CONSTRUCTION DRAWINGS FOR
ORANGE COUNTY CLASS III LANDFILL
LANDFILL GAS MANAGEMENT SYSTEM HEADER EXPANSION
CELL 2 - 2019

MAY 2019

DRAWING TITLE	DRAWING NO.
GENERAL	
COVER SHEET	G1
SYMBOLS AND LEGEND	G2
AERIAL PHOTOGRAPH (2016)	G3
CIVIL	
SITE PLAN	C1
HEADER PROFILES - NORTH	C2
HEADER PROFILES - SOUTH (1 OF 2)	C3
HEADER PROFILES - SOUTH (2 OF 2)	C4
HEADER PROFILES - WEST	C5
DETAILS (1 OF 4)	C6
DETAILS (2 OF 4)	C7
DETAILS (3 OF 4)	C8
DETAILS (4 OF 4)	C9

VICINITY MAP

UTILITIES SOLID WASTE DIVISION
ORANGE COUNTY, FLORIDA

CIP # 4410-038-1106-0003
SEQ # 66786

S2Li
531 Versailles Drive, Suite 202
Maitland, Florida 32751
PH: (407) 475-9163 - FAX: (407) 475-9169
Certification of Authorization #7831

BOARD OF COUNTY COMMISSIONERS

JERRY DEMINGS
ORANGE COUNTY MAYOR

BETSY VANDERLEY
DISTRICT 1

MARIBEL CORDERO
DISTRICT 4

BYRON BROOKS
COUNTY ADMINISTRATOR

CHRISTINE MOORE
DISTRICT 2

EMILY BONILLA
DISTRICT 5

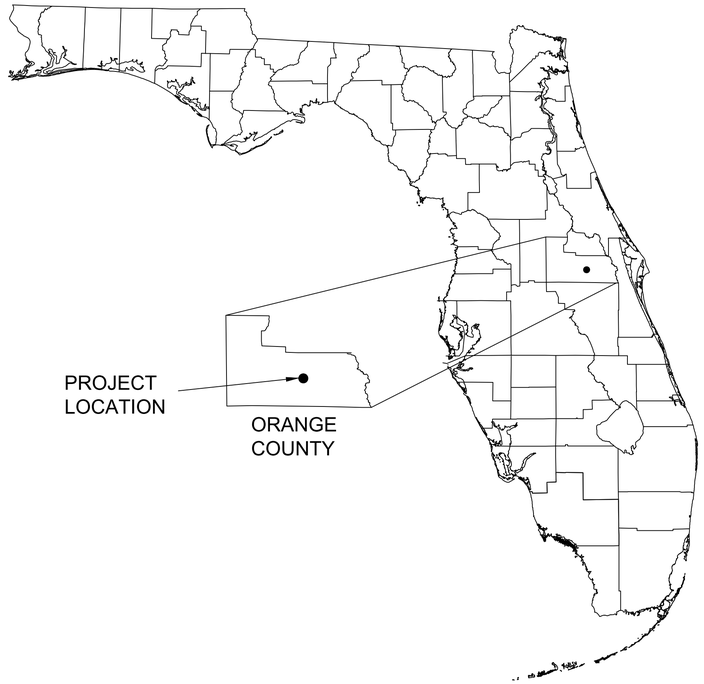
RAY HANSON, P.E.
DIRECTOR, ORANGE COUNTY UTILITY DEPARTMENT

MAYRA URIBE
DISTRICT 3

VICTORIA SIPLIN
DISTRICT 6

DAVID GREGORY
MANAGER, SOLID WASTE DIVISION

REGIONAL MAP



Robert E. Mackey, P.E.
Florida Registration # 40176
Signature
Date

REV No	DATE	DRAWN BY	CHKD BY	REMARKS

ORANGE COUNTY GOVERNMENT FLORIDA

COVER SHEET
LFG HEADER EXPANSION
CLASS III LANDFILL
ORANGE COUNTY, FLORIDA

S2Li
531 Versailles Drive, Suite 202
Maitland, Florida 32751
(407) 475-9163 FAX 475-9169
Certification of Authorization # 7831

DRAWING NO.
G1

\\File-Server\Data\Working Files\Drawing files\Orange County\17-737 Class III LFG Expansion\Production Drawings\G1-Coversheet.dwg May 07,2019 - 8:53 am

LEGEND

EXISTING		PROPOSED		PROPOSED	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	LIMEROCK ROAD		SILT FENCE		GATE VALVE
	PAVED ROAD		LEACHATE COLLECTION LATERAL		CULVERT
	UNPAVED ROAD	200	CONTOUR		PRIMARY LEACHATE COLLECTION HEADER
200	CONTOUR		BENTONITE GROUT		SECONDARY LEACHATE COLLECTION HEADER
	GENERAL BACKFILL SOILS	EL. 139.70	INVERT ELEVATION OF LATERAL		LEACHATE FORCEMAIN
	STRUCTURE		FDOT NO. 57 STONE		PLUG VALVE
	TREE		COMPACTED SUBGRADE		GAS MONITORING PROBE
PL	PROPERTY BOUNDARY		GENERAL BACKFILL SOILS		CELL BOUNDARY LINES
	EDGE OF WATER		DITCH	PS	PUMP STATION
	LEACHATE FORCEMAIN		PROTECTIVE SOIL		CONDENSATE SUMP
	DITCH		DRAINAGE SAND		STUB-OUT WITH BLIND FLANGE
	LINER CONTAINMENT BERM		GEOMEMBRANE LINER		HDPE AIRLINE
MH	MANHOLE		COMPOSITE DRAINAGE NET (CDN)		HEADER PIPE HIGH POINT
CO	CLEANOUT		GEOSYNTHETIC CLAY LINER		
	WASTE		GEOTEXTILE		
	UTILITY POLE		STORMWATER CONTROL FLAP		
MW-17	GROUNDWATER MONITORING WELL		ROAD		
GP-17	GAS MONITORING PROBE	CO	CLEANOUT		
PS	PUMP STATION	37	STAKING POINT		
	WASTE LIMIT	TS	TOE OF SLOPE		
	TOE DRAIN	TB	TOP OF BERM		
	CULVERT	CB	CELL BOTTOM		
	CONCRETE		LINER CONTAINMENT BERM		
	PRIMARY LEACHATE COLLECTION HEADER		SOIL BERM		
	SECONDARY LEACHATE COLLECTION HEADER		LIMITS OF CONSTRUCTION		
		× 10.1'	SPOT ELEVATION		
			UTILITY POLE		
			SILT FABRIC		
			GFFR		
			LINER LIMIT		
		MW-28	GROUNDWATER MONITORING WELL		
			TOE DRAIN		

	OTHER ITEMS
SYMBOL	DESCRIPTION
1 / 2 3	DETAIL CALLOUT DETAIL 1 PRESENTED ON DRAWING 3 WAS REFERENCED FOR THE FIRST TIME ON DRAWING 2
1 / 2 3	CROSS SECTION CALLOUT SECTION 1 PRESENTED ON DRAWING 3 WAS REFERENCED FOR THE FIRST TIME ON DRAWING 2
(NIC)	NOT IN CONTRACT

GENERAL NOTES:

1. PATTERN AND LINE SCALES MAY BE SLIGHTLY DIFFERENT ON INDIVIDUAL DRAWINGS.
2. ALL ELEVATIONS HAVE BEEN REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29). NORTHING-EASTING COORDINATES SET IN FLORIDA STATE PLANE: EAST ZONE.
3. THIS IS A GENERAL LEGEND. ALL PATTERNS AND SYMBOLS SHOWN ON THIS SHEET MAY NOT BE USED IN THE DRAWING SET.
4. FOR CONTRACTOR'S ACCESS AND MATERIAL HAULING, THE CONTRACTOR MAY USE MAIN ACCESS, SECONDARY ACCESS, AND LIMEROCK ROADS, AS SHOWN ON THE SITE AERIAL (DRAWING G-3).
5. DURING CONSTRUCTION, THE CONTRACTOR'S MATERIAL HAULING TRUCKS AND OTHER VEHICULAR TRAFFIC SHALL OBEY ON-SITE SPEED LIMITS AND TRAFFIC SIGNS, NOT STOP OR PARK ALONG THE MAIN ENTRANCE ROAD, AND NOT INTERFERE WITH SOLID WASTE OPERATION AND/OR CONSTRUCTION TRAFFIC INCLUDING SOLID WASTE DELIVERY AND OPERATION VEHICLES TO AND FROM THE CLASS III LANDFILL OPERATION.
6. CONTRACTOR MAY BYPASS SCALES WHEN BRINGING CONSTRUCTION MATERIALS ON SITE. HOWEVER, THE CONTRACTOR MUST HAVE A REPRESENTATIVE ON-SITE AT ALL TIMES TO RECEIVE DELIVERIES. COUNTY STAFF SHALL NOT ACCEPT OR TAKE RESPONSIBILITY FOR CONTRACTOR DELIVERIES.
7. NO USABLE DIRT OR BORROW MAY BE REMOVED FROM SITE. ALL CONTRACTOR -GENERATED CONSTRUCTION WASTE SHALL BE DISPOSED PROPERLY ON-SITE AT A LOCATION APPROVED BY THE OWNER. CONTRACTOR SHALL NOT BE CHARGED A TIPPING FEE.
8. ANY EXCAVATED WASTE SHALL BE TRANSPORTED TO THE ON SITE CLASS I LANDFILL FOR DISPOSAL.
9. SOLID WASTE IN LANDFILLS DECOMPOSES, MOVES, SETTLES AND COMPACTS WITH TIME. THE ELEVATIONS SHOWN FROM THE MOST RECENT TOPOGRAPHIC AERIAL SURVEY MAY NOT REPRESENT ACTUAL SITE CONDITIONS AT THE TIME OF CONSTRUCTION.
10. THE GENERAL LOCATION OF CONTRACTOR'S STAGING AREA IS SHOWN ON THE SITE AERIAL (DRAWING G-3). THE OWNER AND CONTRACTOR WILL COORDINATE ON FINAL BOUNDARIES OF CONTRACTOR'S STAGING AREA AT THE PRE-CONSTRUCTION MEETING. THE STAGING AREA SHALL BE RESTORED PRIOR TO SUBSTANTIAL COMPLETION OF THE PROJECT. THE RESTORATION SHALL INCLUDE CLEANING OF ALL STORMWATER INLETS, PIPES AND DITCHES AND RESTORATION OF ALL AFFECTED ROADWAYS AND VEGETATION.
11. DAMAGE TO THE EXISTING LFG CONTROL SYSTEM, EXISTING STORMWATER SYSTEM OR ANY OTHER SITE FEATURES SHALL BE REPAIRED AS QUICKLY AS POSSIBLE AT NO COST TO, AND TO THE SATISFACTION OF, THE OWNER.

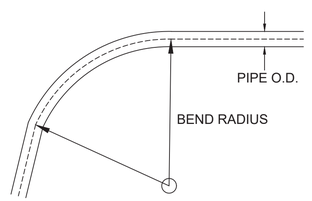
MINIMUM ALLOWABLE BEND RADIUS FOR HDPE PIPE INSTALLED IN AN OPEN CUT TRENCH (SAFETY FACTOR OF 2:1)

NOMINAL OUSIDE DIAMETER, IN	2			4			6			8			10			12			14			16			18			24			36			48
ACTUAL OUTSIDE DIAMETER, IN	2.38			4.5			6.625			8.625			10.75			12.75			14			16			18			24			36			48
SDR	9	11	17	9	11	17	9	11	17	9	11	17	9	11	17	9	11	17	9	11	17	9	11	17	9	11	17	9	11	17	9	11	17	17
[1,2]MINIMUM ALLOWABLE BEND RADIUS, FT	8	10	11	15	19	20	22	28	30	29	36	39	36	45	48	43	53	57	47	58	63	53	67	72	60	75	81	80	100	108	120	150	162	216

[1]THE MINIMUM ALLOWABLE HDPE BEND RATIOS USED IN THIS TABLE ARE BASED ON INFORMATION PROVIDED IN "POLYETHYLENE PIPING SYSTEMS FIELD MANUAL FOR MUNICIPAL WATER APPLICATIONS", PLASTIC PIPING INSTITUTE, 2009 .

[2]THE MINIMUM ALLOWABLE BEND RADIUS IS DETERMINED UTILIZING THE FOLLOWING EQUATION: MINIMUM RADIUS OF CURVATURE = R_B * PIPE O.D. NOTE THAT S2Li ADDED A FACTOR OF SAFETY OF 2:1 TO THE MINIMUM ALLOWABLE BEND RADIUS VALUES PROVIDED IN THE FIELD MANUAL.

[3]THE MINIMUM BEND RADIUS IS 100 X PIPE OUTSIDE DIAMETER (O.D.) WHEN A FITTING OR FLANGE IS PRESENT IN THE BEND. THIS BEND RADIUS SHALL BE MAINTAINED FOR A DISTANCE OF 5 X PIPE O.D. IN EACH DIRECTION FROM THE FITTING OR FLANGE.



Robert E. Mackey, P.E.
Florida Registration # 40176
Signature
Date

REV No	DATE	DRAWN BY	CHKD BY	REMARKS

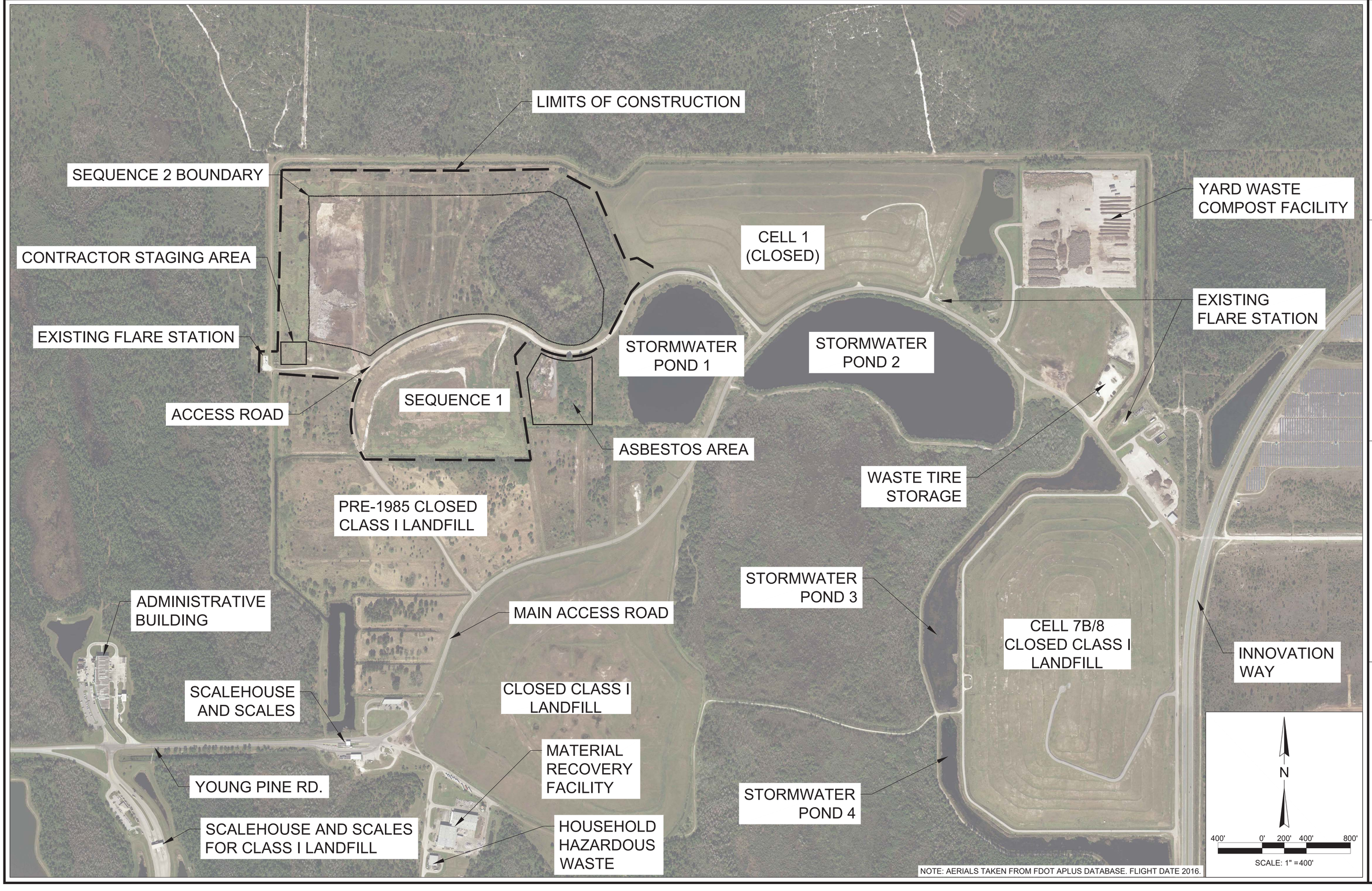
ORANGE COUNTY GOVERNMENT FLORIDA

SYMBOLS AND LEGEND
LFG HEADER EXPANSION
CLASS III LANDFILL
ORANGE COUNTY, FLORIDA

S2Li
531 Versailles Drive, Suite 202
Maitland, Florida 32751
(407) 475-9163 FAX 475-9169
Certification of Authorization # 7831

DRAWING NO.
G2

\\FILE-SERVER\Data\Working Files\Drawing files\Orange County\17-737 Class III LFG Expansion\Production Drawings\G2-Legend.dwg Apr 26,2019 - 3:24 pm



NOTE: AERIALS TAKEN FROM FDOT APLUS DATABASE. FLIGHT DATE 2016.

Signature Date

Robert E. Mackey, P.E.
Florida Registration # 40176

REV No	DATE	DRAWN BY	CHKD BY	REMARKS

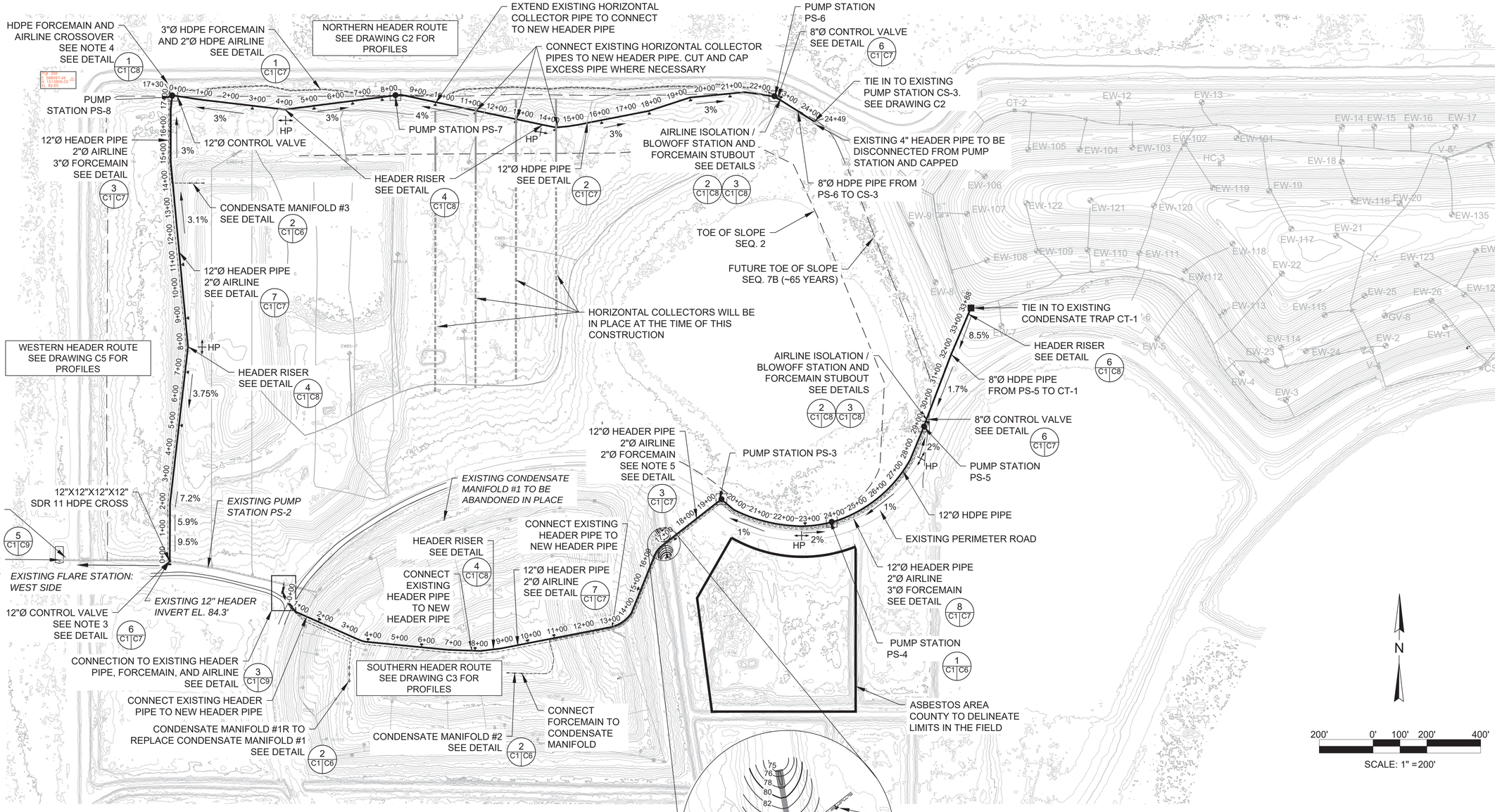
ORANGE COUNTY GOVERNMENT FLORIDA

AERIAL PHOTOGRAPH (2016)
LFG HEADER EXPANSION
CLASS III LANDFILL
ORANGE COUNTY, FLORIDA

S2li
531 Versailles Drive, Suite 202
Maitland, Florida 32751
(407) 475-9163 FAX 475-9169
Certification of Authorization # 7831

DRAWING NO.
G3

\\FILE-SERVER\Data\Working Files\Drawing files\Orange County\17-737 Class III LFG Expansion\Production Drawings\G3-Aerial Photograph.dwg Apr 26,2019 - 3:24 pm



NOTES:

1. REFER TO DRAWING G2 FOR SYMBOL IDENTIFICATION.
2. HEADER PIPE TO BE 12" DIAMETER EXCEPT WHERE OTHERWISE NOTED.
3. ALL ABOVE GROUND STRUCTURES INCLUDING VALVES, STUB-OUTS, BLOW-OFFS, AND PUMP STATIONS TO HAVE BOLLARDS PLACED ACCORDING TO DETAIL 4 ON DRAWING C5.
4. FORCEMAIN AND AIRLINE CROSSOVERS TO BE CONSTRUCTED AT EACH PUMP STATION.
5. MITERED END SECTIONS TO BE CONSTRUCTED IN ACCORDANCE WITH FDOT INDEX NO. 272.
6. EXISTING 4" HEADER PIPE LOCATED ON THE NORTH SIDE OF THE LANDFILL TO BE CUT AND CAPPED AS NECESSARY FOR NEW HEADER PIPE PLACEMENT.

Robert E. Mackey, P.E.
Florida Registration # 40176
Signature
Date

REMARKS
REV | DATE | DRAWN BY | CHKD BY

ORANGE COUNTY GOVERNMENT FLORIDA

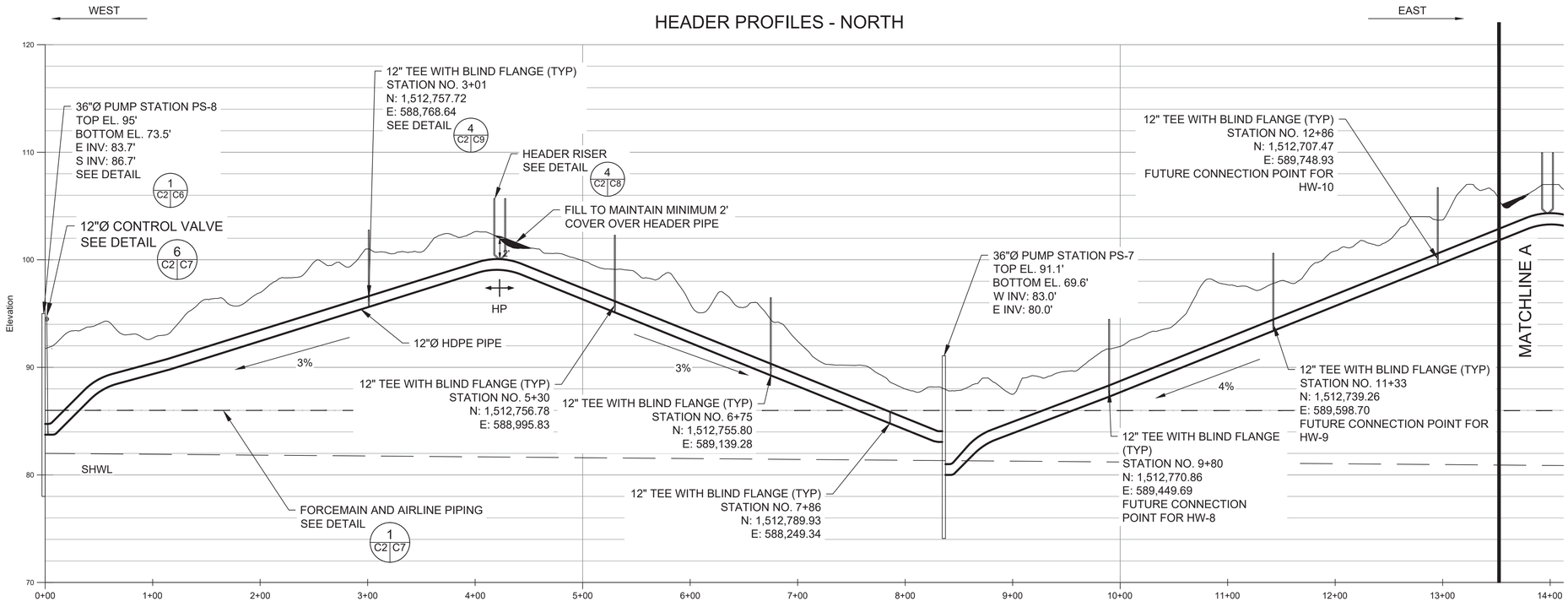
SITE PLAN
LFG HEADER EXPANSION
ORANGE COUNTY CLASS III LANDFILL
ORANGE COUNTY, FLORIDA

531 Versailles Drive, Suite 202
Maitland, Florida 32751
(407) 475-9163 FAX 475-9169
Certification of Authorization # 7831

DRAWING NO.
C1

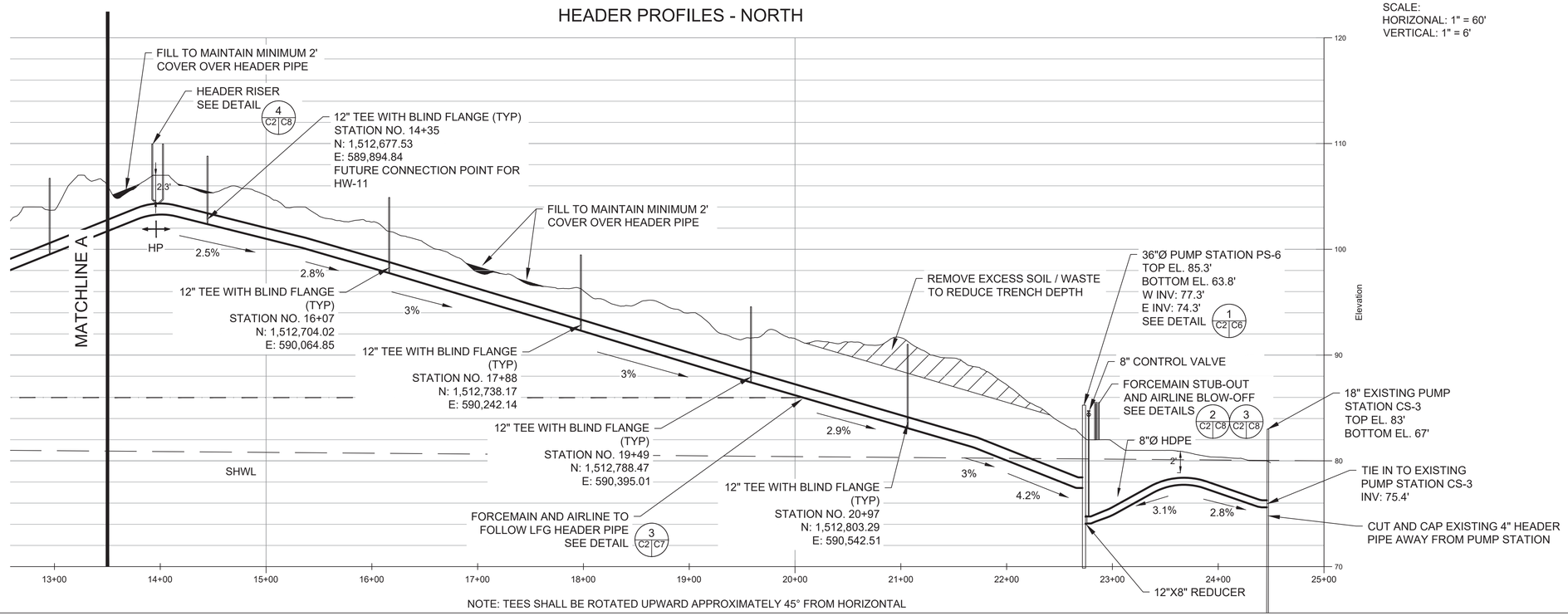
\\File-Server\Data\Working Files\Drawing files\Orange County\17-737 Class III LFG Expansion\Production Drawings\C1-C4-Header Design 4-25-19.dwg Apr 26, 2019 - 3:24 pm

HEADER PROFILES - NORTH



HEADER PROFILES - NORTH

SCALE:
HORIZONAL: 1" = 60'
VERTICAL: 1" = 6'



NOTE: VERTICAL SCALE IS EXAGGERATED BY A FACTOR OF 10. DUE TO THE EXAGGERATED SCALE IT MAY APPEAR THAT ANGLED FITTINGS WILL BE REQUIRED IN AREAS IN WHICH THEY ARE NOT.

NOTE: TEES SHALL BE ROTATED UPWARD APPROXIMATELY 45° FROM HORIZONTAL

Robert E. Mackey, P.E.
Florida Registration # 40176
Signature
Date

REV No	DATE	DRAWN BY	CHKD BY	REMARKS

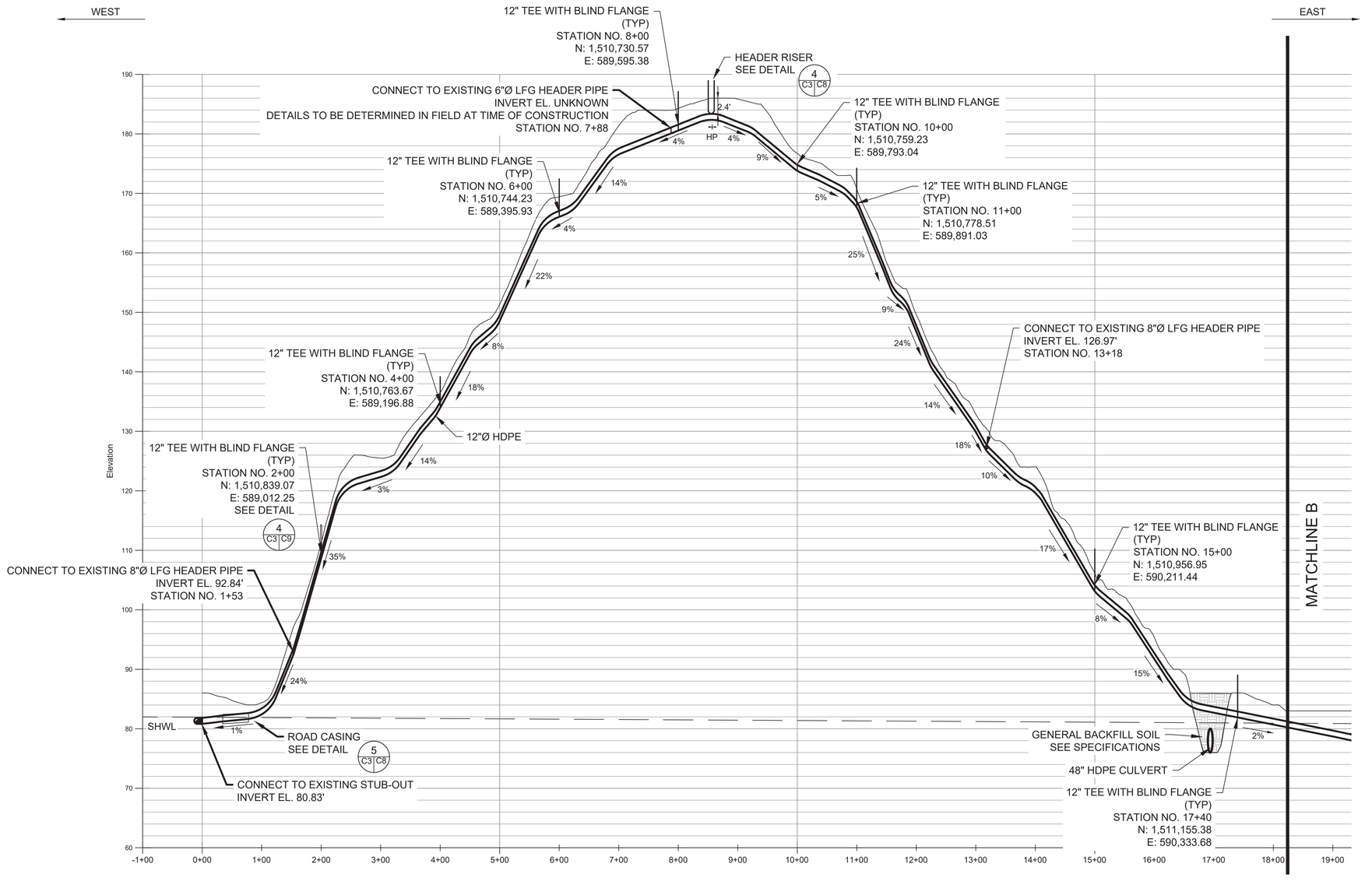
ORANGE COUNTY GOVERNMENT FLORIDA

HEADER PROFILES - NORTH
LFG HEADER EXPANSION
ORANGE COUNTY CLASS III LANDFILL
ORANGE COUNTY, FLORIDA

531 Versailles Drive, Suite 202
Maitland, Florida 32751
(407) 475-9163 FAX 475-9169
Certification of Authorization # 7831

DRAWING NO.
C2

HEADER PROFILES - SOUTH



SCALE:
HORIZONAL: 1" = 100'
VERTICAL: 1" = 10'

NOTE: VERTICAL SCALE IS EXAGGERATED BY A FACTOR OF 10. DUE TO THE EXAGGERATED SCALE IT MAY APPEAR THAT ANGLED FITTINGS WILL BE REQUIRED IN AREAS IN WHICH THEY ARE NOT.

Signature
Date
Robert E. Mackey, P.E.
Florida Registration # 40176

REV No	DATE	DRAWN BY	CHKD BY	REMARKS

ORANGE COUNTY GOVERNMENT FLORIDA

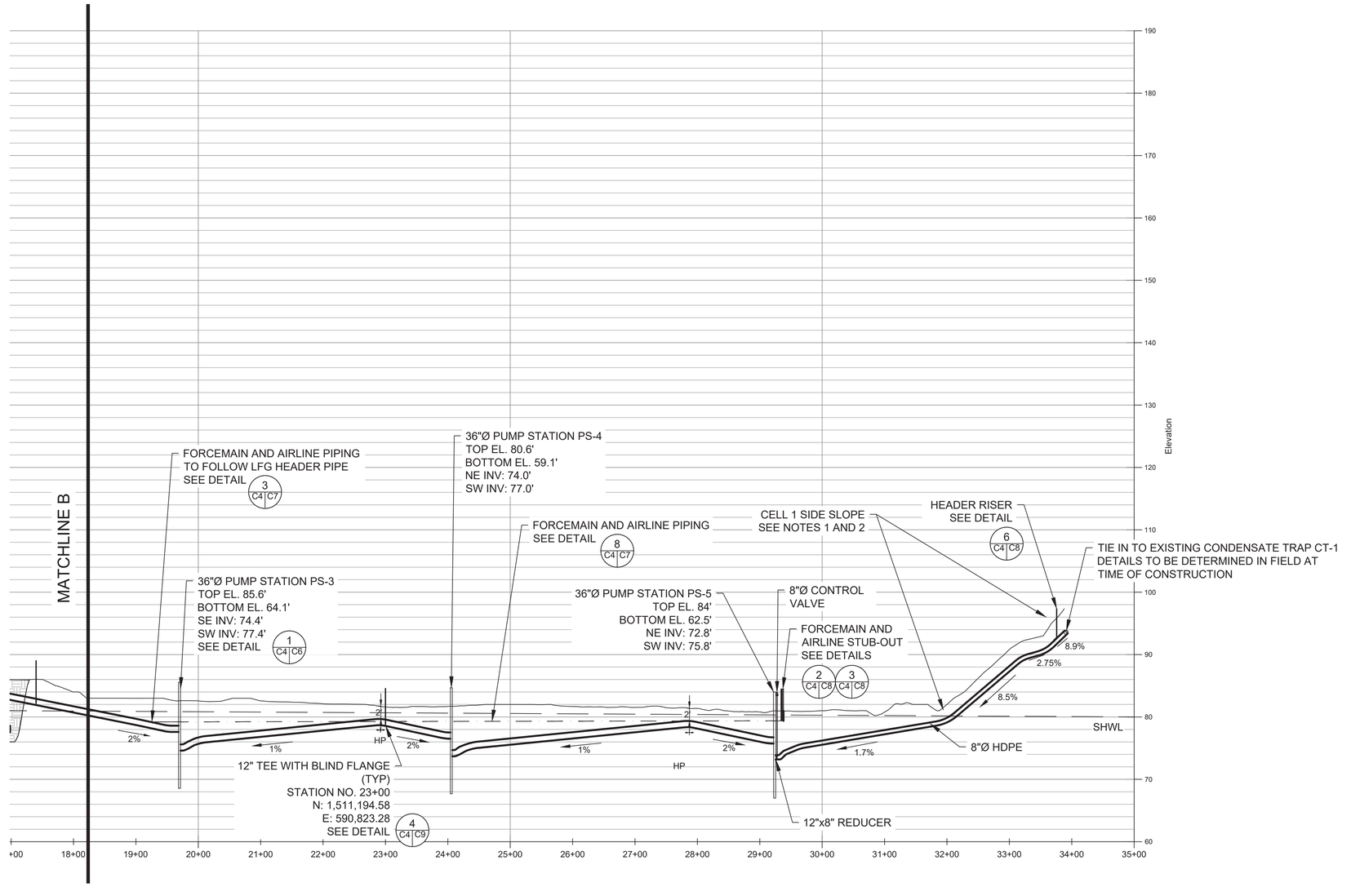
HEADER PROFILES - SOUTH (1 OF 2)
LFG HEADER EXPANSION
ORANGE COUNTY CLASS III LANDFILL
ORANGE COUNTY, FLORIDA

531 Versailles Drive, Suite 202
Maitland, Florida 32751
(407) 475-9163 FAX 475-9169
Certification of Authorization # 7831

DRAWING NO.
C3

\File-Server\Data\Working Files\Drawing files\Orange County\17-737 Class III LFG Expansion\Production Drawings\C1-C4-Header Design 4-25-19.dwg Apr 26,2019 - 3:24 pm

HEADER PROFILES - SOUTH



NOTES:

1. HEADER PIPE TO BE PLACED ON OR ABOVE TOP LINER OF CELL 1. DEPTH OF LINER BELOW SURFACE TO BE VERIFIED BY CONTRACTOR. ANY DAMAGE TO THE LINER TO BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.
2. DISTURBED AREA ON CELL 1 SIDE SLOPE IS TO BE SODDED.
3. VERTICAL SCALE IS EXAGGERATED BY A FACTOR OF 10. DUE TO THE EXAGGERATED SCALE IT MAY APPEAR THAT ANGLED FITTINGS WILL BE REQUIRED IN AREAS IN WHICH THEY ARE NOT.

SCALE:
HORIZONAL: 1" = 100'
VERTICAL: 1" = 10'

Signature
Date
Robert E. Mackey, P.E.
Florida Registration # 40176

REV No	DATE	DRAWN BY	CHKD BY	REMARKS

ORANGE COUNTY GOVERNMENT FLORIDA

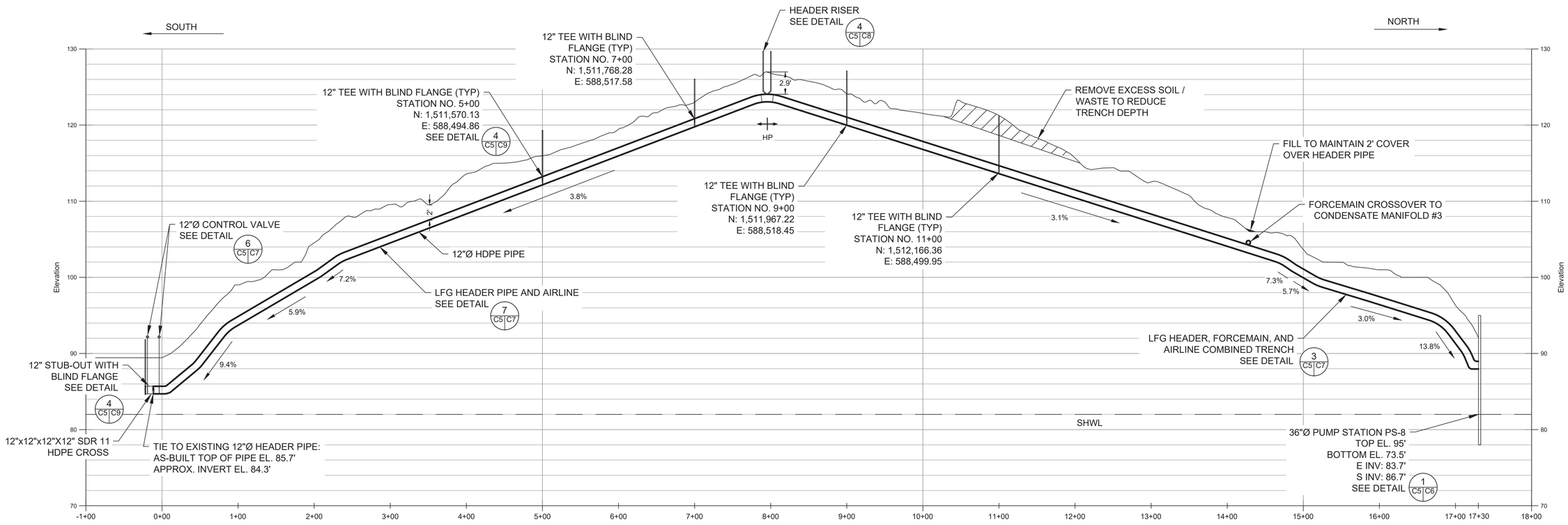
HEADER PROFILES - SOUTH (2 OF 2)
LFG HEADER EXPANSION
ORANGE COUNTY CLASS III LANDFILL
ORANGE COUNTY, FLORIDA

531 Versailles Drive, Suite 202
Maitland, Florida 32751
(407) 475-9163 FAX 475-9169
Certification of Authorization # 7831

DRAWING NO.
C4

\File-Server\Data\Working Files\Drawing files\Orange County\17-737 Class III LFG Expansion\Production Drawings\C1-C4-Header Design 4-25-19.dwg Apr 26, 2019 - 3:24 pm

HEADER PROFILES -WEST



SCALE:
HORIZONAL: 1" = 70'
VERTICAL: 1" = 7'

NOTE: VERTICAL SCALE IS EXAGGERATED BY A FACTOR OF 10. DUE TO THE EXAGGERATED SCALE IT MAY APPEAR THAT ANGLED FITTINGS WILL BE REQUIRED IN AREAS IN WHICH THEY ARE NOT.

Robert E. Mackey, P.E.
Florida Registration # 40176
Signature
Date

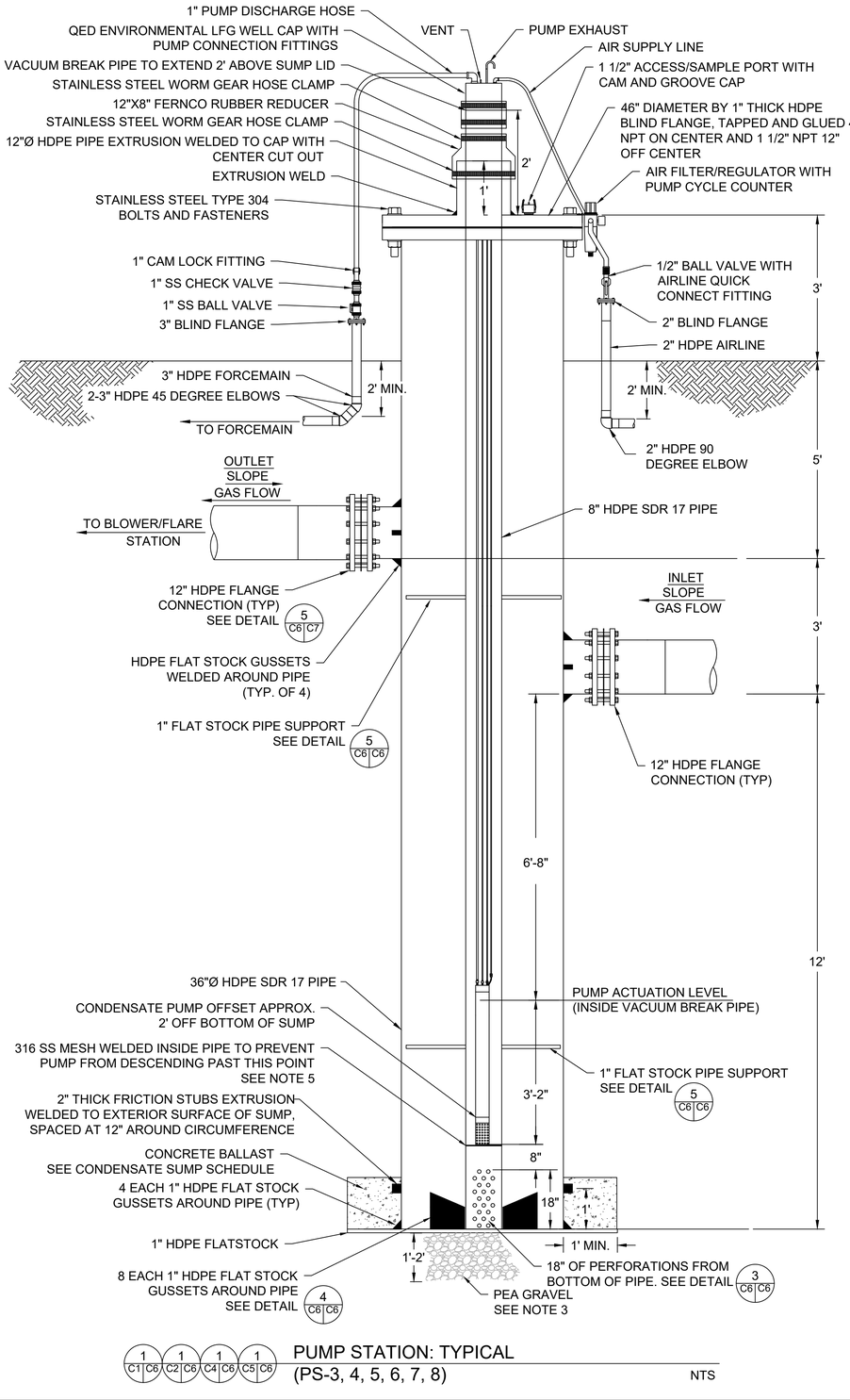
REV No	DATE	DRAWN BY	CHKD BY	REMARKS

ORANGE COUNTY GOVERNMENT FLORIDA

HEADER PROFILES - WEST
LFG HEADER EXPANSION
ORANGE COUNTY CLASS III LANDFILL
ORANGE COUNTY, FLORIDA

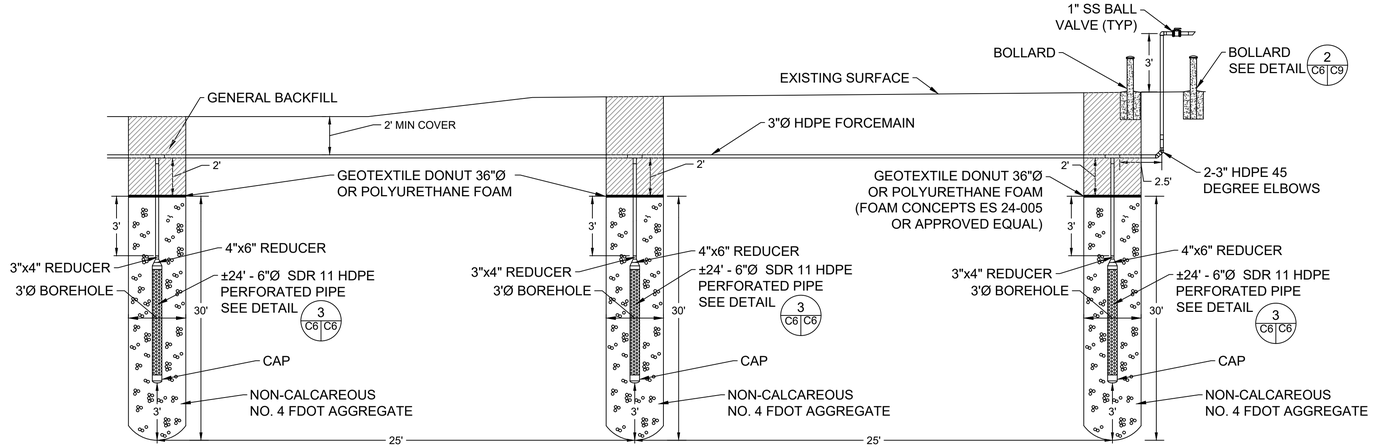
531 Versailles Drive, Suite 202
Maitland, Florida 32751
(407) 475-9163 FAX 475-9169
Certification of Authorization # 7831

DRAWING NO.
C5



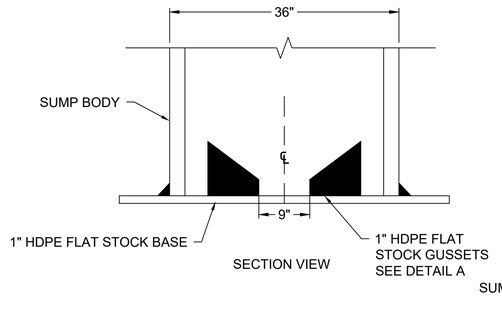
1 C1 C6 | 1 C2 C6 | 1 C4 C6 | 1 C5 C6 PUMP STATION: TYPICAL (PS-3, 4, 5, 6, 7, 8)

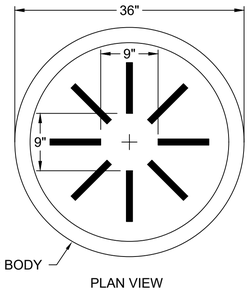
NTS

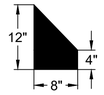


2 C1 C6 CONDENSATE MANIFOLD DETAIL

NTS

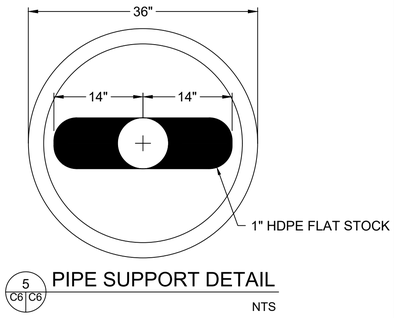






4 C6 C6 GUSSET DETAIL

NTS



5 C6 C6 PIPE SUPPORT DETAIL

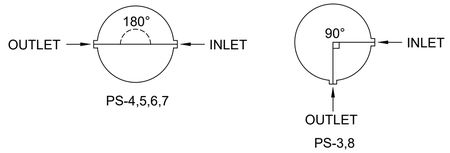
NTS

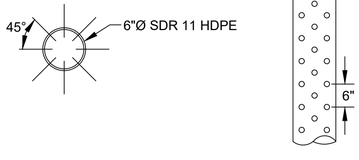
A C8 C8 GUSSET DIMENSIONS

NTS

Condensate Pump Station Schedule

ID	Location		Invert Elevations (ft)		Pump Station Elevations (ft)		Concrete Ballast Minimum Requirements	
	Northing	Easting	Inlet	Outlet	Top	Bottom	Volume (cy)	Height (ft)
PS-3	1,511,470.45	589,958.95	SE 74.0	SW 77.0	85.0	62.0	2.4	5.1
PS-4	1,511,294.85	590,511.61	E 74.4	W 77.4	85.6	62.6	2.3	4.9
PS-5	1,511,210.38	590,921.53	NE 74.0	SW 77.0	80.6	57.6	3.1	6.7
PS-6	1,511,565.08	591,264.71	NE 72.8	SW 75.8	84.0	61.0	2.5	5.5
PS-7	1,512,727.20	590,848.14	E 74.3	W 77.3	85.3	62.3	2.3	5.0
PS-8	1,512,797.13	589,299.63	E 80.0	W 83.0	91.1	68.1	1.4	3.0





3 C6 C6 6"Ø OR 8"Ø HDPE PERFORATED PIPE DETAIL

NTS

PUMP STATION NOTES:

1. 8"Ø HDPE SDR 17 PIPE TO EXTEND THROUGH 12" HOLE IN CENTER OF BLIND FLANGE. (SUMP CONSTRUCTED BY ISCO OR APPROVED EQUAL)
2. ALL HARDWARE (BOLTS, STUDS, NUTS, FITTINGS, ETC.) SHALL BE STAINLESS STEEL (SS) TYPE 316. BACKUP RINGS TO BE EPOXY COATED DUCTILE IRON.
3. BOREHOLE TO BE OVERDRILLED BY 1 TO 2 FEET THEN FILLED WITH PEA GRAVEL TO THE BASE OF THE FLAT STOCK.
4. PERFORATED VACUUM BREAK PIPE TO BE CONSTRUCTED AS A SEPARATE, REMOVABLE PIECE.
5. MESH SHALL BE 316 STAINLESS STEEL, WOVEN, MESH SIZE 2X2, MINIMUM WIRE DIAMETER 0.047"

CONDENSATE PUMP STATION SCHEDULE NOTES:

1. CONCRETE BALLAST VOLUMES SHOWN ARE THE MINIMUM REQUIRED AMOUNTS. A LARGER VOLUME MAY BE USED FOR EASE OF MEASUREMENT.
2. CONCRETE BALLAST HEIGHTS SHOWN ARE MEASURED FROM THE FLATSTOCK AT THE BASE OF THE SUMP AND ASSUME A 5' DIAMETER BOREHOLE. THESE HEIGHTS ARE PROVIDED AS A GENERAL GUIDE BASED ON THE MINIMUM REQUIRED VOLUME OF CONCRETE. IF THE BOREHOLE DIAMETER IS LARGER THAN 5' THE HEIGHT OF THE POURED CONCRETE WILL BE LESS THAN SHOWN.
3. THE HEIGHT OF THE POURED CONCRETE IS NOT TO EXCEED 10' ABOVE THE BASE PLATE IN ORDER TO ALLOW ACCESS TO THE BLIND FLANGE BOLTS ON THE SUMP INLET.

REFER TO DRAWING G2 FOR LEGEND.

Robert E. Mackey, P.E.
Florida Registration # 40176
Signature
Date

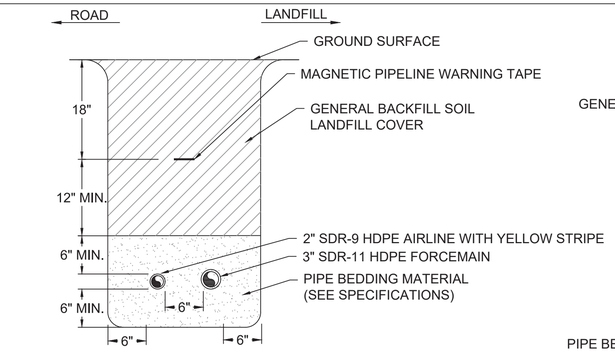
REV No	DATE	DRAWN BY	CHKD BY	REMARKS

ORANGE COUNTY GOVERNMENT FLORIDA

DETAILS (1 OF 4)
ORANGE COUNTY CLASS III LANDFILL
ORANGE COUNTY, FLORIDA

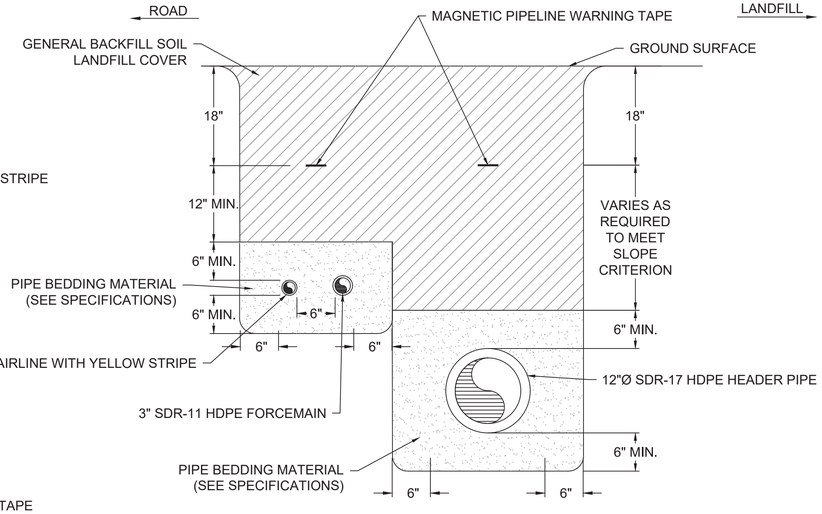
531 Versailles Drive, Suite 202
Maitland, Florida 32751
(407) 475-9163 FAX 475-9169
Certification of Authorization # 7831

DRAWING NO.
C6

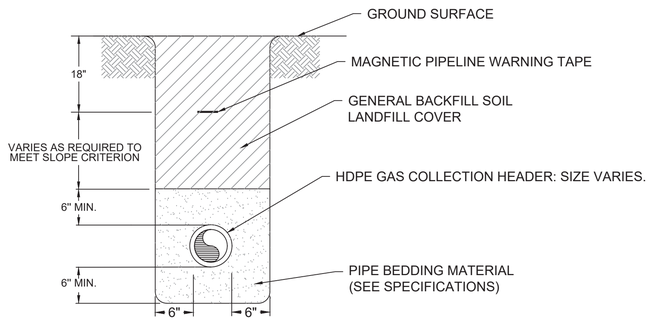


1 C1 C7 | 1 C2 C7 — FORCEMAIN AND AIRLINE TRENCH DETAIL — NTS

NOTE: FORCEMAIN TO BE INSTALLED ON THE LANDFILL SIDE (INSIDE) OF THE TRENCH. AIRLINE TO BE INSTALLED ON THE ROAD SIDE (OUTSIDE) OF THE TRENCH.

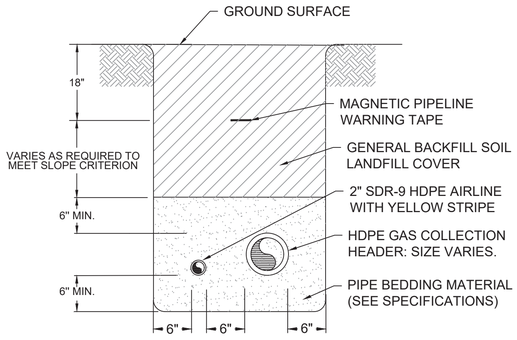


8 C1 C7 | 8 C4 C7 — COMBINED PIPING TRENCH DETAIL — NTS

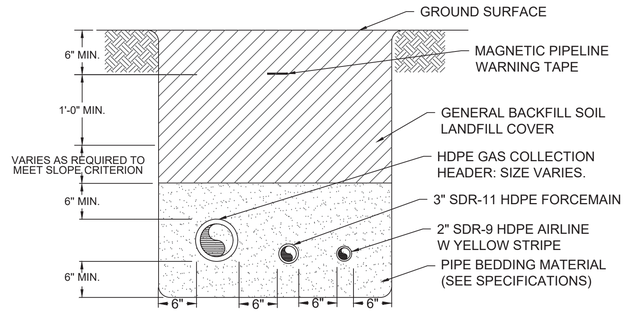


2 C1 C7 — HEADER TRENCH DETAIL — NTS

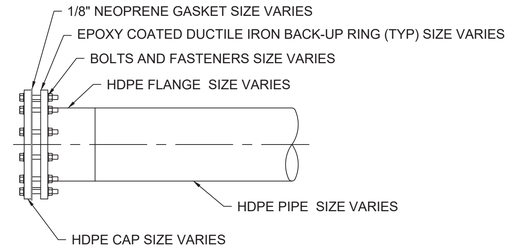
NO FORECEMAIN OR AIRLINE



7 C1 C7 | 7 C5 C7 — AIRLINE AND HEADER TRENCH DETAIL — NTS

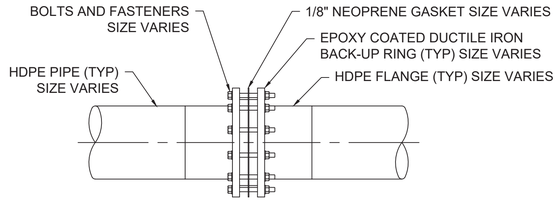


3 C1 C7 | 3 C2 C7 | 3 C4 C7 | 3 C5 C7 | 3 C9 C7 — COMBINED PIPING TRENCH DETAIL — NTS



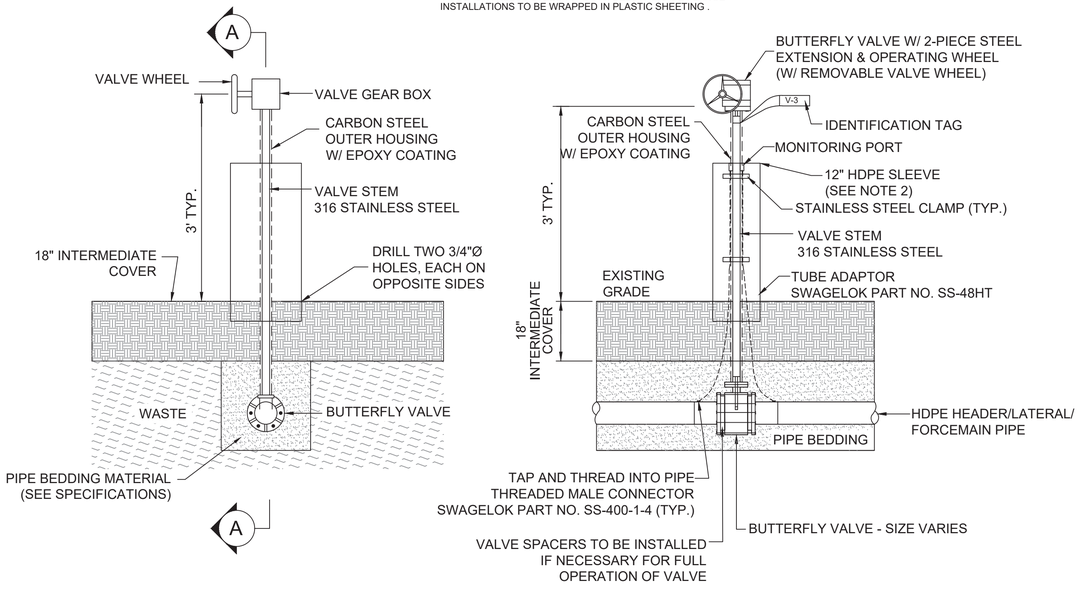
4 C8 C7 | 4 C9 C7 — BLIND FLANGE CONNECTION DETAIL — NTS

NOTE: BELOW GRADE FLANGE NUTS, BOLTS, STUDS, AND WASHERS TO BE STAINLESS STEEL TYPE 316. BELOW GRADE FLANGE INSTALLATIONS TO BE WRAPPED IN PLASTIC SHEETING .



5 C6 C7 | 5 C9 C7 — FLANGE CONNECTION DETAIL — NTS

NOTE: BELOW GRADE FLANGE NUTS, BOLTS, STUDS, AND WASHERS TO BE STAINLESS STEEL TYPE 316. BELOW GRADE FLANGE INSTALLATIONS TO BE WRAPPED IN PLASTIC SHEETING .



SECTION A-A

NOTES:
1. ALL VALVES SHALL BE INSPECTED BY OWNER'S REPRESENTATIVE PRIOR TO BACKFILL.
2. HDPE SLEEVE SHALL BE EMBEDDED AT LEAST 6" INTO THE COMPACTED SOIL LAYER AND TERMINATE AT THE SAME ELEVATION AS THE SAMPLING PORTS.
3. HEADER VALVES TO BE 8"Ø OR 12"Ø DEPENDING ON LOCATION AND HEADER PIPE SIZE. REFER TO DRAWING C1 FOR LOCATIONS.

6 C1 C7 | 6 C2 C7 | 6 C5 C7 — TYPICAL CONTROL VALVE DETAIL — NTS

REFER TO DRAWING G-2 FOR LEGEND.

Date

Signature

Robert E. Mackey, P.E.
Florida Registration # 40176

REV	DATE	DRAWN BY	CHKD BY	REMARKS
NA				

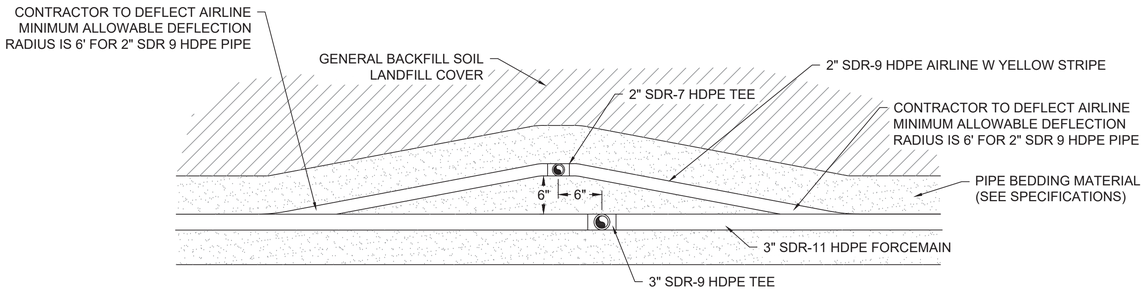
ORANGE COUNTY GOVERNMENT FLORIDA

DETAILS (2 OF 4)
ORANGE COUNTY CLASS III LANDFILL
ORANGE COUNTY, FLORIDA

531 Versailles Drive, Suite 202
Maitland, Florida 32751
(407) 475-9163 FAX 475-9169
Certification of Authorization # 7831

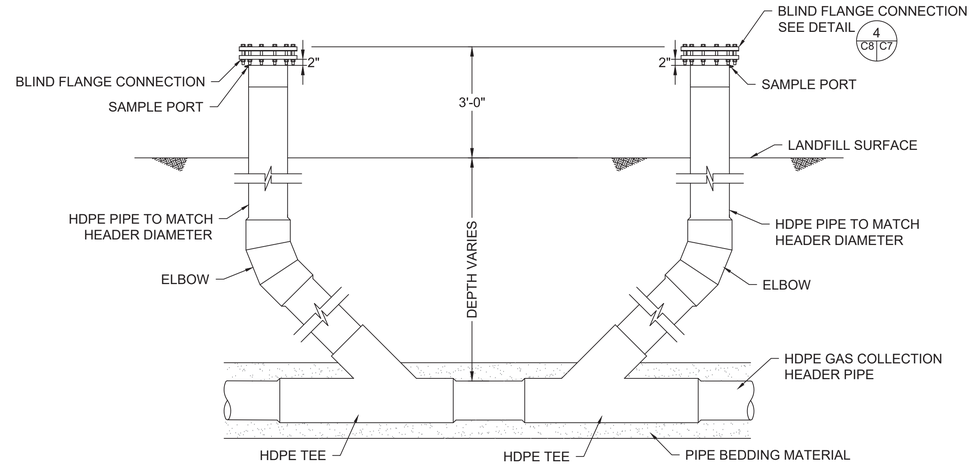
DRAWING NO.
C7

\File-Server\Data\Working Files\Drawing files\Orange County\17-737 Class III LFG Expansion\Production Drawings\C6-C8-Details.dwg Apr 26,2019 - 3:24 pm



1 C1 C8 FORCEMAIN AND AIRLINE CROSSOVER DETAIL NTS

NOTE:
DEFLECT AIRLINE 6" ABOVE FORCEMAIN WHEN CROSSING TO MAKE CONNECTIONS AT PUMP STATIONS.



4 C1 C8 4 C2 C8 4 C3 C8 4 C5 C8 TYPICAL HEADER RISER DETAIL NTS

NOTE:
1. ELBOWS SHOULD BE FACTORY FABRICATED MULTI-SEGMENTED TO PERMIT PASSAGE OF VIDEO EQUIPMENT OR PRESSURE WASHING EQUIPMENT
2. HEADER RISERS TO BE INSTALLED AT HIGH POINTS IN HEADER LINE

2 C1 C8 2 C2 C8 2 C4 C8 2 C9 C8 TYPICAL AIRLINE ISOLATION / BLOWOFF STATION DETAIL NTS

NOTE:
CLAMPS AND FITTINGS TO BE STAINLESS STEEL TYPE 316

3 C1 C8 3 C2 C8 3 C4 C8 TYPICAL FORCEMAIN STUB-OUT DETAIL NTS

NOTE:
CLAMPS AND FITTINGS TO BE STAINLESS STEEL TYPE 316

5 C3 C8 5 C9 C8 TYPICAL ROAD CASING DETAIL NTS

6 C1 C8 6 C4 C8 HEADER RISER DETAIL NTS

NOTE:
1. ELBOWS SHOULD BE FACTORY FABRICATED MULTI-SEGMENTED TO PERMIT PASSAGE OF VIDEO EQUIPMENT OR PRESSURE WASHING EQUIPMENT
2. HEADER RISERS TO BE INSTALLED AT HIGH POINTS IN HEADER LINE

REFER TO DRAWING G-2 FOR LEGEND.

Date
Signature
Robert E. Mackey, P.E.
Florida Registration # 40176

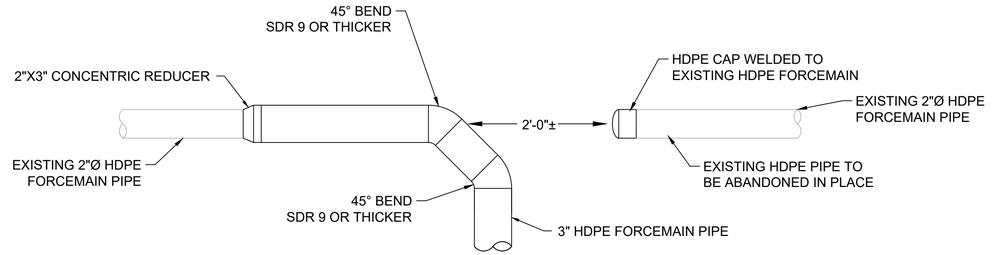
REV No	DATE	DRAWN BY	CHKD BY	REMARKS

ORANGE COUNTY GOVERNMENT FLORIDA

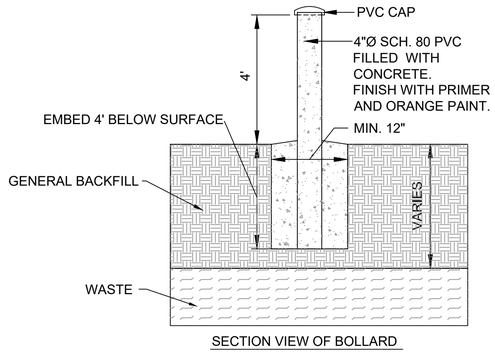
DETAILS (3 OF 4)
ORANGE COUNTY CLASS III LANDFILL
ORANGE COUNTY, FLORIDA

531 Versailles Drive, Suite 202
Maitland, Florida 32751
(407) 475-9163 FAX 475-9169
Certification of Authorization # 7831

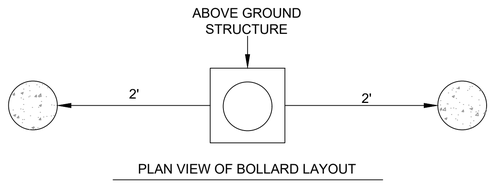
DRAWING NO.
C8



1 C9 | C9 CONNECTION TO EXISTING LATERAL PIPE DETAIL
NTS



SECTION VIEW OF BOLLARD

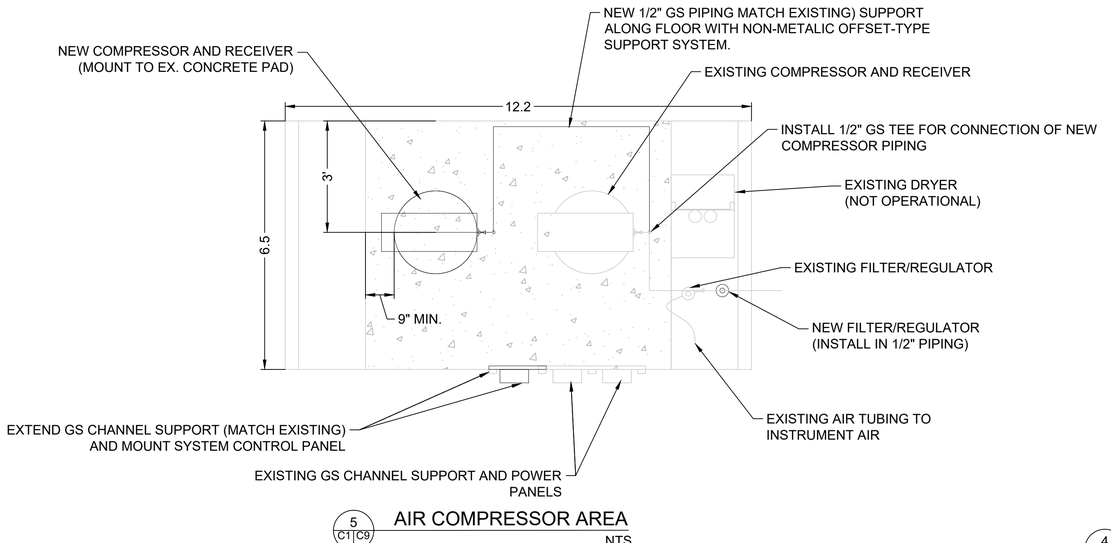


PLAN VIEW OF BOLLARD LAYOUT

NOTES:

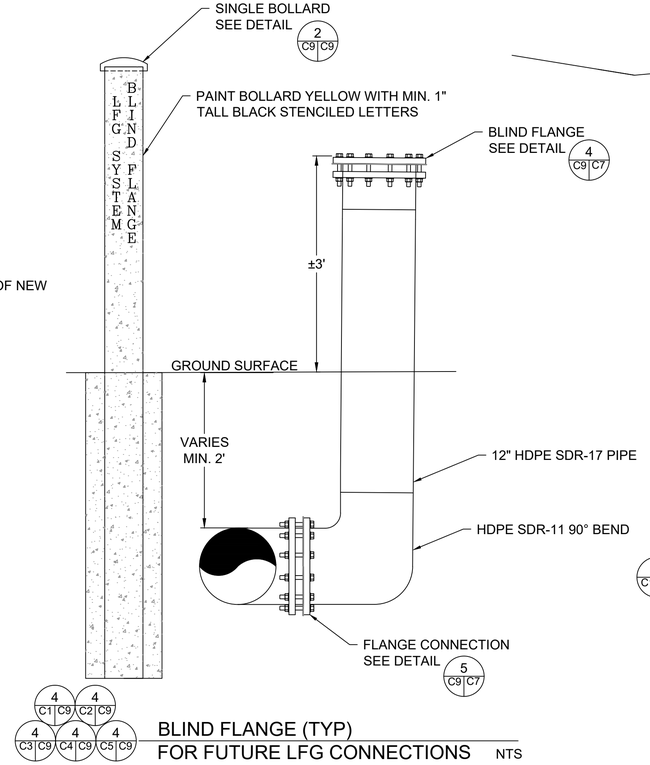
1. BOLLARDS ARE TO BE PLACED VERTICALLY AT ALL ABOVE GROUND STRUCTURES AND VALVE LOCATIONS.
2. TWO BOLLARDS REQUIRED AT THE SPECIFIED LOCATIONS, UNLESS OTHERWISE NOTED.
3. BOLLARD PLACEMENT MAY BE INTO WASTE.
4. BOLLARDS TO BE PLACED AT ALL ABOVE GROUND STRUCTURES.
5. BOLLARDS ARE NOT TO BE PLACED ABOVE PIPING.

2 C6 | C9 2 C9 | C9 BOLLARD DETAIL
NTS

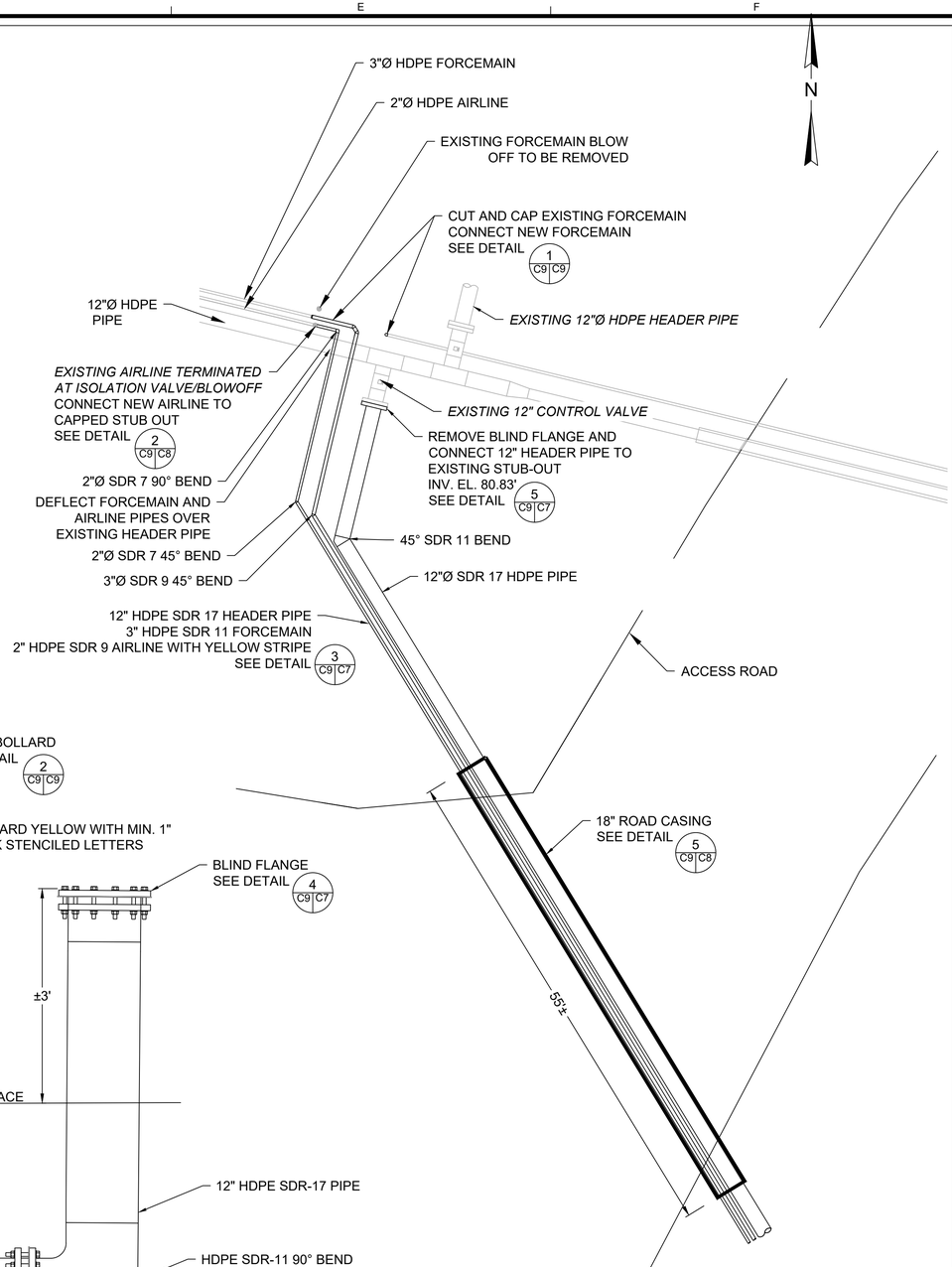


5 C1 | C9 AIR COMPRESSOR AREA
NTS

NOTES
1. COMPRESSOR SYSTEM SHALL REMAIN IN OPERATION DURING CONSTRUCTION. TEMPORARY SHUTDOWNS FOR CONNECTIONS TO EXISTING PIPING OR OTHER WORK SHALL BE LIMITED TO A MAXIMUM OF 4 HOURS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ELECTRICAL AND CONTROL WIRING WORK AND FOR OBTAINING ANY REQUIRED PERMITS. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE MOST RECENT NEC.



4 C1 | C9 4 C2 | C9 4 C3 | C9 4 C4 | C9 4 C5 | C9 BLIND FLANGE (TYP)
FOR FUTURE LFG CONNECTIONS NTS



3 C1 | C9 SOUTHERN HEADER ROUTE CONNECTION TO EXISTING SYSTEM
NTS

REFER TO DRAWING G-2 FOR LEGEND.

Robert E. Mackey, P.E.
Florida Registration # 40176
Signature
Date

REV No	DATE	DRAWN BY	CHKD BY	REMARKS

ORANGE COUNTY GOVERNMENT FLORIDA

DETAILS (4 OF 4)
ORANGE COUNTY CLASS III LANDFILL
ORANGE COUNTY, FLORIDA

531 Versailles Drive, Suite 202
Maitland, Florida 32751
(407) 475-9163 FAX 475-9169
Certification of Authorization # 7831

DRAWING NO.
C9