

# **B&W Pantex – Amarillo (Overview)**

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- Administrative Process for Utility Locating
- Equipment Utilized
- Field Process of Utility Locating
- Governing documents



# ***Administrative Process***

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- Requestor emails PX form to [excavations@pantex.com](mailto:excavations@pantex.com) for assessment services
- Locators receive request and place on schedule
- Schedule is worked based on plant priorities (Maintenance, Projects, and others)
- Complete in excess of 500 requests per year



# Administrative Process

Receipt of request by e-mail

From	Subject	Received	Size	Categories
@ Jones, Ca...	Penetration permit	Sat 6/25/20...	77 KB	
@ Jones, Ca...	29609804 PX-2872 permit	Sat 6/25/20...	65 KB	
@ Sandefer,...	29616831 12-037	Thu 6/23/20...	86 KB	
@ Fowler, A...	building 12-135	Thu 6/23/20...	78 KB	
@ Pemberto...	PX-2872A 12-5c Boiler shop	Wed 6/22/2...	85 KB	
Schoenh...	RE: PX-2872A Penetration Permit for Sea Reach Contract ...	Wed 6/22/2...	8 KB	
@ Foster, M...	Install HPFL, Alignment D, Rev. 2	Wed 6/22/2...	738 ...	
@ Duran, Ju...	12-42A HVAC Project	Tue 6/21/20...	6 MB	
@ Venhaus,...	11-42 water leak	Mon 6/20/2...	433 ...	
@ Duran, Ju...		Fri 6/17/201...	319 ...	
@ Henke, Br...	FW: Scan.pdf - Adobe Acrobat Professional	Wed 6/15/2...	458 ...	
@ Schoenh...	PX-2872A Penetration Permit for Sea Reach Contract at 1...	Wed 6/15/2...	5 MB	
@ James, Mi...	2872A	Wed 6/15/2...	179 ...	
@ Henke, Br...	FW: Scan.pdf - Adobe Acrobat Professional	Tue 6/14/20...	366 ...	
@ Duran, Ju...	12-42A HVAC Project	Tue 6/14/20...	6 MB	
@ Pemberto...	Emailing: penetration permit Station 26 security gate	Wed 5/25/2...	77 KB	
@ Cruz, Adri...	12-15 Video Lab	Tue 5/24/20...	577 ...	
@ Simpson, ...	Delineator posts in Zone 10	Wed 5/18/2...	235 ...	
@ Bell, Billy	12-21A	Tue 5/17/20...	80 KB	
@ Bell, Billy	12-21 UPS	Tue 5/17/20...	80 KB	
@ Bell, Billy	12-19W UPS	Tue 5/17/20...	80 KB	
@ Venhaus,...	12-17 Fan House #4	Wed 5/11/2...	226 ...	



# Administrative Process

## Schedule with priorities

	A	B	C	D	E	F	G	H	I	J
	Work Order No.	Facility	Requestor	Phone	Date Received	Type	Description	Status	Priority	
1										
2	29609551	11-R-8	Jones, C.	3314	6/25/2011	Penetration	Replace bollard removed fro return air duct installation			
3	29609804	16-12	Jones, C.	3314	6/25/2011	Penetration	Install backflow preventer on wall by air dryer to fixed eye wash			
4	29616831	12-37	Sandefer, M.	5816	6/23/2011	Penetration	Mount door closers to steel jamb, install concealed electrical to closer, mount junction above jamb and remove sheetrock as needed			
5	29616825	12-135	Fowler, A.	6379	6/23/2011	Penetration	Install piping for new humidifier			
6	29605703	12-5 Boiler Shop	Pemberton, J.	6813	6/22/2011	Penetration	Hiliti anchor new rack to floor			
7	Contract	12-42A	Duran, J.	6985	6/21/2011	Penetration	Steam & condensate penetrations through east wall		10	
8	29616387	11-42	Venhaus, B.	6339	6/20/2011	Excavation	Excavate and repair 1 inch domestic water line feeding 11-42			
9	Contract	12-42A	Duran, J.	6985	6/17/2011	Penetration	Core drill into wall for steam and condensate piping		9	
10	Contract	16-12	Schoenhals, M.	5268	6/15/2011	Penetration	Install anchors in walls of forger			Will be ready after july 4th.
11	Contract	Station 711	James, M.	6129	6/15/2011	Penetration & Excavation	Install new control panels and pole supports for new gates		7	Waiting on removal of consentina wire - will be ready on - 06/29/2011
12	Contract	12-84-12	Frazier, N.	4265	6/14/2011	Penetration	Install hangers and siesmic supports to fire pipe system		5	Waiting on demo to be completed
13	29610205	Zone 10	Simpson, G.	6652	5/18/2011	Excavation	Place delineator post at culverts			
14	29606452	12-19W	Bell, B.	3478	5/17/2011	Penetration	Mount hoffman box to wall			06/23/11, Not able to scan due to contents in bay 4
15	29605986	12-17	Venhaus, B.	6339	5/11/2011	Excavation	Replace 2 valves feeding 12-17 Fan House			
16	Contract	12-121	Smith Mike	4253	5/6/2011	Penetration	Install metal flashing anchors (roof to wall flashing)	working	2	
17	29608541	16-8	Venhaus, B.	6339	5/3/2011	Excavation	Replace fire hydrant 12H44			
18	29607134	12-44-E	Venhaus, B.	6339	4/28/2011	Excavation	Excavate sewer line for repairs			
19	29606083	12-116 Rm133	Sandefer, M.	5816	4/25/2011	Penetration	Mount weigh terminal to concrete wall.			Not able to scan due to contents of room 133
20	Contract	12-85E1	Beard, E.	5145	4/6/2011	Survey	Identify all underground utilities at NE corner	working	6	
21	Contract	Storm Drainage	Weeks, D.	6377	3/21/2011	Excavation	Zone 12 & Zone 4 Storm Drains		3	Need 3rd request
22	29524008	12-24	Venhaus, B.	6339	3/15/2011	Excavation	Fasten supports for make-up water to concrete floor.			
23	29497741	12-22	Venhaus, B.	6339	1/21/2011	Penetration	Fasten water fountain to wall			
24	29511959	12-63	Venhaus, B.	6339	1/18/2011	Penetration	Fasten sandpiper pump to house keeping pad			



# ***Equipment Utilized***

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Underground utilities – utilize pipe and cable locating equipment

- Direct Trace
- Clamp Induction
- 2-Man Sweep (induction)

Concrete floors/walls, Drywall/Stud walls

- Hilti Ferro-Scan
- GPR “mini-scan”
- Stud-finders
- Inspection Camera

# *Equipment Used*

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Metro Tech

Ridgid Seek-Tech



McLaughlin Verifier

# *Equipment Used*

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Hilti Ferroskan



Inspection  
Camera



Miniscan - GPR

# ***Field Process for Utility Assessment***

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- Locator retrieves request from e-mailbox
- Researches known utilities from Site Map and prints copy of map to carry into the field
- Locates and marks utilities show on map
  - Any utility within the boundary, or within 10 ft of boundary is located and marked
- Investigates the site for evidence of unknown utilities and locates/marks





# ***Field Process for Utility Assessment***

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- Marks boundary of work site
- Locates, flags, and marks utilities
- Makes sketch of field markings, boundary and notes dimensions
- Makes note of any Infrastructure within the boundary, or within 10 ft. of the boundary

# ***Completing the Assessment***

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- In the office, field notes and sketches are referenced
- Uses Visio to produce sketch for Permit
- Documents the findings of the locate on the request (PX form)
  - Notes all utilities/infrastructure in table on the request
  - Identifies the System/Infrastructure Owners' Names on the request
  - Denotes on request the methods used for locating utility
  - Adds notes in note section if there are any safety concerns that should be considered or any notes the Locator deems necessary to pass to the personnel performing the work
  - Attaches Visio sketch to document
- Requests Peer Review by second Locator
- Supervisor reviews then sent to Requestor

Permit is active when signed by the B&W Pantec Supervisor or PSTR:

Project Name: High Pressure Fire Loop (HPFL), Performed by: LEDCOR

Project/WO Number: HPFL

Requester: Matt Foster Phone: 4300 Pager: 349-2507

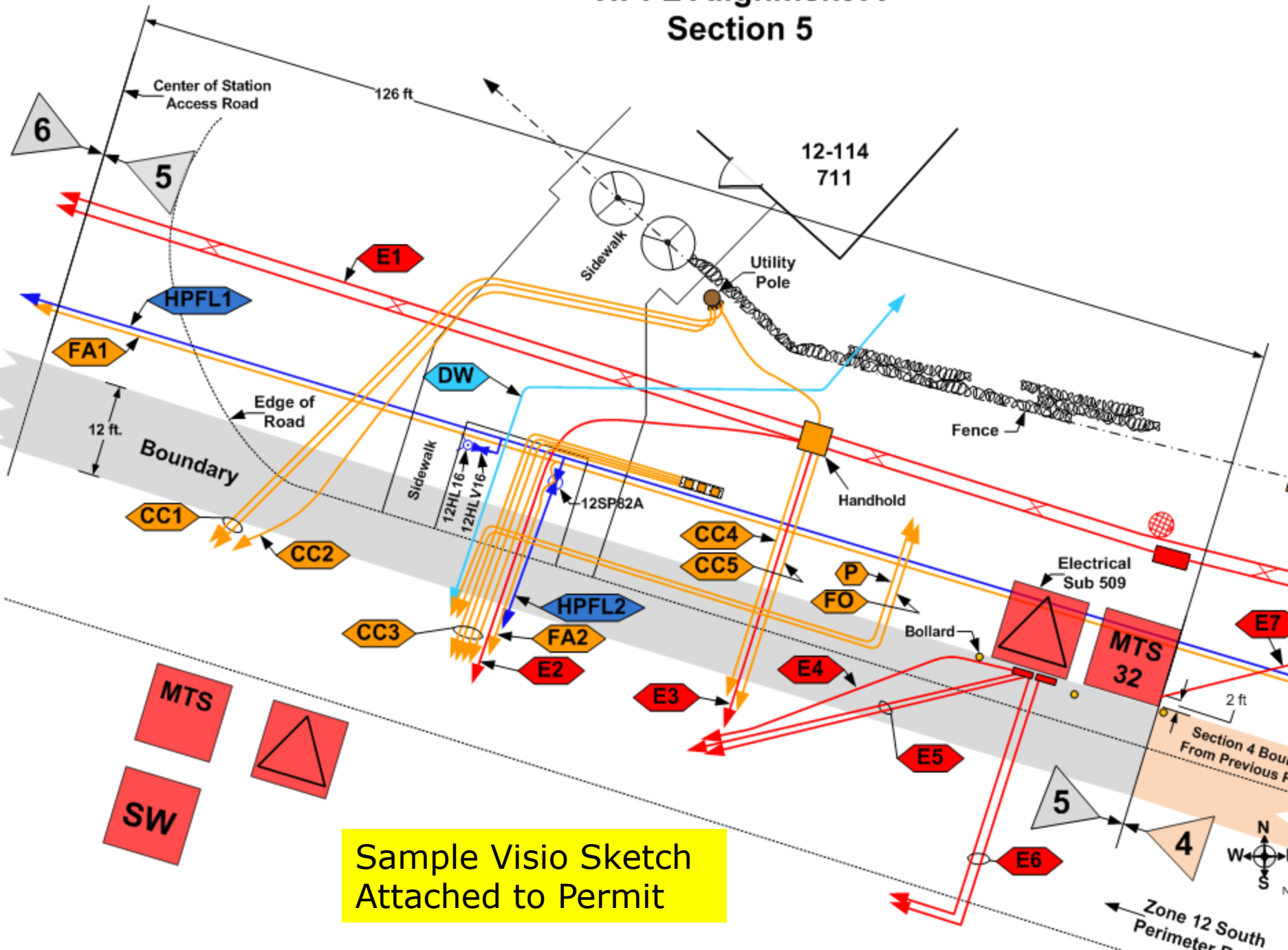
1. Location: MAA
2. General Description of Proposed Work: Work will be to install 8 inch and 14 inch diameter HDPE, associated tee and appurtenances located in 123 MAA, south of 12-114.
3. Method of excavation/penetration: Hand Excavation, Hydro Excavator, Mechanical Excavator, Horizontal Directional Drilling (HDD).
4. Material excavated/penetrated: Soil, Asphalt, and Concrete.
5. Estimated Work Boundary: The HDPE, associated tee and appurtenances will require a width boundary of six (6) feet and a depth boundary of 15 feet. Centerline of requested excavation boundary is marked by stakes with blue flags.
6. Excavation/Penetration Boundary (by Locator): There is 1 boundary associated with this permit for Alignment A Section 5 thru Section 10 from east of MTS 32 (manual transfer switch) running west, parallel to the Zone 12 South Perimeter Road, to the curve in the road, south of 15-24, then turning north to the MAA security gate northwest of 12-36. The boundary is 10 ft. on both sides of the center point marked by the contractor. The boundary is 1732 ft long x 20 ft wide x 15 ft deep. See sketches for location and details.

Infrastructure Target, Interference, or Encroachment Relative to the Scope of Work

Utility	Relation to the Work Set	Relative Location	Method
E1 Electrical 1	Encroachment	North of boundary in sections 5, 6, and 7 running east/west	4,5
E2 Electrical 2	Interference	Crosses boundary in section 5 running north/south on west side of 123P2A	4
E3 Electrical 3	Interference	Crosses boundary in section 5 running north/south from a handhold south of 12-114	4
E4 Electrical 4	Interference	Crosses boundary in section 5 running southwest from SUB 509	4
E5	Interference	Crosses boundary in section 5 running southwest	4

Example Permit

# HPFL Alignment A Section 5



Sample Visio Sketch  
Attached to Permit

# ***Site Governing Documents***

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## **Work Instruction WI02.02.01.05.23**

Planning and Execution of Excavations and Penetrations

## **PX-2872A**

Excavation/Penetration Assessment & Authorization Permit

## **TABLE-0117**

Exceptions to “Planning and Execution of Excavations and Penetrations”

## **Penetration/Excavation Manual** (under development)

Details roles/responsibilities of all persons involved in the requesting, planning, locating and assessment, and execution of penetrations and excavations

# ***Challenges***

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- Numerous abandon utilities not recorded on site drawing
- As-built drawings of finished projects are now given us for updating site drawing, which is in our best interests (creates time constraints)

# ***B&W Pantex Locating Group***



Contact us:  
[excavations@pantex.com](mailto:excavations@pantex.com)

