLOW PERIODS MAY BE NECESSARY.
3. THERE IS A SEPARATE PAY ITEM FOR THE BENCH RESTORATION.
4. REFER TO SHEET 2 FOR PROPOSED COATING THICKNESS.
5. CONTRACTOR SHALL REMOVE ALL CALCIUM ALUMINATE LINER TO A SOUND SUBSTRATE PRIOR TO APPLICATION OF COATING SYSTEM. PAYMENT FOR THE REMOVAL OF THE CALCIUM ALUMINATE LINER WILL BE MADE AT THE CONTRACT ITEM UNIT PRICE PER VERTICAL FOOT (VF) OF LINER REMOVED.
6. CONTRACTOR SHALL REMOVE T-LOCK LINER TO A SOUND SUBSTRATE PRIOR TO APPLICATION OF CPP EPOXY PASTE COATING SYSTEM. IT IS NOT THE ENGINEERS INTENT TO REMOVE FIRMLY ATTACHED LINER. AFTER REMOVAL OF THE T-LOCK LINER, EXISTING EMBEDDED TEE'S SHALL BE CUT, GROUND AND SMOOTHED OVER PRIOR TO APPLICATION OF CPP EPOXY COATING SYSTEM. PAYMENT FOR THE REMOVAL OF DELAMINATING LINER WILL BE A SEPARATE PAY ITEM PER SQUARE FOOT (SF) OF LINER REMOVED.
7. PROVIDE A 6" MIN. STRIP OF PROPOSED COATING SYSTEM OVER EDGE OF EXISTING LINER. SURFACE PREPARATION AND APPLICATION OF COATING SYSTEM SHALL BE DONE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS FOR INTERFACING WITH T-LOCK LINER.



**TYPE "D"**  
**CONCRETE OR BRICK MANHOLE**  
**WITH EX. CALCIUM ALUMINATE LINER**  
**(TYPICAL OF 6)**  
 NOT TO SCALE



**TYPE "E"**  
**CONCRETE OR BRICK MANHOLE**  
**WITH T-LOCK LINING**  
**(TYPICAL OF 1)**  
 NOT TO SCALE

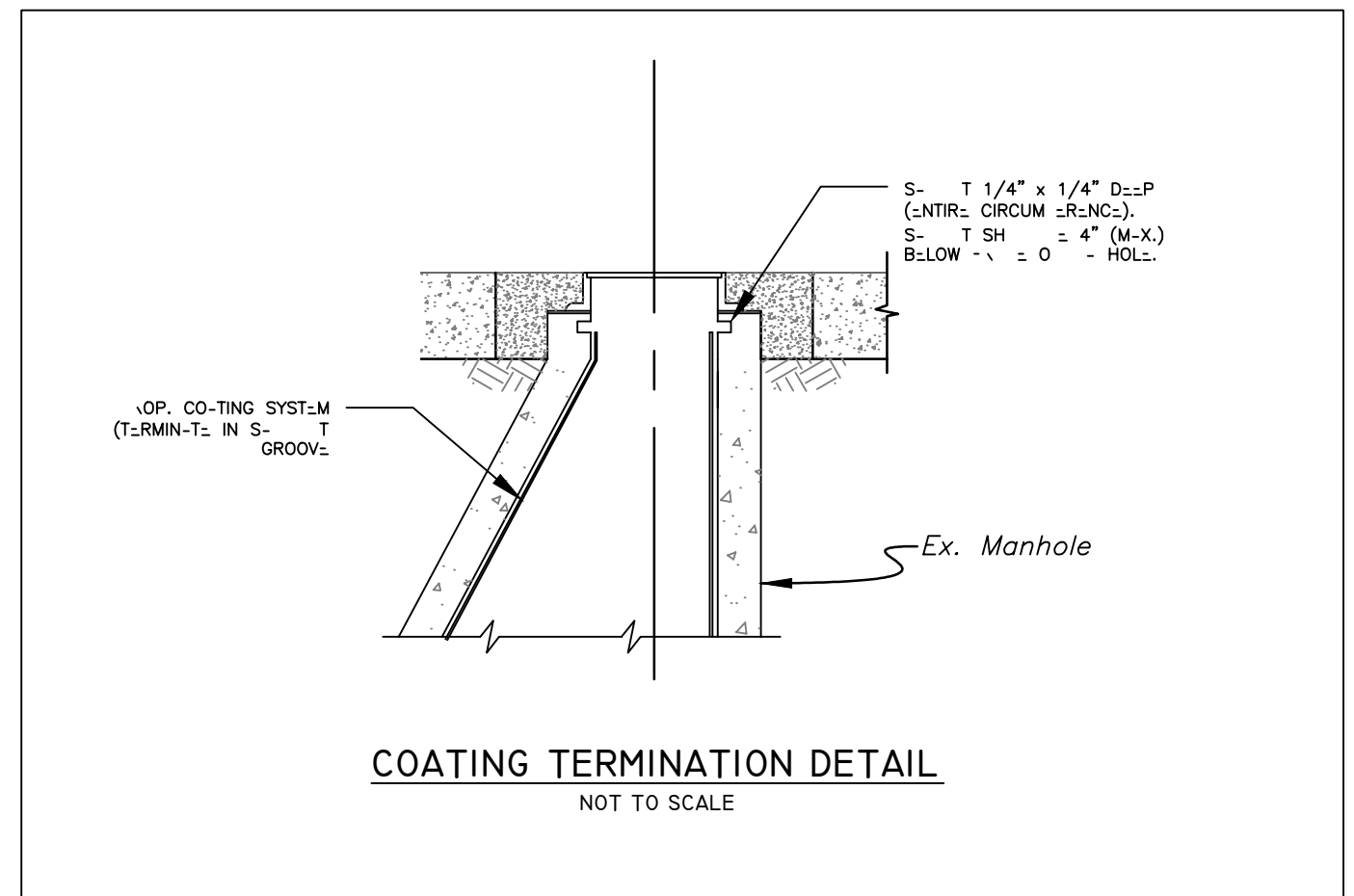
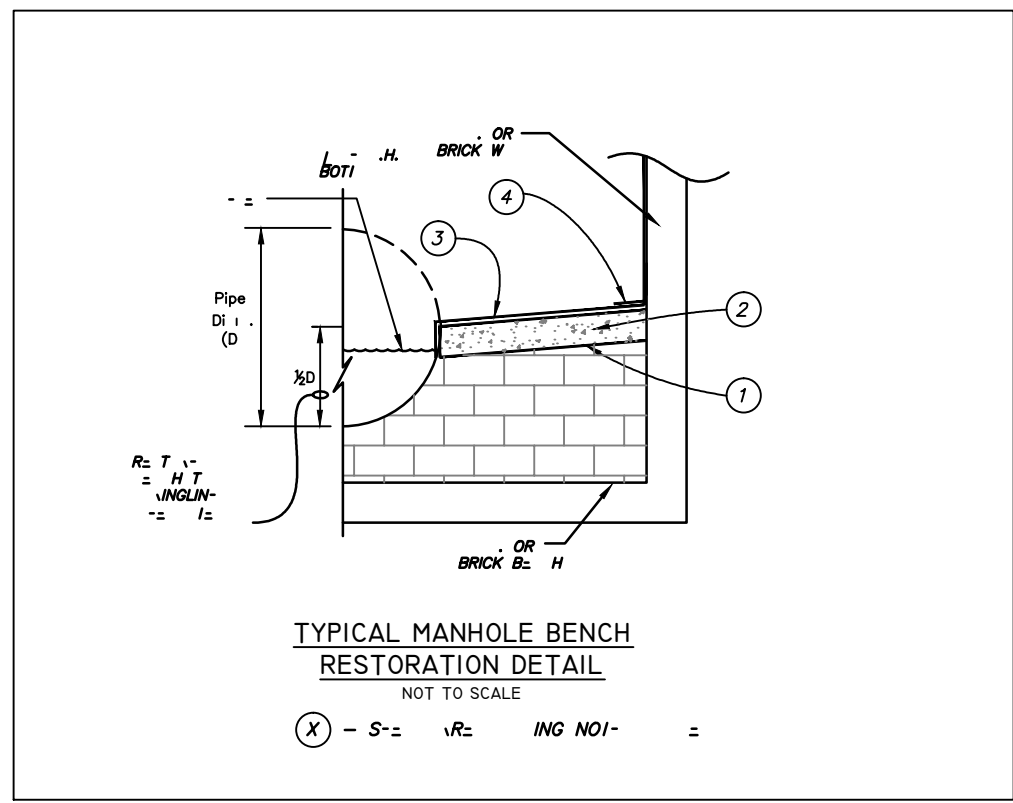
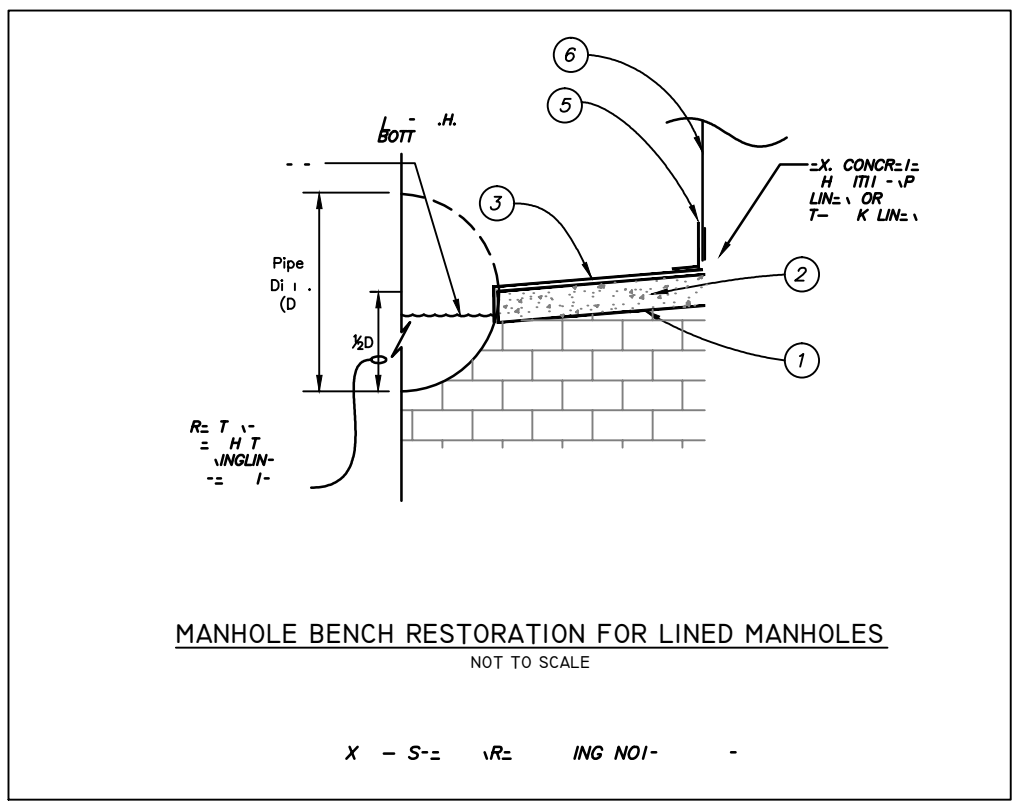


**TYPE "F"**  
**BRICK MANHOLE WITH EX.**  
**CALCIUM ALUMINATE LINER**  
**(TYPICAL OF 10)**  
 NOT TO SCALE

User: ss1s Drawing Name: K:\WW Projects\2015\2015\_15-C-00010 Manhole Rehabilitation\DWG\DETAILS\Manhole\_Details\_C\_D\_E.dwg Layout: Mar 04, 2015 - 5:48pm CTB - WW.CTB

JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.		DES: CB DRN: RS CKD: JF DATE: ####	<b>CITY of TAMPA</b> WASTEWATER DEPARTMENT	FY 2015 MANHOLE REHABILITATION MANHOLE DETAILS D, E AND F	W.O. 100509 SHEET 44 OF 46
	3					
	2					
	1					

- NOTES**
1. REMOVE BRICKS FROM THE TOP OF THE BENCH.
  2. INSTALL A MINIMUM 1" THICK 150# HYDRANTIC CONCRETE OVER EXISTING BENCH. MINIMUM TO CUR (MIN. 24 HRS. UNLESS OTHERWISE SPECIFIED BY THE ENGINEER).
  3. OVERLAY BENCHES WITH PROPOSED COATING SYSTEM.
  4. PROVIDE 6" COATING THICKNESS TRANSITION. PROVIDE THIS ITEM IS INCLUDED IN THE MANHOLE REHABILITATION COST PER VERTICAL FOOT.
  5. PROVIDE AN IN-SITU PROPOSED COATING SYSTEM ON BOTTOM OF PIPE LINING OR POLYETHYLENE GLASS FIBER REINFORCED CONCRETE. PROPOSED COATING THICKNESS SURFACE PREPARATION. COATING SYSTEM SHALL BE DONE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. INTERFERING WITH PIPE LINES. PROVIDE THIS ITEM IS INCLUDED IN THE MANHOLE BENCH RESTORATION TYPE.
  6. CONTRACTOR SHALL VERIFY EXISTING INTEGRITY OF PIPE LINING OR POLYETHYLENE GLASS FIBER REINFORCED CONCRETE THROUGHOUT MANHOLE.



Drawing Name: K:\WW\Projec\2015\2015\_15-C-00010 Manhole Rehabilitation\DWG\T-ILS\Miscellaneous Details.dwg  
 Layout: Mar 04, 2015 5:46pm CTB - WW.CTB

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D-S: CB  
 DRN: RS  
 CKD: JF  
 D-T: xxxxxx

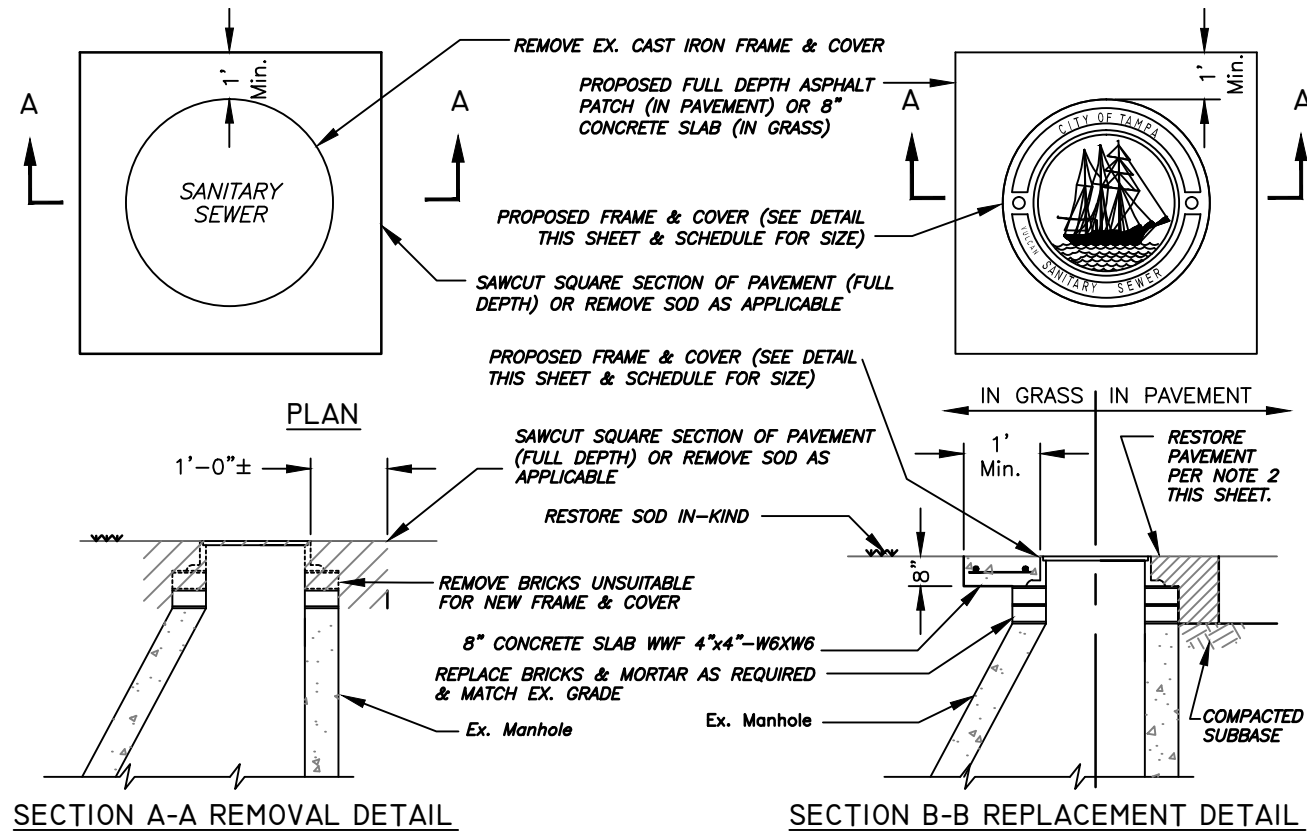
**CITY of TAMPA**  
 WASTEWATER DEPARTMENT

FY 2015 MANHOLE REHABILITATION  
 MISCELLANEOUS\_DETAILS

W.O. 100050  
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 45  
 0-46

**NOTES**

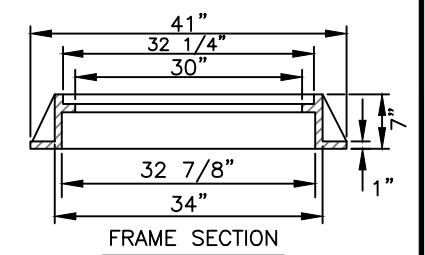
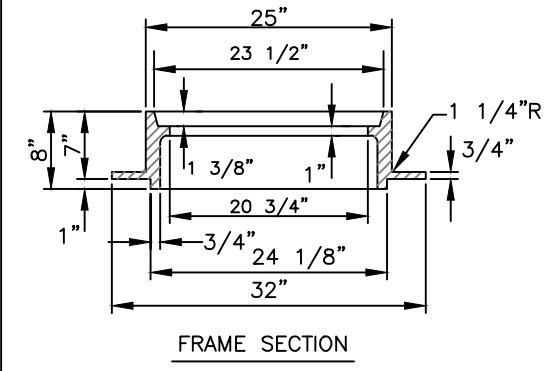
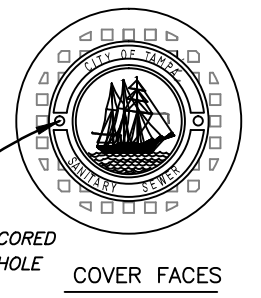
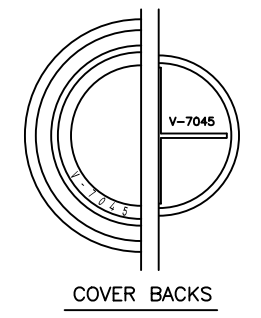
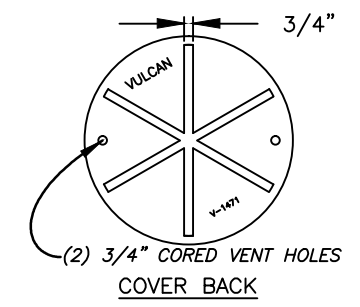
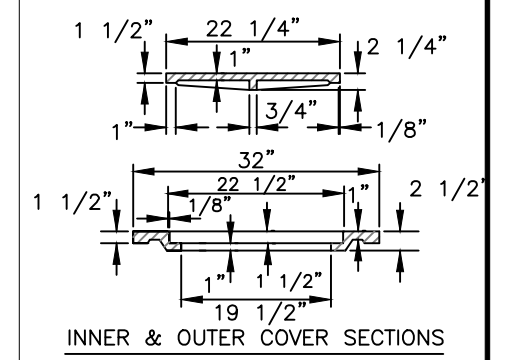
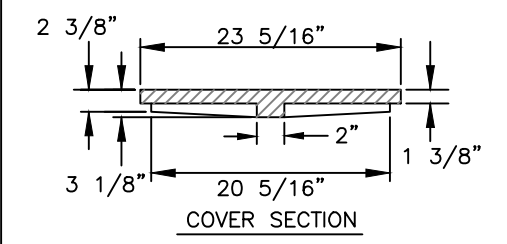
- FOR MANHOLE COVER SIZES AND WHETHER THE COVERS ARE LOCATED IN GRASS OR PAVEMENT, REFER TO THE MANHOLE REHABILITATION SCHEDULE.
- PAVEMENT RESTORATION SHALL CONSIST OF 8" ABC-3 ASPHALT BASE AND 2" TYPE S-1 ASPHALT PAYMENT. UNLESS OTHERWISE NOTED. IF LOCATED IN D.O.T. ROW, AN ADDITIONAL 1 1/2" SUPER PAVE ASPHALT IS REQUIRED.



**B085-0107**

**SMALL COVER DETAIL**

**LARGE COVER DETAIL**



FOR MH'S OF SEWERS 24" OR LESS IN DIAMETER:  
VULCAN FOUNDRY NO. V-1471,  
U.S. FOUNDRY NO. 575-AT, OR EQUAL

FOR MH'S OF SEWERS 27" OR GREATER IN DIAMETER:  
VULCAN FOUNDRY NO. V-7045,  
U.S. FOUNDRY NO. 230-AB-M, OR EQUAL

**HEAVY DUTY CAST IRON MANHOLE FRAME & COVER DETAILS**

User: ss1s Drawing Name: K:\WW\_Projects\2015\15-C-00010 Manhole Rehabilitation\DWG\DETAILS\Miscellaneous Details.dwg  
Layout: Mar 04, 2015 - 5:46pm CTB - WW.CTB

JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	
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DES: CB  
DRN: RS  
CKD: JF  
DATE: ####

**CITY of TAMPA**  
WASTEWATER DEPARTMENT

FY 2015 MANHOLE REHABILITATION  
MISCELLANEOUS DETAILS

W.O. 1000509  
SHEET  
46  
of 46